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THE INTERNET AS PLAYGROUND AND FACTORY

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THE INTERNET AS PLAYGROUND AND FACTORY

by

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Abstract:

"Free labour" is central to the Internet. Traditional exploitation of labour was complemented by the monetization of attention between the 1880s and 1950s and then by the commoditization of networked publics starting in the 1980s. Today, commercial interests have colonized the Internet and "labour" is being performed online by hundreds of millions of people. Without being recognized as "labour", it turns profits for corporations. Playful, virtual volunteerism, and social production, driven by the desire for praise, entertainment, and peer recognition, has become a significant driving force of consumer capitalism. I am introducing the term "interactivity labour" to discuss the complex phenomena of "free labour" online.

New social media have made people easier to use. Corporations learned to profit by appropriating the behavioural templates, social norms, and expectations of people that used communication system that preceded the Internet. Today, processes and mechanisms of "financialization" are far more sophisticated; even what looks like casual play and spontaneous interaction makes money for the owners of the "playgrounds" of the Web. From the global "participation gap" to government and corporate surveillance, the newly gained freedoms and visions of empowerment have complex social costs that are often invisible. The "free services" of the Web come at a price. I claim that expropriation of value from net users is pervasive. However, it is not always obvious. Exploitation surely exists but it is rare in the context of social milieus of the Internet.[1]

How did we end up in a situation that makes the life energy of hundreds of millions available to corporations? In this thesis I am unpacking some historical roots of the mechanics of this placement of people in a position in which they can be used and in

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[1] In July 2009, Jodi Dean argued on the *iDC mailing list* that Internet communication technologies foster "factories for producing the subjects of communicative capitalism" in the so-called third world. (I am acknowledging this discussion and agree with Dean to a large extent. For the context of this thesis, however, I limited my analysis of exploitation to the practices that are directly facilitated through the Social Web, and which mainly play out in overdeveloped geographic regions. One reason for this approach is that I am participating in network culture, living in the United States and Europe. My main experiential access to these topics is through this lens.

relation to which they mount little resistance. I am proposing an analysis of the instruments with which value is created and captured and I am discussing motivations behind the widespread participation.

This research matters because there is very little to no awareness of the expropriation of interactivity labour among the people who populate the Internet. Situated within the larger field of Internet Studies, this thesis contributes a temperament, an approach that is simultaneously deeply sceptical while also being celebratory and optimistic. One-sidedness, either on the techno-utopian or on the dystopian side is a limitation of many studies in this area.

Internet users are utilized and shaped in ways that will only become apparent over the long term. A rich historical understanding of the roots of commoditization of networked publics must be the basis for these considerations. The definitions of the terms that I am using are paramount to a clear understanding of the text. What is meant by terms like user, operator, interactivity labour? I defined various terms that reappear throughout the thesis in the glossary.

In the first chapter I scrutinize the events that set the stage for the World Wide Web, from J.C.R. Licklider's proposal for an Intergalactic Computer Network (essential for steering the use of computers toward human networking) to Ted Nelson's *Computer Lib*. In addition, I challenge the claim of big telecommunication companies that they invested in the development of the Internet. In chapter 2, I am drawing attention to communication systems like Usenet, Minitel,[2] and BBS that showed the possibility of establishing networking alternatives (or parallels) to the larger and exclusive ARPANET. Most existing accounts of the history of the Internet fail to acknowledge the vital role of these communication systems in the shaping of the Internet. Another limitation of many historical accounts is that they do not discuss the technical developments in the context of cultural events. Consequently, in chapter 3,

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[2] The name of the network itself was Telenet. Minitel refers to the terminal from which the network was accessed.

I am pointing out that the activation of audiences was essential also to art since the 1960s. Early Internet Art already provided glimpses of the dynamics surrounding today's large-scale expropriation in today's densely populated online spaces. Some artworks and BBS' like the Cleveland Free-Net shaped the expectations of people about new social media as tools for sharing, volunteering, and encounter, characterized by communal goals.

A considerable amount of literature has been published on the history of the Internet. In addition to Robert Cailiau, Katie Hafner, Janet Abbate, Ronda Hauben, and Fred Turner, historical documents by Norbert Wiener and J.C.R. Licklider informed this research. The "online events" of the recent years, have allowed me to draw new connections and add them to this detailed historical research.

I argue that few elements of the online phenomena of the past years are technically new but the scale on which they play is unprecedented. Chapter 4 argues for four massive turns in participation. After network mail had become hugely popular among ARPA research scientists, the launch of the Mosaic browser on Labour Day in 1993 signalled the first commercial and participatory turn for the Internet. A second such turn followed around 2004/2005 with technologies and tools like Java, wikis, and blogs, which made participation and also web development easier. The increased participation made people more available to each other, the government, and market forces while simultaneously sharply expanding the "participation gap" between post-industrial nations and developing countries.

To meaningfully analyze the dynamics of expropriation it is important to understand what motivates people to participate. In chapter 5, I am proposing a set of motivators for participation in new social media including entertainment, knowledge, praise, and peer recognition.

In chapter 6, I specifically expose the expectations, social norms, and practices that Internet users established around their interactions in the 1980s and 1990s and

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show exactly how online social life –when it scaled up—was used by corporations to turn idealistic expectations in favour of turning out profits. However, I also demonstrate the politics of the expectations that were set by Napster, for example. The expectation that music can be free of charge still pervades today. Napster significantly moulded the expectations of entire generations. Making people available to each other also activates their radical sharing potential.

It is exactly this social imaginary that was curbed by the concepts behind what I call the Web 2.0 Ideology. On the one hand, Web 2.0 --now a household name-- created some traction for new social media but I am arguing decisively against the ideology behind the term Web 2.0, which incorrectly proposes novelty for a set of technologies that are associated with it. In turn, it limits the imagination of the future of the World Wide Web.

In chapter 8, I am arguing for the term "interactivity labour" by mapping some of the activities that are part of this concept and contrast with traditional definitions of labour. Interactivity labour encompasses the broad spectre of activities online that generate surplus value for the owner of a platform. I am arguing that there are three fluid types of interactivity labour that are a) mutually beneficial b) public-spirited and c) exploitative.[3] I am also suggesting that there is currently no class-consciousness or even political consciousness among those networked publics who perform interactivity labour. Work in the media industries is a good starting point to think about self-organization.

For the discussion on labour, I drew on Paolo Virno, Maurizio Lazzarato, Tiziana Terranova, Hector Postigo, Jonathan Beller as well as many people outside Cultural Studies, Communications, or Philosophy, including many voices from the blogosphere such as technology critics like Nicholas Carr, Scott Rosenberg, and many others whom I interviewed.

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[3] These forms of "labour" overlap and cannot always be sharply distinguished.

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The generalisability of much published research on social production, or "interactivity labour" is sometimes problematic. Such theories are deeply inspirational and rich but they are frequently a bad match for the technical actualities and rapidly morphing phenomena online. My work aims to build connections between these theories and examples of current day social media.

In chapter 9, I propose I am analysing various kinds of volunteers that work online: from volunteerism and free interactivity labour in contexts ranging from the social bookmarking site Delicious to the Amazon.com book reviewers, the virtual volunteers for AOL in the 1990s, the co-innovators on sites like Lego, and today's volunteers for the telecommunications company Verizon. I argue that most interactivity labour is a triadic mixture of self-interest, network value, and corporate profit. Most Internet users either do not care about the fact that they are utilized or they think of the relationship as a fair tradeoff-- a topic, which I tackle in chapter 12.

In chapter 10, I am discussing how co-creation of the "user experience" helps to generate value for operators. Does our play generate value? How can we generate awareness of interactivity labour? I argue that most mainstream online intermediaries do make "real money." To substantiate that point I demonstrate how revenue is generated through institutionalized labour in the walled gardens of today's social networking services

I argue that most social participation online is mutually beneficial and that is expropriation is commonplace while exploitation is rare. Developing case studies of Amazon.com MTurk, and the Opt-In default of Facebook's Beacon, I am exploring exploitation in chapter 11. In chapter 12, I am introducing what I call the "praise-entertainment—expropriation-surveillance tradeoff," which is the kind of relationship that pervades the Social Web. The Google Image Labeler, Second Life, and Facebook's Self-Translation Application serve as case studies. I conclude by unpacking some deeper ideological implications of our social participation in the

network of networks in chapter 13. Finally, I explore what we can do, quite concretely, in response to the awareness of patterns of expropriation. I conclude with a few starting points that could politicize our life; I speak out for a participation imperative, strongly in favour of data portability and decentralization, free software, peer-created and owned, distributed public media, and business that do not always strive for profit maximization. This dissertation has investigated social production, "interactivity labour" and many related aspects. All of the insights gained from this thesis point, directly or implicitly, to media education, which I identify as a core vehicle for change.

Methodology

This thesis focused on new social media. Different authors, from academics, artists, consultants, critics, activists, educators, and legal scholars, to computer scientists, have approached research about the Internet in a variety of ways. *Internet Studies* is a field of academia that deals with the interaction between the Internet and society.[4] Over the past decade, many Internet researchers engaged in mapping and describing fleeting online phenomena without always critically theorizing them. This is not entirely surprising as the field is comparatively young. In the humanities some focus on the sociopsychological analysis of the "uses" of the Internet, and many communication scholars work with quantitative studies (increasingly over the past few years), while others mainly historicize networked cultures. Livingstone and Lievrouw suggest that Internet Studies should not be limited to a scientific or humanist, interpretive or empirical method (Lievrouw and Livingstone 1-15) but that these methods should rather be interlaced. I am following such interwoven methodology.

This thesis, while introducing one original survey, is mainly situated in a humanities context. As Diane Hacker describes: "Research in the humanities generally involves

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[4] Institutions such as Harvard University, University of Oxford, University of Minnesota, and Brandeis University offer a major in this field. Topics of study include digital rights management, privacy, intellectual property, online communities, and open source software.

interpreting of a text or a work of art within a historical and cultural context, making connections, exploring meaning, uncovering contradictions."[5] My research, while following this method, is also interdisciplinary between history, philosophy, and art. It draws more materials from texts and online phenomena than from original data gathering (e.g., scientific surveys or lab experiments).

This thesis does not offer extensive generalizations about Internet culture, the nature of digital labour, global exploitation, or the human condition. As I am writing about new social media, I suggest that it is too early to make vast generalizations. What I do offer, however, is a rich treatment of a wealth of examples, case studies, and observations that are grounded in the specifics of particular phenomena. I suggest that this approach allows me to more confidently speak to the new social media.

What gives me the authority to write this thesis? This dissertation is informed by four years of Ph.D. research and my own active participation in what I call "new social media" for the past ten years. This background is reflected in my web-based art, curatorial work, event-based practice, the curriculum[6] that I designed as a professor of Media Studies as well as my writing for mailing lists, weblogs, and books. For two years, I led the development of a software-learning tool, which gave me an understanding of the basics of programming and a sense of the myriad of consequential decisions that developers face. In addition, I have been active on various social networking services, referral, and media sharing sites, often daily. I am the fonder and moderator of the mailing list of the Institute for Distributed Creativity.

In 2004, I brought 150 scholars, artists, and activists to the State University of New York at Buffalo to discuss the "art of online collaboration." Consequently, I co-edited

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[5] Hacker, Diana. "Research and Documentation Online." *The Official Web site for Diana Hacker.* 1 Feb 2008. Web. 11 July 2009 <http://www.dianahacker.com/resdoc/humanities.html>.
[6] Scholz, Trebor. *Collectivate.net.* 2 Mar. 2009. Web. 11 July 2009.
<http://www.collectivate.net/courses/>.

the book *The Art* of *Free Cooperation*, which was published by Autonomedia in 2007. In 2005, I convened a conference media education at the CUNY Graduate Center in NYC and currently I am working on a conference about the topics that are very central to this dissertation, which will be held at the New School University in New York City in November 2009.

This thesis is written from the perspective of a participant observer. To be able to write authoritatively about the stream of ever-morphing Internet phenomena, tools, and platforms, a significant degree of immersion, participation, and observation is necessary. Otherwise, generalizations will contradict the complex realities of online social life.

In *Virtual Ethnography*, Christine Hine points out that in the past, face-to-face encounters associated with fieldwork in geographically distant places lent authenticity to ethnographic research (Hine 10). However, Hine argues that an ethnographic approach to Internet research, based on the experience of participation can equally lead to a self-reflexive understanding of what it is like to be part of the culture that is the object of a study, namely Internet culture. The participant observer influences the object of his observation.

I wrote this thesis using the first person pronoun, which is frowned upon in the sciences for very good reasons. In scientific fields, the writer's goal is to describe a phenomenon that is in fact (arguably) objective and that can, for example, be repeated.[7] In other fields, especially in the humanities, the first person pronoun is permissible.

Writing from the participant observer perspective, I used the first person (and occasionally the first person plural "we") - both rather sparingly - also because social media like weblogs are written in this language. When I am talking of "we" I

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[7] Bruno Latour and others questioned the assertion of objectivity in scientific methods and findings.

am addressing the larger academic community. I am writing about the Social Web in the language of the Social Web, or at least influenced by it.

As my research is based in the humanities, where "the purpose of writing ... is generally to offer your own analysis of ... ideas,"[8] the story of my research is, at least in part, also the story of me. In order to convince the reader, I substantiated claims and illustrated assertions rather than merely stating my personal beliefs.

Many of my research methods –from surveys, interviews, case studies, to observations-- are traditional. I conducted an online survey with hundreds of Internet users (See chapter V and appendix) but also used findings from polls by the Pew Internet & American Life Project. In addition, I conducted 12 in-depth interviews with scholars, and technology writers.

Internet culture is a moving target; there are constantly emerging trends and consequently it is hard to make broadly applicable statements. Some critics prefer to look closely at the Internet and Web while others argue that a scrutiny of the whole tissue of society is imperative and that the Internet may not even figure · prominently in such macro-analysis of the global issues that really matter today.

It is necessary to recognize the phenomena that play out online as being deeply enmeshed and resultant of larger society. Indeed, we need to understand these phenomena through the lens of their geographical, historical, technological, and political making. My focus throughout this study, however, is on working with case studies because they make it possible to speak with some authority about the actual effects of a platform or tool. It is too early to tell if the Internet is predominantly democratising as scholars such as Yochai Benkler argued but it is possible to speak to the effects of Facebook on the April 6th Youth Movement in Egypt. This focus on

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8 "Should I Use 'I'?" *The University of North Carolina at Chapel Hill.* 2008. Web. 11 July 2009.
<http://www.unc.edu/depts/wcweb/handouts/should_I_use_I.html>.

Internet phenomena does not suggest that I perceive societal problems as being solvable solely through technological solutions.

From my perspective, it is still too early to make large broad statements about the effects of the Internet on society. All throughout this study, I worked extensively with case studies and examples because my arguments relating to technology require detailed observation of specific social milieus and the groups that populate them.

Given the subject of my thesis it is only logical that many of my references are websites. Not all examples provided in this research will enjoy lasting visibility but the dynamics of networked social life will only become more enmeshed in our vernacular activities. The fact that today's populated platforms may be tomorrow's deserted islands does not make these examples any less powerful. If we better understand the granularities of today's play, tools, labour, practices, platforms, and social milieus we will be able to discuss the life that we will lead tomorrow with more confidence.

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Chapter 1. ARPANET

1.1. Historical Substrates

To understand social life on the Internet today we need to look back to the full historical context of its development. The US government pushed forward many of these advances and they are therefore meticulously documented. These stories of second- and third-hand anecdotes have become a sort of mythology—reducing the history of the Net solely to the Cold War efforts of American scientists who worked alongside the U. S. Army. Most frequently, the historic roots of online sociality are traced back to the search for a bombproof communication network that would survive a nuclear Armageddon in order to allow for retaliation against the Russians. This official, widely accepted narrative begins with the founding of ARPA and ARPANET. It continues with the takeover of the network by the National Science Foundation and culminates with its commercialization in the early 1990s with the nascent World Wide Web.

Online sociality, however, has broader origins than that. In addition to the official story about ARPANET, covered in the first chapter, I propose two additional historical substrates. First, I argue that out of frustration about the lack of access to ARPANET, a plethora of "alternative" grassroots communication systems evolved (e.g., including Usenet, BBS, and Bitnet). These networks offered access to networked communication for people of all walks of life, not just scientists and military men. This story, discussed in chapter 2, assigns a considerable historical role to these "sub-networks" and also investigates the more playful participation of hackers and Internet artists. The third substrate, addressed in chapter 3, is more broadly cultural and not net-bound. It links cultures of participation in the broadest sense to the development of networked social life.

1.2. The Official Narrative

The official narrative, "The Cold-War-Produces-the-Internet Story," begins close to the end of World War II when President Franklin Roosevelt approached onetime dean of Engineering of the Massachusetts Institute of Technology, Vannevar Bush,

with the task of finding sensible ways of applying war-related research to civilian ends. In his often-cited essay "As We May Think," published in 1945 in the American magazine *Atlantic Monthly*, Bush responded to the problem of information overload. Long before the age of email and mobile phones, Vannevar Bush foresaw that people will be *overwhelmed by more and more information* and that it will be increasingly harder to sort through it. Consequently, he suggested a mechanical device to Roosevelt, which he called the "Memex." This proposed photo-electro-mechanical device for knowledge on call was meant as "an enlarged intimate supplement to [man's] memory" (Bush 110). The Memex did not "pull up" documents from a hard drive or a central repository. Instead, it was based on instant photography and cross-referencing between microfilm documents. For the "Memex" Bush envisioned the ability to link two pages of information so that one could scroll back and forth. This scrolling was meant quite literally; it was a physical process. While the Memex remained solely a concept on paper, Bush's influence has been extensive. Twenty years later, his work inspired Ted Nelson to coin the term *hyperlink* and expand the concept further. Bush's idea can be compared to early weblogs, which were mostly web pages with topical lists of links that would allow users to scroll back and forth between the list and the referenced pages. In "As We May Think" Vannevar Bush did not only envision linked-up pages but he also predicted desktop computers and encyclopaedias like Wikipedia. He wrote that "wholly new forms of encyclopaedias will appear, ready made with a mesh of associative trails running through them ..." (Bush 113). Bush's work also inspired computer scientist J.C.R Licklider to think about human-machine interaction. Just a few years later, in Germany, the author Ernst Jünger dreamed up a device not unlike the "Memex" and called it "Phonophor." Jünger described the Phonophor as connecting everybody to everybody and everything. He predicted a permanent technically facilitated forum that would eventually replace the newspaper. Both Bush and Jünger envisioned the benefits that a network comparable to the Internet would bring.

Around that time, the American mathematician and communication engineer Norbert Wiener argued for a vision of the world in which "each of its elements could

be read as connected to, and to some extend a reflection of, each other" (Turner 243). Wiener developed a set of concepts under the topical umbrella of *cybernetics*. In 1946, the Macy conferences at the New School University in New York City brought together a group of (mostly) American social scientists with the goal to find a way to measure, predict, and control the potential for authoritarian (if not fascist) behaviour in a given system. They took concepts associated with cybernetics and aimed to branch them out into mechanical engineering, neuroscience, anthropology, sociology, psychiatry, and management. The main goal was to set foundations for a general science of the workings of the human mind.

In his book *The Human Use of Human Beings*, published in 1950, Wiener popularized cybernetics by discussing ways of describing the interrelation between human beings, animals, and machines through communication and feedback. Provided that one would have enough information about one system, one could enter it into a machine and make projections about the likely outcomes of actions. Cybernetics offered a "mathematicized" approach to the world. Eventually however, it became clear that it takes more than an algorithm to comprehend society. However, concepts like packet switching that were central to the development of the Internet, were predicated on a key principle of cybernetics-- feedback loops. Of importance far beyond the confines of communication systems, cybernetics contributed to the

understanding that the way one shapes a system leads to the kind of information that it will accept and produce.

It was only a short step from the publication of Wiener's book to the year 1957, which became especially portentous for Americans. When on October 4, the Soviet Union launched Sputnik 1, it was the first man-made object to orbit the earth. Not much more than an aluminium ball, it frightened the US. The Soviets innocently called their artificial satellite Sputnik, which in Russian means merely a travelling companion. The magnitude of this event worldwide, however, had little in common with a leisurely hike through the taiga. After a decade of McCarthyism it deeply alarmed the US administration and sent shockwaves through the American psyche. The magnitude of the event can feasibly be compared to the Japanese surprise strike against Pearl Harbor or the devastating use of atomic bombs in Hiroshima and Nagasaki. In November of the same year the frenzy was heightened by the launch of another satellite, Sputnik 2, which was the size of a VW Beetle, significantly larger than its predecessor. The Eisenhower Administration interpreted Sputnik not only as an utter humiliation but also as proof of the ability of the Soviet Union to launch an intercontinental ballistic missile. Accordingly, just days after the launch of the first Sputnik, President Dwight Eisenhower met with a group of computer scientists (all male and white) to think about a response to what had happened. Ironically, he trusted scientists more than his fellow military men. This meeting led to the establishment of ARPA (The Advanced Research Projects Agency) several days after the meeting.[9] The agency was part of the Department of Defense and was assigned unprecedented sums of money in order to keep American military capacities ahead of its enemies.

This part of the story concerns primarily the bleakest conjectures during the days of the Cold War but we will learn that it was not merely the fear of nuclear destruction that motivated Eisenhower.

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[9] The name of the agency switched back and forth between ARPA and DARPA (Defense Advanced Research Projects Agency). I am using the acronym ARPA consistently throughout this chapter.

ARPA's initial research focus encompassed both missile-defence and the creation of a system for the detection of nuclear bomb tests. British academic Richard Barbrook argued that many of the actions that the US administration undertook after the launch of Sputnik were not solely related to fears of nuclear annihilation by the Soviet Union. He asserts that the Sputnik-scare was hyped to counteract the widespread admiration that the Red Army had gained in the United States due to their role in the defeat of Nazi Germany (81). Even prior to Sputnik, the desperate living conditions during the Great Depression that started as early as 1929 had contributed to the fact that many Americans harboured positive sentiments toward a different vision of society, the Soviet Union (215). Thus, leading up to the Cuban Missile crisis in 1962, Sputnik was a useful vehicle for cold war, anti-communist media campaigns that helped to re-instill the fear of the red menace in the American population.

Due to the intensive Cold War competition with the Soviet Union the government was willing to spend huge sums on little defined ideas. ARPA's funding was public and consequently so was all documentation (Hauben and Hauben 108). At ARPA, the eminent psychologist Joseph Carl Robnett Licklider provided a vision for networking that led to the development of ARPANET, the forerunner of the modern Internet. ARPANET's original objective was the advancement of computer and space research. The latter was quickly taken over by the newly established NASA (National Aeronautics and Space Administration) (Hauben and Hauben 96). Licklider steered ARPANET's efforts toward the investigation of the opportunities afforded by networked computers. Rather than setting out to produce military objects, it was the goal of ARPANET to "allow individuals at different sites to share hardware, software, and data" (Abbate 96). Computing power was prohibitively expensive and therefore, the idea of sharing such centralized resources across a

network made sense to researchers.[10] The calculation was that it was less expensive to send a data package via the network than mailing it on a disc with a courier.

J.C.R. Licklider proposed to use them to provide access to people rather than to other computers. In his 1960 essay "Man-Computer Symbiosis" he noted that "in not too many years, human brains and computing machines will be coupled together tightly, and ... the resulting partnership will think as no human brain has ever thought" Networked collaborations and the collective intelligence occurring on sites like Wikipedia seem to be foreshadowed in this vision. In a later essay "The Computer as Communication Device," Licklider anticipated the kind of real time interactivity that we are taking so much for granted in today's social milieus of the Internet.

> We believe that we are entering into a technological age, in which we will be able to interact with the richness of *living information* – not merely in the passive way that we have become accustomed to using books and libraries but as active participants in an ongoing process, bringing something to it through our interaction with it, and simply receiving something from it by our connection to it.
> (Licklider and Taylor, 4-11)

To think of computers in this way was highly unusual. This becomes clear when we compare Licklider's project to a proposal that equally competed for ARPA resources. The other proposal came from researchers at Air Force Intelligence who proposed to use computers to observe the behaviour of Russian officials and draw conclusions using complicated calculations that the computer would perform for them. Intelligence reports from Soviet cocktail parties and Mayday parades would be used as input data for computers who would then establish a scenario of what the Russians might be up to. Historian Katie Hafner in *Where Wizards Stay Up Late* details that such input may have included hearsay like "Khrushchev is not reading Pravda on Mondays." Taking this information, computers would run calculations

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[10] McCarthy, John. "REMINISCENCES ON THE HISTORY OF TIME SHARING." *Formal Reasoning Group.* 1983. Web. 11 July 2009 <http://formal.stanford.edu/jmc/history/timesharing/timesharing.html>.

that, one hoped, would determine that the Russians are building something like an MX-72 missile (Hafner 27-37). This is a telling example of the crude application of cybernetics and the related field of systems theory, and J.C.R. Licklider wanted to pit a stop to such ill-conceived projects (Hafner 38). Air Force Intelligence believed in the computer as a calculator with quasi-oracular qualities that, given the right algorithm and sufficient input data, could interpret the present and foretell the future.

The Computer as a Communication Device
J.C.R. Licklider and Robert W. Taylor

Reprinted from *Science and Technology*, April 1968.
©Science and Technology 1968

This paper was also reprinted in:
In Memoriam: J. C. R. Licklider 1915-1990
Research Report 61
Digital Equipment Corporation Systems Research Center
August 1990
http://gatekeeper.dec.com/pub/DEC/SRC/research-reports/abstracts/src-rr-061.html

Licklider's working group was soon to become the core group of ARPANET but its focus was on resource sharing. Licklider envisioned a universe of interconnected computers through which everybody could send messages. The ability to author and send a memo to the team would not be limited to him, as all members could post and receive such messages (Hafner 38). Memos for and by the people! In 1963 Licklider, somewhat tongue in cheek, started to address his colleagues at ARPA as members and affiliates of the Intergalactic Computer Network. It is remarkable that his consequential vision was shaped by Licklider's everyday reality in the work place. He needed to send memos and would have appreciated rapid responses and posts by his colleagues.

Many technical obstacles had to be overcome to make Licklider's vision a reality. The American engineer Paul Baran contributed an important stepping-stone. Baran, financed by the US Air Force, was motivated by Sputnik-induced fear. In his words, humanity faced a perilous situation.

> Both the US and USSR were building hair-trigger nuclear ballistic missile systems. If the strategic weapons command and control systems could be more survivable, then the country's retaliatory capability could better allow it to withstand an attack and still function; a more stable position. ... Here a most dangerous situation was created by the lack of a survivable communication system. (Abbate 10)

As a result Baran was looking for a flexible communication system that was bomb proof, a system that could withstand a large-scale nuclear attack and still launch a counter-offensive. The traditional long-distance landline telephone system was deeply vulnerable. A few well-placed hits would have crippled communication nationwide. In response, Baran proposed a distributed communications network without command and control point. In his 1964 paper "On Distributed Communication Networks" he detailed this system, in which all surviving points would be able to make contact. In addition to this groundbreaking idea, Baran also proposed the concept of packet switching. Without these two concepts, the Internet as we know it today would be difficult to imagine.

FIG. 1 – Centralized, Decentralized and Distributed Networks

"On Distributed Communication Networks," March 1964
c) a network without central authority or single outage point

Paul Baran
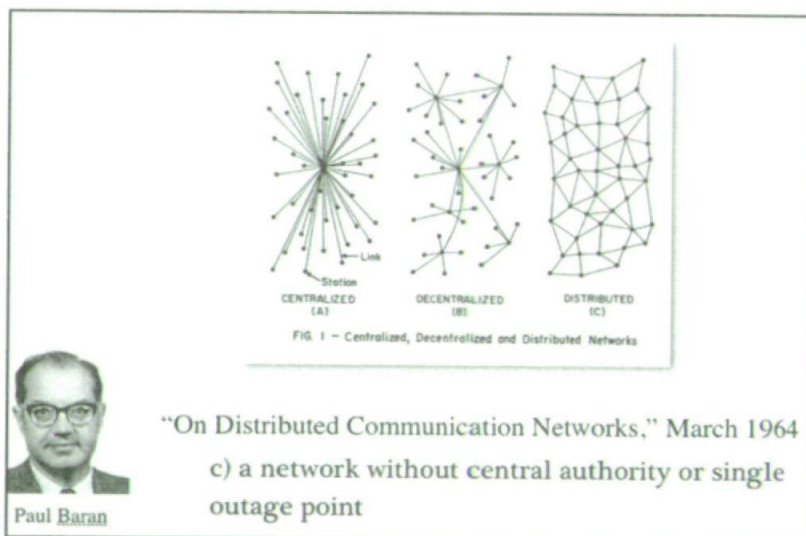
Katie Hafner explains that Baran used freight movers—an antiquated technology—as a metaphor to advance his concept of packet switching (Hafner 60). "How would freight movers transport a house from Boston to Los Angeles?" he asked. Given the very long distance, they would disassemble it. Various trucks would move the parts. Based on traffic reports, some may go through Chicago, others via Nashville. Each piece of the cargo would be meticulously labelled, indicating the place within the

larger structure of the house. Upon arrival, all pieces would be reassembled. Baran applied this model to the transport of information across the network. Because of what he called packet switching, it mattered less if one line went down or was bombed to bits (Hafner 60). Each message was fractured into "message blocks" that could take various paths while still being joined together on the other end. "All the nodes in the network would be equal in status to all other nodes, each node with its own authority to originate, pass, and receive messages".[11]

The British researcher Donald Davies independently invented packet switching in the United Kingdom and some rivalry between the two researchers ensued. Before Davies and Baran, it was Farnsworth and Zworykin who invented the television tube at the same time. However, despite this tension, packet switching and the distributed network model succeeded because they offered a bombproof network, despite the fact that it was more expensive than the traditional phone network.

Somewhat jokingly the mathematician Leonard Kleinrock pointed out that now with packet switching, he could guarantee that a message would reach its destination but he could not promise that it would be read. His argument was not about information overload, at-capacity inboxes or anything like that. His point was that computers could hardly be tools of liberation if they would sit like fat toads in moist basements. Packet switching was a big step forward for stable networked communication but throughout the 1960s, computers were still bulky things on the ground levels of universities and corporations. That is also the reason why American technology pioneer Ted Nelson repeated all throughout the 1960s that everyone should have access to computers. He called for "computer liberation" and his classic self-published book *Computer Lib/Dream Machines* is a fresh and enthusiastic examination of the state of computers as culturally liberatory tools. It took until the early 1980s that the first personal computer was shipped to a private home and even that machine was exceedingly expensive. Access to computers and later access

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[11] Griscom, Amanda "Digital Media and the Internet. History." *Cyberartsweb.* April 19 2004. Web. March 28 2009. <http://www.cyberartsweb.org/cpace/infotech/asg/ag18.html>.

to network solutions were of course foundations for the substantial online sociality of today.

ARPA took the next step in 1968. It had a vague technical idea of what it needed and without providing much detail, it sent out a call for quotations for the task of building a network of four Interface Message Processors. Much to ARPA's surprise, it was not the big companies like IBM or AT&T that responded to the challenge but the small company called BBN. Boston-based BBN managed to demonstrate convincingly that they go about building such four-node network.
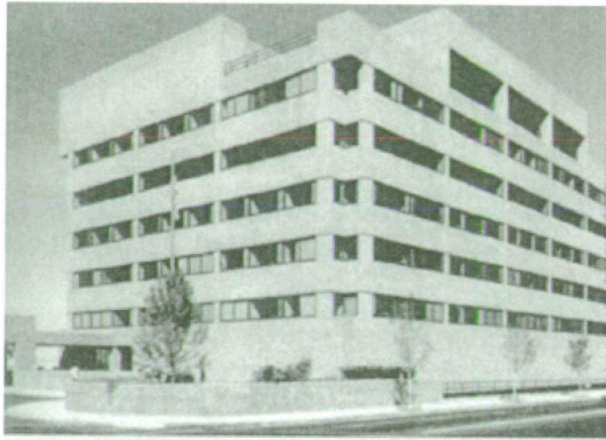
BBN Headquarters

To make a good bid to ARPA, they had hired cadres of graduate students and in the end their proposal was far more detailed than those by other bidders for the job (Hafner 86). Thus they received the contract. Originally, BBN was known only as a small consulting firm that focused on architectural acoustics. They were hired, for example, to design the acoustics for Lincoln Center's Avery Fisher Hall. BBN and the main architect were later criticized for acoustic problems, which eventually led to major, extremely costly changes involving the tearing down of walls and ceilings. But by the late 1960s that was forgotten. BBN had some 600 employees and was now known as the "the third university" in Boston and whole not literally a university, it was climbing to the ranks of Harvard and MIT. Now that they were contracted by ARPA, BBN had to come through. For this to happen, the company needed to come up with a functioning network protocol, which would work on computers that are connected with each other and that run the same protocols. One of the informal teams of Ph.D. that contributed to the initial proposal to ARPA and specifically the development of packet switching techniques was called Network Working Group (Hauben and Hauben 106).

The group submitted their ideas in a document with the humble title "Request for Comments." The reason for such an unassuming title was partially that the graduate students did not feel entitled to big claims. This approach of soliciting collective input on open questions in a less formal style, however, became a standard format on the Internet. RFCs (Requests for Comments) were initially circulated as hard copies but starting in December 1969, they were also disseminated via ARPANET. Documents start out in draft format and are then refined, which is very similar to today's collaborative authoring processes on the encyclopaedia Wikipedia (Eric Raymond, "The Cathedral and the Bazaar"[12]). The Network Working Group is credited with establishing the standard of the RFC (Request for Comments).
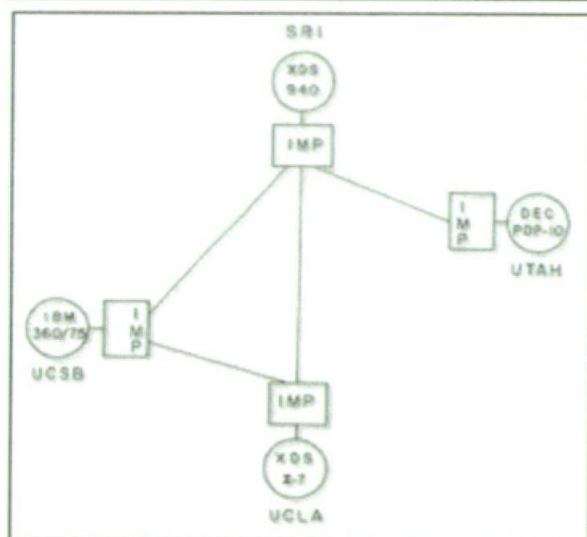
The central task of BBN was not to develop new internal working standards but to come up with a host protocol that would work for the ARPA project. Vincent Cerf, today's Google's Internet evangelist, and Bob Kahn, both BBN researchers at the time, wrote the TCP/IP protocol. In the most simple terms these protocols function as follows: TCP (Transmission Control Protocol) converts messages into streams of packets at the source and then reassembles them back into messages at the destination; and IP (Internet Protocol) handles the function of addressing the

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[12] Raymond, Eric. "The Cathedral and the Bazaar." *Knowledge, Technology & Policy.* 12. September 1999: 23-49.

packets, seeing to it that they are routed across multiple nodes and various networks. These protocols are used as a common language for communication, not unlike the way the English language is used as a linguistic common denominator worldwide today. TCP/IP were the conventions, which were eventually used to exchange data like email, photos via telephone lines, TV cables, or satellites.

Historian Katie Hafner has compared TCP/IP to tap water, which is used for making coffee, washing the dishes, or doing laundry. The faucet and the pipe do not care how the water is used (Hafner 147). It is crucial to understand that from the very beginnings of ARPANET the network was designed without discrimination of any particular kind of information that would travel through it. The underlying principle is that once access to the Internet is paid, the "water" could be used any which way. This technical detail of the design of the TCP/IP protocol matters for later discussion about Internet neutrality as part of which large telecom companies started to interrogate and differentiate what is transported through the wires. As far as BBN was concerned in 1969, their task was to get a network of four nodes up and running.

1.3. ARPANET's First Four-Node Network

On August 30, 1969 the first host computer for the four-node network arrived at UCLA (Hauben and Hauben 119). Just like today's Internet, ARPANET ran on (TCP/IP). It worked as follows. Using a software program, one computer –just like the one that had just arrived at UCLA-- breaks the data into little packages, which are agreeable for the transport protocols. IP labels the packages so that they arrive in the right place and TCP gets them there. A software program on the other side reassembles the packages.

Photos of the event show little of the anti-establishment, anti-war counterculture atmosphere that must have ruled at UCLA at the time. All you can see are a few men in suits welcoming the arrival of a fridge-sized container in a truck. The UC Santa Barbara node was established two months later. The University of Utah and

Stanford University followed suit. The event of connecting these four university nodes is commonly credited as the beginning of today's Internet. Late in 1970, Carnegie Mellon University and Case Western University in Ohio were added to the network.

Surprisingly, the ARPANET researchers who were in charge of the network were not especially interested in using it at first. Even though the channel of communication was established, they did not see a good reason to talk with others at possibly "lesser" universities, which were possibly even located on the other coast. Why would they want to share their precious resources. They had bigger fish to fry. This elitist attitude was soon overcome when computer scientists started to realize the value of collaboration across the network. They began to share research, software, and other files. From its inception ARPANET also had in its sights military goals such as seismological research (e.g., detection of Russian missile tests) and global weather forecasts (Abbate 102). ARPANET was a clean slate with just a few applications including Talk, ftp, and Telnet. Over the years to come, it grew significantly. In the early 1970s it had thirty-five nodes and ten years later it counted four thousand nodes (Hauben and Hauben 121).

http://www.ariadne.ac.uk/issue1/brian/usenet.gif
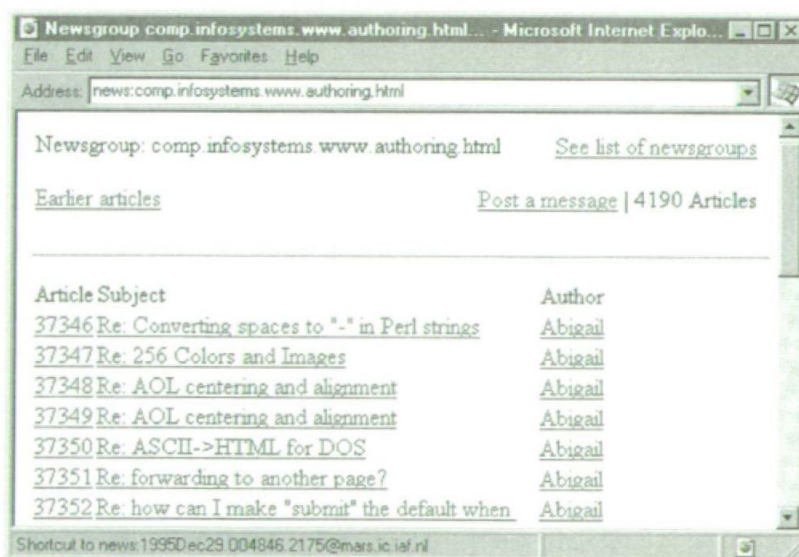
To expand, TCP/IP had to be accepted by institutions and not-for-profits alike, which was a process that can be likened to a political campaign with all of its alliance building and politicking. It was not exclusively a technical question. The US government, for example, favoured the ISO standard (the International Organization for Standardization). They needed to be won over. Vendor-specific network solutions were briefly available but they did not catch on. TCP/IP had huge advantages compared to proprietary protocols that were dependent on a computer by a certain manufacturer. For the purposes of my argument, it is especially important to stress, however, that access to ARPANET was still limited to the military and institutions with military funding. Other, broadly accessible, "alternative" systems were established. Usenet, for example, became known as "The People's ARPANET." According to Vint Cerf it took another twenty that it was clear that TCP/IP would be the accepted networking standard and by then also smaller networks had switched to TCP/IP and could get access to ARPANET.

In 1971 Ray Tomlinson at BBN, wrote a piece of software that allowed messages to be sent between computers. One year later, he sent the first email via the Internet. Quite different than Samuel Morse's first telegraph message ("What Hath God Wrought"), Tomlinson's first email was simply the result of a stroke across his keyboard (something like QWERTYI). This foreshadows the changes that writing for the Internet would undergo. Texts online were frequently more casual than those in the official print media. To separate the user from his or her machine in the email address, Tomlinson introduced the @ sign. Now, people who lived thousands of miles away from each other could fully consume each other's attention and time.

In China, computer-networking experiments started in the Ministry of Railroad in the early 1980s. The first Internet connection was established and tested by sending an email from the Technical University Beijing to the University Karlsruhe in 1987. The email read:

Über die Grosse Mauer erreichen wir alle Ecken der Welt.
Across the Great Wall we can reach every corner of the world. (Zorn, "Hasso")

1.4. Network Mail: The Largest Single Surprise of ARPANET

Looking back at ARPANET, a 1978 Completion Report analyzed that "the largest single surprise of the ARPANET program has been the incredible popularity and success of network mail" (Hauben and Hauben 124). Its planners had overlooked that use, writing that "the ability to send messages between users not an essential motivation for a network of scientific computers" (Abbate 108). They had envisioned it as a system for resource sharing but they had to discover that people were mainly using it for electronic messaging. Email was an unplanned feature with an unanticipated popularity; it would "sweep the country" (Abbate 107). There was an explosion of excitement. People, rather than software packages, were the most desired resource. Janet Abbate details that email was used for more mundane tasks, such as reporting hardware or software problems and that creative students used it for transcontinental drug deals. ARPANET email included anti-war messages and later discussions about the Watergate scandal and the resignation of President Nixon. The Watergate scandal was still fresh in people's mind during Jimmy Carter's presidential campaign, which used email on a daily basis (Hafner 212).

Licklider was right. Computers were not just calculating machines that could hold large databases and vast quantities of files. They could facilitate incredibly effective ways of communication. At ARPA those who had not used computers thus far, now had to catch up, simply in order to use email. Much to the surprise of ARPANET officials, it became an incredibly popular global personal and professional communication instrument. "The popularity of email was not foreseen by the ARPANET's planners."

> Email laid the groundwork for creating virtual communities through the [ARPANET] network. ... Through grassroots innovations and thousands of individual choices, the old idea of resource sharing that had propelled the ARPANET project forward as gradually replaced by the idea of the network as a means of bringing people together. (Abbate 111)

On ARPANET, the Department of Defense set up one of the first mailing lists in 1975. Steve Walker, an administrator at ARPA, had sent out a mass mailing to hundreds of people stating that it is time to "develop a sense of what is mandatory, what is nice, and what is desirable in message services."[13] The MsgGroup list was then formed to discuss list etiquette. Other discussion lists on ARPANET included "Wine Tasters" and "SF Lovers," a list for science fiction aficionados (Hauben and Hauben 69). MsgGroup is sometimes credited as the first "online community." By cajoling people into posting and signing up newcomers, the moderator of this list was the first to define this role. He had to deal with the immediate emergence of raging verbal abuse. We would call that "flaming" today. "No issue was ever too small for long discussions on MsgGroup" (Hafner 213). For many MsgGroup users it was a new experience to communicate under the protection of relative anonymity. In the absence of real world consequences, the Internet gave them ample opportunities for cowardly verbal attacks that they would have never dared to mount facing the person they addressed. These struggles and experiments were important in shaping norms and expectations. There were no set guidelines of how to behave on a mailing list or how to deal with, for example, the new power of networked old boys clubs and it took time for that settle. Joe Freeman in the "Tyranny of Structurelessness" argued that if the structural rules of a group were not acknowledged, power would be taken over by friendship groups.

> *If there are no clear rules, friends, who usually share the same values and orientations, consult with each other and tend to dominate*
>
> (Freeman)

How such group dynamics played on the Internet was not explored until this point. Many discussions defaulted in heated ego battles over amazingly insignificant topics, discussions quickly became incoherent and banal; the tone became aggressive (if not outright insulting) and self-promotion reigned supreme. Subscribers to MsgGroup realized that it became harder to sustain meaningful

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[13] Bennahum, David S. "The Hot New Medium Is ... Email." *Brockman.* Apr. 1998. Web. 11 July 2009 <http://www.brockman.com/press/1998.04.wired.html>.

discourse once many more people had joined and entered the discussion. This was not the utopian community that some had envisioned. Regardless, held next to the realities of existing broadcast technologies of that time, lists like MsgGroup offered glimpses of a culture of dialogue and sharing. Some of these problems are characteristic of mailing list culture to this day.

It was not just Internet etiquette that was explored on MsgGroup; it was also language itself. One subscriber suggested introducing some emotion back into the flat exchanges on the list. He proposed emoticons, starting with -) and a professor at Carnegie Mellon later added the eyes :-) [14].

Just a few years later, an early privacy controversy erupted on the MsgGroup list. Carnegie Mellon University (CMU) had introduced a component of the MsgGroup interface that allowed users to gain insight into the online behavioural habits of fellow members of the list. Everybody could see who was logged on at any given time and when he or she left the list. This component, oddly named FINGER, was switched on by default. List members were up in arms. They would not tolerate such invasion of their privacy. Collectively they pressured Ivor Durham, the Carnegie Mellon programmer of this feature to change the default setting and add some code that would allow people to switch the feature on or off (Hafner 216). While well intentioned, Durham had forced users to disclose information about their online behaviour.

The issues that emerged ranged from the norms of mailing moderation and basic forms of etiquette to problems of scale, the precedence of the problematic opt-out default, first resistance to privacy intrusions, and the transformation of language through networked communication; essential issues were raised by the MsgGroup mailing list and norms and expectations started to be established. From the early 1970s to 1980 many thousand additional users discovered network mail. This

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[14] Zakon, H. Robert. "Hobbes' Internet Timeline 10." *Zakon.org*. 1993. Web. June 1 2009.
<http://www.zakon.org/robert/internet/timeline/>.

massive adaptation of email became the largest driving force for the nascent Internet; which flourished because of the human urge to talk.

1.5. Grassroots Groups Appropriate the Network for their Own Purposes

The Department of Defense financed large parts of university research in the 1960s and while scientists had extraordinary financial power and authority, they also became unusually entrenched in the agendas of the military, which is perhaps especially remarkable as even young researchers such as those the Network Working Group did not seem to have a problem with working for the US Army at a time of strong anti-establishment sentiments and a failing war in Vietnam.[15] Perhaps these scientists were simply too thrilled to be part of such consequential development team, which makes me wonder about today's developers at large social media companies like Facebook. *How do they justify some rather well documented egregious privacy violations by their company?*

However, the *work done at ARPANET was hugely consequential.* Historian Janet Abbate argues that a whole generation of American computer scientists, trained by ARPANET, understood, used, and advocated its new networking techniques (Abbate 81).

In addition, I suggest that much later on the World Wide Web, people took up standards for collaborative work like the Request for Comments. The idea to put a draft document online and then, through the collaboration of many, improve on the original is a fairly common approach today.

Moreover, this story about ARPANET begs the question about the role of big telecommunication companies when they were called upon to co-shape the emerging Internet. Conversely to what telecoms like AOL like to insinuate today, they did not build the Internet. In fact, when called upon to contribute, like in the

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[15] According to Janet Abbate, 23% of all university research was DOD-funded.
Only 19% were supported by funds from the National Science Foundation. (Abbate 37)

case of ARPA, they did not come through at all.

ARPANET's MgGroup mailing list tested out privacy issues with online communication. It forged the precedent for the opt-in default and demonstrated the way list members thought about their privacy.

ARPANET was not solely created in order to be able to communicate after a nuclear war. (Serious questions remained how many people would have even lived to use the Internet after an atomic strike by the USSR.) Initially, ARPANET was about space. and computer research and the deep belief that the value of such a network would be the sharing of resources.

> Since the original view of the network planners was that "resources" meant massive expensive pieces of hardware or huge databases, they did not anticipate that people would turn out to be the network's most valued resources.
> (Abbate 111)

Giving people a voice is and has been a basic (if unintentional) tenet of the Internet since ARPANET. Network mail/email started within an elite group of scientists and then "bloomed like plankton on the Internet" (Hafner 176). The unofficial engagement of thousands with email (instead of resource sharing) changed ARPANET. Grassroots groups can appropriate a technology that is designed for one purpose for their own uses. The Internet has always bee about giving a voice to its users. From its earliest moments, ARPANET became a testing ground for privacy issues, and collaborative working methods (e.g., Request for Comments). It is also important to remember that big telecommunications companies did not significantly contribute to the development of ARPANET.

Chapter 2. ADAPTING COMPUTATIONAL TOOLS FOR PERSONAL COMMUNICATION

ARPANET Versus Less-Documented Alternative and Parallel Networks

The story of the government-financed ARPANET is well-documented: it provided exclusive access to the military and institutions with Department of Defense funding; its MsgGroup is often credited as the first mailing list; and its eventual takeover by the National Science Foundation and then privatization of its physical backbone signalled a paradigm shift in the history of the Internet.

It is important, however, that we recognize that the *conventions and expectations for online collaboration were not solely formed on ARPA's official, well-documented network.* I propose to consider also civilian message-sharing systems like the Bulletin Board System, Usenet (and eventually Fidonet) as well as unofficial, little-documented grassroots experiments with networked sociality like the Berkeley Community Memory Project and art projects of the 1960s as important influences on the development of the Internet. Outside of the United States, networks like the Soviet Unified Information Network, the French Cyclades network, and the Minitel communication system, among others, were planned and developed before and in parallel to ARPANET. I argue that the social practices that took shape on the mentioned networks defined the rules, perceptions, and expectations of today's Internet.

Even ten years after the initial linkup of the four-node network, ARPANET, now with thousands of nodes, was still mainly an experimental research network run by the military. It was common knowledge that it took political connections and about $100,000 to join ARPANET (Hauben and Hauben 41). I addition, even if institutional funding on that level was available, access was given exclusively to universities that had contracts with the Department of Defense. Under the auspices of the military ARPANET remained a gated middle class community of computer scientists and the

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military. The American public became aware of it only two years after it was activated when the national media alerted the public about its role in government surveillance. During the political unrest of the late 1960s, military intelligence started to collect information about the location of firehouses and police precincts in dozens of American cities. One Pentagon official thought that it would be a neat idea to add local troublemakers to this mapping initiative. The story broke in 1972 and the Pentagon was asked to destroy all related files. However, it was later revealed that the Pentagon used ARPANET to move the files to a new location in direct violation of the court order. When this story broke in national news outlet, most Americans heard about the network for the first time (Hafner 231).

2.1. Alternative Networks

Many communication networks developed in opposition to ARPANET, which was inaccessible to all but an elite group of researchers and the armed forces. Several communications systems emerged in the late 1970s and early 1980s with the intention of providing broad access to networking for civilians.

2.1.1. BBS and the Berkeley Community Memory Project: Non-Commercial Networked Publics

Frustrated about the lack of opportunities for public access computers and networked communication systems, a team of three "wild-eyed nerdish types" founded a computerized community bulletin board system in a record store in Berkeley in 1973 (Slaton, "Remembering Community Memory"). Installed in the hallway of the store, next to a physical bulletin board, it became known as the Community Memory Project. It was noisy. The Teletype communication system was based on electro-mechanical typewriters that communicated typed messages from one neighbourhood terminal to another. The project started out as a place where the community shared resources and discussed the Vietnam War as well as the Grateful Dead but quickly it became an "information flea market." The Berkeley Community Memory Project bears some resemblance to the present-day Craigslist.

An additional network was BBS (the Bulletin Board System), which developed from a very different set of circumstances. In 1978, the city of Chicago experienced exceptionally harsh weather conditions. In January that year, what came to be known as The Great Blizzard ruled the streets and brought urban life to a standstill. Former IBM programmer Ward Christensen, however, enjoyed being stuck in his house he took the opportunity to create the first BBS, which he launched four weeks later together with Randy Suess under the name "Ward's and Randy's CBBS". Three years after the launch of ARPANET's MsgGroup mailing list, BBS was the first computer-based communication system that allowed for the creation of "online communities" outside of academic or military settings.

Initially, BBS did not run on the Internet. It used telephone lines and a special terminal program. Local phone calls were free or inexpensive in the United States and thus many emerging communities on BBSs were local. They largely consisted of people who also met face to face. Users could download software, upload content, and exchange messages. They had to take turns accessing the system, each hanging up when done in order to grant someone else access. Christensen and Suess published descriptions of the technology that they used, which led to the proliferation of tens of thousands of BBSs all over the world. People used these instructions to replicate their design. Later, the Fido Network allowed users to post to a network of linked up BBSs.

In the early 1980s, users started to post images that were made up of printable text characters. This kind of text art was later called ASCii art. Nowadays the BBSes interface may feel archaic but even at the time of writing this, they are still serviceable in geographic regions where Internet access is scarce.

2.1.2. Usenet: the Poor Man's ARPANET
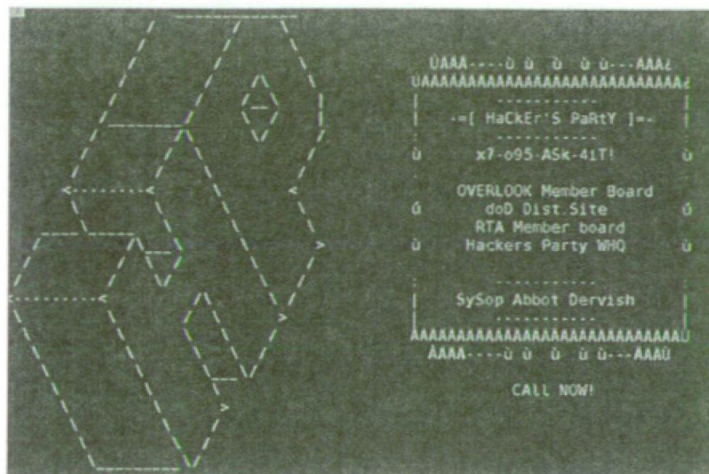
ASCii art on BBS

A third communication system was Usenet. Developed by students at Duke University and the University of North Carolina Usenet, was nicknamed The People's ARPANET. Computer programmer Steve Daniel at Duke said:

> Even if we had been allowed to join [ARPANET], there was no way of coming up with the money. The "Poor man's ARPANET" [Usenet] was our way of joining the computer science community, and we made deliberate attempts to extend it to other not-well-endowed members of the community. (Pfaffenberger 365).

Users posted public messages to specific Usenet newsgroups, which included, for example, forums for the posting of rumours, the sharing of jokes, and conversations among owners of Volkswagen Rabbits (Hauben and Hauben 173). Initially topical foci were mostly computer-oriented but soon discussions included cooking, sex, and science fiction (Abbate 201). Usenet is often credited as precursor to discussion boards like today's GoogleGroups and in that sense it also an early instance of cyber clustering, of "communities of interest." Anybody on Usenet could post to a newsgroup and all members of that newsgroup could read the message. Four years after ARPANET's MsgGroup this was an early civilian, grassroots format for online discussion. Many universities joined Usenet. "Usenet provided inexpensive network communications for many schools that had no other access to a national network.

[M]anaged by its users and having no obligation to the government, Usenet was even more decentralized and freewheeling than the Internet" (Abbate 201).

Shortly after Usenet was introduced, Professor Ira Fuchs at the City University of New York and his colleague Greydon Freeman at Yale University developed an intra-university network, called BITNET (Because It's There Network), which connected universities across the United States and Canada. BITNET's features included listservs, email, and instant messaging. BITNET was not free. Importantly, it demonstrated that users (and more specifically: institutions) were willing to pay for networking. The price for a rented line was based on the desired bandwidth but once the user had paid for the line, it was up to them for which purpose they would use it (Calliau and Gilles 80). This was exemplary given that other networks tried to establish a pay-by-byte system. Beyond offering novel features like listserv, email, and chat, BITNET helped to establish a pay system for network access that was blind to the ways in which it would used. This was important. Fee systems that were based on bandwidth instead of bytes of traffic became pervasive for Internet access later.

By 1983 it had become clear that ARPANET was not predominantly used for military purposes and ARPA, after splitting off part of the network under the name Milnet, handed ARPANET over to the American National Science Foundation (NSF), which called it CSNET (Computer Science NETwork). This made wide spread institutional access easier because a military affiliation was not required anymore. Also international networks could now gain access to the Internet because it was not a military network anymore. More and more people started to work together on some kind of network, be it BBS, Usenet, or CSNET, and the term "computer-supported collaborative work" (CSCW) became popular.

Linus Torvald's creation of the Linux kernel emerged in the late 1980s and early 1990s, a time period of intense experimentation with collaborative-networked

practices. In Torvald's reflection on the birth story of Linux, *Just for Fun: The Story of an Accidental Revolutionary,* he describes that

> fun, for geeks, was associated with the sudden availability, especially for university students and amateur hackers, of a rapidly expanding underground world of networks and software—Usenet and the Internet especially, but also university-specific networks, online environments and games, and tools for navigating information of all kinds. (Kelty 213)

Hackers and geeks could now co-create software via mailing lists. They had to establish rules for the coordination of collaborations in new social milieus like Usenet or MUDs (Multi-User Dungeons). The "underground world of networks" that Torvald mentioned also included MUDs, which can be described as the textual precursors to audio-visual MMORPGs (Massively Multiplayer Online Role-Playing Games) like World of Warcraft. Roy Trubshaw and the game researcher Richard Bartle created the first MUD in Britain, at Essex University. MUDs are virtual worlds where people could move through text spaces and kill dragons. Combining multi-player online games with chat features, users "walked" through a virtual world that is constructed through verbal descriptions of the objects in the world. Characters navigate through rooms, handle objects and take part in events and all of this was solely described textually.

Word of ARPANET, the nascent Internet, had spread in expert circles worldwide and researchers in France made efforts to develop their own network.

2.1.3. The Soviet Unified Information Network

From the 1960s throughout the 1980s there was much experimentation with networking. According to Richard Barbrook, Americans feared that the Soviet Union would use networked computers to link up their factories, offices, and stores to create a distributed support system for central planning. Networked computers would inform the Russian Polit Bureau, the central coordinating agency, about supply and demand, which would have allowed the agency to coordinate the production and distribution of product accordingly. Following Barbrook, such a

network, The Unified Information Network, was indeed in the making in the Soviet Union in the 1960s but it turned out to be incompatible with the anxieties of the Communist party and its top-down management (Barbrook 156).

The Unified Information Network would not have merely created a quick feed mechanism. It would have also connected the workers with each other and that was simply too dangerous for the Russian apparatchiks.

2.1.4. Cyclades and Minitel

In France in the early 1970s, the French government funded the Cyclades research network. It was named after a group of islands in the Aegean Sea and it meant to suggest a connection between "isolated" islands of computing (Abbate 214). Key to the success of competing networks would be their worldwide adoption. Accordingly, Cyclades researchers joined an international group of computer scientists that also included ARPA researchers. They set out to define a global networking standard that would allow them to connect various systems. Despite the fact that Cyclades had become influential, the French state, which had the monopoly over data transfer, shut it down in the early 1980s because it competed with another state-owned network.

That communication system, Minitel, was launched by the French government-owned phone agency PPT in 1982. As few French citizens had access to computers, the agency made about 9 million small terminals available to its subscribers. The users of the well-known Minitel also make online purchases. They were able to conduct banking transactions, reserve train and airplane tickets, search directories and comparison shop for cars. Technically, the network itself was called Telenet but it became known under the name of the Minitel terminals on which it was accessed. Berkman

Center for Internet and Society fellow Ethan Zuckerman commented that Minitel was an example of "what happens when you let a national government engineer the Internet: it's little and pink and very hard to type on." Minitel, he continues, offered a chess program with a chat feature and users quickly discovered that they could flirt with people whom they had never met before. This, he says, was the birth of IM (Instant Messaging) as we know it today. For a certain generation in France, anything referring to 3165 still refers to sexual content because that was the number they had to dial on Minitel to access the chat line (Zuckerman). Just like with ARPANET, the grassroots uses of the network diverged quite drastically from the intentions of their creators. Sexual gratification was a motivating factor for users who found that IM feature in the chess program and put it to use in accordance with those desires. Minitel was not designed for "online dating" or sexually loaded conversations via Instant Messaging. It also was not meant as public outlet for pornographic content (but soon such material appeared). Wikipedia states that while the French government started to tax pornographic services on Minitel, they decided not to intervene, pointing out that the conduct of (underage) children online was the responsibility of parents and not the government. Pornography on Minitel was a "popular attraction that received much public comment and that the US government-run Internet could not have openly supported" (Abbate 210).

In many ways Minitel was ahead of American efforts because it brought networking to the people and it offered budding incarnations of business services that are pertinent to today's net. Networks like Minitel also started in Germany, Sweden, South Africa, Canada, Ireland, Belgium and Italy.

Ultimately, ARPANET, which would become the Internet, succeeded because of three reasons. First, the interoperability, scalability and free availability of its host protocol TCP/IP allowed networks that run on different standards, and computers that use different operating systems to connect. As TCP/IP was non-proprietary and available for cost-free download, it spread anarchically like a wild fire across small networks. Science-fiction writer Bruce Sterling, defended the non-proprietary

TCP/IP standard against vendor-specific networking solutions by comparing it to the English language. "[N]obody owns English."[16]Anthropologist Christopher Kelty writes:

> The large, already functioning, relatively standard implementation of TCP/IP on Unix (and the ability to look at the source code) gave these protocols a tremendous advantage in terms of their survival and success as the basis of a global and singular network. (Kelty 141)

Eventually, this "openness", transparency, and interoperability of TCP/IP allowed for smaller networks like Usenet and Bitnet to become part of the Internet. For the Internet to become an inter-net, a network of networks, TCP/IP needed to become a common worldwide standard.

The second reason for the success of the successors of ARPANET over alternative international networks was its anarchic nature that made room for the grassroots drive of users. In addition, the third reason was that public networking systems in the United States were commercially run whereas in many countries this was a domain that was under control of the government, which made networking a political matter and consequently such centrally planned developments moved with glacial speed. The NSF privatized the infrastructure of the Internet in the early 1990s, which made international expansion of the Internet easier. It made it more attractive for impatient network operators to join the Internet. In the first place, however, it had been the transparency of the source code, and the spontaneity and anarchism of the practices on ARPANET (so seemingly incongruous with its roots in the US military) that made it thrive.

2.2. The Myth of ARPANET's Singular Role in the Shaping of Social Practices on the Internet

In this chapter, I addressed the myth of ARPANET's singular role in the making of

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[16] Sterling, Bruce. "A Short History of the Internet." *EFF.* Feb. 1993. *Web.* Jan. 23 2009. <http://w2.eff.org/Net_culture/internet_sterling.history.txt>

the Internet. Many aspects of online sociality today, the norms and expectations were shaped by national and international networks and communication systems that included ARPANET. It dominated by becoming the global unified network but it was not the only force that shaped the social practices on today's Internet.

ARPANET's MsgGroup set up conventions for mailing list conversations and moderation. Its users spoke up when their privacy was under attack and the demanded changes to the opt-out default, a problem that users struggle with to this day. Outside military-scientific circles on ARPANET, however, it was newsgroups on Usenet that offered a space for online discussions by a far broader segment of the population. Christopher Kelty reports that when large numbers of new users joined Usenet in September 1990, it became known as the "eternal September" because they all needed to be trained in the etiquette of newsgroups (Kelty 338). This was essential groundwork for the current networked public life; it established some rules for collaboration. Usenet and BITNET, not ARPANET, offered a national network for universities (with funding from the Department of Defense). BITNET offered network access at a price determined by bandwidth instead of per-byte traffic. The French Minitel system pioneered services like online shopping, game play, dating (or at least chatting), and search directories to users of all of walks of life.

Many applications that were built for smaller networks were later enjoyed on the larger Internet. *All of these networks, from* "Arpanet, Bitnet, [to] Usenet were examples of how network users could take tools that had been designed for computation and adapt them for personal communication" (Abbate 202).

Chapter 3. EDUCATIONAL AND ARTISTIC EXPERIMENTS IN THE 1960s AND 1970s

> The Internet *imaginaire*, like the technology accompanying it, was born in the particular context of the United States but subsequently became universal. Wherever in the world, logging on to the Internet is, in a sense, plugging into modernity and the country that best symbolizes it.
> (Flichy 211)

This chapter traces some artistic, educational narratives as well as broader countercultural trends that preceded social practices on the commercial Internet. Cooperation, openness (the desire to break out of social templates), audience involvement, and human connectedness were central themes of social and technical experimentation in the United States for at least two decades succeeding the 1960s.

This wider context determined what users of ARPANET (the embryonic Internet), Usenet, and BBS expected when they finally "logged on." More specifically, I argue that the culture of free sharing did not incidentally occur in the mentioned early networks and that was not only because ARPANET was not meant for commercial use. The sharing practices that were facilitated by the early Internet were rooted in a long tradition of gift giving and volunteering. They were, however, revitalized by the events of the late 1960s and early 1970s.

3.1. Activation as Frequently Cited Motivation in Art Since the 1960s

Of course, none of these networks or systems existed in isolation and the historical backdrop cannot be simply reduced to the Cold War. The British historian Claire Bishop, for example, stated that "[A]ctivation; authorship; [and] community – are the most frequently cited motivations for almost all artistic attempts to encourage participation in art since the 1960s." (Bishop 14). The artist Alan Kaprow is a fitting example of this inclination to "activate" audiences. He instigated events, performances, and situations that could take place anywhere. Kaprow coined the

term "happenings" for these occurrences, which were meant as art and sought to involve the people formerly conceived of as passive spectators.

The desire to subvert the prevailing social norms was another theme that resonated with Stewart Brand who characterized the 1960s as a time of open systems (Turner 41-69).
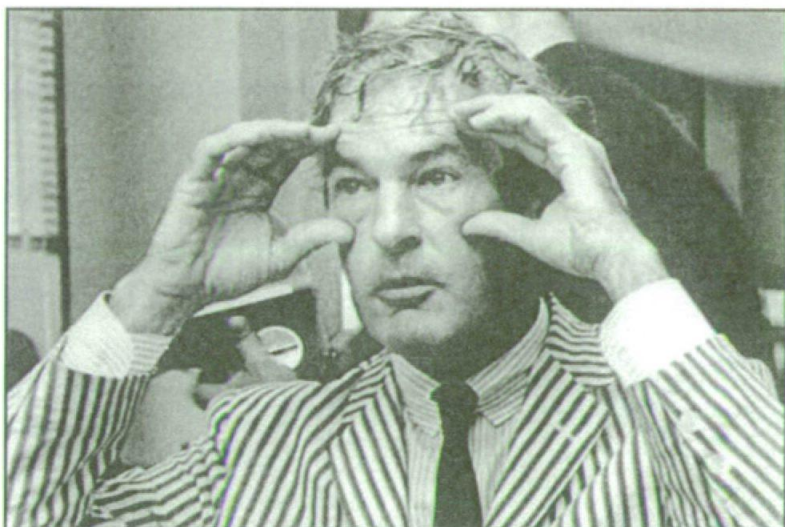
The enthusiasm that the charismatic one-time Harvard professor Timothy Leary had for the mind-expanding capacities of LSD (lysergic acid diethylamide) was exemplary for much of the thought of the time. LSD would turn the brain into an open system. Often Leary described how the slogan "turn on, tune in, drop out" was originally coined under a showerhead and in response to Marshal McLuhan who had asked him for a snappy description of the benefits of LSD. "Turn on' meant go within to [. . .] become sensitive to the [. . .] various levels of consciousness," Leary explained. "'Tune in' meant interact harmoniously with the world around you [. . .] and 'drop out' suggested an elective, selective, graceful process of detachment from involuntary [. . .] commitments" (Leary). However, many followers misinterpreted this mantra as a call to drug-induced passivity. Conversely, in an atmosphere of unsustainable social conservatism concepts like "open systems" became construed as violent threats to "the old system."

Stanford University student Ken Kesey was among the first to volunteer for a CIA-funded study that tested LSD. In his work as an author, Kesey published *One Flew Over the Cuckoo's Nest*, a novel about a quirk who is imprisoned in a mental hospital. For many of Kesey's readers, the struggles of that inmate mirrored significantly the societal constraints of an authoritarian matrix that handed down the rules for their lives. These themes of "openness," "connectedness," and confrontation with "the system" were central to this time period and influenced a plethora of communal experiments that indeed challenged outdated social conditions.

All throughout the 1960s in the United States, the cold war was in full swings in the aftermath of the Cuban Missile Crisis in 1962. Children were taught to duck and cover under their desks in case of a nuclear attack, and the construction work for bomb shelters was under way nationwide. The work of the American painter Jackson Pollock, who worked in this context, did not only suggest a departure from previous artistic conventions but it also set a useful counterpoint to the rigidity of Socialist Realism in Stalin's Soviet Union, which even led the Central Intelligence Agency to support his work by setting up fake companies that bought his paintings (Joffet).[17]

Within educational institutions, the desire to "break out" was manifested by the founding of a "free university" by a small group of social scientists at Stanford University in 1964. Alienated by the conservative politics of their institution and encouraged by the example of the Freie Universität in Berlin and the free speech movement, they met with students off-campus and simply started teaching. The first two courses were 1) the American ruling class and 2) yoga. Just three years later however, the Free U offered hundreds of classes, had a thousand members, and also managed to secure some funding (Markoff 110-113). Later, informal educational experiments like Free U motivated people to use the Net to learn together, to share their teaching materials, to do homework socially/collaboratively over the network,

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[17] Gewen, Barry. "The C.I.A. and the Culture War." *The New York Times.* 23 Jan. 2008. Web. 11 July 2009. <http://papercuts.blogs.nytimes.com/tag/jackson-pollock/>.

write textbooks together, and to jointly create a free encyclopaedia. They realized how unnecessary it was to join an expensive university to learn and engage in discourse. Of course they also came to the realization that personal friendships, the social capital of degrees, and heated face-to-face discussions could not be completely replaced by networked communication.

3.2. Setting Expectations, Forming Practices: From the Diggers to Limewire

The faculty of the Free University in Berkeley provided education gratis. The community-action group The Diggers aimed to propagate free culture through theatrical interventions.[18] They performed and encouraged the distribution of free food and clothes. They organized free shelter for those in need and ran a Free Store that gave away "liberated goods" as well as donated shoes and clothing.

> From Futurists and Dadaists of the early twentieth century, the [. . .] Diggers derived the precedent of artists injecting art like some wild drug into the veins of society; from the civil rights movement [. . .] to the idea of forcing the future by living in it, as if the obstacles, brought to a white heat, could be made to melt. (Gitlin 224)

The interventions of the Diggers were meant to set an example and therefore theatrical disruptions like giving away money and copious amounts of drugs were important to them. At the same time, a medical doctor set up Haight Street Free Clinic, eventually inspiring others to follow suit and establish Free Clinics all over the US, providing valuable (yet recently diminishing) services to the poor to this day. These experiences and practices of sharing, and gift giving, were also formative for early, networked communities. Of course the gift economy could indeed be traced back to the Stone Age, where food was shared and some objects such as necklaces were designed specifically as gifts. The Russian anarchist Peter Kropotkin referred to practices of the hunter-gatherers as act of mutual aid. In sum, gift giving is not new at all but Free U, and the Diggers were specific examples of the time that

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[18] The Diggers in San Francisco took their name from an English group of Protestant Christian agrarian communists who strongly believed in economic equality. The original Diggers tried to change the distribution of property through their small agrarian communities.

paralleled the development of ARPANET, and eventually the distribution of "liberated music" through peer systems like Napster, Kazaa, and Limewire.

A resurgent interest in Buddhism also figures highly in this narrative. More and more people became entrenched by the hype about Buddhist concepts of inter-connectedness (or some popularized, watered-down version thereof), specifically on the West Coast of the United States where the Japanese Zen priest Suzuki Roshi had established the San Francisco Zen Centre in 1962. What happened in San Francisco became known all across the country and during the academic summer break of 1967 more than 100,000 students, underage runaways, and Flower Children from all over the US flooded the streets of SF, which became know as the hippie capital. A "be-in" in Golden Gate Park culminated what became known as the Summer of Love. However, the epicentre of SF hippie culture, the Haight-Ashbury neighbourhood, was soon plagued by health problems, and drug addiction. Many children ran out of money, crime increased dramatically, and a mock funeral procession in 1967 known as The Death of the Hippie signalled to the rest of the country that the Summer of Love was over.

3.3. Computers as Tools of Liberation

Between 1967 and 1970 many hippies moved into communes. Some of them opposed technology.[19] Others, as historian Fred Turner points out, shifted their beliefs from political big-cause crusades to trust in technology as a way to change consciousness and instigate social change in the late 1960s (4-5). The American author Stewart Brand recalls sitting with a group of friends on a roof in Sausalito smoking dope. They kicked around ideas and Brand wondered how he could support the thousands of people who had just left cities like San Francisco to form communes in the mountains (Dambeck, *Das Netz*). Thus, in 1969 he founded the Whole Earth Catalog, a mail order catalogue for alternative living, that had the goal

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[19] The Well founders Larry Brilliant and Stewart Brand were both involved in groups that did turn to technology. Brand traveled with the Merry Pranksters promoting the use of drugs and Brilliant lived on the Hog Farm (Flichy 71).

of providing "access to tools" and social networks that would help sustain the many social experiments of the time. The Catalogue led to discussions across various communities; it was a "social object" designed to help people live the lives that they desired: shaped by themselves and not by larger societal structures. However, it was expensive to author, print, and distribute the Catalogue. Brand relied on a "keyboard enabled universe of people," which made him look hard for other solutions. Fred Turner sums up the importance of the publication

> The Whole Earth Catalog helped to create the cultural conditions under which microcomputers and computer networks could be imagined as tools of liberation.
> (Turner 73)

The vision of computers as tools of liberation was enforced by early uses of BBSs and Usenet for messages stating political protest against President Nixon, for example. In his book Computer Lib/Dream Machines, the inventor Ted Nelson passionately called for access to computers for everybody, which was a precondition for any kind of libratory use.
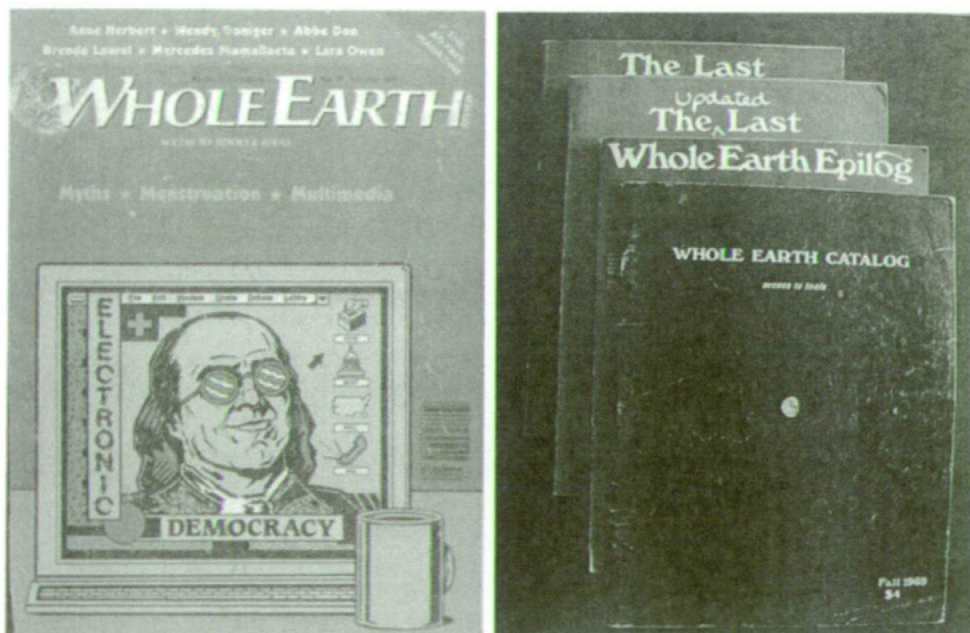
First commercial experiments on the Net such as LucasFilm's *Habitat* started throughout the 1980s. In 1986 at Case Western Reserve University in Ohio, a lecturer of family medicine, Dr. Thomas Grundner started a publically accessible

health information system. Lay people could anonymously dial in to the BBS from their computer at home, school, public library or the office, leave a health-related question and have it answered by a medical doctor within 24 hours, free-of-charge. Grundler noted that Free-Net allows people unparalleled access to services and resources online and that it makes them free to the user "in much the same way that our public library system, for example, has been free to its patrons for over 100 years" (Flichy 73). This BBS became know as the Cleveland Free-Net.[20] It dramatically increased in size over the coming ten years and started a long tradition of community informatics leading to the Community Wireless Movement and experiment like Digitale Stad that I will reflect on later.

Patrice Flichy described the values that guided people who contributed to the Cleveland Free-Net.

> The system is literally run by the community itself. Almost everything that appears on one of these machines is there because there are individuals or organizations in the community who are prepared to contribute their time, effort, and expertise to place it there and operate it over time.
> (Flichy 78)

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[20] Patrice Flichy points out, however, that BBS was not completely open and free of charge. "In many cases they first had to pay a subscription fee, albeit small, or become a registered member of the community, as in the case of free systems such as Free-Net or PEN" (Flichy 85).

The communal goals of Cleveland Free-Net somewhat brought together the desire of Free U in Berkeley, the practice of sharing of knowledge at no charge and the activation of a group of people to work together for the common good. Volunteering, in this case for example by medical doctors, certainly has a long tradition that precedes the existence of BBSs. Volunteer workers include volunteer fire fighters, programmers who support non-profit organizations, and people working in hospitals or homeless shelters. The establishment of equivalents of such volunteer work on the networks of the time, however, was new.

3.4. Cultural Context Providers: Les Immateriaux

In the early 1980 it was not just doctors, patients, deadheads (fans of the Grateful Dead), and computer wizards in Silicon Valley who were part of some kind of virtual community. The French philosopher Jean Francois Lyotard and his colleague Thierry Chaput curated the exhibition *Les Immateriaux* at the Centre Georges Pompidou in Paris as part of which they experimented with concepts of networking and collaborative writing. In 1984, they invited thirty cultural producers, mostly authors, and asked them to contribute a few, brief definitions of fifty terms related to the topic of the Immaterial. These notes were initially on paper but were then transferred to and recorded on a "text saving system". Next, the authors were networked with each other; they could freely decide to add to the existing definitions; they were permitted to contradict them, or edit them in any way they saw fit. The documentation of the exhibition does not specify if the facilitators used a BBS (Bulletin Board System) to connect the authors but it seems likely given their popularity at the time. They provided a context for others to contribute to. Lyotard and Chaput explored how the act of collaborative writing changed the writing itself. The exhibition was a precursor to many networked, collaboratively authored works. I call this practice "cultural context provision." Lyotard and Chaput provided the concept and space but left it to others to execute the work itself, the "flesh" of the exhibition. The process of creation, the writing and rewriting, the collaborative editing is similar to the way articles evolve on today's free encyclopaedia Wikipedia. Lyotard confronted the audience of *Les Immateriaux* with the idea that "new

materials" such as a BBS (though he does not name the network) influence what is written and how meaning is expressed, in part independent of the intentions of its users. In comparison, on Wikipedia dozens of authors write an article often over the stretch of several years. Their writerly voices differ and the resulting articles carry reminders of this process. Chaput and Lyotard set rules, a framework for the collaboration of the 30 authors. The Wikimedia Foundation (the non-profit that is behind Wikipedia) likewise set guidelines for the collaborative authoring of entries. Unlike "Les Immateriaux," however, Jimmy Wales, the co-founder of Wikipedia, is not directly credited each time a new article is added to the encyclopaedia, which stands as contribution to the public good.

http://www.integral-philippedelis.com/?p 1

Exhibitions like *Les Immateriaux* were significant contributions to the reflection about the art of collaboration mediated through computer networks; they helped to popularize networked collaboration. *Les Immateriaux* turned the exhibition into a discursive space but it also used the work of the artists who created the material that comprised the exhibition. While their names were acknowledged, in the end Chaput and Lyotard are remembered for *Les Immateriaux.*

3.5. Learning from 1967

In this chapter I am pointing to the wider context that shaped the social imagination of what could be done on networks like Usenet, BITNET, BBS, and in the late 1980s on text-based online virtual reality systems called MOO. Projects like Cleveland Free-Net, Craigslist, or books like *Computer Lib/Dream Machines* grew out of the context of artistic practices that emphasized audience participation (e.g., happenings, *Les Immateriaux*), the theatrical social activism of The Diggers, and experiments with no-charge education like Free University Berkeley, the Free Clinic, and the Whole Earth Catalogue. They directed the imagination of what could be done with networked communication. More than forty years after the Summer of Love, one of the most popular destinations online is Craigslist. The motto of this company is "Give People A Break" (Scholz, "Interview with Craig Newmark"). It started in 1995 when Craig Newmark launched an online bulletin board where people could announce events in the San Francisco Bay Area. At the time of writing this, Craigslist serves 450 cities in 50 countries with a staff of 24 people, making money only from ads for jobs that are paid and apartment listings from brokers in New York City; all other classifieds are free.[21] This money is sufficient to pay for employees and the technical infrastructure needed to support the millions of hits on its website. Newspapers complain that Craigslist is out to get them, to destroy their business, and editors of the Rupert Murdoch-owned *Wall Street Journal* hit themselves on the head when they think about the $500 million in revenues that Craigslist could make each year (Carney). Not unlike the Diggers, Craigslist "gives away" money. Of course, Craigslist is a business and not a social action collective. He makes money, which provides a comfortable living for its employees and its founder but Newmark does not maximize profits. And that is very much in the spirit of altruistic giving.

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[21] Craigslist stated on their site: "Ultimately, the information you submit to Craigslist belongs to you. You own your own words." (Dec 29, 1999) Craigslist does not do anything that users did not ask for; and as it happens they did not ask for banner ads. Perhaps this is one of the reasons that it is the seventh most busiest website inside the United States in terms of "page views".

Despite examples like Craigslist and Cleveland Free-Net there were also negative ripple effects. The actor Peter Coyote, a former member of the Diggers and inhabitant of the Black Bear Ranch commune in Northern California explained that their communal living was driven by the hope of forcing the future into existence through the sheer audacity of living it. People on Black Bear Ranch hoped that the rest of society would get inspired by their actions and go beyond a life defined merely by their role as employees or consumers (*Commune*). However, their ideas did not take over the cities; it did not work the way they had imagined it. In hindsight Peter Coyote came to the realization that the physical separation from mainstream society and the withdrawal from direct involvement in politics were the gravest errors that they had made at the time. Fred Turner resonates with this consideration and warns that "if the information workers of the post-industrial era buy into the notion that computers and the network economy will bring about a peer-to-peer utopia, as many still do, they run the risk of perpetuating the forms of suffering and exclusion that plagued the back-to-the-landers" (Turner 251).

Chapter 4. PARTICIPATORY TURNS

The exceptional vitality of the Web in terms of participation in overdeveloped countries is undeniable.[22] The use of new social media has become a personal and professional imperative rather than a personal choice. Even those users who constantly complained about Facebook, have now created an account. Massive participation has also moved beyond the borders of post-industrial nation states. Worldwide, 1.1 billion people are using the Internet, 20 million people are blogging in China alone, 11 million people are subscribed to the networked game World of Warcraft, and literally hundreds of millions individuals have profiles on social networking services like Facebook, Orkut, and Myspace. How did we get from a small US American military-scientific network to a single global network of such unanticipated importance?

I am suggesting four participatory turns, major milestones of computer-enabled networked communication. Firstly, there was the sudden and surprising adoption of network mail on ARPANET, BBS, and Usenet in the 1970s. Secondly, was the astonishing success of the Mosaic browser as a "window into cyberspace" in the mid-1990s. A third major step in terms of networked sociality was the remarkable popularity of technologies and phenomena recently associated with social media starting around 2005. A fourth and no-less-significant milestone has been the growth of mobile phone use worldwide. In recent years more people own and operate mobile phones in the economically developing world than in the United States and Europe combined. In countries like Brazil, Russia, India, and China, people increasingly go online with the help of their cell phones.

With the emergence of the Web and the eventual commercialization of the Net came a sea change—it would now be the collective action of users that gave shape to the

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[22] The term of "overdeveloped world" is useful because it moves the focus on us. Not only do developing countries have to work to "catch up," through the suggestion of an "overdeveloped" world, we shift the focus on our affluence.

World Wide Web. Once the physical infrastructure of the Internet became privatized in the early 1990s, critics like Geert Lovink prophesied the death of creativity and social experimentation online. I argue against those claims, suggesting that creativity, political activism, and social experimentation merely relocated from Internet Service Providers (ISPs) to commercially run centralized platforms such as DeviantArt.com.

An analysis keenly attuned to emergent aesthetic and technologies (from Usenet to the desktop computer and wireless networks) is necessary for a critical understanding of new social media tools.

4.1. Growth Through Collective Action: BBS, Usenet, ARPANET's Network Mail

The use of network email circulated on ARPANET was not curbed by being officially limited to research and education topics (ARPANET Report). An internal report detailed that "the largest single surprise of the ARPANET program has been the incredible popularity and success of network mail" (Hauben 124). Initially, ARPANET was designed so that multiple, geographically disparate users could share software and databases that resided on extremely costly computers. Through the network more researchers could get access to computing power but suddenly email "bloomed like plankton on the Internet" (Hafner 176). The human urge to communicate and socialize was incredibly strong.

Today, one of the basic tenets of the Internet is that it empowers individuals with advanced modes and larger audiences for self-expression. However, this is by no means a new phenomenon. Already in the 1970s, long before the first blogger appeared on the scene or the first podcast debuted, people spoke up, debated, and played together on the network.

In those early days of the Internet, however, connecting to each other was still technically complicated and often discouraging. You could communicate with others but there were still numerous tools and protocols. User interfaces with the network

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were still non-intuitive and required technical knowledge. The development of the World Wide Web was a response to this anarchic situation, the co-existence of various technical fiefdoms (ftp, telnet, etc). The situation was frustrating: the setting was uninviting for those who were not explicitly interested in technology and the danger for the Internet to become a social cul-de-sac was real. The Net needed a simple unified communication system. In the United States institutional battles focused mostly on the establishment of one network protocol all across the Internet. In 1983 all of ARPANET switched to TCP/IP leading Vint Cerf to proclaim that now "ARPANET could go where no network has ever gone before" (Berners-Lee 249). The People's Republic of China set up its first TCP/IP college network at Tsinghua University. In 1991 ARPANET was transferred to the National Science Foundation (NSF NET), which allowed foreign nations to join the network. Previously only American institutions with military funding or those abroad with Department of Defense involvement were admitted. Japan was among the first countries to join NSF NET. Also the number of European Internet sites exploded at that time and US right wing acolytes like Newt Gingrich embraced the Internet stating that it empowered elites, helped build new businesses, and re-evaluated traditional forms of governance (Turner 9). The porn industry quickly linked up as well. Screen-based interactions with models were limited to a simple "hello baby". It was a big bang for participation on the Internet and people in their basements, living rooms, and schools shaped the Internet from here on out. Berners-Lee called on all users of the World Wide Web to be ethically and morally aware of what they are doing, as they are the ones who are creating the Web (Weaving 86). In *A Declaration of the Independence of Cyberspace* John Perry Barlow wrote that the Internet is not a public construction project that users can build by themselves; it has to grow through collective actions.

What had been a quiet geek elite utopia and military network now slowly became a place of ecstatic investment euphoria. The Internet became a social treasure trove. Many economically developed countries with the necessary infrastructure joined the Internet throughout the late 1980s and early 1990s. Poor developing countries,

however, did not have the resources to wire their entire country or use existing networks to join the Internet. Consequently, they could not keep up and did not gain access to the Internet. This was the beginning of what came to be called "the digital divide".

However, while the Internet blossomed in many countries, there was still a strong need for a unified communication system and a single network protocol. The answer came from CERN (L'Organisation Europeéne pour la Recherche Nucléaire), which was a research institute where scientists explore "what the universe is made of, what holds it together, and why it behaves as it does" (Calliau 48). CERN attracted researchers from all over the world who, paid by their universities, worked there for short periods of time, returned home, while collaborating with colleagues at the institute (Berners-Lee 7). CERN was situated in the Swiss city of Geneva, which stretches around the crescent-shaped lake Lac Léman, near the French border. In 1980 they hired the young British programmer Tim Berners-Lee on an initial six-month contract. He did not have a Ph.D. but was favourably described by three references as "intense, efficient, and creative". Nine years later, Tim Berners-Lee and his colleague Robert Cailliau submitted a proposal for the World Wide Web based on the concept of hypertext. It would facilitate the sharing and updating of information among researchers (Berners-Lee 162). Berners-Lee described Cailliau's role in this collaboration as "the best man" at the marriage of hypertext and the Internet. Their vision for the Web was to potentially "connect anything with anything" (Berners-Lee 1). Technically, the four pillars of the World Wide Web were HTML (Hypertext Markup Language), URL (Uniform Resource Locator), and HTTP (HyperText Transfer Protocol). Berners-Lee wrote, "I have always imagined the information space as something to which everyone has immediate and intuitive access, and not just to browse, but to create" (Berners-Lee 157). Importantly, Berners-Lee defined the World Wide Web as an open, free, vendor-neutral, non-proprietary space. CERN, known for its particle accelerator, was an unlikely host for such a project but it supported it up to a point. The development work on the Web

was influenced equally by the context at CERN and Berners-Lee's values.[23] On
Christmas day of 1990 the Web was running on a few computers at CERN.

World Wide Web

The WorldWideWeb (W3) is a wide-area hypermedia information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an executive summary of the project, Mailing lists , Policy , November's W3 news , Frequently Asked Questions .

What's out there?
    Pointers to the world's online information, subjects , W3 servers, etc.
Help
    on the browser you are using
Software Products
    A list of W3 project components and their current state. (e.g. Line Mode ,X11 Viola , NeXTStep , Servers , Tools , Mail robot , Library)
Technical
    Details of protocols, formats, program internals etc
Bibliography
    Paper documentation on W3 and references.
People
    A list of some people involved in the project.
History
    A summary of the history of the project.
How can I help ?
    If you would like to support the web..
Getting code
    Getting the code by anonymous FTP , etc.

the first website

Initially, it was hard for people to understand that the Web was not located on one
central computer that controlled everything. It rather grew at the hand of thousands
of users. Initially, however, it was challenging to get people to understand that the
Web was not just a place where you would stand on the side and watch but that you
could bring gifts and contribute, add your own material, annotate existing web
pages, and link them to each other (Berners-Lee 17-38).

In the early 1990s the World Wide Web was still merely one of the players on the
Internet, competing with FTP, Telnet, Gopher, and others. Metaphorically speaking,
the Internet was a vast field with players moving around making basketball moves
while others charged toward them trying to play soccer; some youngsters occupied
themselves with draughts, and a small group over there had fun with ping pong.
Now, Berners-Lee stepped onto the field and announced that the Web provided an
arena for mutual collaboration and communication—a common game and field in

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[23] Berners-Lee shared many of the values of Unitarian Universalism; he appreciates that it "tackles
the spiritual side of people's lives but it does not require you to believe six impossible things before
breakfast". (Lee 151) Some of these values include the belief in the inherent dignity of people
working together to achieve harmony and understanding. Berners-Lee did not envision the Web
because he was a Unitarian Universalist but the ideals that underlie the vision for the World Wide
Web coincide with Unitarian values.

which all could participate. Indeed, the Web offered a unifying system for the Internet but that did not mean that all Net users immediately flocked to it.

In 1991, the University of Minnesota launched Gopher, a hyperlink interface to the Internet that competed with the World Wide Web. Gopher was described as an "infoserver that can deliver text, graphics, audio, and multimedia to clients". The promise of multimedia may have been a bit of a long shot at that time but regardless, with features similar to that of the Web, Gopher became rapidly popular. In 1993, CERN determined, much to Berners-Lee's relief that the WWW (World Wide Web) would be free for anyone to use. Two months later, Gopher played with its good fortune when it announced that it was no longer free. Despite its popularity at the time, users dropped Gopher without hesitation and migrated to the WWW.

File   Options   Navigate   Annotate   News   Help

URL: gopher://seanm.ca/

Gopher Menu

- About This Server
- GoFish Gopher Server
- NEW Stuff
- Humour
- Computer Nerd Stuff
- NetWinder Stuff
- RFCs
- Images
- Other Gophers
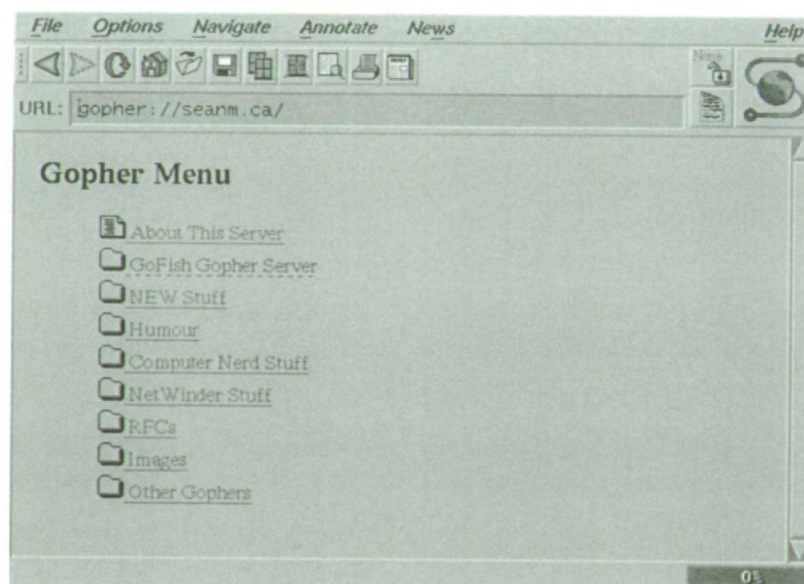
A year later, Berners-Lee organized a conference about the Web at CERN, expecting two to three hundred people but instead more than a thousand people came from all over the world to hear Tim Berners-Lee speak. While this event gave evidence to the popularity of the Web and the rock-star-status of Berners-Lee, CERN would still not provide sufficient funding for the project. At this conference, which looked somewhat like a "Woodstock of the Web," Tim Berners-Lee merely outlined practical problems and concerns. He was concerned with what had to be done so

that "a year or two from now we do not have to announce that starting next Tuesday you have to put a 7 in front of the URL" (Cailliau). However, once he realized how slow the implementation of the Web would be in the administratively divided Europe, he moved to Boston where he would oversee the standardization of the Web as part of the W3C (The World Wide Web Consortium) at MIT. He set up branches of the W3C in Europe soon thereafter.

The fact that the Web was in the public domain was one reason for its popularity. Anybody could just install it for free. However, it did take until 1993 for its ultimate success over competing systems like Gopher and FTP. In 1992, Marc Andreessen, a local undergraduate student at the University of Illinois (UI), working on minimum wage at night, used Berners-Lee's documentation from CERN with the goal of creating a more human interface for the World Wide Web.

4. 2. The World Wide Web and Mosaic

Together with Rob McCool, Eric Bina, Jon Mittelhauser, Aleks Totic, and Chris Houck, Andreessen created the Mosaic browser, which launched as a more accessible, non-technical interface to the Web in 1993 (Kelty 100). Mosaic could be easily downloaded from the Internet. It did not take any expertise to install it and within minutes it was ready for click-and-point interaction. Senator Al Gore was instrumental in pushing through legislatio that would lead to the provision of funding for the creation of the Mosaic browser, which was the single most significant milestone for the growth of the Web. From that point on, the World Wide Web experienced a social explosion, a 350 percent growth rate in 1993 in the United States alone. After the first major milestone – the surprising success of network mail on ARPANET, Usenet and BBS —the launch of Mosaic was the second key event that shaped sociality on the Internet. With the help of Mosaic, Berners-Lee's World Wide Web took a powerful communications system that only the elite could use and turned it into a mass medium.
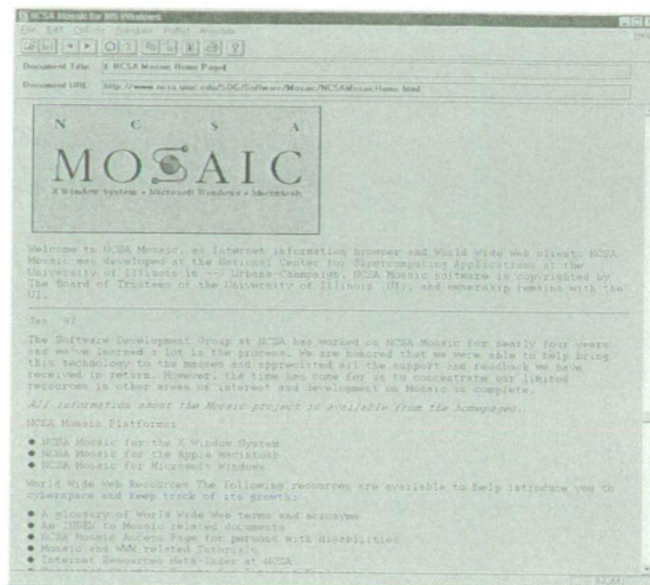
The Mosaic browser made accessing the World Wide Web easier for non-technical users. The interface was simple and much more "user-friendly" than previous interfaces. John Markoff of *The New York Times* celebrated Andreessen's Mosaic browser as a "window into cyberspace". Some newspapers even mistook the browser for the Web, which did not please Berners-Lee. The Mosaic browser demonstrated the importance of user-friendly interfaces.

A year later, after leaving University of Illinois, Andreessen was surprised to find out that the university did not approve of commercial spin-offs of his former student project. Therefore, Andreessen re-wrote Mosaic and together with Silicon Graphics founder Jim Clark founded Netscape Communications. A year and a half later, Mosaic had 1.5 million users.[24] The success of Mosaic is a significant milestone in the growth of online sociality and this clearly was evidence for entrepreneurs of the financial windfall this technology could produce.

Early versions of the browser offered a collaboration feature that allowed annotations, which could be shared with a well-defined team of collaborators

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[24] Marc Andreessen also allowed images to be displayed on Mosaic through the <img> tag and already in 1993 a brave attempt was made to put create a web gallery with images of well-known artworks from the Louvre. Unfortunately, this web site was shut down quickly but another gallery, the website for a Dinosaur exhibit at Honolulu Community College stayed up and became legendary as first web presence of an exhibition.

(Cailliau 240). In opposition, however, Tim Berners-Lee claims that browsers throughout the early 1990s focused on access to information rather than collaboration. "Putting as much effort into the collaborative side of the Web didn't seem to promise that million-fold multiplier" (Berners-Lee 57). Very few developers, he points out, bothered to develop their browser as an editor once they got it working and had released it to the world. The ability to make information available was good enough for them; collaborative capabilities did not seem sufficiently profitable. This shows a similar misperception of the Mosaic creators and those of ARPANET. Both saw their prime objective in the creation of access to resources rather than collaboration with other people. It was hard to understand that communication itself could be highly profitable. Unlike on ARPANET, Mosaic, however, could not just function as a "window into cyberspace" but also as a marketplace for the first commercial experiments. Already in 1992 the San Francisco-based digital librarian Brewster Kahle co-founded the online business WAIS (Wide Area Information Server System) "to prove that you could make an Internet company" (Cailliau 136). Soon, Kahle would successfully sell WAIS.[25]

4.2.1. The Volunteer Work of Netscape's Beta Testers

In 1994 Netscape released Navigator at no cost for users. This marketing approach was unprecedented and shocking to many people in the software industry. The browser was still in its early stages of development and many of the people who used it were willing to send comments, helping the company to improve their product. In January 1998, Netscape Communicator was also made available for free download, and even more shockingly for many in the software industry, the source code of the browser was freely given away as well. [26]

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[25] WAIS was kind of text search system and indeed, a few years later he sold it to AOL for $15 million, which allowed Kahle to set up the Internet Archive (archive.org) later. Similarly, eBay founder Pierre Omidyar and the Amazon.com founder Jeff Bezos initiated several large-scale altruistic projects.
[26] In November 1998, AOL Buys Netscape in a $4.3 billion stock transaction ($~8.98 billion by the time the sale was finalized.) Volunteer labour of users had clearly contributed to this value.

Mosaic's marketing approach was unprecedented: it was free. However, this was not ultimately an act of altruism, as the first consumers also served to test and improve their product. Because the browser was free, users were willing to help out. This method became a common model for the digital economy. In the four years between the beta stage of Navigator 1.0 and the release of Communicator 4.0, Netscape went through 39 beta versions. The company was only able to go through so many iterations so quickly because a large pool of unpaid volunteers was willing to constantly help to de-bug each new version. The calculation was to release unfinished pieces of software for free and in return, benefit from the unpaid work of alpha and beta testers who return bug reports and make suggestions for improvements. This gave Netscape a serious competitive edge. Andreesen described the power of beta testers:

> The philosophy behind so many beta releases was to kick it out the door. It may not even work reliably. ... [but] go out and get feedback. ... [Customers] will tell you, often in no uncertain terms, what's wrong with it and what needs to be improved
> (Neff 173-188).

The reasons for the unwaged volunteer work of these beta testers vary. For some, having a small impact on a product as public as Navigator was well worth it. They may have seen it as a contribution to the public good. Such an argument is complicated by the fact that AOL bought Netscape for $ 8.98 billion in stock in 1998. The wealth that the volunteers helped to generate did not "trickle down." It translated into wealth for the creators. The expropriation of interactivity labour is

clearer than in many other cases.

The work of beta testing

From Navigator 1.0 (given away for free) to the release
of Communicator 4.0 -- 39 beta versions.

Netscape did not, however, only give its browser away for free. They also released the source code. Frank Hecker, the sales manager of Netscape made the business case for going open source:

> When Netscape first made Navigator available for unrestricted download over the Internet, many saw this as flying in the face of conventional wisdom for the commercial software business, and questioned how we could possibly make money "giving our software away". Now of course this strategy is seen in retrospect as a successful innovation that was a key factor in Netscape's rapid growth, and rare is the software company today that does not emulate this model in one way or another.
> (Kelty 102)

Anthropologist Christopher Kelty thinks about possible reasons for these unusual acts of sharing. "It could appear to be a business plan... give away your product and make money in the stock market. It could appear to be strategic, last-gasp effort to outcompete Microsoft," Kelty speculates (101). The fact that Netscape was bought by AOL proved this as a workable economic model and one that others would emulate over and over.

Mosaic was the world's most popular browser until 1995, when Bill Gates suddenly became "hard core about the Internet," as he put it (Burke 230). Gates acknowledged the tidal wave of the Internet only as it was about to hit him. Quickly, he committed part of the Windows 95 to IE (Internet Explorer) (Berners-Lee 93). IE was free; well it was sort of free. You had to buy the Windows Operating System to get Internet Explorer for "free". Free in this case did not mean free-of-charge. This bundling of Internet Explorer with the Windows operating system led to lawsuits against Microsoft over anti-competitive behaviour. This was not a new approach. In 1903, King C. Gillette came up with the idea of dispensable shaving blades. As a marketing strategy he gave many of the blades away for free. Without the razor itself, however, they were useless. The "free gift" came at a price. Today, this model has been adopted by numerous industries. Cell phones are given away for "free" if costumers sign up for a two-year-service plan. Similarly, printers are sold very cheaply but the cost for the cartridges is high. Bill Gate's simply deployed an old trick in a vital new industry. I will elaborate on this topic in segment 10.6.

4.3. Handing the Keys of the American Internet to the Kings of Infotainment

When Amazon.com was founded in 1994 it also offered something for free for those who frequented the "information superhighway," as Al Gore phrased it. Amazon allowed users to self-publish texts to the Web.[27] The submitted texts, however, were reviews of books that were for sale through Amazon.com. This was the beginning of an unfolding complex relationship between those who submit content and others who expropriate value from those submissions and the attention of users. The owners of a site like Amazon.com provide the platform, the virtual real estate, and tools for communication for "free" while the users are the guests, the tenants who write or read or comment. At first, this may look like the same social practice, the same kind of relationship like writing for a newsgroup on Usenet but the stark difference is that publishing on the Amazon.com site does not only help out others

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[27] Created in 1995, a software language called Java offered building blocks for the design of software, which made it easier for programmers to author web services that would equally work on Unix, PC, and Mac operating systems.

who read the review (just like that post on a Usenet newsgroup may benefit a fellow user of the network) but that the contribution also creates value for those who own Amazon.com. Jeff Bezos, the Amazon.com founder does not hold back about his entrepreneurial ambitions, which he described as an attempt at a "regret-minimization framework" to "fend off late-in-life regret for not staking a claim in the Internet gold rush". With the Internet now open for business, with its backbone privatized, a well-known entrepreneurial euphoria broke out. Many critics felt that a whole sale of the Internet was under way.

At the same time, Justin Hall, a twenty-two-year-old student at Swarthmore College started a diary that he put on the Web.[28] Dutch Internet critic Geert Lovink, for example, called this "the age of the engineer-entrepreneur as hero" (Lovink 236). Lovink writes, "hegemonic Californian cyber culture is turning the Internet into a medium without qualities," (237). For him, the starting commercialization of the Net signalled the closing down of the American Internet; the doors were shut and the keys handed over to the kings of infotainment-- Disney, AOL, CNN, and MCI. According to various critics, the Net went to commercial hell in the late 1990s. They feared that this was the end of the wild experimentation of the early days of web page culture when html code frequently "broke" and created quirky design. The website of Adaweb is an example of such experimental attitude. Behind a playful, experimental interface it "exhibited" the artwork of web-based artists alongside texts and interviews.

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[28] The blog, *Justin's Links from the Underground*, was one of the earlier weblogs, became a place for his public writing practice and a repository of links to websites that Justin considered cool.
His chronicled his exploration of "sexuality as a dark sacred place" and put on-campus privacy issues to test. However, it would take ten years for blogging to become a massively popular medium.
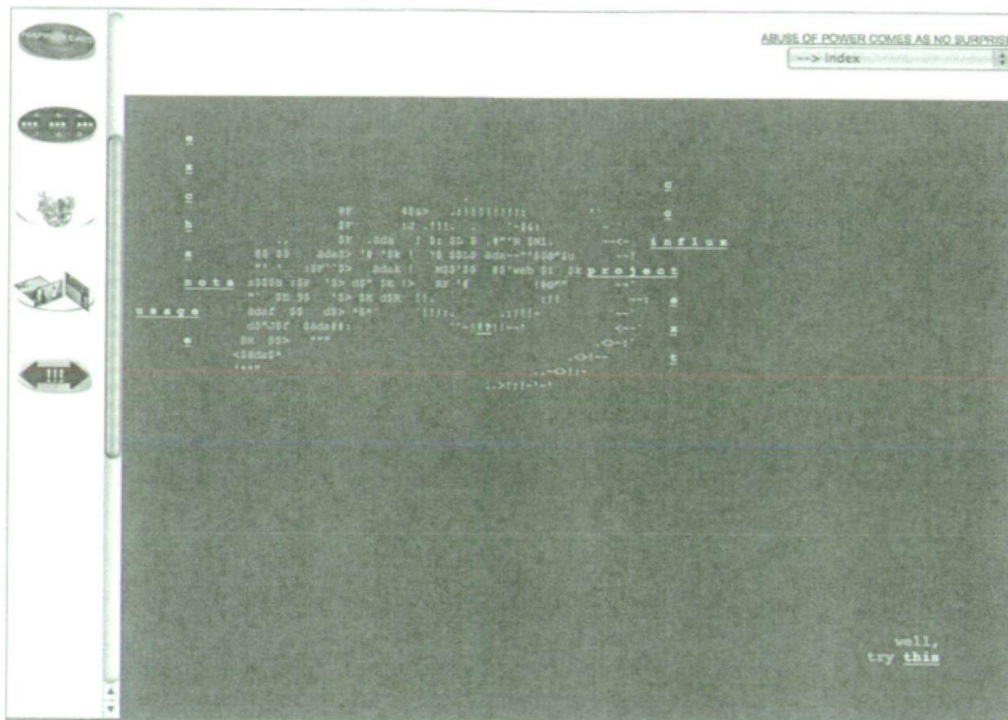
Adaweb website http://adaweb.walkerart.o 1

As the creators of webpages had to individually design their pages, there was much idiosyncratic difference. Then, sites were all hand coded and funky, frequently broken, and pumped up with blinking visual elements. Lovink writes:

> Innovation shifted from the development of standards and protocols toward business plans and marketing skills. Forget content, attitude, or identity. ... The electronic gold rush lacks both ethics and aesthetics. (236)

Tim Berners-Lee also cautioned users:

> Buying books from Amazon.com and stocks from E-trade is not all there is to the Web. Neither is the Web some idealized space where we must remove our shoes, eat only fallen fruit, and eschew commercialization.
> (Lee 2)

Amazon.com's Jeff Bezos became Time Magazine's Man of the Year and commercial sites like ECrush established themselves as precursors to social networking services like Friendster, Myspace, and Evite. Bloggers like the German Stefan Niggemeier and Justin Hall experimented with this new kind of online writing practice. Niggemeier describes his own motivation for blogging as an insatiable hunger for attention (33).

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In 1998, the social networking service Sulekha started with the goal to connect Indians worldwide and the Chinese Minister for the Information Industry committed himself to blocking websites, which he considered "trash" (Fries). "Free" web hosting services such as Geocities traded a bit of space on their server for the placement of banner ads. Countless personal homepages popped up and online diary sites like OpenDiary and LiveJournal. The beauty of wieldy do-it-yourself web design was threatened by extinction through customizable templates provided by blogware services like LiveJournal. The artist Natalie Bookchin authored a history of Internet Art, which started in 1994 and culminated in 2000.[29] The Internet did not get trapped in a commercial cul-de-sac but purported demise of the American Internet merely signalled a shift. In the late 1990s the activities of net tinkerers and activists did not make the headlines anymore. There was much less attention given to these kinds of playful practices and social experiments by geeks, squatters, hackers, artists, and activists. Now business hype was the new official discourse. Creativity, the quirky design, the aesthetics, content, identity, and attitude moved to commercial platforms like DeviantArt. Creativity did not die; it was consolidated on platforms.

Jan 25, 1999

Feb 06, 2007

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[29] "A story of net art (open source)." *Internet Archive: Wayback Machine*. Sept. 1999. Web. 11 July 2009.
<http://web.archive.org/web/20071218132402/http://muse.calarts.edu/~line/history.html>.

The commercial value of people who group in small clusters around "social objects" such as books was quickly recognized by the likes of Jeff Bezos. Networked publics want to be free but the market expropriates them everywhere. The tension between "information wants to be free" and "information wants to be expensive" that Stewart Brand emphasized, was still key.[30]

This shift to mass participation started to happen already in the early 2000s when some net commentators argued that play and wild experimentation on the Internet had dried up. They linked that to the privatization of the Internet that started in the mid-90s. While rumours of the demise of creativity on the Net were exaggerated, web design did indeed become more standardized and people moved in large numbers to commercial environments like DeviantArt.[31] The representation of the Web in the mainstream media had changed: instead of web page culture, it started to champion the commercialization of the Web and the beginning of a new networked folk culture.

However, how do these tradeoffs play out when you suddenly deal with, not thirty but two hundred million participants who play, and add texts, photos, and videos? What if the gain is not just cultural capital but rather millions of dollars in revenue?

4.4. From BBS and Usenet to Java, Blogs, Podcasting, and the Global Use of Cellphones

The Internet expanded in ways that were unexpected to its creators. The project ARPANET may have failed were it not for the scientists and military personnel who used it for network mail. Newsgroups that discussed the television show *The*

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[30] In 1984 at the Hacker's Conference, Stewart Brand announced that:
"Information Wants To Be Free. Information also wants to be expensive. That tension will not go away."
Clarke, Roger. "Information Wants to Be Free." *Roger Clarke's Home-Page*. 15 Mar. 2009. Web. 14 July 2009 <http://www.rogerclarke.com/II/IWtbF.html>.
[31] One milestone in the direction of was the introduction of blog publishing services like Blogger, which offered only a limited set of design templates from which users can pick in the process of setting up a weblog. What looks like interaction is in fact customization.

Simpsons and others who were fighting over netiquette (how long should a message be, for example) kept Usenet running.[32] After initial constrictions, it did of course help growth when ARPANET was handed from the military to the National Science Foundation. In that moment it became easier for other countries to link their existing networks to it because military secrecy was not at risk anymore. The more foreign networks were linked up with the embryonic Internet, the more pronounced became the lack of infrastructure in poor countries that could not afford such infrastructure and were consequently left outside of the "networked inner circle". For Usenet, until the early 1990s, the influx of newcomers could be attributed to new universities who joined the network. BBS blossomed mainly because commercial Internet access with services like email was not readily available to all people. BBSs made especially local email and message board exchanges possible. BBS expanded as an alternative to the elitist ARPANET. To this day, BBS and Usenet are in places worldwide that do not have Internet access.

For the Internet to grow, one of the main issues was the standardization of its network protocol. When TCP/IP became the one protocol for ARPANET in 1983 that was a significant step in that direction. It was, however, a wide range of technical and also economic preconditions that had to be in place in order for the Net to expand. Personal computers needed to become cheaper and smaller and the computer mouse needed to be invented. From then on, it depended on media literacy, the skills of users to manoeuvre the Net. The next step was getting momentum behind one way of communicating via the Internet. FTP, Gopher, and the World Wide Web competed to be that system, which needed to make it easy for non-techies to use it.

First Gopher, in many ways similar to the Web, seemed to become that system. But then the people behind Gopher made the big tactical error of charging for its use, which the key reason for its demise. At the same CERN declared that the Web would

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[32] The Alt.fan.warlord focused on "flaming" people who did not follow initial Usenet rules for the length of messages.

be free, which worked heavily in its favour. Even users without technical background, however, still found the Web too clunky, not intuitive enough as an interface to the Web and Tim Berners-Lee's browser The NeXT hypermedia browser and editor was a good example of this lack of user friendliness. This changed with the launch of the Mosaic browser that was broadly accepted and skyrocketed the use of the Web. More than twenty years after the first four nodes of ARPANET were linked up, Mosaic marked the next turning point for sociality on the Internet. It established the World Wide Web and facilitated a sudden growth of networked social life that was never matched since then. While ARPANET grew in unexpected ways, the Web without any military rules or restrictive research guidelines was even more anarchic and driven by the idiosyncratic interests of users. All of this growth happened in the cultural context in which experiments with collective action and audience participation blossomed (already since the 1960s), which I detailed in an earlier chapter.

This expansion called up the attention of entrepreneurs. Businesses like WAIS, Amazon.com, Pizza Hut, and eBay became the main commercial protagonists of the mid-1990s. The programming language Java, available in 1995, made it easier for developers to design web services and billions of investment dollars went into the creation of web technologies. Speculation turned into an economic speculation bubble. Financial speculation is characteristic for economic bubbles. In the 1630s, the price for Dutch tulip bulbs increased to unprecedented heights. In Amsterdam an entire house was sold for three tulip bulbs, for example. The speculation bubble became known as Tulip Mania. The South Sea Bubble of 1720 was an economic bubble that occurred through speculation in the stock of The South Sea Company, which had been granted a monopoly to trade with South America. Such bubbles are not new. The dotcom bubble channelled a lot of money and media attention into the emerging digital economy, which propelled the Net forward.

The third milestone of growth of networked social life was associated with the maturing of a broad range of technologies (Java, wikis, blogs, podcasting) starting in

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2004.

Millions of people developed daily expressive routines; they are sharing and documenting their lives; they established rituals of use of social networking services, email, micro-blogging, and referral sites. These rituals become deeply engrained in the life of Internet users. In the past, the possibilities for sharing quotidian expressive acts were limited to the sharing of photos with friends and family on rare occasions. The opportunity for constant sharing with a virtually unlimited group of people did not exist.

Worldwide Internet access is far from being a reality but in economic developing countries, specifically India, Russia, Japan, Brazil, and China, it is mobile phones rather than networked desktop computers that provide access to the Net. Over 3 billion mobile phones are currently in use globally. In post-industrial countries, mobile phones even take over the role traditionally occupied by home computers. The trajectory from ARPANET, BBS, and Usenet to the Internet, World Wide Web and now the access to the Net through mobile devices makes it clear that this globally unified network of networks has become an imperative. It becomes harder and harder to ignore. Consequently, I argue that to make the most meaningful use of it, we need a literacy of participation, a media literacy that accounts for new social media.

Chapter 5. MOTIVATIONS

So far, I have reflected on the earliest beginnings and exponential growth of the Internet, the World Wide Web, and mobile telephony. I have emphasized especially such early abuses (early examples of the expropriation of interactivity labour) because I propose that such cautionary examples are important, particularly in a U.S. American context where techno-positivist narratives frequently get the upper hand in media studies departments, the creative industries, mainstream magazines like *Wired,* and at events like The Webby Awards.[33] In this chapter, however, I will explain various motives behind the desire to use new social media, starting with political activism.

Networked public life reached another high point in 2006/2007, making the first five years of awe in the early 1990s a distant memory. Wikipedia reported two million articles in English alone.[34] Facebook had one hundred million users and Myspace claimed to have double that many members with a profile. The tools for information production and communication, while privately owned, were now in the hands of more than one billion people worldwide who were connected to each other. A majority of Americans says that they "could not go" for a few days without the Internet. According to the Canadian Broadcasting Company, one in five Americans say they are having less sex so that they can spend more time online. In 2006 Antone Gonsalves reported that almost half of all Americans had accessed one of the top ten social networking services. Of all time spent by all U.S. Internet users on a single website, almost twelve percent was spent on MySpace. What is the attraction? Spam, surveillance, and the commoditization of our attention are hardly reasons to flock to the computer or cell phone screen.

A plethora of social networking services emerged in part because of web

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[33] Since 1995, large crowds appear in costumes with hired faux-paparazzi making people feel good. They pay to attend these events that accentuate websites under different categories.
[34] Conversely to common market rhetoric that enjoys the idea of sudden upward trends in sociality or web growth more generally, the number of Wikipedia articles expanded steadily without sudden spikes since 2001.

technologies, such as the Java programming language, made it substantially cheaper and faster to launch a robust web service. The founder of the social bookmarking site Delicious, for example, ran the site for the first three years out of his living room.[35] In *Here Comes Everybody*, author, business consultant, and educator Clay Shirky writes that technology has become technically boring but socially more interesting. User interfaces have become more inviting for non-technical people. It takes just a have a few seconds from typing the URL of a website to "participation readiness". In addition, hardware has become less expensive and miniaturized. Static web page culture made way for dynamically generated platforms. Users whose participation was limited to selecting page layouts from a handful of options could now become creators who read, write, subscribe, upload, listen, and moderate.

In his blog essay "The People Formerly Known As The Audience," Jay Rosen encourages us to "think of passengers on your ship who got a boat of their own. The writing readers. The viewers who picked up a camera. The formerly atomized listeners who with modest effort can connect with each other and gain the to speak – to the world, as it were" (Rosen). The fortieth anniversary of the Internet symbolizes the fusion of communication and computing at a quantitatively new level of participation.

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[35] People are inundated with information but sites like Delicious make it easier to sort through references and refer others to them.

PETboogaloo.com Put your Pet on the Net
(social networking for pet aficionados)

NHL CONNECT BETA
(social networking site of the National Hockey League)

Platialthepeople'satlas
(social search)

StyleFeeder
(social networking and referral grouped around fashion)

Real Mental Health .com
(social networking site about mental health and wellness)

SisterWoman celebrating girlfriendships*
(feminist social networking site celebrating friendships among women)

ShareWeddings
(social networking focused on weddings)

TheFamilyLog.com
(social networking and referral for the entire family)

TakingITGlobal Inspire Inform Involve
2006
(activist, youth social networking)

Finding a social networking site that matches your interests has never been easier; their topics have included a wide range from faith, soccer, farming, mental health, forestry, baking, and pets to games and self-help. NHLConnect let followers of the National Hockey League join up. Mobango allowed you to network with online friends on your cell phone. BringSome asked people who were going places to hook up with those who may want them to bring something from that city. Twitter allowed users to send very short "updates" to friends via cell phones or Twitter's website. BibleLounge.com started to offer a Christian alternative to MySpace. DWC wanted to link up professional women with a feminist sensibility. And also, also, Internet audiences/authors diversified: out of the 1.1 billion Internet users worldwide, 70 million live in India alone (Press). The growth of the Web was not an all-American process.

broadcaster™ turn it on
(media sharing, video)

LA ZONA!
(Latino social networking site)

MOG
(referral and social networking around music)

BibleLounge
(The MySpace for Christians)

AIM Pages

edmunds **CARSPACE**
(free social networking, cars)

claimID
(online identity)

Campusbug
(social networking, online education, e-commerce)

DWC Downtown Women's Club
(social networking for professional women, feminist)

ChristianVibes.com Beta
a place for christian friends
(Christian social networking site)

travel with **gusto!**
(referral site about travel)

JOGA
(social networking for soccer players)

Famoodle
(social networking, media sharing, family-focused)

listography, your life
(sharing of all kinds of lists with friends)

myNetSpot.org
(blogging, media sharing)

MOBANGO MOBILE POWER
(mobile social networking)

2006

Of course, there have been negative consequences. Worldwide, countless millions have never browsed the Web. Internet access, sufficient bandwidth and proper equipment are often taken for granted especially in post-industrial societies. The ability to read, write, and author in a digital environment, knowing how to remember the URL of a web site: these are all preconditions for online participation as Professor Mark Warschauer states in *Technologies and Social Inclusion* (Warschauer 220). Time is another essential resource. Few people will be able to frequently blog and work three jobs at the same time. Just reading the daily digest of a mailing list and a collection of aggregated blog posts takes time. Staying abreast of "online events" can become yet another unwelcome duty. In addition, despite the fact that non-English content is surpassing English-language content, significant resources are still exclusively available in the lingua franca of the Web. Lacking an understanding of semantic subtleties, non-native English speakers have been hesitant to write blog posts in English out of fear to make grammatical errors and therefore appear uneducated. Online machine-translation services like Yahoo's Babel Fish or GoogleTranslate undergo constant improvements but are, unfortunately, light years away from providing accurate translations.

Why do people spend all these hours, giving up other pleasures? I start with the broader societal developments. The archetypal 21st-century citizen, the commuter moves through transitory places, glaring at visually imposing commercial displays that are commanded by commerce. In 1995, the French anthropologist Marc Augé argued in his book *Non-Places: Introduction to an Anthropology of Supermodernity* that from airports, and highways, to hotel rooms, and super markets, we pass through nothing but non-places. He described these non-places as transitory places devoid of any significance as places. In the United States, large proportions of the population from coast to coast --from Massachusetts to Florida, and California to Arizona-- are living in one-family-houses in the suburbs. The density of the population is low, racial segregation is not uncommon. Frequently, parents have to drive their children many miles solely to encounter another child to play with. People have to leave their house to seek out social interaction. I am aware that there has been some success in reversing urban sprawl in cities like Portland, Seattle, Los Angeles, and New York over the past twenty years. However, slowdowns in the spread of suburbs and commuter towns have not been affected widely. The pains of rush hour have become a major part of the American life-style. The American job market frequently forces employees to relocate. Those displacements have made it difficult to sustain social connections with friends, extended family, neighbours, and former colleagues. In 1992, the urbanist, writer, and activist Jane Jacobs published her book *The Death and Life of Great American Cities* in which she argued that the errors of urban planning of the 1950s had caused tremendous social isolation and a loss of a sense of place. In his book *The Great Good Place*, published in 1999, sociologist Ray Oldenburg argued that "third places" were either taken over by corporate interests in the United States or disappeared for other reasons. Oldenburg pleads for pubs, bars, bookstores, beer gardens, hair salons, taverns, cafés, parks, and other hangouts as "third places," which he argues are essential for civic engagement, civil society, and a feeling of sense of place. Traditionally, these were the places where people went after work, before they would go home. For Oldenburg, "first places" are those where we spend time with family and "second

places" are workplaces. Importantly, "third places" are easily accessible from home. Offering inexpensive food and drink, they are frequently in walking distance. They significantly contribute to the creation of interaction in local communities.

In recent years, more and more people use "third places" to work. Enabled by wireless networks and the many technologies of mobility, people work in cafés like Starbucks, transforming the traditional conception of the café as a place of community and interaction into one of solitary work. In these "homes away from home" they are consuming the Internet, just as their time, energy, and focus is being consumed by it. They work amidst people without *being* with them. In addition, because of a work-first culture, even if genuine "third places" would still be available; most people would not have the time to enjoy them.[36] Parents try to keep their children "off the streets" and a manufactured culture of fear heightens over-protectiveness. Oldenburg describes that teenagers have few places that offer them affordable entertainment, hangouts. Even going to the movies may require a drive of several hours. "Going out" has become prohibitively expensive, which also negatively affects dating, Oldenburg argues. Ray Oldenburg illustrates the exiling of youth from public life. Youth has "no place to go, nothing to do," he argues. The only options in such socially isolating conditions, as Oldenburg suggests, are to graduate from the "kindergarten of consumerism, the televised children's commercial" to the "university of suburban materialism, the shopping mall" (282).

In this environment of social isolation and a lack of belonging, email, video chat, social networking, and voice over telephony can help to re-establish and maintain relationships with family, friends, and classmates. Friendships among people who see each other regularly in person can in fact be strengthened through social media. They become the temporary and by all means unfulfilling remedy for social problems of urban sprawl and the resulting commuter culture, the naturalized

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[36] In her book *The Overworked American: The Unexpected Decline of Leisure*, published in 1993, Juliet B. Schor analyzes the shifting balance between leisure and work with an emphasis on the American worker.

mobility of the American worker, and the long-lamented takeover of the public sphere by corporate interests. Suburban isolation, the loss of the good "third place," and car culture made life in much of the United States inconvenient. As Oldenburg points out: it is inconvenient to live in a place where you can't reach anything without getting into a car. It is inconvenient if your spouse works in another city, hours away. New social media offer a partial solution to the disappearance of "third places". You can play chess or Scrabble on Facebook. On Flickr, you can click through and comment on the latest photos by your friends. On Amazon, Digg, Yelp, and countless other sites, you can advise your friends and others on books and services. You can start a book-reading club on Facebook or casually chat with others. American author Nicholas Carr argues that much of this social activity has now moved online and that includes contributions to Wikipedia. These online activities have become "simply a new form of the pastimes or charitable work that people have always engaged in outside of their jobs" (Carr 139).

Frequently, newspaper articles war us of the rise of "social addicts," "Blackberry widows," and "zombified game and blog addicts". Newspaper headlines like "Should Internet Addiction Be Treated As Mental Illness?" highlight addiction to networked technologies, which are also blamed for hours of wasted time each day. These criticisms developed from sound observations but it is equally important to consider the benefits. Of course, this opens up the perennial discussion about the inherent character of technology. Is good or is it bad for you? Technology does not have innate use value: what it will be, is determined by the way we use it. However, that question exceeds the scope of this chapter and is peripheral to my argument. Social media are not the essential root of social isolation but they have helped to overcome it. It is too easy to blame the very technologies that "patch up" larger social problems for causing them.

In 1994, just as Jeff Bezos decided that he did not want to miss out on the money that could be made in the Internet gold rush, the mailing list <nettime> was created for decisively different reasons. The idea of "virtual community" was not new. Since

1985, San Francisco-based The Well was known as one of the earliest online communities with some its most active users being deadheads, fans of The Grateful Dead. Using the PicoSpan Conferencing System, The Well allowed for fast exchanges and asynchronous conferences with up to one hundred simultaneous users, Howard Rheingold writes. Created roughly ten years later, the <Nettime> mailing list had a more European stance toward net cultures; as its website puts it, the mailing list was "an effort to formulate an international, networked discourse that neither promotes a dominant euphoria (to sell products) nor continues the cynical pessimism". For frequent list contributor Brian Holmes, <nettime> is an electric grandchild of mail art and, during the late 1990s, was one of the most important vectors of Internet Art. According to Holmes, <nettime> was a forum where artists, theorists, media activists, and programmers would propose an "immanent critique" of the Internet using its very infrastructure. *Commercial use of texts posted on the list was prohibited.* Holmes writes that the aim for many contributors to these "extra disciplinary investigations" was change: in the discipline of art (considered too formalist and too narcissistic to leave its own charmed circle); in the discipline of cultural critique (considered too academic and historicist to confront the present); and change in leftist activism itself, which was considered too doctrinaire, too ideological to live up to the current moment. As he described to me in a personal email exchange, Brian Holmes describes his stake in <nettime>.

<Nettime> is a proving ground for ideas and experimentalism, a sounding box that just does not resonate but talks back and howls, Holmes wrote and he continued, "that is how I became a writer and to this very day, there is nothing I find more interesting than a spontaneous debate about complex issues, which as it turns out you can also have electronically with 4,000 people, paragraph by paragraph with anywhere from a two-minute to a twelve-hour delay in between." (Scholz Interview) I am sure that Holmes is not alone with his fascination with ad hoc public writing with built-in readership close to that of the first edition of a university press. <Nettime> demonstrated that "ideas lie less in the minds of individuals but in the interactions of communities" as Fred Turner already noted in reference to the 1960s (Turner VII).

5.1. Activists Take to The Net

An estimated 30 million people in dozens of cities worldwide simultaneously showed their defiance of the war in Iraq on February 15, 2003. The international resistance did not stop the war; the first American bombs were dropped on Baghdad on March 19, with the invasion to follow a day later. Nevertheless, this well-organized protest demonstrated the Internet's power to mobilize citizens, if not necessarily to sway governments. Motivated by political discontent, the Internet served as a tool for ad hoc organizing of protests.

http://www.flickr.com/photos/e-liz/42492 1

In 1999, during the rainy month of November in Seattle, activists got together to block the city streets and make their disapproval of the WTO (World Trade Organization) public. They asserted that the WTO was merely an instrument of multinational corporations that harm small, economically developing countries. The vested interests of the owners of mainstream newspapers and TV stations, however, were at odds with their requests and moved to counter them, as they had done to countless activists before them: by distorting their message through systematic neglect and bias. In the past, commercial journalists had grossly underreported the number of people attending their demonstrations, for example. More broadly

speaking, "they shape public perceptions and debate; [and] tend to program toward the inane and soothing, rather than toward that which will be politically engaging" (Benkler 200). Activists knew that their protests would barely make it into the mainstream news and that even if the media would cover them, the reasons for their protest would be misrepresented. For yet another time they would be portrayed as anarchists.

Professor Dorothy Kidd refers to the work of Indymedia as an "end-run around the information gatekeepers" with the goal of producing autonomous media (Kidd 47-69). Despite the dominance of commercial mass media (the Berlusconi Effect) the demands for a democratic globalization process voiced by the discontent in Seattle would not go unnoticed.[37] Indymedia would allow anyone to publicize their often passionate news stories (from text and photo to streaming video) on their website. Everybody could become a citizen journalist and "check the claims of others and produce their own, and ... be heard by others, both those who are like-minded and opponents" (130). The software that powered the site was originally Mir, a Java-based free software.

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[37] Yochai Benkler coined the term "Berlusconi Effect" to describe dominance of traditional mass media. Italy's president Silvio Berlusconi's controls 90% of the Italian national media.

Today, over two hundred Indymedia centres worldwide also use Drupal, Plone, and Activismo for their website management. The goal of Indymedia was to provide an alternative to mass media and to information provided exclusively by the government. Just a few months after Indymedia kicked off, the South Korea citizen media site OhMyNews debuted with a sizeable cadre of citizen reporters and some staff writers. The fact that citizens contribute news stories to sites like Indymedia or OhMyNews does not make mass the media sources obsolete by any stretch of the imagination. It does, however, challenge their dominance as the sole voices that shape public opinion.

Already in 2007 the blog search engine Technorati tracked over 100 million weblogs, which gives testament to the passion that people have for self-expression. Many bloggers enjoy processing their day-to-day experiences, voicing their concerns, venting their anger and frustrations, and celebrating the disappointments and pleasures of their lives. Our previously personal affairs converge in the public arena of the Internet. The audience for public diaries is often exclusively family and friends, which is the reason that taken out of context, much of it has little meaning and can even be seriously misunderstood. In the previous chapter about growth I argued that the value of phenomena like blogging is related to the very large number of bloggers who experience themselves not merely as lurkers but as speakers. They are no longer merely citizens whose only participatory gesture is the quadrennial act of voting. Now, they "go through [their] practical life, observing the social environment through new eyes—the eyes of someone who could actually inject a thought, a criticism, or a concern into the public debate" (Benkler 11). The Internet has become public; much of what was previously private is now public.

This experience of a regular public writing practice matters more than the writerly quality, depth, or political allegiance of what they jot down as it may indeed simply encourage more active engagement with the world at large. In that sense blogging becomes a political project. Similarly, millions of people started taking photos on a

daily basis. They upload them to platforms that allow public photo and video sharing. These social practices are not limited to the desktop anymore. Mobile technologies allow us to connect with nearly anybody, anywhere. The link to online social life does not get broken when we are leaving our desks.

5.2. New Social Media in Serbia (1999) and Iraq (2003)

In 1999, during "the first Internet war," we could read emotional outbursts on blogs and mailing lists that described bombing raids, minutes after they had happened. Describing their bombing offensive as "humanitarian intervention" NATO attacked Serbia, when it looked like genocide of Kosovar Albanians by Serbian troops was immanent. At that time Slobodan Milosevic started to crack down on dissenting voices. He forced the independent radio station B92 off the air but they continued broadcasting from an undisclosed location. In May 2000 government troops seized all that equipment. Milosevic's troops overlooked the Internet broadcasting capabilities of B92, which allowed them to continue their broadcast online, making voices from the street heard.

2002. Meetup 2,000,000 users (07)
2003: prominence through Howard Dean
2005: requires organizers to pay for local groups
leading to a drastic drop in local groups

In 2002, Scott Heiferman launched a website that would allow people to go online to meet them offline. This site, Meetup.com was inspired by political scientist Robert D. Putnam's bestseller *Bowling Alone: The Collapse and Revival of American Community*, in which the author describes the decline of social capital in post-World-War-2-United States. Putnam described a decline of civic participation, church-going, union membership, altruism, voting, running for office, and informal connections. With Meetup.com Heiferman aimed to revitalize local communities.[38] Meetup became instrumental in Howard Dean's presidential campaign that gathered some 140,000 supporters on the site and used it to organize volunteers who go door-to-door, write personal letters to likely voters, host meetings, and distribute flyers.

In 2003 several anonymous bloggers started to report from inside embattled Iraq. Under the name Riverbend, a young woman wrote about the political changes and the impact of the war on her family. On his blog "Where is Raed?" (later collected in *The Clandestine Diary of an Ordinary Iraqi*) 29-year old architect started writing under the pseudonym Salam Pax. Both blogs were written in English and gave a human face to the Iraqi perspective on the US invasion of that country. Salam Pax discussed the music of Massive Attack and Bjork, the lead-up to the war, the invasion of Iraq, and the months afterward. On March 27, 2003 he wrote:

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[38] In 2005 Meetup.com started to require organizers to pay for local groups and while this led to a drastic drop in local groups, the site has still 2 million members at the time of writing this.

3.35pm (Day 8)
The whole morning was spent cleaning up the mess created by the sand-rain-sand-again storm. Of course it was done to the beat of the bombardment. It has become the soundtrack of our lives. You wake up to the sound of bombardment; you brush your teeth to the rhythm of the anti-aircraft rat-tat-tats. Then there is the attack, which is timed exactly with your lunchtime.
(Salam Pax 137)

With a good sense of humour, he kept on blogging, enraging and electrifying many in the West who read and commented on his site.

Compared to newspapers, bloggers have fewer dependencies that keep them from speaking truth to power. I am speaking specifically about the freedom from dependence that newspapers have on advertising revenue. The reporting of the lead-up to the war in Iraq in 2003 showed stark differences between what was published in *The New York Times* and what was covered throughout the blogosphere. Dependence on ad revenues and political riskiness have been suggested as powerful reasons why *The New York Times* reported Colin Powell's February 2003 speech in front of the United Nation without much serious questioning. Bloggers, however, did not hold back. Compared to the NYT, their collective coverage of the misrepresentations and lies produced by the Bush Administration leading up to the war, and particularly this key speech, was far more inquisitive, accurate, and critical about the administration's false claim about the existence of "mobile weapons laboratories," for example. According to the CIA's website, these alleged mobile labs became one of the main rationales for the invasion of Iraq. Even though the erroneous representation of the Iraqi threat was not revealed by any single blog, the forcefulness of the combined voices of bloggers –the blogosphere-- eventually caused a change of course in the reporting also of commercial mass media sources. The destabilizing voices of bloggers in Malaysia or the United Arab Emirates challenge the rulers in these countries. Previously, these governments controlled the mass media, which allowed them control over what their citizens knew and believed but blogs complicate such repression. The Chinese Ministry for the Information Industry, which "protects" network providers with

international Net connection. As Manuel Fries has documented the ministry is also dedicated to censorship. According to its minister, it blocks websites, which are considered "trash". Such attempts to censor the Internet do not completely work; perfect control over what citizens access or iterate online is literally impossible.

5.3. My Survey

Curious about people's motivations to participate in online cultures, I conducted a survey in the fall of 2007. 297 people responded to my online survey.[39] Benefits that the surveyed described included the collaboration with co-workers, keeping in touch with old friends and family, promoting exhibitions, and "escaping from stress or avoiding work." In the survey most people claimed that they were motivated to use the Web in order to access information. This was closely followed by the desire to find entertainment and have fun wit the content of others. Also relaxation, the desire to make new friends, and group belonging were stated motivating factors. It was not surprising to see that access to information featured prominently as one of the main reasons for participation, followed closely by entertainment, fun with the content of others, and the joy of creation. It was quite surprising to me to find that people who took the survey did not find that emotional support or "getting dates" were valid reasons for their social participation. One explanation may be that sites like Facebook do play a role in getting to know people you may have met, it is not exclusively these social media that are then "credited" for the date.

It was equally interesting to realize that experimentation with their own identity did also not at all feature as reason for their participation. (*See graphs and illustrations in the appendix).[40] Play with one's own identity used to feature as one of the key

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[39] 297 people responded to my online survey request on the website SurveyMonkey. I solicited participation in the survey on Facebook groups, and through LinkedIn. The finishing rate was 80.8%. The size of this group was large enough to be able to use the results to speak of a trend.
56.3% (143) of respondents were male and 42.55 female 42.5% (108).1.2 % (3) stated their gender as "other." The largest number of contributors to this survey was 29 years old (16 users) but all ages from 15- over 60 years old were represented.
[40] I can access information -- very important 50.5% (106)
I find entertainment -- important 50.5% (104)
I can have fun with the content of others -- important 38.8% (81)

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elements of Internet culture in the 1990s when the *New Yorker* cartoon "On the Internet, Nobody Knows You're a Dog" became emblematic of that period of time. Today, it is much harder to cover one's digital tracks. Most people used Facebook, MySpace, and Friendster.

read (92.4%)
browse -- photos (82.1%)
watch -- video (74.5%)
comment (67.7%)
friend (59.7%)
share (58.6%)
write -- blog entries (58.2%)
subscribe (56.3%)
bookmark (47.5%)
link (46.8%)
tag (46.0%)
listen -- music (45.3%)
collaborate (40.3%)
forward (33.1%)
favorite (25.9%)
poke (25.5%)
moderate (13.7%)
remix (9.5%)

Survey Trebor Scholz 2007

In the survey users described their most frequent activities on the Social Web
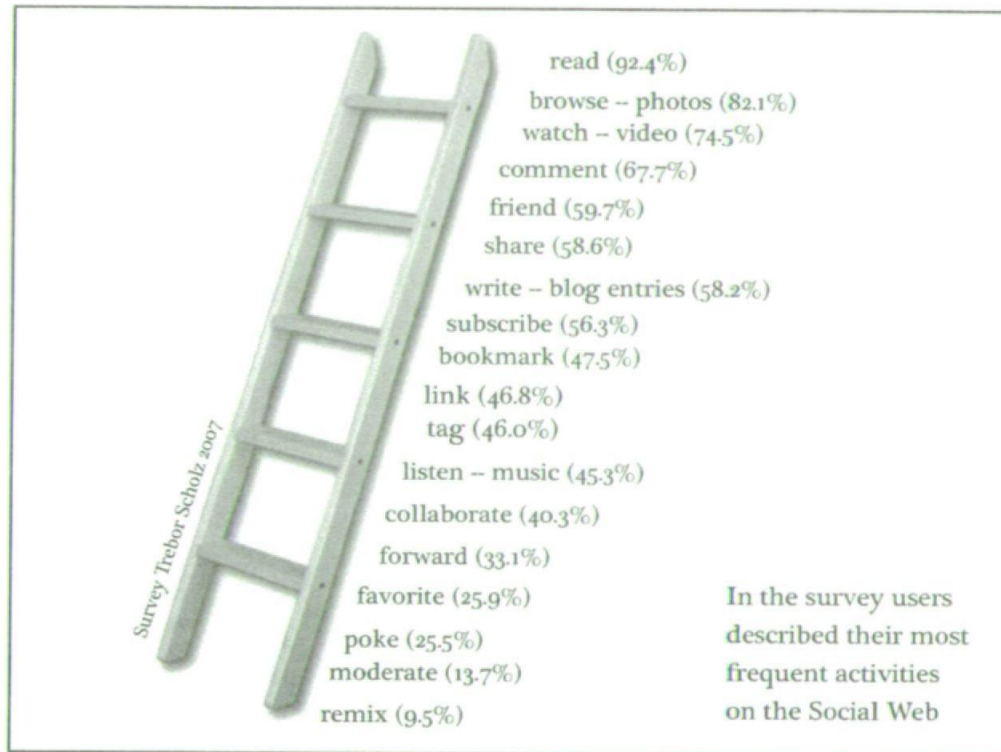
I can have the joy of creating things -- important 37.5% (78)
It allows me to hang out with my friends-- important 32.9% (68)
It helps me to archive my memories (photos, video, texts) -- important 31.4% (65)
Getting dates-- not important 83.1% (172)
Finding emotional support -- not important 55.0% (115)
I can experiment with my identity-- not important 49.8% (104)
It helps me in getting jobs -- not important 45.0% (94)

Survey Scholz 07

access to information

possibility to find entertainment

have fun with the content of others

hang out with friends

archive memories (videos, photos, texts)

relaxation

finding new friends

group belonging

Most participants in the survey said that establishing a reputation, finding emotional support, getting dates, and getting jobs, and experimenting with identity were not important to them in their use of the Social Web.

5.4. What Attracts People Initially to a Mainstream Social Networking Service?

Worldwide, we witness the odd phenomenon that countries are dominated by one social networking service. One service wins and is set to be the default. You may know that Facebook solidly dominates Canada in terms of social networking services.[41] Why are not there several social networking services of equal size in one country? Orkut controls Brazil and India. What motivates people initially to join one particular service rather than any other?

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[41] It is, of course, hard to limit the reach of a social networking service to just one country. Brazilians and Indians will have some friends in Canada as well. They may join them on Orkut.

Bebo, Friendster, Orkut, and hi5 have also strong international presence.

Orkut dominates India and Brazil also because exit costs are high, making it hard for people to migrate. Fotolog dominates Argentina and Chile.

Drake Bennett of the *Boston Globe* argued that luck has a lot to do with who gets those millions of users.

> When you take a closer look at the companies they study, the accomplishments of the vast majority are just as likely to be due to simple luck. It's the equivalent of finding someone who flipped a coin seven times and happened to end up with seven heads and asking for her secret.
>   (Bennett)[42]

If there are two new restaurants on the same street and both are empty, it really matters; the argument goes, to which restaurant the first costumer goes. Once people see that there is already somebody in that restaurant, this is where they will go. It feels better and people want to be where other people are; they want to "hang out" with their friends and they will only be able to easily re-connect with long lost friends if everybody is concentrated in one place. If there are few services available very early on, users will go to the one that has the best interface and functionality. However, it is not pure corporate genius that led to the success à la Facebook, Taotao, or Digu, sure. It takes more than luck to bring in boats that are not steered.

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[42] Bennett, Drake. "Luck Inc. The 7 secrets of really, really lucky companies." *Boston Globe.* 12 Apr. 2009. Web. 11 July 2009.
<http://www.boston.com/bostonglobe/ideas/articles/2009/04/12/luck_inc/>.

In Hong Kong it was pop stars like Joey Yung who initially attracted many Chinese users to join Twitter.[43]

2004. Owned by Google. Popular in Brazil, India, Greenland. 67,962,551 users (07). Open (Google login)

http://tinyurl.com/29pcm8

http://tinyurl.com/2l2gbq
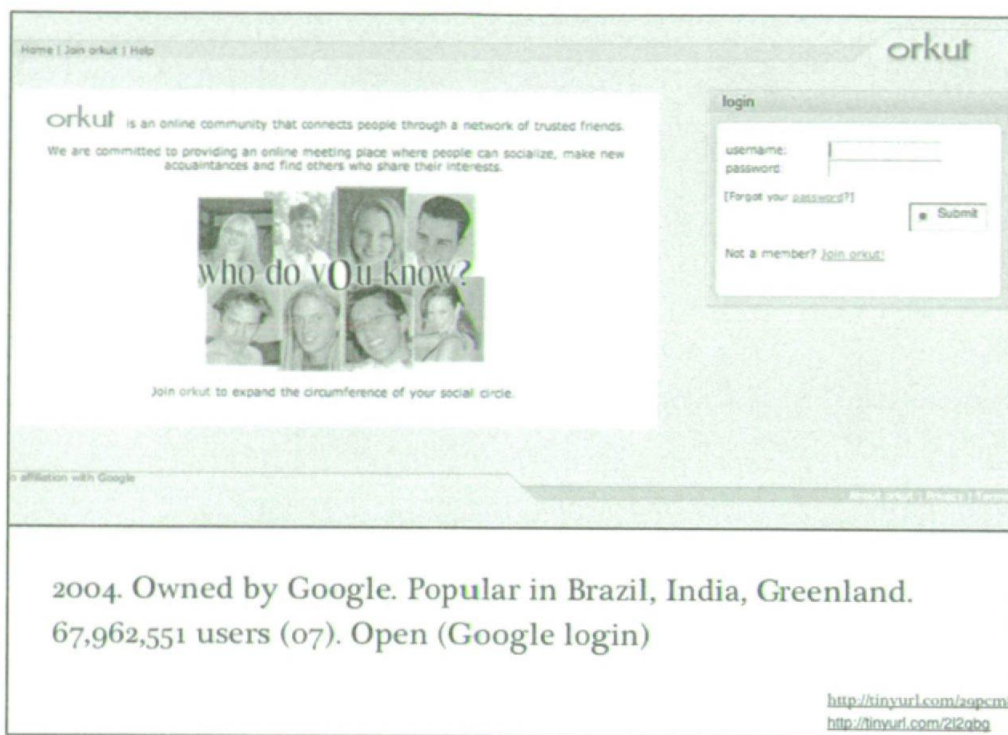
Orkut was around in Brazil relatively early and today it is the most visited site in the country.[44] Ease of participation, lack of advertising and the colours of the interface may also play a role in the success.[45] Brazilians also enjoy knowing who visited their profile and they like their racy profile pictures. Some people suggest that it is references to soccer that made Orkut so successful. The colour scheme of Orkut's interface is similar to that of the Brazilian World Cup team.[46] Other commentators refute this claim, listing reasons such as the fact that the word Orkut can be easily pronounced in Portuguese.[47]

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[43] You can learn more about Joey Yung on her Wikipedia page. Her Twitter account is *jy6*.

[44] "Orkut - Member Demographics." *Orkut.* 7 Sept. 2008. Web. 14 July 2009. <http://www.orkut.com/Main#MembersAll.aspx>.
Denton, Nick. "The World Map of Social Networks." *Gawker.* 28 June 2007. Web. 14 July 2009. <http://valleywag.gawker.com/tech/data-junkie/the-world-map-of-social-networks-273201.php>.

[45] Gordon, M., Hunter, B. Dobing, and Zahir Sajjad. "Ross-Cultural Dimensions of Internet Portals." *Internet Research* (2002): 210-20. Print.

[46] Baker, Loren. "Why Brazil Loves Orkut!" *Search Engine Journal.* 9 Mar. 2006. Web. 14 July 2009. <http://www.searchenginejournal.com/why-brazil-loves-orkut/3082/>.

[47] Baker, Loren "Why Brazil Loves Orkut!" *Search Engine Journal.* March 9 2006. Web. March 4 2008. <http://www.searchenginejournal.com/why-brazil-loves-orkut/3082/>.

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5.5. Conclusion

People use the social utilities of the Internet in various, nuanced ways and while there is overwhelming evidence for the vast engagement of millions online, there Is not a single reason that can be credited as motivating factor for this social participation.

There are many incentives. Some are more on the level of practical usefulness and others are more socio-psychological. People with Internet access can join discursive groups, which allow them to grow as authors. They can learn collectively, and form opinions, which they can then make public. Mailing lists like <nettime> facilitated ad hoc debates around activist and cultural trends. The Internet presence of the B92 radio station in Belgrade allowed activists critical of the Milosevic regime, to continue their broadcast even after repeated raids. Using MySpace, students organized a demonstration in LA. Despite the fact that Indymedia's importance as prime outlet for citizen media has faded over the past few years, it made the 1999 WTO protests broadly visible and covered countless events that numerous audiences would have never known about otherwise.

The Internet helped to coordinate some tens of millions of protesters worldwide who gathered in cities all over the world on February 15, 2003 to show their defiance of the then-imminent war in Iraq. These protests did not stop the war but they put their rejection of the action of their governments forecably on public record. Bloggers like Salam Pax or Riverbend did not just point out the inaccuracies and errors of foreign reporters, they gave the war in Iraq an emotional presence in the everyday life of Americans who followed their daily entries. Bloggers who covered Colin Powell's speech in front of the United Nations were better able to unearth and publicize the lies of the Bush administration than the mainstream press.

The examples that I offered here do not capture entirely the motivations of those bloggers, activists, and politicians. Nonetheless, these events confirm that blogs,

social networking services, Internet radio and cell phones have a tangible effect on mainstream news coverage and politics. They can activate citizens and change how they feel about their chances to have a positive impact on the society they live in; and *that* is a very strong motivation to participate. Those who doubt this could compare the however clumsy opportunities that the Net offers to the actual and existing prospects that exist otherwise.

Of course, beyond political engagement there is a multiplicity of other reasons that drive people. Social networking services can become a place were we regain important connections to friends, family, and colleagues, for example. Reputations are made and updates about activities are easily spread among friends. *The New York Times*' foreign correspondent in Asia, Nicholas D. Kristof, for example set up a Facebook fan page, which makes it easier to follow his consequential work. Consequently, Kristof expands his reputation from the readers of the New York Times, who are older to a more mixed-age audience on Facebook.
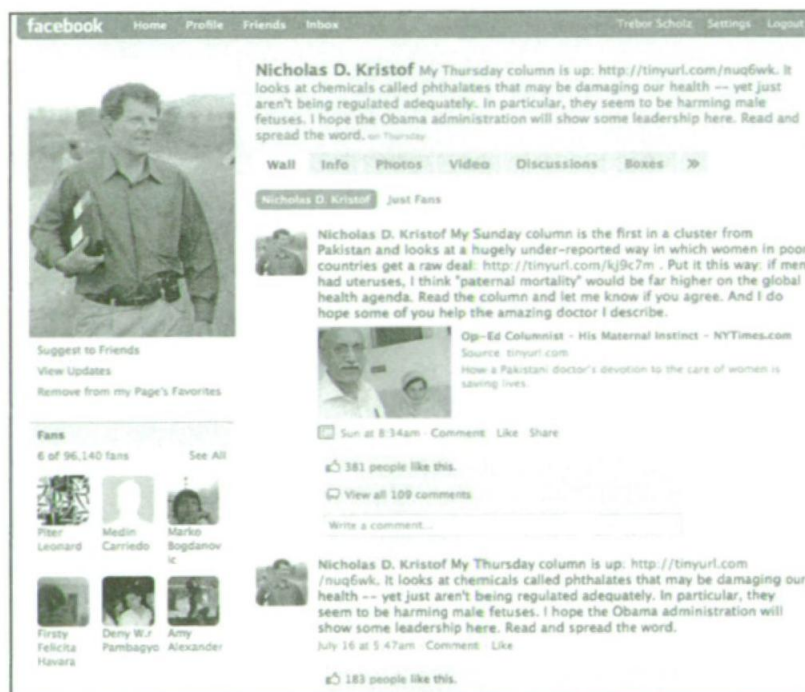
Self-education has become easier and more collaborative through forums, mailing lists, chat, and microblogs like Twitter, free encyclopaedias, and video tutorials. We are reading, "The Daily Me, My Friends, and Some Folks I Respect" and "the

connections among people help guide what the group learns and knows".[48] The chance to learn and be informed is a motivating factor. Knowledge is in between us. We teach each other how to do things (e.g. fix our sink, or bike or where to find reasonably priced insurance for a motorcycle). We edit each other. We are sharing news reports. It helps us filter through the mess of information with which we are inundated on a daily basis.

Amazon.com's Associate Program allows book sellers and individuals alike, to offer used books for sale through their website. Users can make a living, which of course a strong motivator. At the time of writing this more than 742,000 people earn money through Amazon.com's used book "associate" program. On sites like Etsy.com people can sell handmade things and make some money with that. I discuss Amazon.com's program more in detail at a later point.

Entertainment is a strong motivator. Music on MySpace is an opportunity for artists to gain an audience. Many of them create "mashups", a musical genre of songs that consist entirely of parts of other songs. DJ Danger Mouse's mashup, for example, combined the Beatles' *White Album* with Jay-Z's *Black Album* resulting in his *Grey Album*.[49] Google's Adsense program allows individuals to turn the traffic on their websites into extra money.[50] Furthermore, Facebook and Google allow third-party programmers to build their own applications using the wealth of data in the gargantuan databases of these companies. This is yet another way for individuals to earn some money. For the savvy user eBay has also been a place to make money by trading products.

Today's new social media tools allow authors to distribute their writing not only on blogs but also in book form. Working around the institutional hierarchies, budgetary

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[48] Scholz, Trebor. Interview with David Weinberger, July 2007. Web. 2 Oct. 2008.
[49] A massive lawsuit over copyright infringement ensued.
[50] They paste the code for Google's ad program on their website (e.g., a high-traffic blog) and Google generates text ads, which reflect the topical orientation of the text on the site. A blog where questions about parenting are discussed will generate ads for toys and baby clothes etc.

concerns, and friend networks of publishing houses, web-based self-publishing services like Lulu.com allow hundreds of thousands of authors to publish and sell their books, be it novels or non-fiction.

All the cases that I discussed in this chapter are merely the tip of the iceberg. Cell phone activism in the Philippines, activist work using GoogleMaps or Twitter, Wikipedia, Sourceforge, and YouTube: for each case, the motivations for their use – from sharing to communication, self-expression and collaboration-- get more complex. New social media become essential for professional life in the media industries. Beyond that, they matter for political engagement and personal growth. According to Nicholas Carr, the author of *The Big Switch*, refusal to participate is futile: "In a society governed by economic trade-offs, the technological imperative is precisely that: an imperative. Personal choice has little to with it" (23).

Chapter 6. EXPECTATIONS AND SOCIAL NORMS

The rules for networked public life have been dramatically re-conceived since the first messages were swapped on a computer at MIT in 1965. Interactions on Usenet, ARPANET, BBSs, and eventually the Internet and World Wide Web came to be and expanded because of specific narratives that paved the way for them.[51]

In this chapter, I am tracing some of these initial narratives, technologies, and social experiments. They moulded relationships of volunteerism that were later used by corporations as templates for business relationships of a new order. These included norms and expectations that were established during the non-commercial phase of the Internet including collective ownership, altruistic sharing, and unpaid volunteering. Users related to non-profit online communities in much the same way that they later related to profit-driven communities. Willingly, thousands of people have volunteered for large companies. I will unearth a few of these formative examples that set precedents for what online social life could be like and which rules should guide it.

I will begin with the *Request for Comments* format that initiated a model of collaborative authoring and feedback. Members who logged onto ARPANET's MsgGroup, one of the first mailing lists, required restraint if they were to resist getting pulled into "flaming wars". One MsgGroup participant wrote:

> All of us are still learning about the ways in which people
> communicate over these marvellous mail systems and about the
> kinds of discussions that can and cannot be made to work
> over computer based mail networks.[52]

The list's administrator was regularly confronted with questions of what was permissible for online discussions. MsgGroup was list about the question what works on a list. Comparable issues surfaced on Usenet. In 1987 Lucas Film's online

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[51] Patrick Flichy uses Michel de Certau to make this point.
[52] Hauben, Ronda. "Identifying Principles for Internet Governance Studying the Early Days of MsgGroup Mailing List." *Columbia University in the City of New York.* 1998. Web. 14 July 2009. <http://www.columbia.edu/~rh120/other/poster.txt>.

role-playing game *Habitat* became the first attempt to charge money for informational exchanges among a group in a virtual world. People were willing to pay a price for online social life. Seven years later, inspired by the Cleveland Free-Net, Digitale Stad was launched as a social online experiment in Amsterdam. After its initial grant-supported phase, Digitale Stad (DGS) turned commercial: access was still free for users who did, however, feel abused because their contributions were turned into surplus value for the owners of the platform. At the same time a Florida-based law firm, Canter & Siegel, debuted networked spam on Usenet. They sent thousands of messages offering legal assistance for those who would like to enter the so-called Greencard Lottery. The negative responses were massive. Today, spam is an everyday nuisance that we have to endure–a price we pay for being online-- that only emotionally registers with few people.

Martha Siegel and Laurence Canter

http://www.l-ware.com/MandL.jpg 1

In the early nineties, thousands of people worked as unpaid volunteers for companies like AOL. Some simply thought of it as a continuation of their hobbies and altruistic activities they had performed in their local communities. I argue that relationships like the ones people had in pre-Internet volunteer groups, and early "virtual communities" like Cleveland Free-Net, The Well, and Digitale Stad formed some of the initial assumptions about the relationships that users engaged with when they volunteered for AOL, Netscape, and in different ways for eBay, Amazon.com and also Skype.[53] Entrepreneurs used these norms and expectations to make a profit but some eventually faced lawsuits when volunteers woke up to the fact that the value of their work was expropriated. Today users of social media

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[53] Offering voice over telephony, Skype taped into the bandwidth of the computers of their users. For the duration of the call, the extra bandwidth of the caller's computer is utilized to enable the calls of other people who are logged on to the system.

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platforms are used in intricate and seamless ways and especially young users who have never experienced the kind of community that is not utilized are *encultured* into this type of relationship.[54]

Much happened from 1997-1999. The technology-related news website Slashdot was founded, kuro5hin had its debut, blogware like Blogger.com emerged, and formats for collaborative authoring like PeanutButterWiki[55] became popular

PBwiki
The official forum for PeanutButterWiki

☐ FAQ   ☐ Search   ☐ Memberlist   ☐ Usergroups   ☐ Register
☐ Profile   ☐ Log in to check your private messages   ☐ Log in

In the early non-commercial phase of the Net, the relationships that people had to online groups were largely about free giving and no one person benefited substantially more than others. These practices did not completely disappear when the Net was opened for business. In fact, these social practices continued through non-profit collaborative projects like Wikipedia, Clickworkers, SETI@Home, Distributed Proofreaders, Project Gutenberg, and Slashdot. The free encyclopaedia Wikipedia, developed rules for how thousands of collaborators could meaningfully produce articles together. This encyclopaedia also drew considerable criticism about the financial value and alleged erosion of quality of such multi-user-generated content.[56] These projects are part of the landscape of the Web but they do not dominate it. The vast majority of the Internet is dominated by commercial spaces where core emotional relationships merge with promotional themes. (Jenkins 70-72). Nick Carr comments that "by the end of 1995, half of all sites bore .com addresses, and by mid-1996 commercial sites represented nearly 70 percent of the total. Three decades after the 'Summer of Love,' young people began flocking to San

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[54] Wikipedia defines enculturation as "the process whereby an individual learns the accepted norms and value emphasis of an established culture through repetition."

[55] Three Stanford University graduates launched PbWiki (PeanutButterWiki) that would make setting up a wiki as easy as making peanut butter sandwich. They advertise their site as "free" but banner ads appear on the generated wiki pages.

[56] For a discussion of the "wisdom of the crowd" see
Scholz, Trebor. "Wisdom of the Crowd vs. Collective Intelligence." *Slideshare.* Mar. 2009. Web. 11 July 2009. <http://www.slideshare.net/trebor/the-wisdom-or-ineptitude-of-the-crowd-week5-social-media3>.

Francisco once again, but they didn't come to listen to free verse or drop acid. They came to make a killing" (110). This was certainly not what Tim Berners-Lee had intended. He insisted that "company fortunes and organizational triumphs do not matter to our future as Web users nearly as much as socio-technical issues that could make or break the Web". Berners-Lee is a vociferous advocate of the Web as a universal information space that could empower everybody.

In 1999, the peer-based music file sharing service Napster was set up. Two years later more than 26 million people shared vast amounts of copyrighted music. At the same time users broke through the glass ceiling of what companies were willing to negotiate. They would not tolerate the profit loss that file sharing represented. The Napster case showed that there was a limit to what the U.S. music industry and their legal arm, the RIAA (Recording Industry Association of America) were willing to negotiate. However, the aftermath of Napster (as we know it) clearly demonstrated that peer sharing practices could ultimately not be stopped. Millions of users now *expected* music to be free. File-sharing applications like Limewire blossomed and Piratebay became a popular and surely contested index of BitTorrent files of software, music, movies, games, and ebooks.

6.1. From MsgGroup to Project Gutenberg

In 1965, professor José Corbató and his colleagues at MIT developed a program that allowed individuals to swap messages on one single computer. In chapters 1 and 2, I traced the development of ARPANET and to an extent USENET. In 1975 ARPANET started one of the first mailing lists, which was called MsgGroup. I reflected on the rules that MsgGroup established in the chapter about ARPANET. Given that the technology for such networked discussions was now available, users had to establish norms and guidelines --a netiquette-- to employ them meaningfully. And that was the beginning for the establishment of such rules for networked social life.

In 1969, a group working for ARPANET proposed their ideas about packet switching techniques under the humble title Request for Comments (Hauben 106). This so-

called Network Working Group consisted of Ph.D. students (Steve Crocker, Steve Carr, and Jeff Rulifson). They did not feel entitled to big claims and that was reflected in the subject heading of their document and its informal style (including the first RFC that Steve Crocker of UCLA typed up). Later, RFCs were distributed via the research network itself. These documents did not just make statements; they left some questions unanswered, which was untypical in the field. This approach of soliciting collective input was uncommon at the time but became characteristic for collaborative work online and RFCs became a standard for discursive exchanges among Internet researchers, especially engineers. As *The Cathedral and the Bazaar* points out, the idea that the more people edit a document or comment on it, the fewer mistakes it will ultimately contain, is at the heart of the encyclopaedia Wikipedia.[57]

The nascent Internet was not just as a place for researchers like Steve Crocker. Already in 1971 (!) the American author Michael Hart founded Project Gutenberg (PG), a digital library built on the efforts of volunteers who would help him digitize books that are in the public domain, archive, and distribute cultural works free of charge. He used a Xerox Sigma V computer that took up the core of the 2nd floor of the Materials Research Lab at the University of Illinois. Hart was motivated by the limitations of physical libraries and the desire to have a universal online library that would make every single text ever written freely accessible. In an interview with Hart that I conducted in 2008, he explains:

> Actually, that's not as impossible as it might sound. I have moved from kilobytes to megabytes to gigabytes and now have terabytes, and cheap ones, at that. By 2020 we will be talking about petabyte drives in the manner we talk about terabyte drives now. Just one of those drives will hold every word written in the whole world. You can already put all of the PG eBooks on a plain 32-gigabyte USB flash drive and wear it around your neck, or on your keychain, etc.[58] (Interview Trebor Scholz with Michael Hart)

Volunteers digitize the books using Optical Character Recognition (OCR) and then

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[57] Raymond, Eric S. "Release Early, Release Often." *The Cathedral and the Bazaar.* Aug. 2000. Web. 11 July 2009. <http://catb.org/esr/writings/cathedral-bazaar/cathedral-bazaar/ar01s04.html>.
[58] Scholz, Trebor. Interview with Michael Hart. Sept 12, 2008.

proofread it; further proofreads are then done by unpaid editors on the Distributed Proofreading website. Today, with 25,000 books, Project Gutenberg is the largest collection of free electronic books on the Internet. Initiatives like Project Gutenberg use(d) volunteer labour for the common good. Michael Hart manages the volunteer work force, but does not directly benefit beyond, perhaps the social capital associated with PG.

Twenty years later, America Online (AOL) used volunteers as moderators of chat rooms, forums, and bulletin boards. The work that these groups perform is a result of the relationship between hobbyists and ever-changing communication technologies. In "Emerging Sources of Labour on the Internet: The Case of America Online Volunteers" sociologist Hector Postigo described how disillusioned volunteers have sued AOL when they realized that their community was turned into commodity:

> In 1999, a group of ex-volunteers filed a class-action lawsuit against AOL under the Fair Labour Standards Act, most had been released from service for allegedly criticizing the CLO. When asked to list reasons why they were willing to work such long hours for so long and only now chose to file a grievance, they invariably recounted stories of community and of feeling good about their volunteer work. [...] (Postigo 214)

Professor Postigo refers to the volunteers who felt good about the work and the "AOL community". The company, however, treated the volunteers like real employees with shift schedules and training. Postigo quotes an AOL manager:

> The mantra that came down from on high was, 'Keep them [volunteers] out of the newspapers, out of the courtrooms, and get as much out of them as you can'.

Altruistic relationships with Project Gutenberg, Cleveland Free-Net, The Well, or Digitale Stad were re-conceived as work for commercial entities. The mentioned examples did not, of course, form the expectations of all those millions of Internet users who give their work away for free today. However, they were emblematic of the altruistic volunteer work that people performed on Free-Nets, BBSs, ARPANET, and Usenet newsgroups. Moderating a chat room or forum for AOL, however, was

drastically different from organizing "a conference" on The Well. In the latter case nobody became wealthy from the work that volunteers contributed. Compared to the example of AOL from the early 1990s, today we are amidst the "massification" of participation, which amplifies this relationship significantly. Experiments with commercial schemes unfolded over the next decade.

6.2. Lucas Film's Habitat and the Commoditization of Community

In 1987, for example, George Lucas' film production company launched an online role-playing game: LucasFilm's *Habitat* was created for the Commodore 64 computer and became technologically influential even as it was a pilot for the commoditization of community. *Habitat* presented its users with a real-time animated view into a two-dimensional online world in which users can communicate, play games, go on adventures, fall in love, get married, get divorced, start a businesses, wage wars, protest against them, and experiment with self-government (Morningstar 273-302). What sounds like an early incarnation of the virtual world Second Life was the first attempt to make money with the online interactions of a large group of people. In "The Lessons of Lucasfilm's *Habitat*," Chip Morningstar and F. Randall Farmer, the creators of *Habitat*, responded to criticisms about the fairly inane and trivial nature of conversations in the game. Morningstar and Farmer understood that users were not seeking just deeply thoughtful or sublime activities. They realized that they could make money from perfectly casual, informal interactions. Simply spending time with others in a virtual environment was an activity that individuals were willing to pay for. Networks like BITNET had shown that institutions at least, were willing to pay for access to a network, but would individuals be motivated enough to pay cash for informal interactions in a virtual world? The answer was yes. On today's social platforms like MySpace or Orkut, interactions with contacts are definitely not subject to deep reflection at all times. Like on Habitat, they are more often, ad hoc expressions of subjectivities.
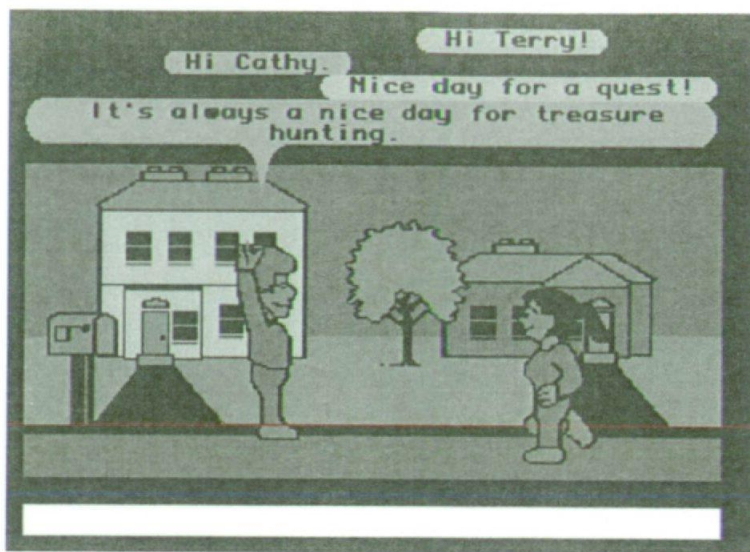
In 1994 Ward Cunningham created a web page that allowed anyone to contribute and modify its content and named "wiki" after a sign on the express bus to the Honolulu airport that displayed a sign saying "wikiwiki" (fast, fast). Cunningham had just written a hypermedia software program using a pre-WWW application called HyperCard and he tried to make it work over a network. He explained the breakthrough in a personal exchange with me: "Finally with the [the emergence of the] Web I could do it". As he knew what he wanted the program to feel, it took him only a few days to code and implement it online.
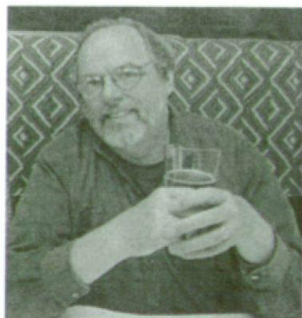
Wiki Wiki bus at the Honolulu
International Airport
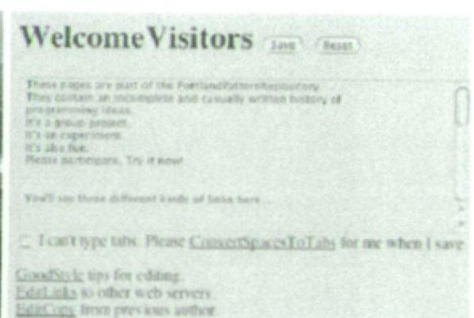
1996

RFCs contributed to the culture of online collaboration and Cunningham's wiki format technically made the collective modification of content easier.

Now, people expected to be able to, very easily author a text collaboratively and they expected that to be free.

A variation of the engagement of a volunteering audience was Internet Art. In the mid-90s, Internet art was very low-tech, conceptual, and quirky. Artists played with this new context, creating works that could not exist without the Net. Through the contributions of others, artists would garner social capital. *King's Cross Call-In*, created by the British artist Heath Bunting, was one such example. On his website (http://irational.org) Bunting published a list of phone numbers of telephone booths surrounding the train station King's Cross in London and asked visitors of his site to call these numbers at 6pm on Friday, August 5th, 1994. In the same year, Douglas Davis asked his online audience to contribute to a sentence he had already begun (*The World's First Collaborative Sentence.*)[59] Audience involvement is of course not a new occurrence in art at all but in 1994 the technical preconditions were ready for this to happen on the Internet.
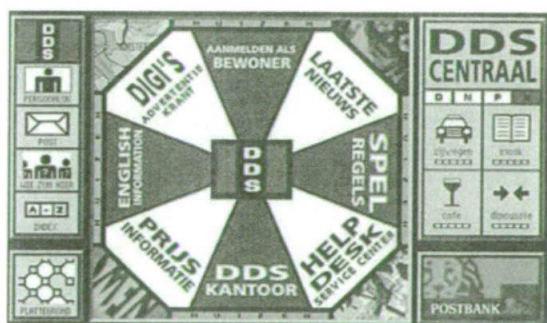
6.3. From Idealistic Volunteers to Unpaid Interns: Digitale Stad

In January 1994 in Amsterdam (Netherlands) the artist Marleen Sticker co-founded Digitale Stad (DGS) as an "electronic town hall" that used the metaphor of the city to structure its online presence. Just like on The Cleveland Free-net there were cafés, galleries, kiosks, and more. Hosting as much information as possible, this social experiment was meant to represent the city of Amsterdam and make information from local government accessible to citizens who could learn about local politicians and discuss policies. Newsgroups debated urban planning, crime, drugs, and art in Amsterdam (Rustema). Digitale Stad did not, however, simply give power to institutions that had a lot of real life influence already. Instead, the project aimed to equally represent resource-poor organizations such as those supporting artists,

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[59] Paul, Christiane. "Whitney Artport: Collection." *Whitney ARTPORT.* 7 June 2002. Web. 14 July 2009. <http://artport.whitney.org/collection/index.shtml>.

immigrants, refugees, and children. For those without Net access, the founders set up computer terminals in museums, libraries, and cafes throughout Amsterdam. In 1995, with the cultural funding for the project running out, Digitale Stad became a commercial service provider. The city of Amsterdam started to pay to get content listed.[60] In the following years, user-initiated experimentation became restricted to adding home pages and DGS became a place where "home decorating and gardening were far more popular than voluntary community work for public spaces" (Rustema). Once the project had been commercialized, user participation waned and the owners of DGS now instituted "editors" whose job it was to draw material into the project. The numbers of members continued to grow but the sense of community was lost. Volunteers, who had invested much work into the project, suddenly realized that they were turned into unpaid interns. As the owners did not charge DGS users, they wondered why they would care who owned it. "You do not own a library and you are using it," they argued with users (Rustema). But that was not what users had signed up for initially; they contributed to DGS because it was a cultural project that would benefit people in the city of Amsterdam. They would not have taken part if it had been a commercial venture. DGS' turn from grant-supported art project to commercial venture did not work socially. User expectations collided with the reality that the project could not run on grants any longer.

6.4. Napster Cultivated Expectations: Why Pay If You Can Get It For Free?

In 1998, two Northeastern University students, the 18-year old Shawn Fenning and Sean Parker, wrote a free program that would search the hard drive of other networked computer users for MP3 files. The program, called Napster, then allowed users to download these files from their peers. By February 2001, a user community of 80 million people had developed worldwide, with 1.6 million using it at any given time (Green 799-819). In January 2001 alone, 2 billion files were exchanged through Napster. There were probably ver few pieces of music that were digitized that were not available through the program. It was the first online experience of something

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[60] Reinder Rustema describes that Marleen Sticker who had seen DGS as an art project withdrew from active involvement in 1995.

like a free store, not unlike the Diggers envisioned in 1968. You typed in the name of an artist or song and simply downloaded the music. "Napster had turned millions of otherwise law-abiding citizens into digital shop lifters, setting of the greatest, or at least the broadest, orgy of looting in history" (Carr 20). The Recording Industry Association of America (RIAA) sued Napster in December of the same year, led by the heavy metal band Metallica that was outraged about the free distribution of their song *I Disappear* prior to its release.
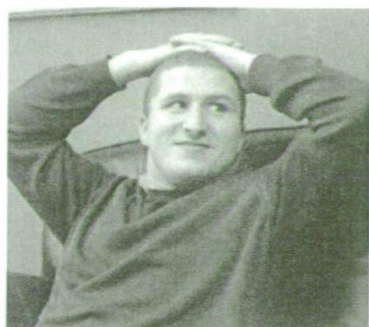
Napster demonstrated the power of file sharing systems but more importantly, it established expectations about peer file sharing, and not only for college students. There is a difference between paying $20 for a music CD and downloading it for free and the Napster case made this clear. The millions of shared files pushed the music industry to a point at which they did not see negotiation with users as an option any longer. Napster's central server was located in the United States, in easy reach of copyright law enforcement officials. While Napster was successful beyond belief, the "czars" of copyright quickly intervened. They did have the power to kill off Napster (its commercial follower did not take off), but they could not stop file sharing. "Millions of students returned to their dorm rooms that fall," writes Professor Tim Wu, "looking for new ways to satisfy their file sharing fix. The race to succeed Napster was on" (108).

Napster provided a structure and principle of exchange that music enthusiasts grew accustomed to. Napster users had the feeling that they could find any piece of music that was ever digitized within minutes and they made all of their own music

available. Why pay if you can get it for free? Once this expectation is established, it is very hard to reverse it. To this day many youngsters who experienced Napster have no inclination to pay for music. After Napster stopped to operate, several other file-sharing programs including Kazaa and Gnutella allowed users to continue sharing music and media files. Building on the success of Napster, Kazaa became the most downloaded program in the history of software: 319 million downloads by early 2004 (Oakes). However, in a desperate effort to make profit, Kazaa started to include malicious code that tracks the Internet browsing behaviour of users in order to offer user-specific advertisement. Later, the creators of Kazaa would found the voiceover telephony program Skype.

A small, AOL-owned company started Gnutella, which technically differed from Napster in that it did not have a centralized server. By using a protocol with which users exchange files without a "middleman," they did not make the program vulnerable to legal closure. Once Gnutella is installed on the machine of the user, they cannot be stopped from sharing files short of confiscating all computers that use the program, which would not be feasible.

Shortly after the release of Gnutella (the marriage of GNU and the hazelnut-based chocolaty spread Nutella) and an announcement on Slashdot, thousands of people downloaded the program. The source code was supposed to be published under a General Public License a day later. However, due to legal concerns AOL shut down all work on Gnutella on the spot. Nevertheless, the program was already in circulation. Free and open source clones appeared online shortly thereafter.

File sharing was there to stay. Once 80 million people had experienced free music, the ubiquity of file sharing could not be curbed. Since the programmer Bram Cohen first implemented his peer-to-peer file sharing protocol BitTorrent in 2001, this file sharing protocol commands at least a third of all web traffic (Cohen's estimates

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exceed this estimate).[61] Two years later, the Swedish anti-copyright organization

Piratbyrån (Piracy Bureau) launched The Pirate Bay, which now serves as one of the

largest reference sites of ".torrent" files. The site itself does not host any illegal files

but it does link visitors to unlicensed, copyrighted material, an act that does not

violate Swedish Law. Emboldened by this, Pirate Bay engaged in several exchanges

with lawyers representing Microsoft, Apple, Dreamworks, and others for

accusations of copyright infringement. The Piratebay's founders have posted their

response to a letter from the American media company Dreamworks on their

website.

> As you may or may not be aware, Sweden is not a state in the United States of
> America. Sweden is a country in northern Europe ... no Swedish law is being
> violated. It is the opinion of us and our lawyers that you are morons, and that
> you should please go and ... [followed by references to anal sex with inanimate
> objects]. [62]

In May 2006, the MPAA (Motion Picture Association of America) pressured the

Swedish government to crack down on Pirate Bay and after a raid by the Swedish

police the site was shut down. This attracted much media attention and when the

site went online again after only a few days, the number of visitors had doubled and

their logo now showed a pirate ship firing cannon balls at a Hollywood sign. The

documentary Steal This Film[63] documented this story of Pirate Bay. The site is still in

operation, now hosted at an undisclosed location, presumably outside of Sweden.

6.5. The Hybrid Economy: Idealistic Volunteering, Shifting Privacy
Expectations, File Sharing, and the Expropriation of Networked Publics

What users expect online has changed since the first four nodes of ARPANET were

linked up in 1969. What seemed like an odious invasion of their privacy in the

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[61] With BitTorrent, download time for a given file speeds up with its popularity. The more popular a file is (the more people are downloading it) the faster the download becomes as BitTorrent uses the available bandwidth on each user's computer. Today, Cohen claims that BitTorrent takes up 50% of all Internet traffic.

[62] Dreamworks. "Re: Unauthorized Use of DreamWorks SKG Properties." The Pirate Bay. 23 Aug. 2004. Web. 14 July 2009. <http://static.thepiratebay.org/dreamworks_response.txt>.

[63] Steal This Film. Dir. The League of Noble Peers, Aug. 2006. Film.

1970s, would not even register with the vast majority of users today. The mailing list MsgGroup and Usenet newsgroups set the tone for conversations on listservs. They started to establish a "netiquette". The members of early "virtual communities" had the expectation that their work would benefit the group itself and the greater good (without anybody deriving profit from it). The online game Habitat set the stage for turning networked publics into commodities. The expectations, with which users entered into environments like Amazon.com, eBay, and AOL in the early 1990s, reflected the communal values of the first twenty years of the Net, which were largely non-commercial. The Gopher browser illustrated the fact that people may not be willing to stick with an online service, if they start to introduce a fee. Digitale Stad showed that people who join a project with the understanding that it is a non-profit, cultural experiment, might not tolerate its privatization. The extreme case of the AOL volunteers in the 1990s corroborates that volunteers are willing to work long hours without any direct payment in return but it also confirms that some volunteers may seek legal action if they feel used or even exploited. Napster demonstrated the power of file sharing. Legal or not, it established the expectation that music file sharing could be free of charge. The shutdown of the Napster service did not make those expectations vanish; users simply started looking for similar services in other places. Especially, after Mayday 1995 when the National Science Foundation (NSF) decommissioned the hardware backbone of the Internet and handed it over to commercial uses.[64] Consequently many of the idealistic motives of communal sharing practices were appropriated by profit-seekers. This resulted in a hybrid economy where communal sharing practices and commercialized practices coincide, overlap, and are increasingly interwoven.

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[64] The timing of this handover by the NSF was ironic. With the exception of the United States, Mayday (1 May) is celebrated in most countries as Labour Day. On May 1, 1886 the American worker's movement called for a general strike to establish the 8-hour workday and a demonstration took place on Haymarket in Chicago that day, which later led to riots over workers' rights.

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Chapter 7. THE WEB 2.0 IDEOLOGY

> The social *imaginaire* enables a society to construct its identity by expressing
> its expectations for the future.
> (Flichy 208)

Previously, I argued that the early days of networked computing were not merely
about ARPANET but also Usenet, BBS, and BITNET. In this chapter I will address a
different myth. I make the case that the branding of a set of particular technologies
as a new version of the Web severely limits what we can consider possible as our
future: the public imagination.

In preceding chapters I asserted that the relationships between users and their
"virtual hosts" have been naturalized over time. The privacy invasions on MsgGroup
in the 1970s and AOL's blatant abuse of volunteer labour in the early 1990s caused
infuriated responses. Today, such violations would barely register. Besides recent
"click revolutions" of users (e.g., Students Against Facebook Newsfeed or Digg's
"Boston Digital Tea Party") there have been no examples of outrage that was as
significant as the class action lawsuits that volunteers brought forward against AOL.
Today, the desires of users all too neatly align with the desideratum of corporations.
For example, as Comscore.com has reported, young users are more receptive to
advertising on "user-generated websites" than they have been to ads in other media
formats. They do not seem to object to sharing their "friends lists," conversations,
and navigational habits with companies who interpret and commoditize these data.
Today, American youth conceive of their privacy in a very different way. Even the
copious amounts of spam on MySpace do not seem to be reason enough to demand
reform.[65]

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[65] The Italian philosopher Paul Virillio likened information overload to an information bomb that will
hit the twenty first century like "an unutterable technical contamination" (Virilio 39) and with the
same power with which the atomic bomb hit Hiroshima in 1945.

feeds **GTD** **Podcast**

Web Standards

Rich User Expirience

Folksonomies **Blogging**

Web Services Infoware The Long Tail

Tagging **Web 2.0** Life-hacking

RSS Citizen Media Perpetual Beta

API's

Mash-up **Ajax**

ROI

Collective Intelligence

RIA's **peer-to-peer**

Wiki

http://www.flickr.com/photos/treborschol 1

It does not have to be that way. We can envision a future Web that grows out of the most precious needs and desires of all of its occupants. The argument that companies merely provide their customers with what they demand does not acknowledge that these desires are largely produced and shaped by market forces in the first place. Given the fact that when children reach a level today, they have been already exposed to 500,000 ads, it is no wonder they feel empathetic toward certain brands. According to the management research website EmeraldInsight.com, early management theory praised the effective manager who must become a "pioneer on the frontier of human desires and needs" who turns new paths into "peopled highways". The gigantic social utilities of today achieved this without a doubt.

The passion of users did not grow in a vacuum; they grew out of historical relationships that I detailed in previous chapters. We can also trace the market machine that created it. In 1988 the critic Judith Williamson wrote that:

> Passion is not found in things, but in ways of doing things; and the *ways* things are done are another kind of shape, less solid to our touch than products, but equally forms in which passions are consumed. These forms, not merely of objects but of our activities, provide at once our passions' boundaries and their expression: they are a shared language, ... we inhabit

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the same spaces, use the same things, speak in the same words. The same structures are found at every 'level': the property laws that underpin bourgeois capital also govern personal relationships, marriage, sex, parenthood; the deferred gratification of emotional investment mirrors the very forms and strategies of economic investment.

(Williamson 13)

The Web 2.0 Ideology specifically, tried in many ways to define the "forms in which passions are consumed" and by doing so dampened the public's imagining of the Internet's future. In the previous chapter I showed how relational templates, rules and expectations – especially the altruistic ways in which users contributed to online groups—were adapted and turned into vehicles that would generate wealth for only a few *virtual landlords*. In this chapter I will detail the recent branding mania and obsession with newness that the phrase Web 2.0 suggests.

Once a marketing buzzword, Web 2.0 has entered the everyday lexicon not unlike the facial tissue Kleenex. From love to copyright, law, business, and even authorship, the versioning virus (with its implication of obsolescence and improvement) has infected many fields.[66] Everything is worthy to be "2.0" now: from Education, and law to love. To this day, however, the definition of Web 2.0 is vague at best and those who attribute novelty to the technologies associated with it are mistaken. The Web 2.0 hype directed much media attention and financial resources to businesses that managed to profit from the activities of large numbers of web novices.

The Web 2.0 Ideology reaches far beyond a specific technology and is a symptom of more than a cultural obsession with the user-turned-producer. The discourse of Web 2.0 takes place on blogs, the radio, and wikis, at conferences and in traditional print media. It is an ideological instrument to filter which statements are becoming part of the public imagination. From a large number of statements it filters out what is acceptable. Debates about Web 2.0 often have an air of common sense. "We know

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[66] On 11 July 2007, Google searches for several 2.0 phrases returned the following results. Copyright 2.0 (94,900), Business 2.0 (1,930,000), Identity 2.0 (330,000), Library 2.0 (1,150,000), Author 2.0 (76,600), Science 2.0 (349,000), Travel 2.0 (247,000), Law 2.0 (39,700), Office 2.0 (814,000), Research 2.0 (116,000) and Love 2.0 (48,700).

the Web and this is what it is about," seems to be the message of Web 2.0 entrepreneurs. Throughout this short chapter, I will explicate the assumptions and consequences of the Web 2.0 market ideology.

7.1. Background

In 2004, the founder of a large technology publishing house, open-source software proponent and multi–millionaire Tim O'Reilly coined the phrase Web 2.0, together with a colleague. O'Reilly needed a catchy title for an upcoming conference that he organized and later, the event title Web 2.0 was expanded into a concept. The trendy versioning suggested by the "2.0" made it sound like a whole new Web was now available to us.

What Is Web 2.0
Design Patterns and Business Models for the Next Generation of Software

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by Tim O'Reilly
09/30/2005

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The bursting of the dot-com bubble in the fall of 2001 marked a turning point for the web. Many people concluded that the web was overhyped, when in fact bubbles and consequent shakeouts appear to be a common feature of all technological revolutions. Shakeouts typically mark the point at which an ascendant technology is ready to take its place at center stage. The pretenders are given the bum's rush, the real success stories show their strength, and there begins to be an understanding of what separates one from the other.

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- Chinese
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- Spanish

The concept of "Web 2.0" began with a conference brainstorming session between O'Reilly and MediaLive International. Dale Dougherty, web pioneer and O'Reilly VP, noted that far from having "crashed", the web was more important than ever, with exciting new applications and sites popping up with surprising regularity. What's more, the companies that had survived the collapse seemed to have some things in common. Could it be that the dot-com collapse marked some kind of turning point for the web, such that a call to action such as "Web 2.0" might make sense? We agreed that it did, and so the Web 2.0 Conference was born.

In the year and a half since, the term "Web 2.0" has clearly taken hold, with more than 9.5 million citations in Google. But there's still a huge amount of disagreement about just what Web 2.0 means, with some people decrying it as a meaningless marketing buzzword, and others accepting it as the new conventional wisdom.

This article is an attempt to clarify just what we mean by Web 2.0.

In our initial brainstorming, we formulated our sense of Web 2.0 by example:

Web 1.0		Web 2.0
DoubleClick	-->	Google AdSense
Ofoto	-->	Flickr
Akamai	-->	BitTorrent
mp3.com	-->	Napster
Britannica Online	-->	Wikipedia
personal websites	-->	blogging
evite	-->	upcoming.org and EVDB
domain name speculation	-->	search engine optimization
page views	-->	cost per click
screen scraping	-->	web services
publishing	-->	participation
content management systems	-->	wikis
directories (taxonomy)	-->	tagging ("folksonomy")
stickiness	-->	syndication

http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html

Initially, O'Reilly characterized Web 1.0 through a set of static, one–way browser–based applications. He included personal websites and the encyclopaedia Britannica Online, publishing, content management systems, and taxonomies. In his subsequent blog essay "What is Web 2.0," he distinguished Web 2.0 by associating it with the "new participatory architectures of the Web" that allow for online services such as the photo sharing site Flickr, weblogs, the peer–to–peer file sharing

standard BitTorrent, the encyclopaedia Wikipedia, event sites like Upcoming.org, the file-sharing service Napster, wikis (collaborative Web sites that allow for real-time editing), folksonomies (taxonomies that Internet users create themselves), and the aggregation of online content through Web feeds. Given that an increasing and large number of Internet users (inside the US and internationally) now had broadband access, developers started using Ajax, a combination of existing web development technologies that made browsing the Web faster and more seamless.

Over time, the definition of Web 2.0 was transformed considerably. Late in 2007, in another web article, "Today's Web 3.0 Nonsense Blogstorm", O'Reilly wrote:

> Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications & [are] delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an 'architecture of participation,'[67] and deliver rich user experiences.

He was onto something. People want to be where their friends are. The more telephones and fax machines exist, the higher the value of that technology becomes. It is called the "network effect" and it also applies to social networking services. The privately owned social milieus of the Web become online environments where millions spend hours every day, supported by institutional infrastructures like server farms, nodes, and cables.

Don Tapscott, co-author of *Wikinomics,* appreciates Web 2.0. He elegantly describes how to expropriate wealth from the novel turfs of the Net and especially from peer

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[67] A phrase, coined by open source media advocate Tim O'Reilly, used to describe the nature of systems created for user contribution, such as Wikipedia. The phrase has come to define one of the key elements of what's been called Web 2.0. Tim O'Reilly "I've come to use the term "the architecture of participation" to describe the nature of systems that are designed for user contribution. Larry Lessig's book, Code and Other Laws of Cyberspace, which he characterizes as an extended meditation on Mitch Kapor's maxim, "architecture is politics", made the case that we need to pay attention to the architecture of systems if we want to understand their effects".
O'Reilly, Tim. "The Architecture of Participation." *O'Reilly Media.* June 2004. Web. 14 July 2009. <http://www.oreillynet.com/pub/a/oreilly/tim/articles/architecture_of_participation.html>.

production. He makes sense of online participation for the market-minded. Smart firms, for example, can simply harness the creativity and innovation of thousands by using peer production sites. On the contrary, former executive editor of the *Harvard Business Review* Nicholas Carr offers a less consoling view. Where Tapscott locates the possibility for net-enabled friction–free capitalism, Carr sees "businesses [that] are using the masses of Internet gift-givers as a global pool of cut–rate labour" (Carr 142).[68] I will elaborate on that in detail in the next chapters.

Under the umbrella of the concept, Web 2.0 proponents huddled together technologies like Ajax, the Ruby programming language, CSS (Cascading Style Sheets), RSS (Real Simple Syndication), OpenAPIs,[69] wikis, blogs, mashups (digital media works that draw on existing texts or audio), and podcasts (media files that are distributed over the Internet to be played back on mobile devices). Descriptors also include user-friendly interfaces, social networking, and practices like tagging.[70]

Given the history of these technologies and practices, it becomes obvious that the claim for novelty suggested by the phrase is flawed. Tim Berners–Lee is among those who have questioned publicly whether one can use the term in any meaningful way since many of the technological components of Web 2.0 have existed since the early days of the Web (Anderson).

Newness sells conference tickets; it drives up speaker fees and helps the circulation of books that are bought by those who are afraid to miss a hot new trend. I am not suggesting that Mr. O'Reilly runs after well–paying conference gigs. He does not

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[68] Carr, also the author of *The Big Switch: Rewiring the World, from Edison to Google*, sees a move from personally or institutionally owned software to software services delivered over the Web.

[69] OpenAPIs facilitate the interconnection of Web sites. They are the doorways through which people with the right key can pass. FB (Facebook), for example, released its OpenAPI in 2007, which allowed programmers to write applications that use many data about users that reside on FB's server. The API allows pretty much any programmer who can write a software application to draw in data about users.

[70] Tools like Delicious and practices like tagging are modern day responses to information overload and the categorization of knowledge. In facing similar concerns, Vannevar Bush had envisioned the Memex in 1945 as an enlarged supplement to man's memory.

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have to. Already when the nascent World Wide Web took a hold in the United States in the early 1990s, it was important for O'Reilly's publishing house to be associated with emerging technologies. On the upside, Web 2.0 created fresh excitement for the Web; on the downside this enthusiasm was built on false pretences such as a techno-social big bang. As I revealed in earlier chapters, the Web was not "born-again" in 2005 and growth has been incremental and not erratic. (I provided the example of the expansion of English-language articles on Wikipedia).

7.2. Newness

The technologies that O'Reilly groups with Web 2.0 are not new. One of the main misunderstandings is that blogs and social networking suddenly gave people a voice to people in the mid-2000s. Conversely, as David Weinberger notes, "back from the very beginning what drove people onto the Net was not so that they can shop at Amazon. Weblogs and all that have made it way, way easier but the Web has always been about voice and conversation". And before the Web, there was amateur radio, and a plethora of other media.

Inadvertently, ARPANET's network mail became wildly popular. Given the opportunity, people flock together and talk.

Self–publishing on the Web, "User-generated content (UGC)" became easier in 1995 when the book selling website Amazon.com launched and invited users to write reviews and consumer guides. Two years later, in Collective Intelligence, Professor Pierre Lévy analyzed the potential of large collaborative actions and Cascading Style Sheets (CSS) were developed to provide consistent style information for documents on the Web. In recent years CSS has become important because it facilitated the separation of form and content, thereby allowing the same content to be delivered to mobile devices. Social networking services go back to 1994 with sites like Classmates and Lunarstorm. The latter was a place for Swedish, Danish, and British teens. The Indian social networking site Sulekha followed five years later. Blogs at that time were "smorgasbord of links" where people pointed to each other by way of

hyperlinks, which was really useful for novices who would have otherwise spent hours web-drifting. Blogger.com and LiveJournal followed just a couple of years later. O'Reilly's claims to novelty, while presented with authority and the air of common sense were wrong with regard to wikis, self-publishing ("user-generated content"), weblogs, collective intelligence, and also social networking services. Much more recent, collaborative tagging has become a method of collaboratively creating and managing keywords to categorize and annotate content. These user-created taxonomies are referred to as "folksonomies". O'Reilly was correct to refer to "folksonomies" as a new phenomenon.

The language of Web 2.0 is a placeholder for several agendas; it brings together a 1960s–style rebellion with a "business revolution" that mobilizes novelty as marketing ploy. Web 2.0 boxes various discussed phenomena under one roof to launch them as a brand. Activist, organizer, and writer Naomi Klein traces the growing wealth created by multinational corporations to their ability to create brands. She describes it as a war on youthful identities and the closing of the possibility of unmarketed spaces (Klein 3).

7.3. Limiting the Imagination of a Future World Wide Web

The branding of the World Wide Web influences what we imagine the future of the Web to be. In the official Web 2.0 narrative, unmarketed spaces and projects with communal and artistic value are peripheral. Since the handover of the backbone of the Net by the National Science Foundation, commercialization steadily progressed, as Nicholas Carr writes: "By the end of 1995, half of all sites bore .com addresses, and by mid–1996 commercial sites represented nearly 70 percent of the total. ... The Web had turned out to be less the new home of Mind than the new home of Business" (Carr 100).

Finally, in 2007 O'Reilly wished for Web 2.0 to just go away. In the comment section of a blog he wrote: "Web 2.0 was a pretty crappy name for what's happening

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(Microsoft's name, Live Software, is probably the best term I've seen)".[71] With Google search results for the term heading towards half a billion, it is unlikely that Tim O'Reilly's recognition will affect a sea change in the popular appeal of the phrase, which is dyed deep into the fabric of the imagination of what the Web is, can do, and will be.[72] The Web cannot be the all–mighty teacher, healer, and redeemer for everything that went astray in society but by defining it solely through the lens of business, we loose track of all that which the Web could be. Re–imagine the Web as a place for unmarketed projects, public media, and peer-to-peer solutions that accommodate all those who inhabit it. Imagine the windfall if the space was committed to creativity (above marketability) and supporting individuals and small groups (above corporate share holders).

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[71] In the comment section of Internet entrepreneur's Jason Calacani's blog, O'Reilly admitted that he had gotten it wrong.
[72] On December 10, 2008, a Google search for the term Web 2.0 returns 410 million results.

Chapter 8. INTERACTIVITY LABOUR

In previous chapters I have discussed the development of the Net from a number of disparate networks and I situated these shifts in a broader cultural context and emphasized the opportunities that today's new social media offer to political activism. Subsequently, I linked the expropriation of value from users by Internet entrepreneurs with the early social norms and relationships that had been established in the first decades of the Net. In chapter 7, I analyzed the branding efforts behind the concept Web 2.0 and used that as a starting point to elucidate the ideological enculturation of users that makes the commerce on the Web run so smoothly. Throughout, I have attempted to confront some of the ethical problems that complicate our experience of the Web. The participatory turn, the significant growth of sociality online, demonstrated in chapter 6, has amplified the magnitude and significance of these concerns. In the following chapters I will argue that labour is being performed online by millions who, often without being aware of it, create significant value for a small number of businesses. In chapter 7, I provide a brief analysis of the working situation in the media industries. The precarious labour situation in the "creative industries"[73] has been the topic of many studies, books, and conferences over the past few years. The developers at Facebook or the programmers at the Chinese social networking site Xiaonei write the code that makes our online interactions possible. Their work has deep implications.

Nevertheless, in this chapter, I will focus most of my attention on the slightly less studied topic of what I call interactivity labour. By introducing this term, I am recasting the quotidian activities of Net users as labour. Interactivity labour goes beyond traditional conceptions of attention economics in order to closer identify the nature of the labour that we are witnessing today. It is hard to determine who the winners and losers of the digital economy really are. There are definite risks for

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[73] Over the past few years many books and conferences have focused on the situation of workers in the creative industries. These include several events by the Institute for Network Culture in Amsterdam. Publications include *The Rise of the Creative Class* by Richard Florida and *Media Work* by Mark Deuze.

users in the form of government and corporate data surveillance as well as fatigue, and perhaps addiction. Investors risk the bursting of a speculation bubble, similar in scale to that of the late 1990s. There is also the possibility that even the most popular social technology cannot be turned into profits that are substantial enough to satisfy venture capitalists. For the very most part, however, the user-platform-provider-dynamic is one of mutual benefits. There are, however, rare cases of clear-cut exploitation, which I will highlight in one of the following chapters.

8.1. What is Interactivity Labour?

It is not common sense to suggest that time spent on social networking services qualifies as labour. Sitting in front of our computers, staring at glowing screens, moving our computer mouse around, clicking, and occasionally writing 140 characters[74] – none of this was previously considered labour. It does not look or smell anything like the industrial labour environment. Interactivity labour is hard to locate at first. It is in some specific ways similar to work traditionally associated with women (caring for children and the sick, making babies smile, and housework). One commonality is that it has been ignored by historical definitions of labour. This kind of work is historically marginalized, unredeemed and often unnoticed. Sitting in front of the computer watching videos on Vimeo may not seem like labour and yet our attention is turned into profits. It is labour in the sense that it creates value. You become complicit in this interactivity labour, you are placed in the working position before even noticing it. Labour? After all, time spent there is about pleasure, entertainment and social utility, and above all—the need for praise. Talking about these activities in terms of social pressure and labour is considered to be radically "anti-fun". However, I suggest that it is important to frame this situation in a labour context in order to politicize it. Interactivity labour, as a term for the unpaid labour that I described here, is in of itself not morally or politically charged either way. It is not "evil" or "good" but there are instances in which can tend to be more or less just and equitable. Labour is, of course, related to some kind of "interaction" in all

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[74] The length of message on the micro-blogging site Twitter is a maximum of 140 characters.

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instances. Does not labour always entail some kind of interaction? The labour that I am referring to is specifically unwaged, often voluntary labour, sometimes not consciously performed, that involves social network-enabled interactions which generates value, speculative or in terms of actual revenue. While all labour is based on some kind of social interaction, interactivity labour is invisible and the biggest achievement of capitalism is to make workers believe that it does not exist. The realization of being used is superseded by the experience of pleasure in the activities themselves.

What I call interactivity labour, attempts to do just that. Sometimes this labour is consensual, at other times it is not. The term interactivity labour is useful because it offers a politicized frame of analysis. As I will explain later, there is a huge difference between the actual revenue that a company like Facebook generates and its speculative value.
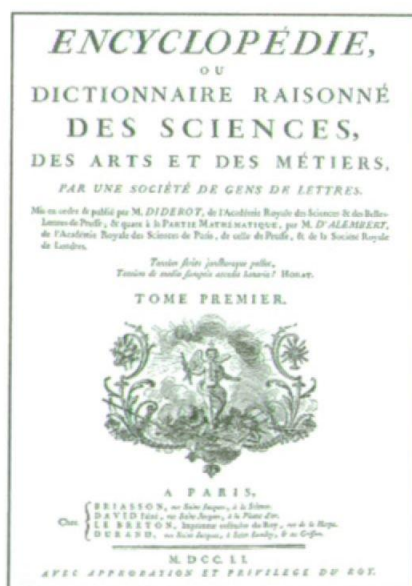
In the middle of the eighteenth century, Diderot published *Encyclopédie*, which celebrated the virtues of labour. Throughout its twenty-seven volumes, articles dealt with everything from baking bread to making nails. Today, interactivity labour

would need to be part of such compendium of labour. The following list characterizes what users do all these endless hours, every day online. It includes--

- Uploading and/or watching/looking at photos and videos

- Paying attention to advertising

- Random play on corporate platforms ("throwing zombies" at each other through a Facebook application)

- Micro-blogging (status updates, Twitter)

- Co-innovating (i.e., bicycles, mountain bikes, skate boards, cars, etc)

- Posting blog entries and comments (i.e., the bloggers who work for Huffington Post[75])

- Emotional work (presenting a personality that "fits in")

- Socializing (playful acts of reciprocity such as flirting)

- Posting news stories

- Referring (i.e., Digg.com)

- Creating meta data (i.e., Flickr Commons)

- Viral marketing by super-users

- Creating virtual objects (i.e., Second Life)

- Artistic work (i.e., video mashups, DeviantArt)

- Beta testing

- Providing feedback

- Consuming media (i.e., watching videos)

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[75] *The Huffington Post* consists of a staple of "bloggers" who are in Arianna Huffington's large personal network; none of them is paid. Contributors to the Huffington Post such as these bloggers are not paid. Prominent guests included Norman Mailer, John Cusack, Barack Obama, and others who commented on issues in politics, popular culture, and business. *The HuffPost*, as some call it, is a very popular weblog.

- Consuming advertisement

- Data work (i.e., filling in forms, profiles etc)

the work of creating meta data

8. 2. Setting the Table for Interactivity Labour: Work in the Creative Industries

The American anthropologist Andrew Ross coined the term no-collar to describe work in the dotcom industry. Like the white-collar worker, the "no-collar worker" was paid and, for the most part, situated within an office. In many ways, Ross shows us that these were attractive positions -- "jobs in candyland" -- because they benefited from a casual office atmosphere (thus: no collar), flattened hierarchies, and a serious coolness factor. In *Close to the Machine*, the programmer Ellen Ullman describes her experience of the reality of this work. She recalls the "ridiculously high pay rate", the long hours and the continuous attempt to keep up with the steep learning curve. She reflects on the implied demand to be available via beeper and cell phone at all times and the enormously high divorce rate. Still today, the salary of the tech worker is lowered if she is not willing to be reached after "billable" hours. Consequently, family dinners are frequently taken over by a crisis at work. Life-long

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careers changed into precarious[76] work situations marked by high obsolescence and project-based hires. Mark Deuze describes in his research in *Media Work* that only very few workers older than 40 years of age remain in the media industries.[77]

The mentioned precarity of the work was perhaps most salient in the technology sector but the phenomenon transcended the entire American job market where "womb-to-tomb" jobs were replaced with "perma-temp" positions already since the 1980s. Frequent experiences of stress at work are also nothing new. Since the 1960s the workload for Americans – not solely in the media industry-- has increased steadily. Today, more than thirty percent of Americans report high stress once or twice a week and one third of the population says that they are "rushed to do the things they have to do—up from a quarter in 1965" (Schor).[78]

For a short period in the 1990s, however, a section of the techno-workforce experienced a kind of utopian work environment that was atypical for most professionals in the United States. Hierarchies were less pronounced (there was little control from management), the office environment was more informal and workers could speak their mind because management's main goal was to please workers in an effort to limit turnover. Many of them revered their jobs because they were treated with respect and dignity. One no-collar worker of the big web design and net marketing company Razorfish proclaimed that he has arrived at his dream job with the right mix of people, a community of respected peers, and a sense of mutual responsibility where everybody trusts that the others do what they are supposed to do (Ross 247). This employee hoped that this job would last forever.

Despite these advantages, not everything was dandy for everybody, and overall the

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[76] Precarious work refers to all possible shapes of unsure, not guaranteed, flexible exploitation: from illegalized, seasonal and temporary employment to homework, flex- and temp-work to subcontractors, freelancers or so called self-employed persons.
[77] Deuze, Mark. *Media Work.* SUNY Buffalo, Department of Media Study, Buffalo, NY. November 2007. Lecture.
[78] Schorr, Juliet. "The Overworked American." *IPFW.* 2008. Web. 14 July 2009
<http://users.ipfw.edu/ruflethe/american.html>.

work situation in the dot-com sector worsened rapidly. The utopian moments were short-lived. Jobs became more stressful. Ellen Ullman provides vivid descriptions of the hardships of being a temporary worker, a perma-temp, in this fast-changing and youth-oriented technology sector that equates life with work.

She experienced a workplace where, threatened by imminent layoffs, burning the midnight oil was expected. She realized that because she was always at work, she had no time to hang out with her friends. Her colleagues started to make up the only social structure of her life. Ullman lost steam; her skill sets became perpetually obsolete. Initially she took pride in reading relentlessly to stay on top of new developments but after decades of work in the field what had looked glamorous on the outset became simply too draining. New versions of operating systems, database software, developer tools, and device driver kits were barely integrated before another shipment from UPS (with yet another stack of disks) had arrived (Ullman 103). She writes:

> Technologic time is accelerated, like the lives of very large dogs: six months of inattention might as well be years. Yet I am doing nothing anyway. For the first time in nineteen years, the new has no hold for me. This terrifies me. It also makes me feel buoyant and light.
> (Ullman 105)

Stewart Brand suggests that we need some kind of gymnastic ability to make ourselves comfortable, to stay up to date with the constant technological changes that Ullman bemoans (Anderson 171). If we think of life in terms of "competitive fitness" in the job market, then Brand is certainly correct. However, what does such gymnastic bending to accommodate the speed of technological development do to our quality of life? What are we doing to ourselves? What do we neglect in order to keep up with rapid technological change? Today our stress relates less to frequent software updates than it does to rapidly changing privacy settings or the constantly expanding landscape of new social media tools. The rise of cloud computing[79] made

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[79] According to Wikipedia, "cloud computing is a style of computing in which dynamically scalable and often virtualized resources are provided as a service over the Internet."

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software updates less of an issue as we are accessing more and more applications through our browsers online. Today stress comes from having to stay on top of our "social duties" on Twitter, Facebook, etc. The demand from the 18th century labour movement still holds meaning Eight hours labour, Eight hours recreation, Eight hours rest.[80] In addition, Ullman describes that in the early days of Internet commerce, the people she worked with brought a background in the social sciences to technology. College programs for web design, Media Studies, or the Digital Humanities had not existed and consequently her fellow workers were not hired with degrees from such programs but they rather had amazingly diverse intellectual backgrounds. Ullman explains that the general intellect of these early co-workers was more suitable for the various challenges of her job than the specialized education of the people who would join her team over the years to come. When the dot-com venture-fed speculation came to a halt in 2001, many of the no-collar workers were laid-off. Some remained unemployed while others cruised the job market looking for work places that would offer them the pleasures and challenges they had enjoyed in their jobs in candyland.

But it was not solely the dotcom crash that led to job losses. In recent years, new social media have diminished the demand for professional editors, journalists, and photographers. High traffic blogs and photo-sharing sites have put up tough competition for some people in these professions.[81] In the United States, many newspapers are closing down or seek alternatives to print in order to stay in business. Some volunteers perform work that was previously executed by trained and paid professionals. The amateurs who submit photos to *CNN*'s iReport are one example.[82] Most editors who lost their position at a local newspaper will not find a job at Yahoo, YouTube, or MySpace because these companies can operate with a

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[80] Owen, Robert. "Report to the Committee for the Relief of the Manufacturing Poor." In *The Life of Robert Owen written by Himself*, London, Macmillan, 1870. Print.

[81] There have been several cases where local commercial newspapers used Flickr photos taken by private individuals instead of hiring a photographer.

[82] According to Wikipedia "*i-Report* (also *iReport*) is *CNN's* public journalism initiative that allows people from around the globe to contribute pictures and video of breaking news stories from their own towns and neighbourhood".

small workforce. Craigslist, one of the largest providers of free classified ads, has no more than twenty-five staff members. CBS has a total of 32,160 employees (2006) while MySpace employs 1400 people in the United States.[83]

Apart from the programmers and system administrators there is still much physical labour that the digital economy requires. Not all such manual labour has been outsourced to China. Amazon.com's corporate motto "...and you're done" takes on a new meaning when thinking about the widespread closures of local bookstores and the poor work conditions in some of Amazon's warehouses in the early 2000s. In 2001, for example, union organizers at Amazon.com in the UK protested their "poor pay, poor conditions, poor communications and poor management. It is anything but 'new age' inside that distribution centre,"[84] the union said (Maguire).

In sum, paid no-collar work is insecure, fragile, stressful, and all consuming. The work of unwaged Internet users, as I will show, is mostly beneficial to both, the companies that offer "social utilities" as well as the people who are using them.

Later, for a brief moment in the 1990s, however, media workers experienced what a more lateral, less hierarchical, and more dignified workplace could look like. The work styles of the unwaged users of the Internet and the professionals in game design, journalism, and even marketing, for example, are vastly different but some of today's norms and expectations may be shaped by these historical events. Some of the glamour of the permissive workplace at Razorfish may live on in tales about free delicious food, massages, and other luxuries at Google.

Wage labour like that at Razorfish is not the only mode of making profits in the digital economy. Since the 1970s, computer-enabled networks became an important

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[83] Associated Press. "MySpace cuts two-thirds of global workforce." *AP*. 24 June 2009. Web. 11 July 2009. <http://www.theage.com.au/technology/biz-tech/myspace-cuts-twothirds-of-global-workforce-20090624-cvw1.html>.
[84] Kevin Maguire, " UK workforce attacks Amazon Biggest online store accused over wages and conditions ." *The Guardian Online*, 14 April 2001. Web. 8 October 2008. <http://www.guardian.co.uk/technology/2001/apr/14/internetnews.uknews>.

part in the process of making production more efficient. After the commercial introduction of the PC[85] and the laptop[86] in the late 1970s and early 1980s, the dream of the "virtual (paperless) office" caught traction in corporations like AT&T that realized that they could save expensive desk space by having their employees work at home at least part of the time (Rifkin 147). The earliest laptops were sold advertising work in the shade near the swimming pool with tanned women in bikinis in the background. 1994 the "Greencard lawyers" Canter & Siegel sent out the first spam messages on Usenet advertising their services. Federick Taylor's failed conquest to control workers in their homes continued. Now that messages could reach the domestic sphere, and after-hours attention could be garnered, the boundaries between work and leisure time, as well as hobby and professional life, started to dissolve more and more. In addition, employees were told that they could freely structure their own workday. While some enjoyed this casualized workplace, others had to start working at home after a long workday.

8.3. Brain Time

> For a long time, the law of value has established labour time as the measure. [Today,] labour itself tends to become all the more complex. It relies on and puts to work the social relations and communicative networks -- the forms of co-operation -- that prevail within the factory environment. This means that the productivity of labour is increasingly derived from things like co-operation, communication and General Intellect...
> (Arvidsson 135)

From games, and virtual gifts, to "poking", we are engaging in strange but playful acts that create financial value for operators. We are also engaging our neuropsychological capacities. Time in front of glowing computer screens is brain-time.

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[85] Introduced in 1977, the world's first, fully assembled computer for home use was the Apple II.
[86] IBM introduced the first portable computer in 1975. However, the term "laptop" was first used for the Gavilan SC, released in 1982 for a market price of $4000.

Play is usually a voluntary activity that involves some rules. Play amuses us and often we are getting deeply absorbed in it for hours on end. Some even claim that play will be to the 21st century what work was to the last 300 years of industrial society - our dominant way of knowing, doing and creating value and that the next stage of capitalism is going to be merely a "playground" where we play, produce, and consume with new social media tools.[87] While this may overstate the centrality of play, it surely is an important aspect in many the activities that I listed above. Organized play, in fact, is a key asset of interactivity labour.

The digital economy is based on a new kind of "social worker" whose main assets are time and attention. Many affluent users spend more time on social networking services than in front of their television. Interactivity labour is performed 24-hours-7-days-a-week, for countless hours by millions of net users without financial remuneration. Yochai Benkler calculated that a billion people in advanced economies may have between two billion and six billion spare hours among them, every day (Lessig 178). Consider that nearly one third of all US Americans had the time to created content online, including 57% of all American teens.[88] Clay Shirky noted that after WWII we were faced with something new: "free time, lots and lots of free time. The amount of unstructured time among the educated population ballooned, accounting for billions of hours a year. And what did we do with that time? Mostly, we watched TV."[89] People have lots of free time and a need to be acknowledged, praised and entrepreneurs like Google CEO Eric Schmidt are aware of that and try to play it to their advantage. Schmidt said "People have a lot of free

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[87] *"So how does our playground society produce economic value?* Well, of course it produces value for those at play, who enjoy the scurrying around, socialising and innovating. But how might it produce business value? Most of the time, it will still be via the monitoring, watching, evaluating. What play produces is mostly of little interest to our corporate parents."
Kane, Pat. "Who's watching us play - and why?" *The Play Ethic.* 4 Mar. 2009. Web. 11 July 2009. <http://www.theplayethic.com/2009/03/critiquingtheplayground.html>.
[88] Jobbins, Cindy L. "The Majority of Teen Internet Users Create, Remix or Share Content Online." *The Pew Charitable Trusts.* 11 Feb. 2005. Web. 11 July 2009.
<http://www.pewtrusts.org/news_room_detail.aspx?id=23488>.
[89] Shirky, Clay. "Gin, Television, and Cognitive Surplus A Talk." *Edge. The Third Culture.* 21 Aug. 2008. Web. 11 July 2009. <http://www.edge.org/3rd_culture/shirky08/shirky08_index.html>.

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time. You might as well give them some task like translating your Web site".[90]

Entrepreneurs like Schmidt are highly aware of our desire to be useful and they are ready to give us the opportunity to work for their companies for free. This whole dynamic has even more traction during an economic crisis when many people are unemployed, have low self-respect and a lot of free time. Finally, the power of businesses, as Tim O'Reilly put it, comes from the fact that people start to participate without thinking that they participate. (Lessig 224) The barriers to entry are extremely low and technically, participation has become ridiculously easy. O'Reilly's remark shows how involuntary acts of labour are part and parcel to this economy.

Interactivity labour happens habitually in the smallest pockets of time, wherever and whenever, in between tasks-- at work, in school, while waiting in a café, in your car, or while standing at a street corner. The immediacy, temporality, and repetition of our interactions in social media environments contribute to the attractiveness of the experience. We can just sent off an email from our mobile device during a short break or quickly share a photo. Such changes in temporality, implied by the Internet, will profoundly change the public sphere (Warner 68). From April 2008 to April 2009, total minutes spent on Facebook increased from 1.7 billion minutes to 13.9 billion minutes - an annual growth rate of 700 percent.[91] These hours of attention and interaction are hours that are being valorised by corporate operators.

We develop mental habits around the public management of our social relations. We are logging on, "friend", "unfriend", and share news. We are spending the remaining free hours of each day in front of screens communing with our computers and friends, acquaintances, and strangers. Speaking online is always intimately related to addressing invisible publics, mere strangers. Community is created through

[90] Schmidt, Eric. "YouTube - Eric Schmidt, Princeton Colloquium on Public & Int'l Affairs." *YouTube.* 11 May 2009. Web. 11 July 2009. <http://www.youtube.com/watch?v=9nXmDxf7D_g>.
[91] Lee, Jessica. "Total US Time Spent on Facebook Up 700% in the Last Year." *Inside Facebook.* 2 June 2009. Web. 11 July 2009. <http://www.insidefacebook.com/2009/06/02/total-us-time-spent-on-facebook-up-700-in-the-last-year/>.

attention, which is similar to the way newspapers generated community already in the 19th century.[92] Attention and acts of reciprocity with friends and strangers are the prize for our membership in "virtual communities".[93] Millions direct their cognitive surplus toward each other, steadily eating into time spent face-to-face with friends and family.[94]

Clips on YouTube, 140 character-long messages on Twitter, and brief blog entries fit into (and establish) patterns of attention.[95] Apart from being able to watch videos on the go, YouTube clips are often shorter than commercial TV material and you can stop it at any time and re-visit it later, which perfectly matches our erratic life style. As we meet our friends less often I the pub, we can discuss the latest episode of 30Rock online. We can ascertain which books they read and have a discussion about it. We can play Scrabble or Chess in moments of lapsed focus. Cognitive surplus is broken up into short sprinkles of time throughout the day. New social media accommodate the cognitive structures of contemporary work life in post-industrial societies. It is easy to blame social media for "social information overload", isolation, the mounting trouble of newspapers, the decline of movie theatres and the opera, and the mitigated importance of television but many of these social technologies often merely serve as crutches for the failings of late capitalism such as urban sprawl, the culture of fear, and perhaps excessive parental control in the United States, etc.

New social media tap into our gut feelings, emotions, and fears, which are channelled into a walled-in space of interaction where they can be commoditized. But this is about more than the traditional attention economy. It is not merely about

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[92] In the 1950s television began to establish commonalities between suburbanites across the United States. Currently, communities that were previously sustained through national newspapers now started to bond over sitcoms. Increasingly people are leaving behind televisions sets in favour of communing with-- and through-- their computers.

[93] To benefit from a service like Facebook we need to pay attention to it and we need to contribute, reciprocate.

[94] Clay Shirky uses the term cognitive surplus in his book *Here Comes Everybody*.

[95] In "Is Google is Making Us Stupid," Nick Carr bemoans that we are only "nibbling on information". He remembers moments of deep absorption while reading books for many hours.

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paying attention to an ad, reconnecting with the craving to possess a given product and then act on that desire by buying it. Our mere presence is sufficient. We are the product. Our desires and fears and hopes become translucent and can be recorded, analyzed, and visualized. We are selling ourselves by virtue of spending time in social media milieus and at the same we are losing little.

8.4. Estrangement, Political Consciousness, Class Consciousness

Given this approach to activities in social media milieus as labour, can we apply some of Marx' theories of labour? Are users of new social media services disenfranchised? Is interactivity labour estranged labour?

> All the unpaid work of social cooperation, of attention, is also the active expropriation of the commons- part of the real costs of production, paid for with the living labour/life of disenfranchised masses.
> (Beller 295)

I agree with Beller that social cooperation and attention, and in the end life itself, are intensely expropriated but upon reflection, I don't think that the "masses" are disenfranchised.

Disenfranchisement is associated with the revocation of the right to vote (suffrage), for example. People may want to vote but are intimidated or turned away because they allegedly did not register correctly. In the case of Internet users, however, we cannot assume a situation in which users will universally feel entitled to demand their fair share from their interactivity labour. Users are too normalized into capitalist labour dynamics to feel that they have a right to a "fair" share of the profits that they generated. They assess the situation as a tradeoff, a give and take where what they receive is a rich experience. In exchange for praise or some kind acknowledgement by their peers they are willing to put up with others massively profiting off their presence. What does that tell us about the daily working conditions of people? Can it really be possible that people feel so worthless and unacknowledged that they are willing to give much of their energy away for free to feel a little bit of meaning for their existence and a tiny bit of acknowledgement? I

find the degree to which people are willing to work for free troubling.

In *The Paris Manuscripts,* Marx formulates alienation in the labour process meant that workers lose control of their lives and their work. He described workers as being disconnected from their basic humanity, from each other, the act of work itself, and from the product of their labour in the sense that they had no say in its design.[96]

In terms of interactivity labour, Marx' descriptors don't completely fit today's online realities. The worker, for Marx, is alienated from the work itself in the sense that she has no emotional investment in it and in the sense that the capitalist dictates the activities that she performs. In addition, the capitalist owns the means of production. The work is essentially meaningless to the worker because she creates a product without having a stake in it.

Users of new social media milieus are not alienated in that sense because the fruits of their own contributions, their own sociality are right in front of them. On the other hand, they are somewhat alienated in the sense that their own digital traces, the data that are recorded about them are not in their reach. They are producing rich data that are invisible and completely inaccessible to them. In that sense users are very much alienated online.

In terms of ownership, the means of communication are in the hands of all in advanced post-industrial societies but the "virtual real estate" -- the communication platforms -- are privately owned. Some liken this situation to a playground where the users are like children, seen and evaluated by their parents who make the rules. This approach makes sense to the extent that it considers that those who are composing and constructing our grounds of play also determine its rules and

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[96] Throughout the *Economic & Philosophical Manuscripts* of 1844 (also referred to as The Paris Manuscripts), a series of notes written between April and August 1844, Marx argues that workers are alienated from their own lives. *The Paris Manuscripts* were not published during Marx' lifetime.

principles but it does not acknowledge the dynamic in between users who watch each other at all times. Surveillance takes place top- down but also laterally.

Do we feel disconnected from fellow users on Facebook, many of whom are no doubt at least partial strangers? How does Marx fit into this picture (without simplification or one-dimensional interpretation)? Do we feel removed from our essential humanity because our activities there are meaningless? I do not have ready answers to all of these questions just yet.

8.5. "Virtual Community" Was Not Always About Expropriation

The work in the media industry and interactivity labour are linked. One is the real estate industry with its junior and senior brokers, and it's own history, which had moments of utopia, which showed what a dignified workplace could look like. Interactivity labour had such moment as well-- with The Well and the Free-Net Cleveland. In the latter case

> The system is literally run by the community itself. Almost everything that appears on one of these machines is there because there are individuals or organizations in the community who are prepared to contribute their time, effort, and expertise to place it there and operate it over time.
> (Flichy 78)

In both those cases, members were not used or monetized and yet those platforms were able to run. Early users of BBS, Usenet and later the Internet contributed to "virtual communities" and had strong and memorable experiences of emotional resonance, inter-communal linkage and more. However, the value of their contribution, their interactivity labour, was not expropriated. It was not used. There was not one person that benefitted from the activities of the majority of users.

Chapter 9. THE VOLUNTEERS

> I remember when I was a kid in highschool, some of the first things that I built were add-ons to AOL. All of my friends were on AOL, and I built tools for IM or servers to run chat rooms, and I just had so much fun and that's how I learned how to program. I just think it's really interesting to see the new generation of college students that are growing up and building on top of this platform, and anything that we can do to encourage that is awesome.
>
> (Mark Zuckerberg)[97]

> Late capitalism ... nurtures and exhausts its labour force and its cultural and affective production. In this sense, it is technically impossible to separate neatly the digital economy of the Net from the larger network economy of late capitalism.
>
> (Terranova 94)

In 1998 Tiziana Terranova argued that free labour has become structural to late capitalist cultural economy. She pointed to the long history of the phenomenon of the capture of value from small everyday life processes. Terranova linked the constellation of labour, capital, and technology to the concept of the "'social factory' whereby work processes have shifted from the factory to the society." Production does no longer take place exclusively in the factory. Society as whole is put to work. Every day life is utilized and monetized, far beyond the direct fabrication processes that we used to associate with the factory. At the same time, we are noticing Mark Zuckerberg's enthusiasm for his volunteer work for AOL in the 1990s. He did not moderate a chat room but built his skills working for AOL for free and now he wants to replicates that setup with Facebook.

Life itself is put to work. Benkler suggest that the networked information economy makes individuals better able to do things for and by themselves.[98] Terranova looks at an "outernet" - the network of social, cultural and economic relationships, which exceeds the Internet. She emphasizes that the Internet is deeply connected to the

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[97] Zuckerberg, Mark. "Exclusive: Discussing the Future of Facebook with CEO Mark Zuckerberg." *Inside Facebook.* 3 June 2009. Web. 21 July 2009.
<http://www.insidefacebook.com/2009/06/03/exclusive-discussing-the-future-of-facebook-with-ceo-mark-zuckerberg/>.
[98] This is one of the main arguments of Yochai Benkler's *The Wealth of Networks.*

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development of late post-industrial societies as a whole and that the provision of free labour has always been a fundamental moment in the creation of value in the economy at large.

Terranova discusses how the fashion industry internalizes the style from sub-subcultures. Jean Luc Godard argued that people should be paid to watch television because the price they pay that comes from watching TV is enculturation. They spend time with a given piece of film content, which ideologically influences them in the sense that they internalize, at least in part, the presented value system. Think of the role of the Volksempfänger, a small and affordable radio, in Germany in the late 1930s and early 1940s. Hitler broadcast frequent speeches, which reached most German households. Radio technology was instrumental in brain washing Germans at the time. Media such as radio and newspapers drew on such free labour.

Terranova describes how certain attitudes toward youth are socialized through television. Others argue that TV does not only offer access to information but also assists self-identity, education, and community cohesion (Andrejevic 190). Jonathan Beller describes this process as "working on" an audience.

On a different level, passengers at airports, through self-check-in, perform free labour that was formerly executed by paid employees. Walmart, the world's largest public corporation by revenue with a reprehensible track record for labour relations, started to introduce self-checkout machines, which are automated alternatives to cashier-staffed checkout.

In the airport and in the retail store, some people appreciate the option of a slightly speedier checkout and the possibility of not having to deal with a cashier but others realize that they are now doing the work that was previously done by paid cashiers. And apart from the impact on the shopper (or passenger), this also means that the company fires paid employees. Both, in the airport and the retail store, customers are now the ones who have to find help if computer programs do not perform

properly.

Self-check-out terminal at Walmart and self-check-in kiosk at Jetblue Airlines.

In the early 1950s McDonald's franchised its first fast food restaurant that would not just implement assembly line-style production of food and standardized menus, it would also have customers clean up after themselves, work that was formerly performed by waiters.[99]

Equally, in the arts, there is a shift to cultural practices that demand a particular involvement on the part of the audience. Shortly after Ray Croc opened the first franchised McDonald's restaurant, the French artist Marcel Duchamp wrote that "a work is made entirely by those who look at it or read it and who make it survive by their accolades or even their condemnation".[100] At about the same time the French literary critic Roland Barthes declared the death of the author, insisting that the intentions and biography of an author should not be part of the interpretation of a text and that instead the meaning of a work depends on the impressions of the

[99] The business first opened in 1940 and in 1948 the brothers McDonald established the principles of today's fast food restaurants with their "Speedee Service System". Ray Kroc opened the first franchised McDonald's restaurant in 1955 in Des Plaines, Illinois.
[100] Marcel Duchamp in a letter of 1956 to Jean Mayoux (published in his book *La Liberté* une et divisible: Textes critiques et politiques, Ussel, 1979).

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reader who are the destination of the text. Readers of a text essentially bring in their own context with each re-reading.
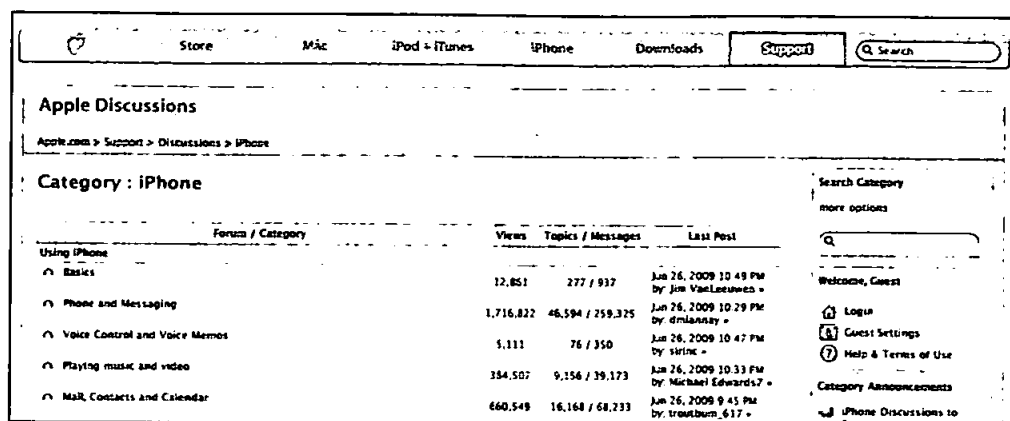
Today, on American highways tollbooths are operated in part with the EZ pass, which reduces personnel because the credit cards of drivers are automatically charged upon passage through the tolling area. Our participation in "outernets" of production becomes increasingly automated, data exchanges become increasingly seamless and invisible. The sensors that we carry with us in our mobile phones, cars, and laptops initiate wireless interactions that we are not always aware of.

The Internet has been voraciously adopted. It grew from "nothing" to "everything;" more than one billion people can now articulate their positions and negotiate them with others online. But while the net has become public in this way, it also created a way of putting people to work, with or without their knowledge.

Thousands are happy to contribute their time and efforts to not-for-profit initiatives such as encyclopaedias, open source software repositories, and also art works that call for "audience participation". The free encyclopaedia Wikipedia is supported by the Wikimedia Foundation and articles that are submitted and edited there, benefit the greater good. It is hard to imagine that the authors of articles feel used. Matters are different, however, when a company like Facebook asks its registered users to collaboratively translate its website interface into Japanese, Chinese, and German and some 60 other languages.[101]

In the arts, the dynamics of free volunteer labour exist as miniature mirror worlds of the commercial social milieus of the Internet where social wealth is created on the shoulders of users.

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[101] The concept of collaborative translation is common in open-source programming communities but Facebook is a company with an estimated worth of $10 billion, and unwaged translation labour simply contributes to Facebook's fortune. Users are happy to click for the good of all beings, but working for the profit of big business is different and such dynamic is not new.

Forum / Category	Views	Topics / Messages	Last Post
Using iPhone			
Basics	12,851	277 / 937	Jun 26, 2009 10 49 PM by Jim VanLeeuwen »
Phone and Messaging	1,716,822	46,594 / 259,325	Jun 26, 2009 10 29 PM by dmlannay »
Voice Control and Voice Memos	5,111	76 / 350	Jun 26, 2009 10 47 PM by sirinc »
Playing music and video	384,507	9,156 / 39,173	Jun 26, 2009 10 33 PM by Michael Edwards7 »
Mail, Contacts and Calendar	660,549	16,168 / 68,233	Jun 26, 2009 9 45 PM by trawlburn_617 »

Every day, thousands volunteer in technical discussion forums. Apple, for example, offers a forum where tens of thousands of people help each other with their use of Apple products.[102] They give each other advice as to how they should use the products that Apple sells. I am not sure it is necessary to spell this out but essentially Apple uses the free labour of all those volunteers and that is significant. You may ask why (or if) there is anything wrong with that. On the one hand, it is of course desirable to be able to get good information if you have a problem with your computer. On the other hand, however, they are directly working for Apple. They are helping other Mac users but how else could they make meaningful use of their time without supporting Apple? Sceptics might say the question is parentalizing and that the volunteers in questions would just sit around and watch television and be bored whereas here they can make themselves useful and feel good about themselves. There is no ultimate answer to this question but I pose the question why people are so generous with their time, their life energy when it comes to helping others while helping corporations at the same time. Some wonder if it is patronizing to question the motivations of all those volunteers.[103] However, I suggest that it is a fair if perhaps moralistic question to ask: Why do we readily volunteer our life energy to corporations? Is our self-worth really so low that we need this, however faint, acknowledgement and feeling of usefulness?

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[102] "Apple - Support Mac OS X v10.5 Leopard." *Apple.* 11 July 2009. Web. 11 July 2009. <http://discussions.apple.com/category.jspa?categoryID=235>.
[103] Postigo, Hector. "Emerging Sources of Labour on the Internet: The Case of America Online Volunteers." *IRSH 48. International Instituut voor Sociale Geschiedenis* (2003): 205-23. 222
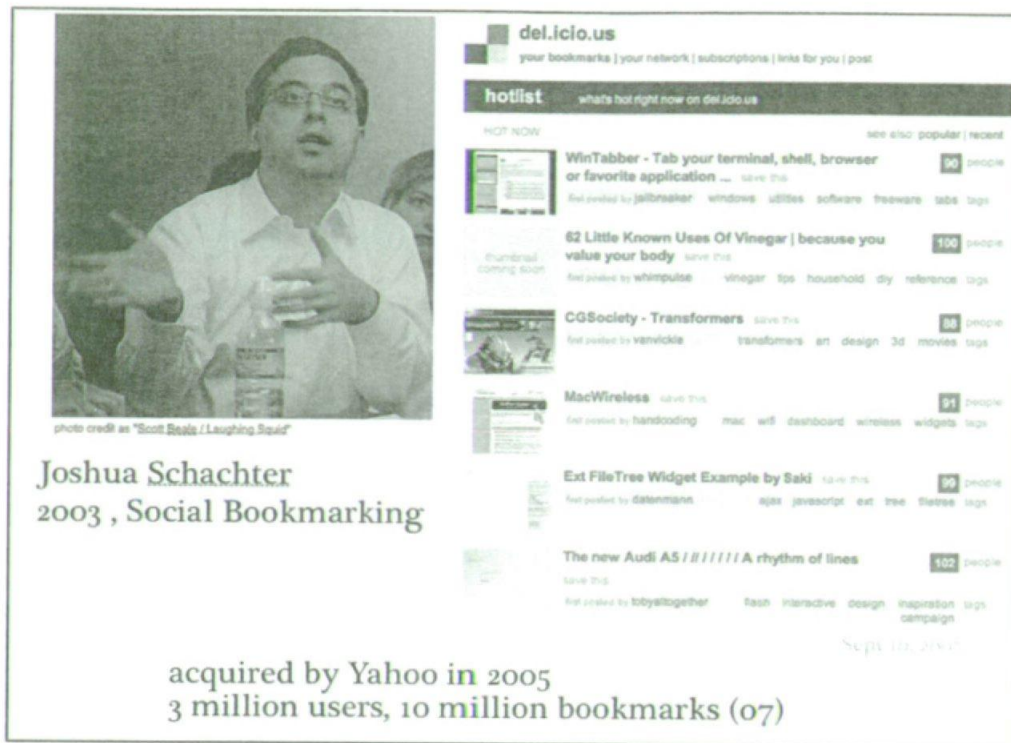
9.1. Delicious: Self-Interest, Network Value, and Corporate Profit

Apple's technical support forum is only one such example and one response to the questions that I just posed is the triadic mixture of self-interest (individualism), network value (altruism), and corporate profit (egoism).

I will use the site Delicious.com as an example of this triad. Delicious is a tagging ball where both you and the community can dance. In the first place, the practice of saving your bookmarks on Delicious aids your personal memory; it is about self-interest. It makes the list of web pages that you are interested in easily findable for yourself and to an extent for others. At the same time, you become an editor of Internet content for the more than three million other users of the service and in fact for all Internet users. There can also be an element of competitiveness in what some refer to as "agonistic giving", "intended to show that the person giving is greater than or more important than others, who gave less". (Benkler, 83) In addition, you create value for the company that provides the server space for all of this to happen.[104] Users can refer their friends, family, students, or co-workers to a specific keyword on their Delicious page and they will be able to see all associated bookmarks. They can discover the bookmarks of other users who also saved the URL that you added. A select few of the other users may share your interests and you can follow what they save on Delicious by adding them to your "network".

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[104] Yahoo reports more than three million users of the service in 2007.
Iskold, Alex. "Social Bookmarking Faceoff Reloaded." *ReadWriteWeb.* 26 Sept. 2007. Web. 14 July 2009. <http://www.readwriteweb.com/archives/social_bookmarking_faceoff_reloaded.php>.

photo credit as "Scott Beale / Laughing Squid"

Joshua Schachter
2003 , Social Bookmarking

acquired by Yahoo in 2005
3 million users, 10 million bookmarks (07)

A bit of background information: Late in 2003, a programmer for an investment corporation, Joshua Schachter, developed a site that could save your web bookmarks online because he found the more than 20,000 bookmarks saved in his browser hard to manage. They were mostly URLs that he came across through a group weblog called Meme pool that he had launched a few years prior. Once the number of bookmarks finally exceeded the capacity of the browser, Schachter created a text file in which he attached keywords to each URL, which allowed him to search the file for his own keywords, leading to links that were relevant for him. Soon, he designed a blog-like system called Muxway where he published these tagged bookmarks.

With Delicious users do not need to bookmark a web address in their browser anymore. Instead, they can quickly save the URL along with freely chosen indexing terms (also called "folksonomy") and a brief description on the World Wide Web where others can not only see them but they add them to their own page, their own archive.

The name of the site originated when a friend of Joshua Schachter's referred to finding good web links as cherry picking. Schachter did not think of Delicious as a startup, which is why he did not care for ".com". He managed to compose the name Delicious as a "domain hack" ending with the US domain ".us" (http://del.icio.us). This "domain hack" was impossibly hard to remember but users were able to recall where the dots would go; they flocked to Del.icio.us even when Schachter sold the site to Yahoo in 2005. Until that time, Joshua Schachter had kept his day job, running the site out of his living room, driven only by the value that he provided to users, not by financial gain. There were many fears among the user community when Delicious was acquired but the concerns turned out to be unfounded, as the site remained cost and advertisement free. Shortly after the acquisition, however, Yahoo started to require a Yahoo account for all Delicious users.[105]

Delicious is a good example for the mix of self-interest, network value, and corporate benefit. Volunteering in the case of Delicious and the technical support forum at Apple is in many ways self-serving. It directly serves us but it also, at the same time, makes us feel good because we are contributing to the greater good, we are helping others (i.e., the other costumers of Apple or Delicious). These relationships, however, are rarely pure in the sense that they only help yourself and others. While helping others, you inadvertently put yourself in the service of the company.

9.2. "If handled adeptly, they hold considerable promise": The Verizon Volunteers

To exemplify this dynamic even more dramatically, I would like to introduce the Verizon volunteers. In 2009, the *New York Times* reported the recent phenomenon of Verizon's volunteers: Imagine you spend 20 hours a week at your computer, supplying answers to customer questions about technical matters (i.e., "How do I set

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[105] Importantly, Delicious allows its three million users to export their bookmarks to back them up and more importantly, to leave Delicious and move on to another service. Should they decide to leave the service, they can do so. This is not standard operation online at all and needs to be applauded. In 2008, Schachter left Yahoo, following the example of Flickr co-founder Caterina Fake.

up an Internet home network?" or "How do I program a new high-definition television?") and at the end of the month the pay is exactly $0. What happens with the profits that these volunteers secure for Verizon? Are they used to lower the overall costs of services for Verizon customers or does this surplus merely go to the Verizon CEOs? I could not find any evidence that the work of the volunteers lowered the costs of service for Verizon costumers.

The Verizon volunteers are an evolving experiment that Verizon Communications began in July 2008 and a spokes person for the company suggests that such "company-sponsored online communities for customer service, if handled adeptly, hold considerable promise". In talking to people and surveying the research on voluntary online communities, Verizon concluded that super-users would be crucial to success. If they manage to attract people who are willing to spend some 20 hours a week working for Verizon for free, then a community of unpaid volunteers will follow. Super-users, the company found, are attracted to praise and acknowledgment. Verizon experiments with intricate models of praise that include a red box showing up next to the name of the volunteer, for example. In addition, one volunteer said that it is deeply satisfying for him to be able to answer one question and potentially help thousands of people.[106] The answers, to be sure, are Verizon's answers; the volunteer does not have to be creative to respond.

The examples of such volunteer work are numerous and the fact that incentives such as an accentuated online profile (i.e., a red box next to the name) are succeeding is telling about the lives of these volunteers who must experience little other acknowledgement in their daily life. I am not criticizing the volunteers but I am questioning the conditions that lead to such impoverished sense of self-respect and meaning of life.

[106] Lohr, Steve. "Customer Service? Ask a Volunteer." *The New York Times.* 25 Apr. 2009. Web. 14 July 2009. <http://www.nytimes.com/2009/04/26/business/26unbox.html>.

People volunteer in hospitals, soup kitchens, museums, and non-profits of all kinds. They also volunteer for international missions, which have recently received some criticism. More related to the topics that we are tackling here is virtual volunteering. There is a long tradition of online volunteers translating documents, creating web pages, editing newsletter articles, providing legal expertise, counselling people, mentoring students, or moderating online discussion groups.

In chapter 6, I described how norms and expectations related to virtual volunteering first developed with a great sense of idealism around Project Gutenberg in 1971.[107] Companies who, in some cases, exploited the labour of their volunteers used the romantic conceptions of collaboration that numerous of these early volunteers had at the time. It clearly is a different proposition to volunteer for a non-profit like Project Gutenberg or to perform unpaid work for a company but this distinction may not have been entirely clear to some people at the time.

9.3. The AOL Volunteers: Unwaged Labour Leads to Lawsuits

On May Day, International Workers' Day, in 1995 the National Science Foundation decommissioned the hardware backbone of the Internet and officially handed it over to commercial uses. In the same year America Online used some 15,000 unwaged volunteer labourers to moderate chat rooms, while constantly promising them paid jobs. More than decade later, a spokes person for the telecommunications company Verizon explained that "online communities ... hold considerable promise if handled adeptly". While not mentioned directly in his statement, he may well refer to the mistakes that AOL made in the 1990s. The AOL volunteers (referred to as "remote staff volunteers") moderated discussion forums but eventually decided to bring a lawsuit against AOL to demand payment for their unwaged labour. Some volunteers, however, continued to work for the company for free.

> The process of value production on the net continues to be hidden. ...
> Many content producers and volunteers ... continue their work. Certainly

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[107] The project Distributed ProofReaders was founded in 2000 and supports Project Gutenberg in the proof reading of scanned texts.

> they have chosen this path, and one does not wish to patronize them with claims of false consciousness. Their reasons for contributing are their own. Some truly find it rewarding, and that is payment enough. But for those who feel cheated by the experience, perhaps the course that the AOL volunteers have taken is appropriate.
> (Postigo 222)

For the disgruntled volunteers a sense of loss about the promises of an idealized Internet set in (Postigo 222). Postigo suggests that the importance of the unpaid AOL volunteers was in their role as "occupational pioneers" that helped to convince society that certain occupations such as the creation of online community are worthy of compensation. On the other hand, he argues, that it is entirely possible that such volunteer work sets wide spread expectations of such work being performed by families as hobbies, or by communities in their leisure time (Postigo 220). Historically, web-based community moderation has been the work of volunteers. "Ultimately, however, the AOL volunteers represent an example, small as it may be, of the possibility of breaking out of the 'social factory' and making visible the new sources of value in an emerging media world". (Postigo 223) In the case of the AOL volunteers, labour was easily recognizable. It entailed the moderation of chat rooms hosted by the company among other things. Later on, however, labour became much harder to recognize and some work seems to have the stigma of non-paid labour attached to it. "American society continues to see volunteer work of the kind that generates and maintains communities (both on and offline) as a noble and altruistic pursuit," Postigo wrote in 2003.

9.4. The Co-Innovators

The urge to help and contribute knowledge is also reflected in so-called co-innovation, which is what happens when masses of people and firms collaborate openly to drive innovation and growth in their industries (Tapscott 11). Innovation has been moved beyond the organization by tapping into the commodity

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involvements of consumers and others, under the general slogan 'not all the smart people work for you' (Thrift 289).[108]

Companies like Linux, IBM, Lego, Procter & Gamble and others have invited users to take part in their processes of innovation, which also meant that companies shared what was traditionally considered a business secret. Other examples range from the improvement of mountain bikes and skateboards.[109] It'd be an interesting topic for future research to determine which activities people insist on getting paid for and which acts of labour they are willing to perform for free.

9.5. The Reviewers: Hybrids between Customer, Fan, Celebrity, and Employee

While cyber service or virtual volunteering is by no means new; it takes place on an unprecedented scale. A former librarian, Harriet Klausner, for example, writes book reviews for Amazon.com every day. She reads about two books a day and has reviewed close to 19,000 of them on Amazon.com so far.[110] She did so without being paid. Such sensational acts of labour (of love) surely draw attention and the Wall Street Journal wrote an article about Klausner.[111] She is highly regarded among the group of reviewers on Amazon.com but simultaneously she contributed significant value to the company, which became a more valuable research tool and online store because of her. Klausner trades her free labour on Amazon.com for the joy of reading, reviewing, and group belonging as well as for a broad readership for her writing.

This kind of labour is the marriage of pleasure and monetization. The work is completely consensual and there is nothing devious about it: no hidden use of her

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[108] Tapscott and Williams in Wikinomics also echo this. There they describe "what happens when masses of people and firms collaborate openly to drive innovation and growth in their industries." (Tapscott 11).

[109] Leadbeater, Charles. "Design your own revolution." *The Guardian.* 19 June 2005. Web. 14 July 2009. <http://www.guardian.co.uk/science/2005/jun/19/observerfocus.theobserver>.

[110] Klausner, Harriet. "Amazon.com: Profile for Harriet Klausner."*Amazon.com.* 14 Jan. 2006. Web. 12 Sept. 2008. <http://www.amazon.com/gp/pdp/profile/AFVQZQ8PW0L>.

[111] Grossman, Lev. "Harriet Klausner" *Time.* 16 Dec. 2006. Web. 14 July 2009. <http://www.time.com/time/magazine/article/0,9171,1570726,00.html>.

work, no unread terms of service, nothing like that. Just like some of the AOL volunteers, she perceives the situation as a fair tradeoff.

The number one reviewer, Harriet Klausner, has written 18, 684 book reviews as of April 6, 2009. As a retired librarian Klausner lives in the state of Georgia. Her sensational acts of labour of love caught the attention of major newspapers such as the Wall Street Journal. In addition, she earned the respect of the community of Amazon reviewers and publishers send her dozens of free review copies of new releases a day. Amazon.com does not pay Klausner (no wage and no social wage) but they do not exploit her; the relationship is clearly voluntary and not marked by economic necessity or desperation. Klausner gets pleasure, praise, and status out of her activity and Amazon.com gets tens of thousands of free reviews. "I watched my book reviewing career begin to take shape", Klausner writes. "I take immense pleasure informing other readers about newcomers or unknown authors who have written superb novels".[112] It is a bit curious that she refers to her writing of book reviews as a career. Traditionally, a career would have involved remunerative work and formal employment. Can volunteers have careers? Are there careers in volunteering?

The tradeoffs for Klausner are manifold. She would not have experienced the kind of visibility that she receives without her reviews. It is a way for self-realization that most reviewers otherwise would not have. Not everybody can get a job as professional book critic for a large newspaper or a highly trafficked blog. Busy Amazon reviewers like Klausner are a hybrid between customer, fan, celebrity, and

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[112] Klausner, Harriet. "Harriet Klausner's Book Reviews." *Harriet Klausner's Book Reviews*. 16 Dec. 2006. Web. 14 July 2009. <http://harrietklausner.wwwi.com/>.

employee. Interactivity labour allows for a novel kind of social status to emerge- one that is determined not by a reputable university degree or by living in a large house in a good neighbourhood but status that is based on contribution to the commons.

It is fairly clear what drives a little known author to review her own book on Amazon.com and it is also easy to understand why it makes sense for Klausner to review more than 40 books per week; week in and week out, for years.[113] She is the number one.

But what about reviewer number 3234? Most volunteers do not stand out. They are merely one of thousands. Indeed, what motivates them? Many of the examples that I formulated are a bit sensational: the AOL volunteers are a famous case in which volunteers fought back. But then there are millions who go unnoticed, who perform little acts of labour, day in and day out. What motivates them? On Amazon, there is some degree of power involved in reviewing books: the texts may influence the web-bound passers-by to purchase a given book. On the other hand, a half-baked review will not convince many readers. Some contributors use their reviewers as a kind of online book journal of sorts. Others merely feel the desire to share their thoughts and are more comfortable to do so in a context that allows them to be anonymous. For Harriet Klausner, writing book reviews is clearly pleasurable. She can help others and she achieves a sense of fulfilment.

Amazon.com's book reviewers contribute thousands of work hours to the site. Their reviews make the site a valuable research environment; their work benefits countless Amazon's costumers who in turn evaluate the usefulness of their reviews. Private energy is deployed for the public good. The wealth of their intellectual contributions makes Amazon.com a more attractive place to buy books. For Amazon.com it does not matter if people leave negative reviews. People may not buy

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[113] I am not entirely sure how Klausner can review almost 6 books a day but read "only" 2 books per day. The articles I cited use these numbers.

that particular book but they will come back because they found the opinion of the reviewer useful.

9.6. (In)voluntary Labourers

In this chapter, I discussed several examples of volunteer labour. From the arts to the airport, the retail store, and the self-service restaurant to the virtual volunteers at Project Gutenberg (PG), AOL or Verizon, Apple and Amazon.com, volunteers work for vastly different reasons. In the case of Project Gutenberg, it may be a deep belief in the importance of the public domain. The AOL volunteers, far from being a homogenous group, saw community as main value. Volunteerism, in most cases, is a triadic convergence of self-interest, network value, and corporate profit.

There are, however, also more subtle, invisible, involuntary acts of interactivity labour, which I discussed in chapter 8. People flock to photos, videos, and discussions about health, self-help, dating, business, gaming, parenting, pets, sports, faith, activism, and technology and as I described, there are many ways in which these activities are turned monetized. The following chapter will detail, where (if anywhere) value is created.

Chapter 10. VALUE

Where and how is value created through new social media?

Ted Nelson's Xanadu Project of the 1960s is a reminder that today's profit models are not inevitable or natural. Nelson suggested micropayments for content through Xanadu (http://www.xanadu.net). If somebody were to use your Xanadu-based content, a small amount of money would be automatically transferred to your bank account. Nelson favoured such a model that would have eliminated the need for a middleman, as he believed "all authorities to be malignant".[114] However, given the differences in the international banking systems, it was too complicated to impose one financial model on the Internet and the question about the precise monetary value of specific online content was hard to answer (and is still difficult to evaluate today). In the absence of Xanadu as pervasive payment system for "user-submitted" content, which online monetization systems rule the market today? What does actually create value? Is it merely the uploaded media files or is it the information that we enter into online profiles? Or, is it all about our digital traces? What are likely future models of network-based monetization? What are alternative ways of making money online?

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[114] Wolff, Gary. "The Curse of Xanadu." *Wired.* 1993. Web. March 2008.
<http://www.wired.com/wired/archive//3.06/xanadu_pr.html>.

In this chapter I argue that the profits of the owners of most of today's mainstream operator's are commensurate with their operational costs. Despite complaints that "Web 2.0" has not generated a one-fits-all business model that can be exploited on the largest possible scale, the advertising revenues of operators are significant.

In today's advanced capitalist societies, commodities are vast. Due to the flood of information that we are faced with, attention becomes a key factor in the struggle to make sense of all that is on offer. Many operators offer the same or a very similar product and the question of who manages to draw attention to their services is crucial. Online, attention is extremely centralized. A few sites, owned by a handful of corporations, have disproportionate control of the networked public sphere; the ten most visited sites harvest almost half of all traffic on the Internet.

Interactivity labour, as explained in chapter 8, generates revenues but speculation about the financial value of dotcom businesses has been paramount ever since the 1990s. We should always pay close attention to claims about value and whether they refer to actual revenues or estimated value. The speculative approach to the financial value of assets, so characteristic of the dotcom years, is also partially responsible for the current economic breakdown.

Beyond discussions about speculation, a common and quick response to critical comments about operators such as Facebook or YouTube is that they are offering a free service. I am arguing against the myth of the "free service" by emphasizing the social costs of all that interactivity that is available to users free of charge. Users pay dearly for the services that they are consuming. I will argue that in section 10.6.

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10.1. When the Goal is Profit and the Value of Their Interactivity Labour is Unclear to Users

In his 1928 poem "Questions of a Reading Worker", Bertolt Brecht asked questions about the labour of the construction workers, masons, soldiers, cooks, and slaves who are left out of the history books.[115] Still today, some labour is more visible than other. The free labour of digital artisans, and the originators of creative works, for example, has caught much more attention than that of Internet users. Even on reflection it is not completely obvious how the value of some of the operators of online services is generated. Following Brecht's critique, pointing out that it is not solely Facebook founder Mark Zuckerberg who should get the credit for the success of the company seems all too obvious. Who generates the value of Facebook? Who populates its databases that sucker in further members? It was Internet users and not Facebook's employees who contributed the astronomical number of photos and who set up the two hundred million member accounts. In 2006, Time's Person of the Year was "You", and not Mark Zuckerberg.[116] However, we should not forget the large cadre of developers who build the software architecture that carries Facebook. It was not merely those with an active Facebook account who put in the hours to make that company a success.

Furthermore, as Maurizio Lazzarato explained, value is also determined through public opinion whose development is in turn affected by two factors: the press and conversation. (Lazzarato 195). The question how Facebook is perceived matters as much if not more than its contributor numbers and actual revenues. Adam Arvidsson reveals that while it is "impossible to measure in any precise way, figures indicate that the value of brands amounted to some 20 percent of the market value of forms in the 1950s, and some 70 percent in the 2000s. Interbrand, the words most important brand consulting firm, routinely value brands to between 30-60 per cent of the market value of companies" (Arvidsson 65).

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[115] For full-length poem please see Appendix #1.
[116] It is still worth noting that the Time journalists picked the distant "You" instead of the inclusive "Us". They did not seem to feel implicated in participatory cultures.

In addition to the company's own public relations efforts, it is the large number of active members of social networking services like Facebook who contribute to the public perception of such companies. In the face of the rather cocky Mark Zuckerberg, users may well remind the public that it was them, luck and the press, and not the genius of the founder who made Facebook so prominent.

Internet users are frequently unaware and unconcerned about the value of their "labour". After all, they are having fun and how much could their submitted data be worth anyway? And we need to acknowledge that the operators of sites like EBay, Amazon, and YouTube also have considerable operational costs, which in the eyes of many justify the advertisement and further expropriation of the value of user data. When we are logging on to Facebook we are entering an environment that was built, first of all, with the motive of profit. In an interview that I conducted with Salon.com co-founder Scott Rosenberg, he suggested that it is extremely important for anyone to understand that it is the main goal for any for-profit business to earn a profit. Public companies are committed to the interests of shareholders; he said, and private companies are committed to the interests of owners. In other words, "There is an intrinsic capitalistic motivation of Internet corporations to commodify users and user data in order to accumulate capital" (Fuchs).[117] It is important to remind ourselves of this fact when we are switching on our computers.

The Turkish/American artist Burak Arikan does just that; he draws attention to what he calls user labour with his project *Meta-Markets* (http://meta-markets.com/) "When people sign up for *Meta-Markets*, they are faced with the simple question: What is the value of my work?" Arikan writes. *Meta-Markets* is a symbolic stock market for your contributions to new social media platforms like YouTube or Delicious. The site visualizes your submissions to these sites, which you

[117] Fuchs, Christian. "[iDC] Terms of Agreement: The Internet as Playground and Factory." *Mailing list of the Institute for Distributed Creativity*. 16 June 2009. Web. 14 July 2009. <https://lists.thing.net/pipermail/idc/2009-June/003564.html>.

can then trade and discuss with other users and all of these activities raise awareness of user labour.
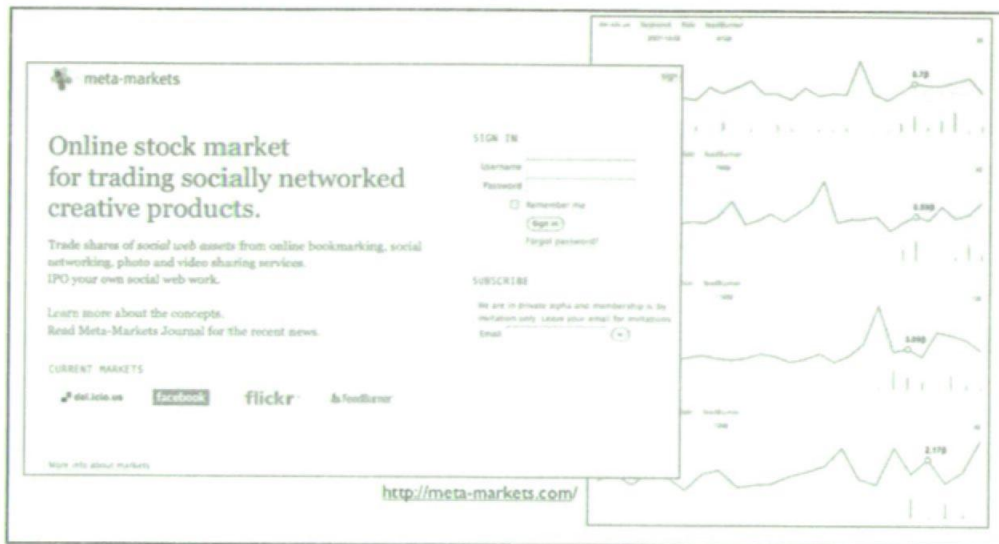
It is crucial to remind users first, that any privately owned company is committed to the goal of its owners and secondly, that their interactivity labour has value, that they generate wealth and contribute to the speculative value of the brand of the company and Arian's project works well on that level.

10.2. Co-Creating the Experience and Consuming It Too

According to Jonathan Beller, the materials of thought have become the hammer, nails, and bulldozers of contemporary social production. (Beller 297) But life is not all about labour and production in the traditional sense. What constitutes economic value is continuously shifting and expanding. "Social objects" such as images, videos, audio, language, and communication are all sources of value because are the "honey traps" for prospective members. Social objects create the experiential riches that draw people in. Capital constantly redefines what counts as value. We are entering centralized, experimental ecologies based on continuous interaction (Thrift, 282) and value is captured from our mere presence, even from our silent participation. Internet users co-create the experiential social milieus that they are then consuming. This new social media ecology is less about selling products or services and more about environments in which users/costumers co-create their own

experience. Our human qualities are fed directly into the stream of corporate value creation. We are co-creating the experiences, which we are then consuming. We are choreographing experiences through our togetherness.

Value is produced for the operators through our play, which is monitored, analyzed, and sold. We are becoming party to the colonization of our attention, the capture of our dialogical performances and the expropriation of our emotions and intellect.

Value, however, is also generated for users. On the business contact site LinkedIn, for example, this includes support for professional networking, which helps workers to create pervasive social capital; their professional reputation is documented and becomes portable. Value for users is also generated by interactions on corporate platforms and this includes activist Facebook groups like the Egyptian April 6Th Movement, Kenyan discussion groups about HIV and AIDS, and the "Single and Looking in Saudi Arabia" Facebook group.

In virtual worlds like Second Life it is the entire world (i.e., all the virtual objects) that is created by its "residents". It is "merely" the "real estate", the technical environment that enables all that sociality and creativity, which is provided by Linden Labs. Jonathan Beller explains that value is created through the expropriation of the commons, not only of water, air, federal lands, DNA, and nature, but of all of the objective and subjective resources that have to date constituted the "human" in humanity. Biopsychic processes are put to work and this monetization is increasingly legalized and routinized. It becomes as inescapable as the air that we will soon pay to breathe if things are left to continue on their current trajectory (Beller 301).[118] The dynamic of co-creating consumers who are consuming the products of their own making (and pay for it with attention to advertising) is a perplexing phenomenon.

> [M]arkets become less simple means of selling products … and more forums in which interchange takes place around a co-created commodity experience: 'products and services are not the basis of value. Rather, *value is embedded in the experiences co-created by the individual in an experience environment that the company co-develops with consumers'*.
> (Thrift 290)

The co-created commodity experience that Thrift refers to is often centred around "social objects" including music, photos, virtual objects, videos, URLs, and –to a large extent—other users. The company, as Thrift put it, co-develops with consumers. But this is where Thrift's astute analysis stops. And in fact what is taking place is not simply co-development (a rather friendly term)—it is an extremely sophisticated system of expropriation that balances joys with labour.

Facebook is a good example for that. The various (and frequently repeating) "user rebellions", first against the Newsfeed (2006) and then in response to the opt-in

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[118] Maurizio Lazzarato also comments: [Common goods] are not only like water, air, and nature etc. – 'goods' of all – but rather created and realized like the modalities that Marcel Duchamp uses to speak about artistic creation. A work of art is indeed for one half the result of the activity of the artist and for the other half the result of the activity of the public (which looks at it, reads it, or listens to it). (Lazzarato 199)

default of a social advertising application called Beacon (2007) should be understood as consumer feedback loops, as co-creation, as participation in the production process. These "rebellions" have nothing in common with mutiny. Nobody puts Mark Zuckerberg on a raft and leaves him adrift. The so-called user-rebellions are consumer feedback loops. The company co-develops the "experience environment".

The value of "user-generated content" – as it is often referred to-- has more to do with its appeal to other users than with ownership and intellectual property rights. Facebook does not care about the products of the creativity and knowledge of their members per se. They have no need to sell the photos that we upload to the highest bidder. These photos do, however, make Facebook a richer "experience environment", as Thrift calls it. Portability is a bigger issue than ownership but I will return to this topic later on in this chapter. While it may not matter so much who owns the photos on Facebook, it matters a lot if they can be easily moved to another service. While Facebook is willing to consider a Creative Commons license for the content on its platform, it is not willing to make actual content such as videos or photos portable at all.[119] The same is true for our status updates, posted news items, and friendship connections. The fact that all of this information, communication and material is available in the walled garden of Facebook creates value.

10.3. Institutionalized Labour

> The inquiry into the profitable stripping of attention seems to be the key
> question for the current generation of venture capitalists.
> (Beller 303)

Value is also created through the pull of a large variety of voices into one single space. The aggregation of people into an "experiential nexus" is an asset of the networked economy. The idea of such an "experiential nexus" is not new; the Tour

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[119] I am referring to the lack of an export feature. Of course, services like FacebookConnect allow users a "leashed walk" to another site but the material itself remains on Facebook.

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de France, for example, was originally created in 1903 as a circulation-boosting promotional device for the French daily sporting newspaper *L'Equipe* (Ahonen, Moore 36). Together with their friends, spectators watched each other and the cyclists.

Attracting users is not so different online. People form loose and often-temporary groups, they assemble in clusters, relating to their specific set of interests. Making use of an ever-widening spectre of new social media, they hunt, gather, and share information. For better or for worse, long-forgotten high school friends get back in touch; the network effect is operative.[120]

From the very early days of the World Wide Web, companies tried to use "virtual community" as a device for aggregating purchasing power and very often this did not succeed, i.e., see chapter 6.2. about the failure of LucasFilm's *Habitat*. However, in the case of YouTube this effort to aggregate users succeeded and its founder were aware of the creators of their wealth.

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[120] If only two people own a fax machine, then this technology is fairly worthless. If a few million people own that machine, then this technology becomes incredibly powerful.

In November 2006, Google acquired YouTube for $ 1.65 billion in stock options. In a video posted to the video sharing site, one of the YouTube founders, Steve Chen, dazzled by his sudden riches states, said:

> Thanks to everyone of you guys that have been contributing to YouTube, to the community. We would not be anywhere close to where we are without the help of this community.[121]

It really was "everyone of you guys that have been contributing to YouTube" that added to the extremely speculative value that was based on the concentration of users on that site. To this day the profits of this video sharing site are minute.

Consumers have become involved in the production of communities around particular commodities which themselves generate value, by fostering allegiance, by offering instant feedback and by providing active interventions in the commodity itself. (Thrift 290) It was not merely YouTube's interface that pulled in all of those users. I discussed some of the reasons for the initial attraction of users to particular social media services in section 5.4. Beyond the reasons for the success of some sites wit regard to the aggregation of users, it is important to point out that value comes from a large number of users that have a strong investment in your platform. That may well be content, friendships, acquaintances, or mere ritualistic attachment to your site. These assets are locked down and never let go off by today's operators.

> Capital "is obliged ([in] a life-and-death necessity for the capitalist) not to 'redistribute' the power that the new quality of labour and organization imply."
> (Lazzarato)

> The by-product [of sharing creative output in the context of free software] consists of a right of any one participant in the current scheme to "leave", to stop participation.
> (Rose)[122]

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[121] "A Message From Chad and Steve." *YouTube.* 9 Oct. 2006. Web. 14 July 2009.
<http://www.youtube.com/watch?v=QCVxQ_3Ejkg>.
[122] Rose, Samuel. "[iDC] recursive publics." *Mailing list of the Institute for Distributed Creativity.* 9 July 2009. Web. 11 July 2009. <https://lists.thing.net/pipermail/idc/2009-July/003768.html>.

> Lowering the exit costs would bring down the 'walled gardens' of the web, big companies ... cling to every grain of competitive advantage they can get. Therefore, most companies won't willingly want to let you take out the information you've put in, and take your business elsewhere "easily." Sure, some will. But most start-ups have it written right into their fundraising presentation: 'once users start working with us, they are locked in and will find it very hard to leave.' [T]hat's one of the reasons they get bought for millions of dollars by the big guys.
> (Hilborn)

Social networking services are like religious sects: extremely easy to join but exceptionally hard to leave. For most people in advanced societies, participation is a personal and professional imperative. Once we created an account with one of the main social networking services and participated for a while, it becomes very costly to leave. It what is sometimes referred to as the Hotel California Effect: "It's such a lovely place" where you can check out at any time, where you can close your account at any time "but you can never leave!"[123] because you cannot take your friend lists and photos, and videos and notes, and conversations with you. You cannot easily export any of the material that you contributed. For some people, Facebook may be the only way to find out about current email addresses or even phone numbers of their friends. For users who have enough of Facebook, there is hardly an easy way out.

Maurizio Lazzarato accurately points out that it is essential for enterprises not to "'redistribute' the power [of this new] quality of labour and organization". As the main asset of social networking services is really the user herself, businesses will do everything in their power to keep her.

In 2008, when Facebook hired Republican Ted Ullyot, former chief of staff to former U.S. Attorney General Alberto Gonzales,[124] as General Counsel, some people wanted to leave the site but once they considered it, the cost was much higher than they had

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[123] These lyrics originate in the 1977 Eagles album *Hotel California*.
[124] Ullyot helped coordinate the response to the investigation into the leak of CIA operative Valerie Plame's identity. He also served chief of staff to former U.S. Atty. General Alberto Gonzales.

imagined. Facebook is currently the default gathering spot in North America and with 200 million users its size and centrality are unprecedented. This means that for very many people, most of their friends, family, and acquaintances are on the site.

Theoretically, it would be possible to copy each photo and save it on the desktop or go from one friend profile to the next and jot down email addresses and cell phone numbers. However, that would be a very arduous process given that most users have several hundred friends on the site. In addition, contact information changes frequently and is usually up-to-date on Facebook and therefore the site even competes with the traditional phone book.

One of my students pointed out that his entire generation is on Facebook and that leaving the social networking service would cut him off from all of them especially because younger users tend not to use email very much. Communication among them happens on social networking services. An image that widely circulated online confirms that. It shows a grave stone with the inscription:

> Here lies email
> Not really dead
> But used by kids
> Only to talk to the man.

http://farm4.static.flickr.com/3255/2859 1
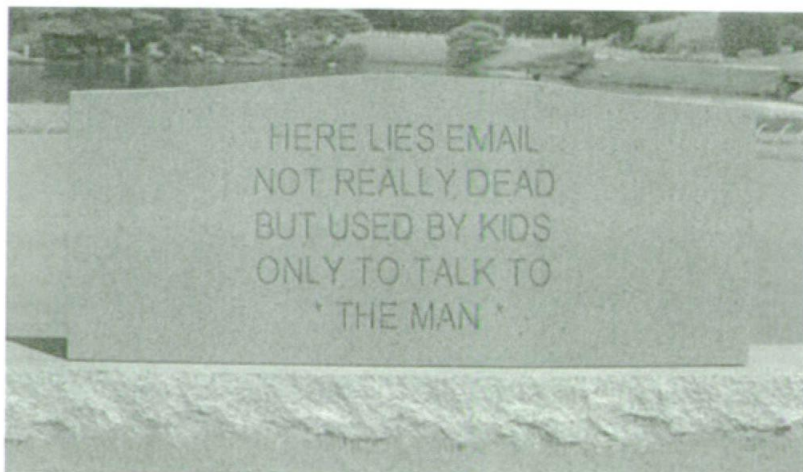
It is not all that surprising that Facebook does not offer an export feature that would allow the disaffected member to pack his or her "belongings" and leave. As Isabel Walcott Hilborn pointed out, it is at the core of most "Web 2.0" start up companies to make it as easy as possible to take in material and then lock it up on their platform. It is a spider web of profit. Users of Facebook are by no means free to leave. They are locked up, institutionalized, despite the fact that Facebook may not be the only platform that they are using.

I have not seen a single example that would suggest that "hordes of users" migrate from one such dominant site to another. This is especially true as there never has been a social networking service that has been as dominant and mainstream as Facebook.

The demise of Friendster is usually brought up as example of disgruntled users deserting a site in large numbers. This comparison, however, does not hold up as users had much less material invested in that site. Facebook holds more photos than even Flickr and it would be hard to imagine that users could easily leave those behind.

Why not simply leave and switch to another service? You cannot escape the media ownership monopoly by leaving Facebook for Netscape-owned Ning, for example. Switching from one platform to another just means switching from one corporate fiefdom to another.

In his essay "The Social Dynamic of Privacy on Facebook" legal scholar James Grimmelman strongly warns against data portability. He writes

> Some people think the biggest problems with social network sites are closure and lock-in. When users can't easily carry their digital identities with them from one site to another, it is much harder for new entrants to compete with an entrenched incumbent.
> (Grimmelman 41)

In what follows he describes demands for "ownership" over "their" information, as he puts it, as a trap (42). Grimmelman has a point; if I can automatically take the information that you entered into your online profile with me to another site, this would open a plethora of privacy risks. You may have entered these data with the specific context of Facebook in mind, for example. You may know most of the people with whom you are linked up on that site and you have extensive control over your privacy settings. Exporting this information to another site opens up a host of privacy issues. Grimmelman is right but I do not agree with his conclusion. It would be fairly easy to institute a permission process as part of which users would have to sign off on one of their contacts taking their profile information with them to another site. They could simply opt out if they would prefer their information not to be exported.

Services such as Facebook Connect only reinforce the walled garden effect of these social networking services. Facebook Connect is single sign-on service that enables Facebook users to login to affiliated sites using their Facebook account. Once they are logged on, they can locate their Facebook friends on other sites like CNN The Forum or CitySearch. This ability to connect with your Facebook on sites other than Facebook has nothing to do with the export of data. In fact, it only reinforces the monocultures of the Web. Users are glad to escape the hassle of filling out online profiles but at the same time they are reinforcing the dominance of a select few big players.

10.4. Anonymous Digital Traces: The Stories That Are Told About Us

> The machine does the interacting for us. Viewers are active in the sense that they are always providing information about themselves- but they are not critically active in the sense of making us aware that monitoring is taking place and how the information is being used.
> (Andrejevic 195)

Our digital traces create value. Market researchers gather data about our web-surfing behaviour and MP3 listening patterns. They are aggregating and sorting it, they are extracting usable patterns (Andrejevic 197). Andrejevic points out that the monitoring of our traces has become increasingly seamless, it often happens without us being aware of it. We are frequently unclear what is recorded about our navigational behaviour, etc. As a recent IBM/MIT study shows, more companies are sure to study the company we keep - and even attempt to calculate how much each friendship is worth (Wu, Ching-Yung, Aral, Brynjolfsson).

Just take the data that we knowingly provide to Facebook in our profile. We list the music and movies we like, the books we read, our address, phone number, email, jobs, educational history and career path, birth date, sexual orientation, interests, family, relation to friends, colleagues, and acquaintances. We may even add photo albums and videos in addition to all of that information. It feels natural to connect with friends in these environments or to play games, to chat and read books

together. The data gleaners, paid by government and business, however, can harvest the data streams that we often provide unknowingly. At this point, marketers are still by all means "inefficient" as they are still not very "good" at using the data that they have at their avail (much gets thrown away).

With regard to privacy, the relationship between users and companies is complicated; it is hard to determine what is "fair" in this complex tradeoff between pleasure and expropriation; it is easy to loose ground, misstep.

Our attention, imagination, creativity, and faith are financialized. The potential for marketers is to tailor ads to our specific interests and for operators that they can let users market to each other. This is not an all out bad proposition. Perhaps we may even appreciate highly targeted advertisements that expose us only to commodities that we would really consider but privacy needs to be constantly renegotiated.

The data streams of users are recorded, saved in databases, and consequently sold to market research firms. These streams include an amazing depth of information about a given user's browsing behaviour. Facebook and the communal music site Last.fm do not pass on information attached to the user's name. In purposefully casual manner, Last.fm assures users that they will not "pass [their] email address on to anyone, not even Lars Ulrich at gunpoint". Last.fm does, however, make the data of your anonymous listening habits available to other users of their service and they warn that they would disclose your data if they were to ever sell the company.[125]

2002. 15,000,000 users (07), Last.fm
Exploring/Sharing Music Tracks/Files

Such anonymous use of data, detached from the user's name may be the most

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[125] "Terms of Use – Last.fm." *Last.fm*. 2 May 2009. Web. 11 July 2009.
<http://www.last.fm/popups/terms>.

benevolent use of data streams; something that many users may be willing to live with. Feelings of users about their privacy vary from "I don't care" to "that's all that matters" and which side of that divide you are on may be decided by your age. Younger users have considerably looser conceptions of how tightly their privacy has to be protected. Thoughtful privacy policy should include the right of users to listen to background conversations about them.

There are stories that are told about us and we should know what is said. We should also know who reads these stories and we should be allowed to check if they are in fact accurate. Privacy becomes a social cost if decisions that have a real effect on our lives are based on these stories. Health insurance is one area of concern. Erroneous information about you may lead to higher premiums. Unconstitutional actions of government are another. Sensible information could be leaked and wrong data could have severe consequences. Job applications are another area of concern. Social networking services blend casual and professional conversations and too much disclosure or inappropriate forms of address may hurt applicants.

10.5. Speculation and the Myth of Mainstream Operators Not Making Any "Real" Money

When discussing the value that is created online, some argue that it is all just speculation. And indeed, for many companies the slogan is: Your company is worth as much as someone is willing to give you for it. The value of many dotcom companies is largely speculative, it is not based on their actual revenue but instead it refers to their estimated value. That value can, of course, change drastically from one day to the other as periodic crashes of market speculation, from tulip mania (1637) to the crash of the computer industry in the 1980's and the dotcom industry in the 1990s powerfully demonstrated. The speculative financial value of social networking services becomes apparent when corporate giants like Google or Microsoft buy up companies. During the dotcom years many corporations started to think about their enterprise more in terms of what it would be worth if they would sell it today instead of the revenue generated by the products that they are

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producing. The estimated value of Facebook is about 10 billion dollars. And maybe that's not so speculative after all.

> $15 billion for Facebook doesn't sound so crazy when you consider this: A Deutsche Bank analyst says that a newspaper reader in 2004 was worth $964 a year. Today, that's $500. Facebook's 50 million active users translate to $300 per year at that valuation. And newspapers are shrinking while Facebook is growing by 200,000 new users a day. A day.
> (Rosen)[126]

The hopes of many Internet entrepreneurs are about this kind of buyout-based on speculative value rather than the creation of a financially sustainable company.

> The profits [for Internet advertising profits in the USA] amounted to 21.2 billion US$ in 2007, which make up 11.0% of the total US advertising profits (Source: IAB Internet Advertising Revenue Report 2007). The online advertising profits were higher than the profits made by radio- and cable TV-advertising in 2007 and were only exceeded by profits in newspaper- and TV Distribution advertising.
> (Fuchs 32)

In the context of a recent iDC discussion, Jean Burgess claimed that there is a "profound inability of most of these platform providers to make any real money out of the activity of their users - once you factor in bandwidth costs, at least thus far." (IDC[127]) Intermediaries and marketers, I agree, are still by all means inefficient. They are not very good at using the data that they have at their avail (much gets thrown away, for example).

However, it is a myth that mainstream online intermediaries currently do not make "real money." (YouTube is indeed a counter example.) Like a mantra, Internet consultants repeat that it is quite possible that social networking, just like e-mail in the past, will never turn significant profits. For me, the perception that no "real money" is made has more to do with speculative behaviour ($1.6 billion for

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[126] Rosen, Jay. "Social value." *BuzzMachine.* 27 Oct. 2007. Web. 11 July 2009 <http://www.buzzmachine.com/2007/10/27/social-value/>.
[127] She later specified that she referred to YouTube.
Dean, Jodi. "[iDC] MySpace staff cuts." *Mailing list of the Institute for Distributed Creativity.* June 2009. Web. 11 July 2009 <https://lists.thing.net/pipermail/idc/2009-June/003632.html>.

YouTube?) and the insatiable greed of operators than with the financial data on the ground.

operational_costs
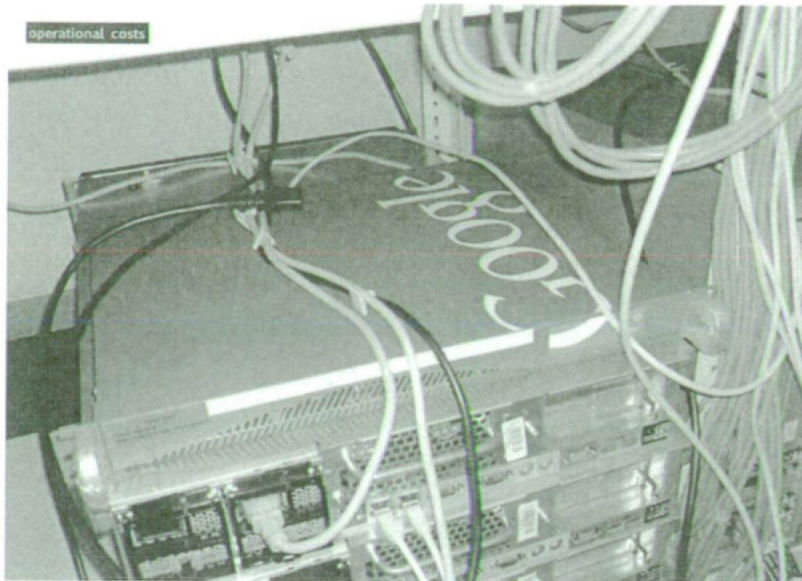
In 2006, MySpace's annual operating budget was $40 million.[128] It is, of course, costly to run thousands of servers and the needed bandwidth to sustain the networked public life of millions is expensive. She is right-- even content, submitted by users, comes at a price. Some companies have to pay employees to filter out inappropriate material, developers have to build robust software, and system administrators have to keep it all going.

In 2005, NewsCorp bought MySpace for about $650 million and in 2009 its estimated value is $15 billion.[129]

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[128] MySpace is ranked as the 7th highest traffic website by Alexa.com, followed by Wikipedia as number 8. For the 2007-2008 financial year the WikiMedia Foundation used about $2.9 million to run its operations, which is significantly lower than the dollar amount that MySpace spent. Craigslist spends $1.2 million that every year on operations. However, it is hard to compare these services with MySpace.
"Blog Archive Wikimedia Foundation 2008-2009 Annual Plan." *Wikimedia blog*. 1 July 200. Web. 11 July 2009. <http://blog.wikimedia.org/2008/07/01/wikimedia-foundation-2008-2009-annual-plan/>.
[129] Swartz, Jon. "Social-networking sites work to turn users into profits." *USA TODAY*. 11 May 2008. Web. 11 July 2009 <http://www.usatoday.com/tech/techinvestor/industry/2008-05-11-social-networking_N.htm>.

However, in 2008 alone MySpace made more than $700 million from advertising.[130] I would call that real money. Nevertheless, these numbers do suggest that in the case of MySpace the profits made off the interactivity labour of users are substantial and that is without me even mentioning its $900 million deal with Google.[131] In the same article Swartz states that Facebook hopes to double its revenue to $300 million in 2009, its fourth year of existence.

The operating costs of online intermediaries are considerable and while the profits may not be as astronomical as analysts in Silicon Valley may have hoped, the corporate gains from the commoditization of networked publics are not a product of the imagination. Online operators such as MySpace or Facebook are profitable.

> The advertising business is the business of buying and selling attention in bulk quantities. Media outlets such as newspapers, TV, radio shows and online periodicals get to pay attention by giving you information you want. Then the media outlets turn around to the advertisers and say 'We have all these people paying attention to us. Give us some money and we will slip your message in front of them for a moment.
> (Beller 302, 303)

On the one hand, in business circles, Web 2.0 is spoken of as being a failure because it "has no business model", which could be monetized on a large scale.[132]
On the other hand, it would be hard to deny that online advertising is lucrative. It is an attention market. When you want something from somebody, the first thing you have to achieve is getting their attention. Online, in the market of attention, operators offer services and experiences, which users appreciate. In just five years, the business-contact site LinkedIn has built a booming business in five years

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[130] Since MySpace scored a $900 million, three-year deal with Google in 2006, MySpace has been profitable. And it has given News Corp. a nice turn on its $650 million acquisition in 2005; Richard Greenfield, an analyst at Pali Capital, expects MySpace to haul in $700 million to $800 million in revenue in fiscal 2008, mostly in advertising.
[131] Swartz, Jon. "Social-networking sites work to turn users into profits." *USA TODAY.* 11 May 2008. Web. 11 July 2009 <http://www.usatoday.com/tech/techinvestor/industry/2008-05-11-social-networking_N.htm>.
[132] Wythoff, Grant. "[iDC] Introduction: The Internet as Playground and Factory." *Mailing list of the Institute for Distributed Creativity.* 7 June 2009. Web. 11 July 2009.
<https://lists.thing.net/pipermail/idc/2009-June/003462.html>.

through banner ads. They offer a service that is useful to many users who are looking for a job. Facebook is more focused on a broad experience, *a networked spectacle*. We are having an experience and we are passing it on.

> Humans will have to make themselves increasingly porous to data chains, such that not only their (I mean "our") interests in cars and digital cameras are legible, but eventually their medical requirements, food preferences, psychopathologies, and erections will be subject to the laws of informatics and monetization. We will not only create information, we will be ... information.
> (Beller 308)

> Part of the appeal of viral marketing in the perpetually downsizing, perpetually rationalising corporate world is that it shifts the burden of marketing labour onto the consumer". ... "The user is simply a node for the passing on of a segment of experience. " ... "By pushing marketing into the realm of experiential communication, by attempting thereby to become part of the flow of material affect, virals move ever further away from strictly coded messages into the uncertain realm of pervasive communication.
> (Fuller)

Companies are becoming total institutions that exert influence over many aspects of social life (Rifkin 184).

Advertisements on the Internet are frequently personalized, which is made possible by recording, storing, and assessing our activities. On social networking services, customers are "well-lit." Operators recognize the enthusiasms and pleasures of consumers' involvements with the experiences that they offer. They innovate experiences by shifting the boundaries between private and collective. (Thrift 289) Much of what used to be private is now publically accessible.

10.6. When Free Comes at a Prize

> We have built a country-sized economy online where the default price is zero — nothing, nada, zip.
> (Anderson)

> New media corporations do not (or hardly) pay the users for the production of content. One accumulation strategy is to give them free access to services

> and platforms, let them produce content, and to accumulate a large number of produsers that is sold to third party advertisers. *Not a product is sold to the users, but the users are sold as a commodity to advertisers.* The more users a platform has, the higher the advertising rates can be set.
> (Fuchs 30)

When discussing "value" in the context of the social web, ne of the first comments is usually that the services that are offered are free. I propose that these services are by no means free. In February 2009, the editor-in-chief of Wired magazine, Chris Anderson, wrote "The Economics of giving it away for free",[133] a provocative piece for the Wall Street Journal. He started by claiming the economy online comes at a default price of $ 0,00. His rhetoric continues: "For the Google Generation, the Internet is the land of the free". As examples, Anderson brings in listening to free music on Pandora, watching free video on Hulu, and people killing their landlines in favour of Skype.

Anderson argues that nearly everything online is "free" but he does not say much about the cost. There are, of course, operational costs for Twitter, Facebook, MySpace, LinkedIn etc. Developers, programmers, and system administrators do not work for free. Servers have to be bought, operated, updated, and maintained.

Some argue that users of so-called free services are making a tacit exchange when they sign up for a social media service. The user base, the argument goes, is the "chief capital asset of any social network or site, with a discreet dollar value per user".[134] We pay attention to the ads that are served to us and if enough of us click on those links, then the economic model pays off. In addition, the data that we enter into profiles can be analyzed by marketing agencies.

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[133] Anderson, Chris. "The Economics of Giving It Away." *The Wall Street Journal.* 2 Feb. 2009. Web. 11 July 2009. <http://online.wsj.com/article/SB123335678420235003.html>.
[134] Postman, Joel. "The myth of 'free'" *Socialized Blog.* 3 Feb. 2009. Web. 14 July 2009. <http://www.socializedpr.com/the-myth-of-free/>.

Anderson also refers to other models of generating monetary value, starting with a free version of a service that is supported by a paid premium version. In this economic model the minority of customers who pay subsidize the majority that does not.

Up to a point, Anderson celebrates what he calls the "free service" but after describing how "ineffective" the advertising on amazingly popular services like Facebook or YouTube really is, he also cautions that "Free may be the best price, but it can't be the only one".[135]

Anderson's suggestion falls short. First, users dearly pay for the services because they are co-creating them. Without the attention, knowledge and creativity that goes into the posts, videos, and photos that we are contributing these services literally could not exist. Our social linkages and deeply personal data are marketed; data of users are collected, statistically analyzed, processed, and sold. Free clearly comes at a price.

User labour does not merely produce a product; it generates value through the capture of sociality. Small acts of volunteerism are aggregated; they are gathered through the long tail, which is aptly summarized by Nigel Thrift.

> Another means of extending the commodity has proved to be through finding means of aggregating so-called 'long tails' so as to make more goods more saleable. In this model, information technology makes it possible to sell more goods but this is not just a logistical exercise. It involves the active fostering of various consumer communities and their aggregation into critical masses with the result that commodities that would have had only faint sales records in the past because of their isolated 'audience' come to have substantive sales records, which, when aggregated with those of other audiences, produce a substantial new market segment.
> (Thrift 288)

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[135] Anderson writes: "Facebook is an amazingly popular service, but it also an amazingly ineffective advertising platform. Even if you could figure out what the right ad to serve next to a high-school girl's party pictures might be, she and her friends probably won't click on it. No wonder Facebook applications get less than $1 per 1,000 views (compared to around $20 on big media Web sites)".
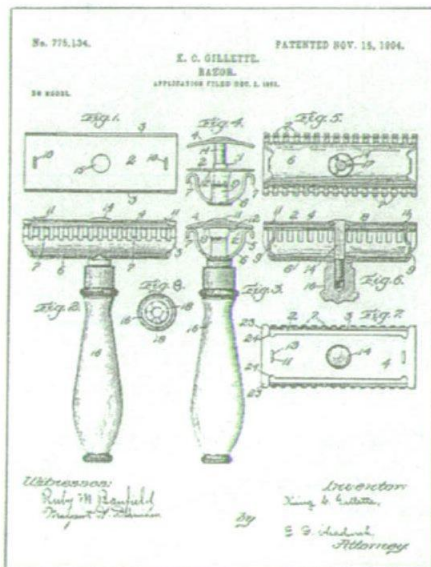
Toward the end of his article, Anderson mentions Gillette who pioneered the idea of the free product that was not. It's not a radical idea anymore to give a product away for free; economists call it a cross-subsidy.

In its first year, 1903, Gillette only sold a total of 51 razors. Over the next two decades, he tried everything he could think of: He put his own face on the package, he sold millions of razors to the Army at a steep discount, hoping that the habits that soldiers would develop at war would carry over to peacetime. He sold razors in bulk to banks so that they could give them away to customers who opened new accounts (i.e., "shave and save" campaigns). Razors were bundled with everything from Wrigley's gum to packets of coffee, tea, spices, and marshmallows. The freebies helped to sell those products; by giving away the razors, which were useless by themselves, he created demand for disposable blades. A few billion blades later, this business model is now the foundation of entire industries: Give away the cell phone, sell the monthly plan; make the videogame console cheap and sell expensive games; sell the laser printer at a low cost and charge almost as much for each cartridge, install fully automated coffeemakers in offices at no charge so you can sell expensive coffee sachets later.

In the context of social media services this means: give away access to your platform, your product, free-of-charge and in return get people to provide you with data about themselves, to create a rich experience environment and lure in more users.

Free means that you are welcome to pay attention, free to spend your time, permitted to think and contribute, and invited to co-innovate and be "worked on".

Once people sign on to a given service, it is easy to lock them in, a process that I will describe in detail in an upcoming chapter about walled gardens.

The free services that Anderson talks about are not unrelated to the free give away of the Netscape Communicator browser in 1998. In return for the free download, Netscape got a lot of good will – the reputation of its brand flourished-- which translated into the readiness of countless volunteers who did intensive unpaid alpha and beta testing for the company.

In the context of social media services, this means that users who populate the data bases of MySpace, Facebook, and LinkedIn see their contributions as a payoff for the free access. There is a price for every service but the payback becomes subtler, harder to notice, and inscrutable. Activists who organize via Facebook or filmmakers who use these platforms to distribute their work (e.g., LonelyGirl15)[136] also create value.

Which sources of value will be monetized in the near future? A study by MIT and IBM shows that there is a growing realization in business circles that there are lots of untapped resources on social networking services. The linkages that could be made are still not realized. Now, you can determine that somebody who bought a dark blue cotton sweater is also single, urban, and friends with people who listen to Coldplay, Snow Patrol, and Red Hot Chile Peppers. The mentioned MIT/IBM study points out that "Little research leverages the ample data that are created by people's interactions, such as e-mail, call logs, text messaging, document repositories, web

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[136] *LonelyGirl15* But also artists endeavour creative incursions into corporate platforms.
In June 2006, filmmakers started *LonelyGirl15*. Using the YouTube platform, they developed a series of diarist video vignettes centring on the life of a fictional teenage girl named Bree who is the eponymous *Loneygirl15*. The series is presented through short, regularly updated video posts and the narrative of the series was heavily influenced by comments that viewers contributed. This negotiation of the progression of the narrative of *LonelyGirl15* is a good example of the brokerage between consuming users and media producers that Henry Jenkins describes. *LonelyGirl15* achieved international media attention ostensibly as a real video blogger who gained momentum on YouTube. Eventually viewers found out that Bree was a fictitious character played by American-New Zealand actress Jessica Rose.

2.0 tools, and so on." As a result, important questions like... what is the appropriate timing of communication to actors of interest', and the like have been completely neglected. (Wu, Chig-Yung, Aral, Brynjolfson 2)

Chapter 11. Resisting Exploitation

> [M]onetizing the attention we choose to direct outward is not a problem that resonates with most people.
>> (Udell)

> Efforts around ICTs and education [in economic developing countries] seem to be a factory for producing the subjects of communicative capitalism.
>> (Dean)[137]

For Karl Marx, exploitation occurred whenever surplus profit was generated. In his view, those who owned the means of production lived off the workers who were loosing out. According to technology commentator Jon Udell, very many people do not perceive the monetization of attention as exploitative. It does not resonate with very many people outside of academia. More people may be open to an understanding of educational IT initiatives in economic developing countries as ' factories for producing the subjects of communicative capitalism.'[138]

Today, the means of communication are in the hands of Internet users but the environments in which those tools reside are privately owned. Is this really exploitation or does it stop at expropriation? And if there are examples of exploitation: Are they endemic or are they merely the exception?

Exploitation in new social media contexts is rarely fertilized by sweat and watered by the tears of the seven year-old child that works sixteen-hour days in the factory. The kind of exploitation that Marx described still exists today but, in the face of globalization, it is far less visible at least in overdeveloped countries such as the United States. The 100,000 "gold farmers" who worked in China's gaming factories, four years ago -- far outside urban areas, earning virtual currency by shooting virtual enemies in online games (Dibbell 2007), arguably were exploited. They slept

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[137] Dean, Jodi. "[iDC] Fetish and Trauma: Jodi Dean's "Communicative Capitalism." *Mailing List of the Institute for Distributed Creativity.* 22 June 2009. Web. 12 July 2009.
<https://lists.thing.net/pipermail/idc/2009-June/003619.html>.
[138] Dean, Jodi. "[iDC] Fetish and Trauma: Jodi Dean's "Communicative Capitalism."*Mailing List of the Institute for Distributed Creativity.* 22 June 2009. Web. 12 July 2009.
<https://lists.thing.net/pipermail/idc/2009-June/003619.html>.

in rural dorms far from home and were unfairly paid. But dazzling stories like this, are not representative for what happens online.

Social participation is -- for the very most part -- mutually beneficial for Internet users and the operators of new social media services. There are instances of exploitation in that context but they are not representative.

What may look like exploitation at first is, on reflection, a situation in which users benefit from each other (and the social milieu that they inhabit) while corporate hosts capture value from them- the end-users of their product.

There are some moments of exploitation where Internet users are utilized in an unjust, cruel, or selfish manner or where they are unfairly used as a resource against their will or without their consent and knowledge (i.e., by way of hidden, deceptive, or hard-to-comprehend contracts). Exploitation also entails not offering workers adequate remuneration for their labour.

Generalizations about exploitation in the context of social media services often fall short because they don't take the specifics of a given tool or platform into account. Amazon.com is a good example for the complexities of pleasure, usefulness, and exploitation at work in one company all at once. (This is not to say that the cadres of people who write book reviews on Amazon.com are not exploited.) To determine if Amazon.com is exploitative we need to discuss it through the lens of specific case studies.

I am thinking about labour and the Internet for a few years now but I can only point to a few instances where exploitation in the most technical sense of the word is apparent. Mechanical Turk is one of these examples.

11.1. Amazon's Mechanical Turk

(Instances of Day Labour in the Virtual World)

Mechanical Turk, also referred to as MTurk, was launched in 2005. As one of Amazon.com's services, it enables computer programs to coordinate the use of online volunteer workers to perform tasks, which computers are unable to do.

In their terms of service, Amazon refers to the workers as "providers" and the employers as "requesters". "Providers" can work from home and remain fairly anonymous. Common tasks that are executed through MTurk include translations, the categorization of information, the editing of marketing content, the writing of reviews for websites or books and the transcription of audio or video files. One MTurk a "provider," interviewed for a Salon.com article, describes his work as follows:

> My job is to categorize the shoe based on a list of basic colours: Is it red, blue, pink, purple, white, green, yellow, multicoloured? A description next to it reads 'Pink Lemonade Leather.' This is not exactly a brain-busting task; I am doing it while talking to a friend on the phone. With the mouse, I check a box marked 'pink.' In the next split second, a picture of a navy blue shirt appears. I check 'blue.' Assuming my answers jive with those of at least two other people being paid to scrutinize the same pictures, I've just earned 4 cents.
> (Mieszkowski)[139]

Make Money
by working on HITs

HITs - *Human Intelligence Tasks* - are individual tasks that you work on. Find HITs now.

As a Mechanical Turk Worker you:
- Can work from home
- Choose your own work hours
- Get paid for doing good work

Find an interesting task → Work → Earn money

Find HITs Now

or learn more about being a Worker

Get Results
from Mechanical Turk Workers

Ask workers to complete HITs - *Human Intelligence Tasks* - and get results using Mechanical Turk. Get started.

As a Mechanical Turk Requester you:
- Have access to a global, on-demand, 24 x 7 workforce
- Get thousands of HITs completed in minutes
- Pay only when you're satisfied with the results

Fund your account → Load your tasks → Get results

Get Started

or learn more about being a Requester

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[139] Mieszkowski, Katharine. "I make $1.45 a week and I love it" *Salon.com.* 24 July 2006. Web. 11 July 2009. <http://www.salon.com/tech/feature/2006/07/24/turks/>.

MTurk was named after the 18th century chess playing automaton "the Turk," a wooden figure with a turban that seemed to have the ability to think. With a human chess expert hidden inside it, "the Turk" turned out to be a hoax. Conversely, Amazon.com founder Jeff Bezos is proud of the fact that MTurk is a platform that coordinates the human work force of thousands of people.

All you need to participate is a computer, a net connection, and an Amazon account. The "providers" perform activities that computers are not capable of (e.g., image recognition). Workers answer questions like "Do the images on this website match with the content?" One could say that the employers who are using MTurk are using people as computers; which fulfils Henry Ford's vision of turning workers into intensely exploitable second grade machines. It is not the machine that is using us; it's the employers at MTurk that request your attention.

Workers are exploitable because they enter into a situation of control. Sitting in their homes, their every mouse click is monitored. While the pay rates for "providers" are lousy, far below minimum wage, "requesters" get menial tasks done on the cheap. Employers also have the option of rejecting the work, which is one way of not paying the workers at all after the task is completed. The word exploitation really does fit here because the workers are often dramatically underpaid. One worker, for example, was paid $8 for a transcript of 45 minutes of video.

The language of "requesters" and "providers" obfuscates the real labour relationships at play. The original language on the MTurk website was changed from "providers" to "workers" but is still maintained in the terms of service (accessed April 17, 2009). Employers are still called "requesters" on the website.

CEOs felt emboldened by the "cost-saving" MTurk venture, which has cut their expenses by thousands of dollars. Companies who pay contracted workers through

Amazon.com do not have to file taxes and they skirt minimum-wage legislation and health insurance. The mentioned article contends that there is something a little disturbing about a billionaire like Jeff Bezos dreaming up new ways of getting ordinary folks to do work for him for pennies. However, Bezos retorts that MTurk is a marketplace where folks who have work meet up with folks who want to do work.

To some degree this sentiment is echoed in Lawrence Lessig's *Remix* where he suggests that "If those within the sharing economy begin to think of themselves as tools of a commercial economy, they will be less willing to play (Lessig 177). In addition, he says that "no one builds hybrids on community sacrifice" (244).

Bezos objects to Salon.com's insistence on calling MTurk a "virtual sweatshop". Both Lessig and Bezos propose that people would not knowingly enter situations of economic exploitation or sacrifice. Historically, however, that has not been the case; the exploited may well be aware of their exploitation but they may simply have to enter those relationships out of economic desperation.

One "Provider" (worker) describes a task he performed. "I first accepted a job from ContentSpooling.net that asked me to write three titles for an article about annuities and their use in retirement planning. Then I viewed a series of images apparently captured from a vehicle moving through the gray suburbs of North London, and, at the request of Geospatial Vision, a division of the British technology company Oxford Metrics Group, identified objects like road signs and markings. For all this, my Amazon account was credited the lordly sum of 12 cents."[140]

Concomitantly, the "Amazon Remembers" iPhone application invites users to take a photo of a product (e.g., a chair) and send it to Amazon. Within roughly a day the application provides a link to the user who can now buy this product (or a similar one) on Amazon. The application is not based on image recognition software, as it

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[140] Pontin, Jason. "The New York Times." *The New York Times.* 25 Mar. 2007. Web. 14 July 2009. <http://www.nytimes.com/2007/03/25/business/yourmoney/25Stream.html>.

may seem at first, but on the labour of a workforce that is globally distributed. Once a photo has been submitted, it is made available on MTurk where workers try to match the photo with existing products in Amazon.com's database. If they succeed, Amazon pays them 10 cents.

http://www.amazon.com/gp/feature.html?ie 1

It is hard to believe that anybody would actually perform such "human initiated task" (HIT) for 10 cents but some workers say that they are simply multitasking. They are working on MTurk while also watching TV, for example.

For the most part, Amazon.com is enabling theses labour practices; it is not actually functioning as "requester" (employer) itself; "Amazon Remembers" iPhone application is an exception. They provide the MTurk platform and employers use it. Beyond that, Amazon does not want to get involved. Through this hands-off approach, Amazon technically facilitates and condones the exploitative practices on MTurk, its code choreographs the interaction.

More than half of the people who are using MTurk live in the United States but close to 32% of MTurk workers reside in India where a few dollars may well be a welcome supplement to their income. Many more people would work for Mechanical Turk if banking access would not be a condition for participation.

In the US, many people treat MTurk as a form of entertainment. They appreciate the

repetitiveness of the tasks, which makes the work absorbing, even meditative. The biggest trick that Amazon ever pulled off was to make workers believe that what they do is not really work. That, at least, is somewhat suggested by the slogan on MTurk coffee mugs: "Why work if you can turk?"

Not everybody who uses MTurk participates in order to make money. In fact, some middle class users in the United States are reported to have used MTurk merely as entertainment --an eccentric hobby, which they enjoy with full awareness of the pitiful compensation. The meditative repetitiveness of tasks and the duration reminds some of them of a video game. "It doesn't add up to a lot of money per hour but if I am sitting there watching TV anyway, it is more than I would make just sitting there," one worker wrote. (Mieszkowski)

MTurk, for these workers, is not primarily about the money; it is a pastime just like doing crossword puzzles. Indeed, many of the traditional pastimes have, at least partially, migrated online. From playing Chess or Scrabble, to quilting bees, and book clubs, people spend their free time together to enjoy each other's company and be creative. In the case of MTurk, however, creativity and togetherness does not come into it.

MTurk is a fairly new environment, a novel and quirky activity in the eyes of many. But then there are others for whom working on MTurk is not about the novelty factor; it is a supplement to their livelihood.

MTurk is not deceptive; there are no hidden agendas but it is exploitative simply because there are many instances in which workers are not paid anywhere near to what they deserve. The fact that "requesters" can find "turkers" (as workers call themselves) to work for them does not mean that it pays them fairly. Many workers may simply be forced to take whichever job (or HIT as it is called) that they can get. Consider that most users have no college education and fall into two age groups: 18-24 or above 65. Working for MTurk may simply be one of a set of desperate and equally exploitative options.

Reports also showed that "requesters" (employers) found ways of simply not paying their workers by rejecting the work after it was already executed. "The creativity of business in avoiding its responsibility to workers never ceases to astound. It is day labour in the virtual world," a lawyer for the National Employment Law Project points out (Mieszkowski). No minimum wage, no overtime, no unemployment insurance, no health insurance, and no taxes.

In the netherworld of networked labour today's coal miners of sorts may well sit, type, and stare at screens; all day, every day and it ends up hurting them. It hurts them in ways that are slow enough and subtle enough to steal up on them (Sterling, 134). In Reinventing Nigel Thrift summarizes it succinctly:

> When a commodity produces a sufficiently compelling experience environment, consumer communities will evolve beyond a company's control, thus directly co-creating value and providing the firm with a new terrain of profit/ generalized outsourcing/ if it is nimble enough to adapt to the new conditions.
> (Thrift 290)

MTurk offers an odd, engaging, and meditative experience, which attracts users into a web of exploitation. Who are we becoming by offering ourselves up like that?

What does it say about our sense of self-worth when we have to resort to MTurk to relax? Do we really feel so powerless that it becomes our life project to "kill time". Much of this cognitive surplus could be put to collective use; just think of civic service projects like *The Extraordinaries* (http://www.theextraordinaries.org/).

Work that is executed through MTurk does not feed back into the commons but it mostly benefits the enterprise. Today the technological tentacles of the enterprise reach deep into our homes where they facilitate the extraction of even the smallest willingness and ability to work.

A graduate student a UCLA's Design/Media Arts program created a project that playfully engaged with the exploitative nature of MTurk. He invited "turkers" to draw a sheep facing to the left" at a rate of 2 cents per sheep. After 40 days 7,599 workers had contributed 12,000 sheep. The student, Aaron Koblin, then sold sets of 20 sheep for $20 at *Sheep Market* (http://thesheepmarket.com), which upset some of the workers: "Does anyone remember signing over the rights to the drawings?" In fact they did. In the terms of service, Koblin had indeed specified that workers lose all ownership rights. Other art projects, using MTurk include the *Mechanical Olympics's Channel* and *Bicycle Built for Two Thousand.*

Not all work that is offered through MTurk is exploitative.[141] A call to arms about alleged online exploitation, however, would not find many open ears.[142] The vast majority of Internet users does not feel exploited. If they would feel exploited, we would hear a loud canon of voices. Remuneration for many "HITs" is, in fact, appropriate. However, some of the cases of waged labour on MTurk are clearly exploitative but these are fairly isolated examples that do not exemplify the broader

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[141] MTurk was used to look for crash remains of Steve Fossett. Workers were provided satellite images and "turkers" looked for a missing boat and plane.
Arrington, Michael. "Search For Steve Fossett Expands To Amazon's Mechanical Turk." *TechCrunch.* 8 Sept. 2007. Web. 14 July 2009. <http://www.techcrunch.com/2007/09/08/search-for-steve-fossett-expands-to-amazons-mechanical-turk>.
[142] Andrejevic, Mark. "[iDC] Exploitation...." *Mailing List of the Institute for Distributed Creativity.* 11 June 2009. Web. 14 July 2009. <https://lists.thing.net/pipermail/idc/2009-June/003497.html>.

realities of the Web.

Amazon.com set up a scenario that allows for exploitative relationships to take shape, it sees those unfold, and it does not intervene (as if it were a neutral bystander). Some employers who use MTurk abuse their workers. The fact that workers put themselves in this weak position does not justify the exploitation that Amazon.com facilitates (and simultaneously ignores) and there is no excuse for the "requesters" who rip off thousands with the help of MTurk. At the same time, MTurk also signifies how desperate many workers must be who indeed use the platform to make ends meet.

Some people ask if "the everyday experience of the consumer in the networked economy of neoliberal globalization" is just like that on MTurk.[143] I disagree with that assertion, as free interactivity labour, and not waged micro-labour central to the digital economy. MTurk is, in fact, an exception.

It is hard to compare the paid work on Mechanical Turk to the unpaid social participation on Usenet in 1994, for example, when a small law firm run by Laurance Canter and Martha Siegel "advertised" their services as "Green Card" attorneys through unsolicited (spam) posts to countless newsgroups on Usenet. They offered would-be immigrants help in entering the US. State Department's "Green Card Lottery", which could win them immigration papers. The uproar among Usenet users was massive. [144] Was that exploitation? And what about Facebook? Exploitation is –if at all operative--- much harder to pin down. Are users exploited if

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[143] Holmes, Brian. "[iDC] Identification and dis-identification." *Mailing List of the Institute for Distributed Creativity.* 15 June 2009. Web. 14 July 2009. <https://lists.thing.net/pipermail/idc/2009-June/003545.html>.

[144] Subsequently, the Internet service provider of the "Green Card" attorneys cancelled their account claiming that Canter and Siegel had violated acceptable use policies. But that was not strictly true as Usenet netiquette was not legally binding and Canter and Siegel claimed that their right to free speech was threatened. Consequently, the EFF (Electronic Frontier Foundation) pointed out that freedom of speech was essential on Usenet but that it also cannot be destroyed by such incidences of the Tragedy of the Commons, where a single user renders the commons valueless for everybody else. The discussions about netiquette had to balance free speech issues with the ability of users to have a discussion.

the privacy and context of their informational flow is violated? Is what came to be known as the Facebook Beacon, exploitative?

11.2. Resistance: Spectacles of Internet Democracy

Internet users negotiating their roles as citizens and consumers

How then, do MTURK or Beacon users rebel against their mistreatment? There has been much revolutionary language surrounding the resistance of Facebook users against new features (e.g., "Revolution, Facebook-Style" *The New York Times*, "The Facebook revolution" *The Los Angeles Times*). However, I argue that what we are witnessing is a Spectacle of Internet Democracy where what is discussed, as political activism is in fact consumer advocacy.

MIT professor Henry Jenkins suggests an approach to social change that is characteristic of this sea change. Jenkins is in favour of what I may call "negotiation capitalism". He writes. That "What will motivate the media companies is their own economic interests. What will motivate consumer-based politics will be our shared cultural and political interests."

> *But we can't change much of anything if we are not on speaking terms with people in the media industry. A politics of confrontation must give way to one focused on tactical collaboration.* The old model, which many wisely dismissed, was that consumers vote with their pocketbooks. *The new model is that we are collectively changing the nature of the market place, and in so doing we are pressuring companies to change the products they are creating and the ways they are creating and the ways they relate to their consumers* (Jenkins 215).

Jenkins suggests a worldview in which users are reduced to their role as consumers, an unspoken definition of the term "user" that pervades most of the literature on social media. Jenkins' approach conflicts with that of Tim Berners-Lee whom I referenced earlier: "Buying books from Amazon.com and stocks from E-trade is not all there is to the Web". Jenkins' approach to social change is rooted in consumer culture and the belief in corporate accountability. The democratic potential of the Internet, however goes far beyond shopping. Later in this chapter I will provide

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specific examples that demonstrate that there is a definite glass ceiling to the negotiation of essential user rights. Jenkins continues:

> The old rhetoric of opposition and co-optation assumed a world where consumers had little direct power to shape media content and faced enormous barriers to entry into the market place, whereas the new digital environment expands the scope and reach of consumer activities.
> (Jenkins 249-250)

There are several examples that demonstrate that net users have successfully negotiated their role as consumers with corporations. They have some power in that relationship. However, beyond that, the power of citizens to negotiate positive change with their governments, due to new social media, has often been overestimated.

People also gained an increasing ability to negotiate their role as consumers. Commercial feedback loops facilitate fast exchanges, and people can rapidly express their dissatisfaction with a new product or service. The referral site Digg and the social networking utility Facebook have experienced such networked show of discontent of hundreds of thousands of users. Both companies responded and changed the feature or service that caused the protest at least temporarily. Facebook opened up its terms of service to its users, which many welcomed by some interpreted as nothing but an "undemocratic legitimatization strategy".[145] But social media do not only benefit Internet users when it comes to political engagement or consumption. They can also use the Web to make a living or to complement their income. The question should not be how to appease users by moving the scale of deception left or right …. In chapter 12, I will explore the issue of user rights.

11.2.1 The Opt-In Default of Facebook's Beacon

In 2007, the social networking service Facebook surreptitiously installed a kind of plug-in called Beacon on the profile pages of all of its users. Beacon aggregated

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[145] Fuchs, Christian. "[iDC] Terms of Agreement: The Internet as Playground and Factory." *Mailing List of the Institute for Distributed Creativity.* 16 June 2009. Web. 14 July 2009. <https://lists.thing.net/pipermail/idc/2009-June/003564.html>.

member activity on participating websites and made this information visible for one's Facebook friends. When a user made a purchase on the website of one of Facebook's partner businesses such as Blockbuster, Zappos, Fandango, or eBay, a small popup window appeared for a few seconds asking for your consent to feed details about your purchase back to Facebook, which would reveal it to your contacts. If they did not respond, this was interpreted as consent. Importantly, the Beacon feature was introduced and enabled without the consent of users; Facebook just added it in the account settings.

Beacon was installed with the default being the *on*-position, the opt-in. The CEO of Facebook, Mark Zuckerberg, however, did not think of Beacon as an underhanded invasion of user privacy; he rather celebrated it as the future of advertising. And indeed, the idea of recommending products among friends is not necessarily ill conceived; referral among friends may be helpful if not desirable. "Where did you buy these shoes? Where did you get the tiny video camera? How do you like it?" These are questions that friends are asking each other anyway, face to face, and there is nothing wrong with that. Facebook, however, took the consent of their users for granted and, from the user perspective there is a significant difference between deciding to switch on an application like Beacon and being automatically opted into it. Such automatic opt-in is especially problematic as the vast majority of Facebook users never adjust their settings and who can blame them—the site changes so frequently that it requires significant commitment to stay abreast of all the changes.

One story illustrates Facebook Beacon fairly well.[146] In November 2007, a Facebook user called "Will" bought a diamond engagement ring on Overstock.com, an online discount retailer. He was about to propose to his girlfriend. Within hours, however,

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[146] Facebook's privacy policy makes it clear: "Facebook Beacon is a means of sharing actions you have taken on third party sites, such as when you make a purchase or post a review, with your friends on Facebook. In order to provide you as a Facebook user with clear disclosure of the activity information being collected on third party sites and potentially shared with your friends on Facebook, we collect certain information from that site and present it to you after you have completed an action on that site. You have the choice to have Facebook discard that information, or to share it with your friends" (Facebook Privacy Policy, November 2, 2008).

he received a call from one of his friends who congratulated him on getting engaged. Through Facebook's Beacon, Overstock.com had published the details of the purchase (including a link to the item and its price) on his public Facebook newsfeed and had sent notifications to all of his friends and his fiancée-to-be. "I was completely livid about this", Will wrote. "This was meant to be something special and a lifetime memory".

Facebook's Beacon provides another good example of a contextual integrity violation, this time involving an information flow into a social networking site. E-commerce shoppers do not expect information of their purchases to be dispersed to third parties. They especially do not expect it to be imported into social networking sites (Grimmelman 24).[147]

Giving in to user pressure, Facebook revised Beacon as an opt-in feature.[148] This was, however, just one event in a long line of incidents that demonstrate Facebook's attitude toward privacy and user rights.

Tim Berners-Lee says it with great clarity: Privacy involves the ability of each person to dictate what can be or cannot be done with his or her personal information. There is no excuse for privacy policies not to be consensual.[149] There is much that happens without our consensus in the social milieus of the Net that we inhabit. Applications like Facebook Beacon were switched on by default, putting users into the position of having to act, to opt-out, in order not to get wronged. Facebook Beacon did exactly what Berners-Lee warned against: it distributed private information without proper consent (I do not count a popup window that

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[147] Grimmelman, James. "Facebook and the social dynamics of privacy." *Unpublished.* 23 August 2008.
[148] In response to the opt-in default of Facebook Beacon, the civic action group MoveOn.org created a Facebook group and online petition demanding that Facebook not publish their activity from other websites without explicit permission from the user. In less than ten days, this group gained 50,000 members.
"Petition: Facebook, stop invading my privacy!" *Facebook.* 14 July 2009. Web. July 15 2009. <http://www.facebook.com/group.php?gid=5930262681>.
[149] Berners-Lee, Tim. "UNESCO WebWorld."UNESCO homepage. Sept. 2000. Web. 14 July 2009. <http://www.unesco.org/webworld/points_of_views/berners-lee.shtml>.

briefly flashes up as an acceptable way of requesting permission.) Will's purchase was announced to his friends clearly in violation of existing norms of how information flows on social networking services.

Perceptions of what constitutes a privacy invasion online have changed over the past decades. Users grew accustomed to the fact that their private information circulates in semi-public environments now. Their data, their activities are visible and transparent to many other users (friends and strangers and employers alike), the government, and the operators of Facebook.

The opt-in default is a point of negotiation between users and Internet businesses to this day. It takes an alert and competent user to follow such developments and to then decide to opt out.

In this chapter I argued that exploitation in a technical sense is rare online but that it does exist. Amazon.com's Mechanical Turk became a tool for the exploitation of thousands of people, mainly in the United States and India. Workers, well aware of the exploitative nature of Mechanical Turk, engaged with it often out of financial desperation.

In other cases such as Facebook, however, things quickly become murky. While exploitation is the exception, expropriation is commonplace. Expropriation is barely visible; it is hard to measure.

11.2.2. The Encryption Key for HD DVD and Blu-Ray Disc on Digg.com

On May 1, 2007 an article appeared on Digg's homepage that contained the encryption key for the digital rights management protection of HD DVD and Blu-ray Disc.

The referral site Digg.com experienced a gruelling wave of discontent from their user base a few months after Facebook's first troubles in 2006. With the same taste

for revolutionary lingo, the event was quickly referred to as the "Boston Digital Tea Party". On Digg.com, registered users can post links to sites that they think are worth checking out. Other users then vote for these proposed sites. With a thumbs-up or thumbs-down they decide if they "dig them" or not. If a suggested link finds a sufficient number of supporters, it is featured on Digg's front page.

This happened to one article in May 2007. Its popularity was no miracle. The webpage detailed the encryption key for the digital rights management protection of HD DVD and Blu-Ray disc. In non-technocratic terms that meant that with the help of the code provided on this site, anybody with a bit of technical expertise could copy films from HD-quality DVDs and also from Blu-Ray discs to their hard drive. The article quickly became popular and Digg was threatened with lawsuits. Consequently, Digg management removed the article and banned those who had submitted it from the site. Many users of the site would not have it; for them this act was a "capitulation to corporate interests and an assault on free speech". Had they forgotten that they were using a commercial platform? This was not a tool of the underdog or some kind of activist vehicle... Digg.com is a business but as an enterprise it had to listen to the hundreds of Digg users who complained and said that they would rather see the company die than give in to the czars of copyrights. The Digg founder Kevin Rose responded.

> After seeing hundreds of stories and reading thousands of comments, you made it clear. You'd rather see Digg go down fighting than bow down to a bigger company. [150]

Rose promised not to delete any stories related to the key for the HD DVD/Blu-Ray discs.

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[150] Rose, Kevin. "Digg This: 09-f9-11-02-9d-74-e3-5b-d8-41-56-c5-63-56-88-c0," *Digg's Blog.* 1 May 2007. Web. 6 October 2008. <http://blog.digg.com/?p=74>.

Chapter 12. Tradeoffs: Consensual Expropriation

The entertainment-praise---expropriation-surveillance tradeoff

In the following chapter I will explore this situation of give and take, the tradeoffs that rule the Web. The Web is not crawling with "cyber sweat shops", at least not in any direct way. Starkly exploitative situations do exist but mutually beneficial relationships are much more pervasive across the World Wide Web. Online activities are, for the most part, a give and take between corporate platform providers and Internet users. Entertainment, fun, praise, and acknowledgment by peers are traded for the expropriation of value, corporate and government surveillance. I am calling it an entertainment-praise---expropriation-surveillance tradeoff between users and operators. However, the social dynamics do not merely play out between users and operators but also, laterally, between users.

In addition, by calling it "mutually beneficial" or a "tradeoff" I am not suggesting that I am entirely comfortable with these relationships. The broader motivations that channel hundreds of millions of people worldwide into this tradeoff are definitely unsettling in complex ways that are not immediately apparent to everyone.

In this chapter I will first discuss several case studies of such tradeoffs, which will reveal some of its more complicated and distressing aspects. I will start with the Google Image Labeler and then analyze the role of corporate good will in the virtual world Second Life. In parallel I am introducing art projects including *Learning to Love You More* (Fletcher, July 2003) and *Les Immateriaux* (Lyotard, Chaput, 1984) and discuss them as miniature mirror worlds that provided glimpses of the intricate dimensions of today's tradeoffs. Finally, I will contrast these tradeoffs of Facebook Self-Translation Application with public-spirited, altruistic projects like Wikipedia.

12.1. Do You Call that Work? The Google Image Labeler

A job that offers amusement, diversion, and pleasure will find its takers and they may even go for it without being paid if you make them forget that what they are doing is work. Most of us will remember the story. Tom Sawyer tricked his friend Ben into whitewashing a fence for him. After quickly realizing that he could not possibly pay Ben (the toys in his pocket would not have been enough to pay him to do the job), Tom asked: Do you call that work? "Well, maybe it is work, maybe it ain't. All I know, is, it suits Tom Sawyer". When does a boy ever get a chance to whitewash a fence? Tom describes how awfully particular aunty Poly is about this fence and painting it suddenly became a big deal. So much so that Ben begged Tom to let him take over. Painting the fence suddenly appeared to be a prestigious task and it sounded like fun and people in the neighbourhood would enjoy the look of the freshly fence. Aunty Poly may even praise Ben for a job well done... (Twain 16).

Today's example of Google's Image Labeler is different than the painting job but it is certainly related. A professor at Carnegie Mellon University created this project, which started as the Extra Sensory Perception (ESP) Game. Google bought a license to create its own version of the ESP game in 2006.[151] The premise of the game is simple: computers cannot recognize what appears in an image especially well but humans are very good at that. With the help of Google Image Labeler, players describe images. Two players are paired up anonymously; both see the same image, are asked to describe it with a few words, and if their descriptions match they can move on to the next image. The points that are accumulated by the players are prominently displayed in the interface.

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[151] "Google Image Labeler." *Google.* 2 April 2008. Web. 14 July 2009.
<http://images.google.com/imagelabeler/>.
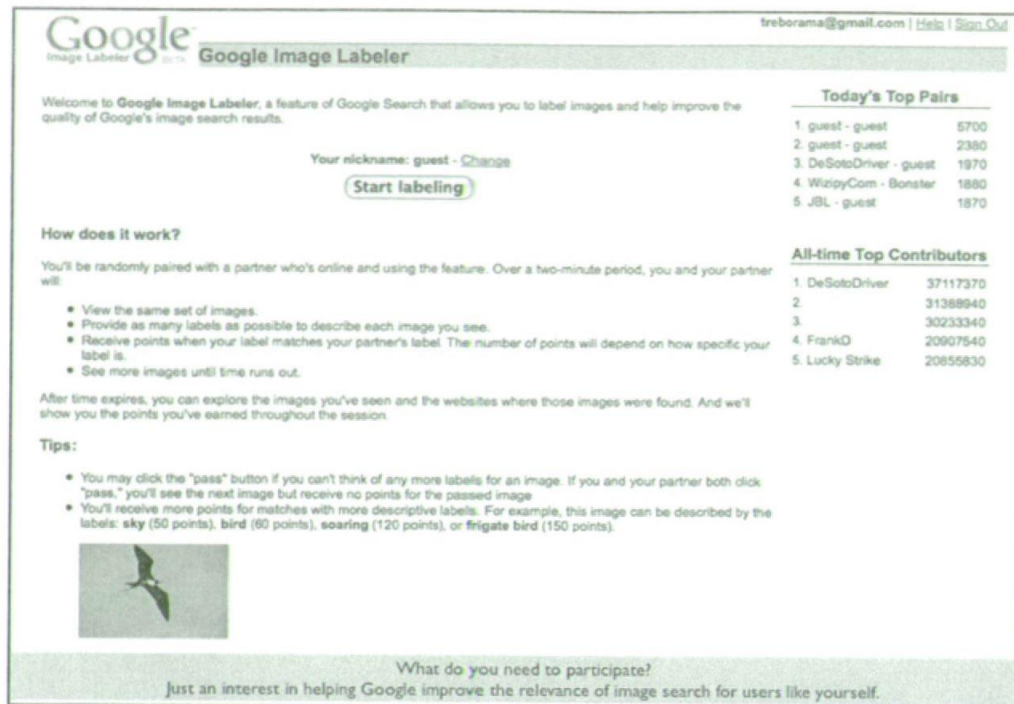
12.2. Network Value

If you search Google for images of dogs, the results will include images that were either tagged with "dog" and it will display any photo or illustration that was near the word "dog" on specific web pages. However, even images that were tagged-- that have keywords embedded in them-- are often useless in terms of the image search because the tags are frequently misspelled or they appear in languages other than English. Google's bots have no way of determining if there really is a dog in a given image. Finding a better way of analyzing what is in an image will make these Google searches so much better. People looking for an image of a dog will be less likely to be faced with pornographic material and dog aficionados will find what they were looking for. In this way, Google Image Labeler contributes network value; it improves the company's image searches that are available to the public.

12.3. "We encourage people to do the work by taking advantage of their desire to be entertained."

Some people played the ESP game for endless hours; it was very popular. Now, with Google Image Labeler, players still have fun and simultaneously they improve Google's search product. The developer of the ESP game describes the tradeoff in no uncertain terms: "We encourage people to do the work by taking advantage of their desire to be entertained." It is a triadic mix of self-interest ("fun," acknowledgment), network value (the image search gets better), and corporate profit (Google's product improves). Google Image Labeler is beneficial to the worker herself, it generates value for the company, and it creates communal value.

Eric Schmidt, the CEO of Google emphasizes that people play/work for the public good and that the magnitude of network value will eventually outweigh Google's profit. One could ask why it has to be a corporation that becomes the beneficiary of the volunteer work of thousands. However, as long as there are no publically owned search engines, there will be no realistic alternative. Another question is if the Image Labeler is a good model for the frictionless expropriation of millions that could lead to many other projects that turn play, fun, and praise into profits while also benefitting the public good. How many projects like the Google Image Labeler can ultimately exist? Is it possible to turn every task into a sexy, "fun" experience? While there are no non-profit search engines, there definitely are a few large-scale, altruistic projects like the Internet Archive.

12.4. Public-Spirited Free Interactivity Labour

Altruistic projects like the Internet Archive were possible because of the entrepreneurial successes of their founders. Already in 1992 the San Francisco-based digital librarian Brewster Kahle co-founded the online business WAIS (Wide Area Information Server System) "to prove that you could make an Internet company" (Cailliau 136). Soon, Kahle would successfully sell WAIS and consequently have the funds to run the Internet Archive.
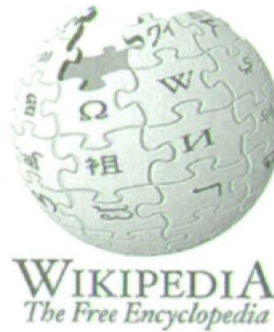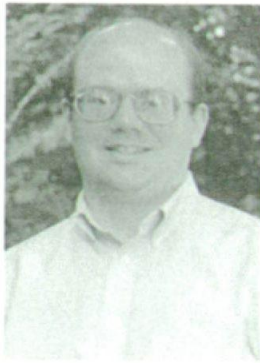
Larry Sanger and Jimmy Wales

12.4.1. Wikipedia

The number of projects that facilitate peer production on a very large scale is limited. Wikipedia and Project Gutenberg are sites with high web traffic. However, accessing a site does not mean that people also contribute. Often the number of visitors to a site like YouTube is vastly larger than that of its content contributors. Nicholas Carr argues that the kind of volunteer contribution that benefits the non-profit site Wikipedia, is not new at all; it is "simply a new form of ... charitable work that people have always engaged in outside of their jobs" (Carr 139) What has changed, however, is that contributions come from all over the world and that Wikipedia's distribution goes as far as the Internet can reach. Hundreds of thousands of authors from the US, UK, Canada, Australia, Germany, the Netherlands, and France have contributed and almost 1500 administrators have reviewed their submissions. And that is in the English-version alone. This scope of volunteerism is unprecedented.

Projects like Wikipedia as part of which thousands of volunteers work for the benefit of large numbers of the people (without simultaneous profits by a corporation) are the exception today. The future may see more of such peer-produced initiatives but they do not rule the Web.
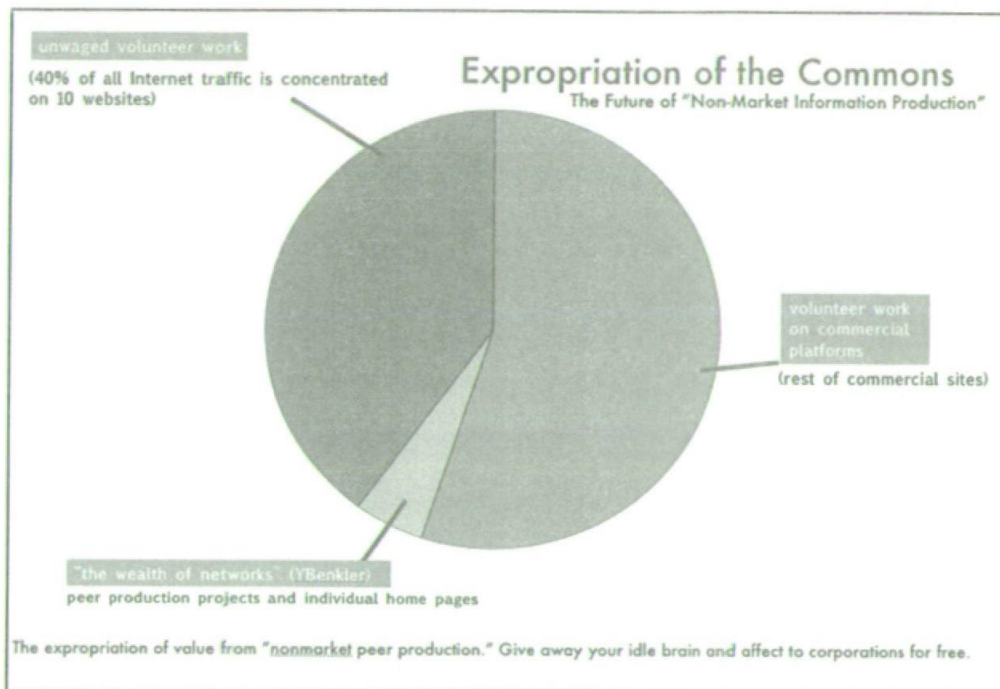
Expropriation of the Commons
The Future of "Non-Market Information Production"

unwaged volunteer work
(40% of all Internet traffic is concentrated on 10 websites)

volunteer work on commercial platforms
(rest of commercial sites)

"the wealth of networks" (YBenkler)
peer production projects and individual home pages

The expropriation of value from "nonmarket peer production." Give away your idle brain and affect to corporations for free.

In 2005, Kevin Kelly –an early associate of Stuart Brand and technology writer for *USA Today*, described the increasing dependence on computers. He points to a world that is manufactured by users, a world in which many people when divorced from the machine will not feel like themselves. Rather, they will feel like they just had a lobotomy. Such dependency was also linked to the fact that social networking became ever more easy and specialized. Today, commercial interests colonize the Internet and ownership of the highest traffic websites is divided among a handful of corporations. "Autonomous", non-commercial or "semi-autonomous" sites like Wikipedia or Project Gutenberg or Riseup.net are the exception. There are many relatively large traffic sites like Riseup.net that get significant numbers of page views. Most sociality, however, takes place on the much-talked-about mainstream sites of the Web.

In recent years, discussions about labour have often focused on Free Culture and intellectual property with major proponents like Lawrence Lessig. And indeed, much of the Internet lives off content such as videos, photos, blog posts and comments that are uploaded by users. The debates about the content, intellectual property, and the public domain are vitally important but there is something

significantly missing from these debates, which is the fact that much of the digital economy is driven by attention. But this is not what we traditionally think of as attention economy. The future of value lies in the tracking of our most minute interactions and communal linkages, the micro-expressions of our interests, desires, and likings based on our navigational histories. They become our invisible data portraits and we are not party to these background conversations, which are psychologically deeply expressive about us. Texts, photos or podcasts – no matter who owns them-- become objects of attraction, "social objects" around which users commune. They are the furniture of the Social Web. This dynamic is quite important when it comes to future negotiations about the rights of users and we should understand that it is not only the ownership of content that plays a central role. On social networking services it matters little who owns the content if the users are not at liberty to leave and take their material (texts, photos, etc) with them. As long as the content cannot be exported, the question of ownership is of peripheral importance.

12.4.2. SETI@Home

When you run SETI@Home (Search for Extra-Terrestrial Intelligence) on your computer, it will use part of the computer's CPU power, disk space, and network bandwidth. You can control how much of your resources are used by SETI@Home, and when it uses them.
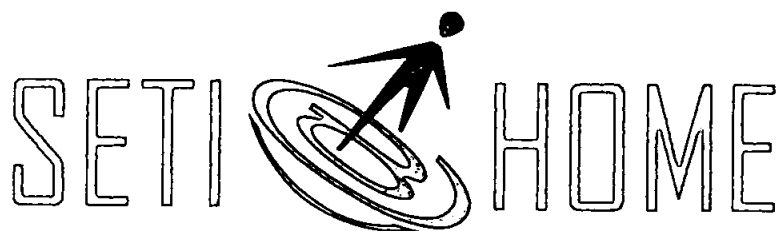
Furthermore, the Internet offers a common area for sharing and the creation of very large resource pools. Only think of the software platform Sourceforge or the no-fee encyclopaedia Wikipedia, Archive.org, or the Rhizome ArtBase. Large knowledge archives can challenge the dominant role of content in institutional repositories. In open knowledge pools credentialed authorities are not the only voices; they merely

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add to a sea of information. Artist-contributed archives of cultural data such as Rhizome's ArtBase, for example, can inspire younger generations by exposing them to artwork that they would not find behind the gates of a traditional museum. [152]

Technical support for the scale of people involved in creation online today would have required large amounts of capital in the past. Profit-driven projects have thus far not managed to motivate as many people to contribute their resources, knowledge, and time to a common pool. They simply can't "out-collaborate" altruistic, large-scale collaborative projects to which everyone can contribute and draw on openly available resources such as music or video files, pieces of code, software, artworks, encyclopaedia articles, or theoretical essays. Companies who hoped to stay safe within the bounded smallness of elitist proprietary business fail in ever-larger numbers. The availability of large knowledge pools like Wikipedia establishes expectations. Why would you choose to pay for information that is available for free elsewhere? How much material needs to be publicly owned and accessible without fee for large corporations to open their treasure troves of knowledge to the public?

12.4.3. Corporate Good Will and Linden Labs

> Value is embedded in the experiences co-created by the individual in an experience environment that the company co-develops with consumers'
> (Thrift 290)

Linden Research's virtual world Second Life opened its doors in June 2003. Anyone with a fairly high-powered computer and a net connection can enter this three dimensional environment after installing a free piece of software. Users, also called "residents", move around and interact through avatars. It is not a game; there are no levels or guilds. Second Life started out as flat virtual territory. Over time, and with the help of a simple 3D modelling tool, users built objects such as cars, buildings,

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[152] Furthermore, artists rarely have secure backups of their server-side artwork, which makes centralized repositories like this all the more important.

flowers, hair, or zeppelins, which they can then trade with each other. A "resident" created every leaf that you see in Second Life.

The work of object creation
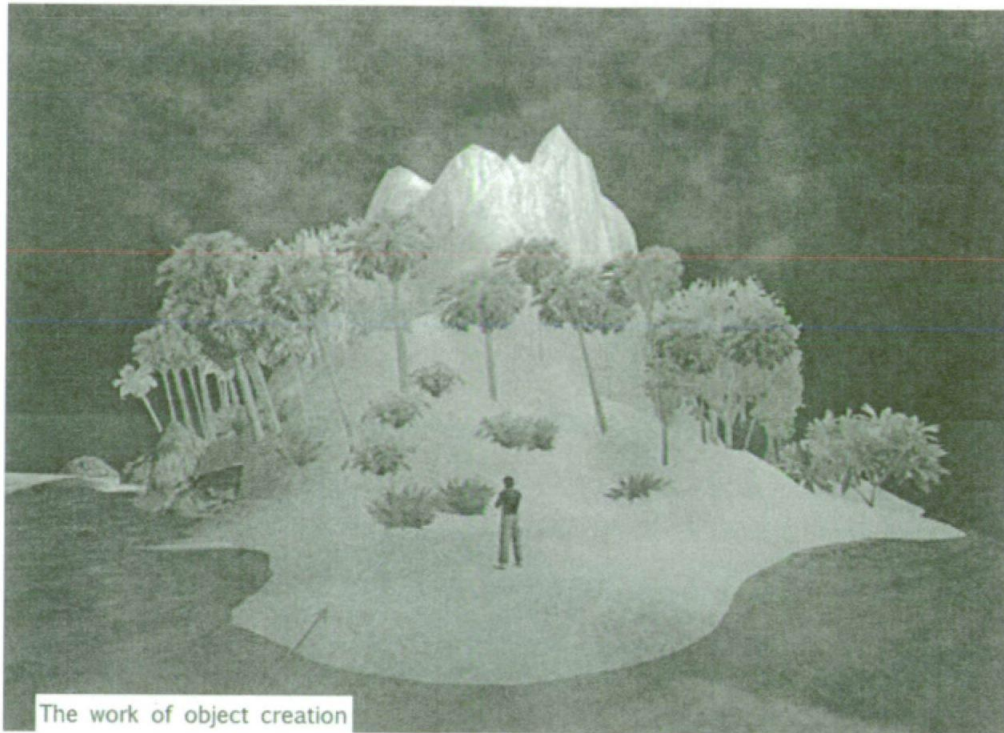
The experience of this virtual world is only as compelling as the number of "residents" who add their creations, conversations, and behaviour free of charge. Wikinomics author Don Tapscott celebrates the fact that in Second Life, consumers actually co–innovates and coproduces the products they consume (Tapscott 126) Few users, however, will accept their daily activities in the virtual world as labour that is expropriated by Linden Lab. They get a lot in return but concomitantly, "the world of gaming promises pleasures of freedom, transgression, and creativity, but these are perpetually incorporated into marketing efforts…"(Herman). It is a tradeoff quite similar to that of the Google Image Labeler. People create virtual objects and converse, dance, fly, and jump. These creations and mediated movements make Second Life a wondrous and rich environment for its users. However, some costumers of Second Life felt uneasy about the fact that Linden Research owned the intellectual property rights for their creations.

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However, in November 2003, Linden Research announced that all users of the game would be granted full intellectual property rights for their creations in the game, which was by all means unusual in the gaming industry "where nearly all End User License Agreements and Terms of Service require players to sign over their intellectual property rights in order to enter into the virtual space..." (Coombe and Herman 184-210)·

What would they do with these objects even if they would own the intellectual property rights for them? In their study *Your Second Life*, researchers Coombe and Herman point out that corporations aim to balance the control over cultural goods and the economic value that they derive from the social activity of their users with the management of their brand. "As a social relationship of power and reciprocity between corporations and consumers, goodwill may become a crucial variable in disputes about intellectual property" (Herman 184-210).

Second Life (SL) introduced this change in ownership of produced virtual objects after users, who felt exploited, complained but surely they did not have to make this move. In the end, however, Second Life does not really have to own the creations of its "residents". Their profits stem from the wealth of material and sociality that users create. They do not have to own the objects in order to benefit from them. Second Life benefits from the user community and the diversity of the content makes it a more attractive environment. Not owning the creative outpourings of users does not impinge on Linden Lab. At the same time, the public gesture of handing over the intellectual property rights generated much publicity, which favourably contributed to Linden Lab's reputation. The handover did not make Linden Research any less profitable while positively contributing to its brand.

Long before Google and Second Life and even before the Internet turned commercial, the complicated dynamics of social participation, creative self-expression, and peer acknowledgment was already operative in networks like

Usenet and BBS. I elaborated on that in previous chapters when talking about Cleveland Free-Net and The Well. Also in earlier chapters, I mentioned the expectations and types of relationships that eventually led to the utilization of groups of people on today's corporate social platforms were shaped by social experiments with online gift culture.

On a completely different scale, artists and operators like Facebook are inviting us to work on their platforms. In almost all cases, we are dealing with a complex tradeoff between pleasure and social costs. We are committing our time and life energy, making ourselves vulnerable to being used. We are willing to surrender some of our privacy for the joy derived from connecting with others. Mostly, we accept that a tradeoff is taking place and we are fine with it. And sometimes, as in the case of the 1990's AOL chat room volunteers; it can lead to conflict and legal battles.

12.5. Ambiguities: Facebook's Self-Translation Application

The darker side of the ambiguities of the give and take online is Facebook's Self-Translation Application. *The Los Angeles Times* headline read: "Users around the world are translating Facebook's visible framework into 63 languages – for free". The move to translate the site's interface into so many languages was rushed because from Germany to China many Facebook clones had emerged and got rapid traction. After building an application that allowed for the translation of its interface, Facebook was able to appropriate the work and time of its users in a way unprecedented for a company of its size and net worth. Close to 10,000 people helped translate the site's interface into 63 languages (i.e., German, French, and Spanish) and they did so very rapidly—a short two weeks for the German version.
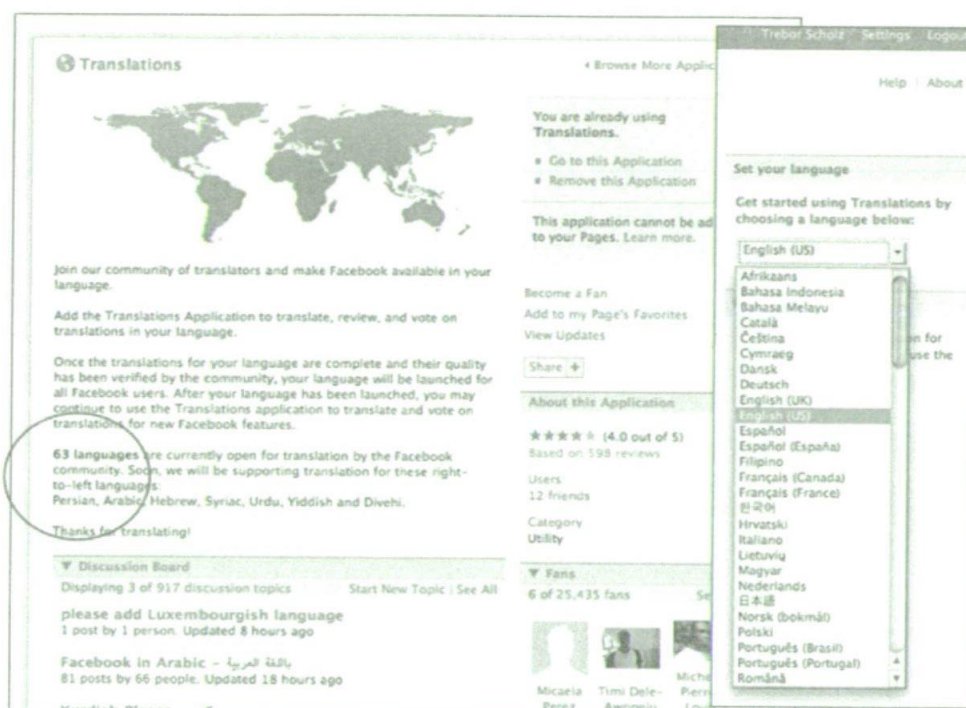
On the home page of the translation application it says: "We've opened the translation process up to the community because you know best how Facebook should be translated into your language".[153] This sounds disingenuous but in the Russian translation section alone, 2190 amateur translators were motivated enough to submit 40,759 translations of language used in Facebook's interface (as of April 2008). Professional translators would have done a fine and probably more accurate job. The Spanish user-translated interface in particular was riddled with grammatical mistakes. Facebook managed to get a lot of free work out of its initial investment of a comparatively small amount of programming work that created the translation application. It received contributions from people in geographic regions that do not speak English.

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[153] "Facebook Translations." *Facebook.* 2009. 14 July 2008. Web. 15 July 2009.
<http://www.new.facebook.com/translations/>.

12.5.1. Expropriation, Exploitation, and Personal Benefit Exist in Close Proximity

Some users understood the implications of what Facebook had done immediately. Valentin Macias, 29, a Californian who teaches English in Seoul, South Korea volunteered to translate for Wikipedia but said he would not do it for Facebook.

> (Wikipedia is) an altruistic, charitable, information-sharing, donation-supported cause [but] Facebook is not. Therefore, people should not be tricked into donating their time and energy to a multimillion-dollar company so that the company can make millions more – at least not without some type of compensation.
> (Hosaka)[154]

However, not everybody perceives the Facebook's Self-Translation application as exploitative. Not all users care about the difference between contributing to a corporate platform and a not-for-profit organization. On a Russian forum discussing the translation, a user expresses pride that he can help determine which terms will be used for words like "poke" on the Russian interface for Facebook. Through the use of this application, amateur-translators become stakeholders in Facebook. They feel useful and perhaps proud that they were part of this discussion and decision process about the language that will be used. They establish a reputation, a social standing in the group of translators. Their unpaid volunteer work is driven, in part, by the desire to belong to a group and the passion for speaking in public while at the same time their participation makes these amateur translators more loyal customers. Their input increases their emotional investment in the platform. Thousands of amateur-translators create the language and Facebook gets all the revenue. Compared to a professional translation, the result of the amateur work was very mixed, as evidenced by the Spanish interface. The users of the Spanish version had to put up with a flawed interface of Facebook; they had to pay the prize for Facebook's approach to translating its interface, which led to various inaccuracies. Expropriation, exploitation, and personal benefit exist in close, ambiguous vicinity.

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[154] Tomoko A. Hosaka, "Facebook asks users to translate new versions for free." *The Los Angeles Times.* 19 April 2008. Web. 1 Feb. 2008.

Another question that comes up is "Why would users enter into an exploitative relationship if they recognize it as such?" What leads people to become willing accomplices in their own exploitation? I previously pointed to Lawrence Lessig statement that "no one builds hybrids on community sacrifice" (Lessig 244) and "If those within the sharing economy begin to think of themselves as tools of a commercial economy, they will be less willing to play (177). Contrary to Lessig's claim I suggest that people knowingly (and frequently) enter exploitative relationships for variety of reasons- starting with the need to make a living. In addition, at times, especially teenage users in their search for identity contribute to projects like the Facebook Self-Translation simply in order to be associated with corporate brands. They are so deeply encultured into capitalist ideology that they may consider any kind of association with a large corporate brand as positive. It assists them with identification in similar ways to wearing a sweater or T-shirt with the large logo of a corporation like Abercrombie & Fitch. They step into the shadow of a giant. This kind of relationship should be explored more in depth in future research.

12.6. Artists as Cultural Context Providers: Les Immateriaux, King's X Phone-In, and Learning to Love You More

The mentioned ethical ambiguities of the Google Image Labeler, and the tradeoffs related to Second Life have also been present in the arts, just far earlier and on a very small scale. Experiments with the social dynamic of participation can be traced back to the 1960s. As I stated earlier, Bishop, suggested that community was one of the most cited motivations for artistic attempts to encourage participation in art since the 1960s (Bishop 14). In an earlier chapter I described the curatorial project *Les Immateriaux*, which popularized the idea of networked collaboration but at the same time made subtle use of its contributors. Lyotard and Chaput are well remembered for their exhibition but the names of those thirty contributors who provided the "flesh" for the show are forgotten. Lyotard and Chaput provided the concept and space but left it to others to execute the work itself. The exhibition was a precursor to many networked projects concerned with collaborative authoring,

confronting the audience with the idea that "new materials" such as communication systems "work" and "talk" for themselves. *Les Immateriaux* turned the concept of the exhibition into that of an evolving discursive space generated by a group of participants. Chaput and Lyotard put the artists with whom they collaborated to work I the service of their idea. However, there is no indication that any of the authors felt used, even slightly. They became part of a historically important exhibition but who remembers their names?

In the mid-90s, much Internet art was quite low-tech and quirky. Artists played with this new context, creating works that could not exist without the net. Internet art provided miniature mirror worlds that provided glimpses of the dynamics of social participation that are characteristic of the digital economy today.

Cybercafé @ King's X, Phone-In, created by the British artist Heath Bunting in 1994 is one such example. On his website (http://irational.org) Bunting published a list of phone numbers of the telephone booths surrounding the train station King's Cross in London and asked visitors of this web page to call these numbers around 6pm on Friday, August 5th. Participants realized Bunting's piece, creating a public spectacle. Another piece by Bunting, *SKINT,* was simply a solicitation for money that read more like an Alan Ginsberg poem.

Those who submitted their credit card information in order to donate to the allegedly starving artist found out that once they hit the send button they would land on a page where all their details and those of previous "donors" were displayed to the public. Projects like these are examples of art projects that are co-produced through experimental interaction. Much like today's commercial social media environments, they could not exist without participators.

Today, many artists whose work involves the Web, work with communities, collect their stories, solicit their opinions and build online archives and interfaces that make this material available.[155]

In the early 1990s artists set up mailing lists and websites, which allowed them to independently circulate their artwork and ideas. Sometimes, these discursive contexts themselves were understood as artworks. Websites allowed artists to interact with potential audiences without the delays brought about by slow institutional decision-making or arcane publishing procedures. Artists started to provide outlets for the creative activities of web-browsing publics.

Learning to Love You More by Harrell Fletcher and Miranda July is another such example. Created in 2003, the project uses a website to offers participants various assignments that are aimed to their trigger their creative ingenuity. Both artists are interested in ways of sparking creativity in so-called non-artists or amateurs. "When giving lectures about my work, I am often asked by audience members if there is a way for them to help me with a project," explains Fletcher. "For the most part I didn't need help, but I could appreciate their desire to get involved, so I started offering assignments as a way for them to continue having a connection with me." July concurs, noting that there is an active conversation between herself and her audience. " Both artists, Fletcher and July, provide a context—and they are excited about the material that the "audience" contributes. "It is like Christmas!" July says. The artists, rather than chiefly using their own material, provide a platform to which others can add their creative output. Participants experience themselves as creative producers. Taking part in an art project like this is "cool" and may also get acknowledged by their friends. The more people contribute to the project the more richly facetted it becomes. Once enough material has accumulated, July and Fletcher exhibit the sculptures, texts, videos, photos, poems, etc in galleries or museums. The

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[155] "Sharon Daniel" *film.ucsc.edu*. 2 Jan. 2008. Web. 14 July 2009.
<http://film.ucsc.edu/faculty/sharon_daniel>.

project was even included in the Whitney Museum Biennial. Of course, Fletcher and July acknowledge the many contributors by name but in the end it is their names that appear in big letters. The project, in the end, is theirs. However, it is hard to imagine that many participants will feel mistreated because of this dynamic.
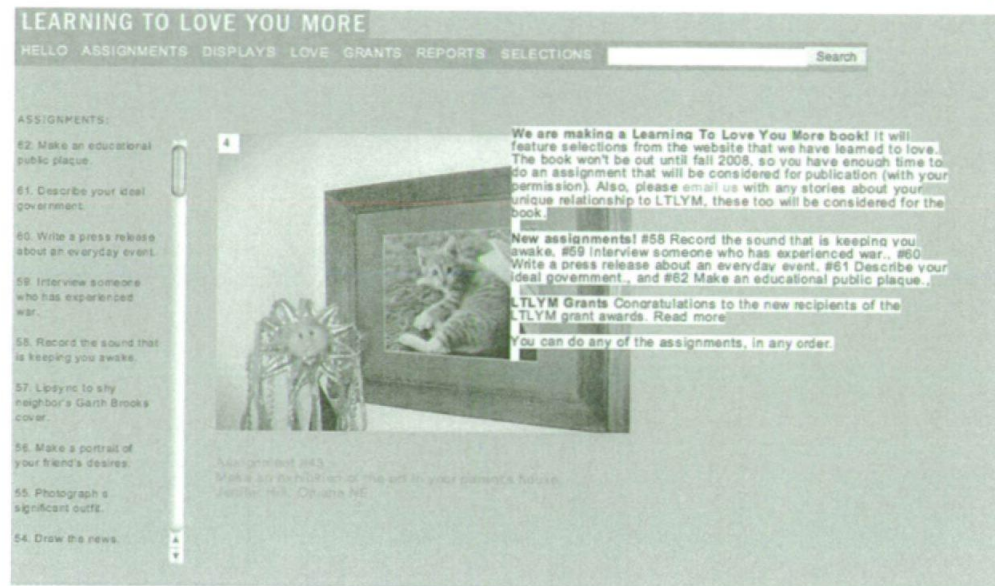
Harrel Fletcher, Miranda July

After all, the context-providing facilitators provided the platform, idea, and context for all of this to happen and some artists who contributed were even able to add a line to their résumé (i.e., when the project was shown at the Whitney). It is unlikely that contributors to the project felt that they should have been paid. Clearly, the piece helped the July and Fletcher; it made them more visible. On the other hand, the contributors also got a lot out of it. Their work is exhibited.

Learning to Love You More is just one example out of a long list of net-based artworks that make subtle gains from their participants.[156]

Some even describe this participatory phenomenon as a broader paradigm shift

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[156] Another example of the *artist as context provider* is "AgoraExchange"; a collaborative online game project that "critiques the institutions of family, nationhood and birthright" devised by artist Natalie Bookchin and political theorist Jacqueline Stevens. "We (Jackie and Natalie)" they put it clearly, "are the initiators and coordinators rather than the absolute authors. User participation and contributions make up the fundamental core of the work that needs to be done." The AgoraExchange website describes that after two years of soliciting global input, a panel will assess the contributions and develop three prototypes of a "massive free online player game".

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from art on networks to art on platforms.[157] *Learning to Love You More* is a fair tradeoff between the artists and the contributors.

12.7. The Balance Between Social Costs and Benefits

Currently most work on the Internet is about tradeoffs. Both, the operators as well as the users can turn the environments to their own advantage. There are some explicitly altruistic projects that contribute to the greater good and there some fairly isolated examples of exploitation. The example of Wikipedia is overly popular in this context and while it demonstrates the potential of online collaboration, it is also a rarity, perhaps even an exception. The number of projects that function in the way of this free online encyclopaedia is small. Projects like SETI@Home, Project Gutenberg, Distributed ProofReaders, are definitely significant and visionary. They show that mass collaboration is possible. Wikipedia developed rules and guidelines for such collaboration. However, such initiatives remain a small segment of the online destinations in which Internet users spend time.

12.7.1. User Rights: Protecting Us from Each Other and from "Mega Corporations"

Do Internet users have inalienable rights that can be enforced in any way? One organization that discuses Internet user rights in concrete terms is the "Internet Rights and Principles Group" (http://internetrightsandprinciples.org). Their goal is to "bring awareness and promote fundamental human and civil rights and liberties on the internet" and to "identify ways in which new rights and principles deriving from the innovations caused by the Internet can be defined, agreed and promoted when necessary".

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[157] Olga Goriunova and Alexei Shulgin support many arguments also brought forward by the author's essay "The Participatory Challenge" in their text "From Art on Networks to Art on Platforms". As example, Goriunova and Shulgin offer Udaff.com, a self-identified site for counter-cultural writing with some 50,000 visitors a day and 700,000 pages. In 2001, Dmitry Sokolovsky, an electrical engineer from Saint Petersburg, created the site. While most short stories that are submitted to this site contains much obscene if not pornographic language with frequent grammatical errors and references to excessive drug abuse, many expressions coined on Udaff.com entered Russian slang and may even become permanent in Russian language (e.g., Aftar, vypej jadu i ne peshy bol'she - "Author, drink poison and don't write anymore").

In September 2007 four well-known bloggers proposed a *Bill of Rights for Users of the Social Web* in which they asserted that all users of the Social Web are entitled to specific rights.[158]

What makes those rights, rights? Who gives users these rights? How can we separate that humans have as citizens and their rights once they log on to the Internet. That seems a wrong separation.

One question that emerges is if we really need such document. Do users really need protection? Protection from whom? Abusive service-providers? Users need to be protected from fellow users as much as from abusive service providers.

200 million users on Facebook- should not that be sufficient to warrant an intervention? At least 100 million users log on to Facebook at least once each day; more than 850 million photos are uploaded to the site each month"

This concentration of media ownership also means that hundreds of millions of people are affected by the political implications of the coded architecture of a platform.

In 2009, this is the largest – and by all means unprecedented--concentration of engaged Internet users anywhere online. Yes, but does it really need to be a bill of rights? It needs to be enforceable. A statement on a blog has little effect unless it can be enforced in some way. Of course, the conversation itself is important. Companies such as AT&T have already shown that they cannot be trusted.

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[158] Mike Arrington, Robert Scoble, Joseph Smarr and Marc Canter

- Our profile data
- Our activity stream
- Our location
- Transparency: which information is gathered, how does a given site work[159]
- Control: which information is shared with 3rd parties
- User Transparency and ... communication? (Human-readable terms of governance)

Where are these rights coming from? Who endows us with unalienable rights? Are these general human rights? Why can we assume that we have these rights? Should consumer advocacy groups take o this issue in a same way that such organizations made reports on products such as television sets available in the past?
Can we really demand our rights? (Beller 304)

A user bill of rights is completely unrealistic. It is too narrow and corporations would submit to it as much as they would agree to hand over the majority of their profits to end global warming or poverty. Openness needs to become a competitive advantage, a market value.

There is little chance that companies will willingly adopt this. Nevertheless, we should add the right to withdraw our presence, delete our account and the content that you contributed there. This should be possible keeping mind that our withdrawal may rip holes into the existing content.

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[159] You have the right to know who is collecting what and for what purposes; you have the right to know (and control) *all* the information that the network has on you, not just information that you've provided or information that's deemed "personal," and you also have the right to know what the network is doing with that information.
Work, Duncan. "Call for A Social Networking Bill of Rights." *PlaNetwork.* July 2004. Web. 14 July 2009. <http://journal.planetwork.net/article.php?lab=work0704>.

12.7.2. Whom Can We Trust?

> Commercial ISNS are profit-oriented and therefore aim at gathering as much personal data as possible in order to sell it to third parties that advertise on the platform so that profit can be generated. The real threat is that ISNS users become objects of state surveillance because providers pass on their data to the police or the secret service and objects of economic surveillance that drives capital accumulation. Given the current societal framework, these processes are almost inevitable. The real threats are corporate interests and state surveillance. The problem is not the individual behaviour of young people. If we want to protect them, then we need to change society.
> (Fuchs 22)

Social networking services are in some ways like a large public sauna or an Italian beach where everybody watches everybody else. It is also not unlike the back yards in Berlin where every marital feud finds dozens of mirrors and echo chambers. It is not solely marketing agencies and the government watching you.

Conversations and photos on social networking services are deeply contextual. Friends are talking to friends; they are trying to impress, to bond, they play around, and joke around. These exchanges, while taking place in public, are not meant for members of the public. They are directed toward a group of friends and acquaintances and may be completely misinterpreted by people outside of this context.

Users may just trust the companies not to use their private information against them. The bill of rights protects citizens from the government. A user bill of rights would protect users from the companies who host their presence. "Social media like Facebook and MySpace are regulated by the trust the users donate to them. If they break the trust of the users they will lose their business".[160] I disagree. If Facebook breaks the trust of users, it will still be able to hold on to them because it has them between a rock and hard place; they are entrapped. The social price for leaving would be significant. It is hard to overlook that.

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[160] Jørgensen, Anne J. "Do we need a Bill of Rights for the social web?" *Anne Juel Jørgensen's Blog*. 19 Feb. 2008. Web. 14 July 2009. <http://annejueljorgensen.wordpress.com/2008/02/19/do-we-need-a-bill-of-rights-for-the-social-web/>.

On the other hand, users reside under jurisdiction of different countries, which would require this to be implemented in each country's legislation.

12.7.3. Egregious Surveillance

Headlines in *The New York Times* like "Gonzales Suggests Legal Basis for Domestic Eavesdropping" do play out online and are alarming. Former AT&T technician Mark Klein has come forward to support the EFF's lawsuit against AT&T for its alleged complicity in the National Security Agency's (NSA) electronic surveillance. He reported that based on my understanding of the connections and equipment at issue, it appears the NSA is capable of conducting what amounts to vacuum-cleaner surveillance of all the data crossing the internet -- whether that be peoples' e-mail, web surfing or any other data.[161]

Klein warned the US Senate that AT&T supports "a huge, massive domestic dragnet on everybody in the United States."

On September 11, 2001 a group of AlQuaeda terrorists attacked several sites in the US, including the world Trade Center in NYC. Consequently, Congress, easing the rules that were in place to protect American citizens from government spying, passed the USA Patriot Act. In November George W. Bush released the "military order" that allowed the unlimited detention of any person who was deemed a terrorist threat. American citizens were exempted from this order that was later ruled to be unconstitutional by a federal judge. The "War on Terror" was used as a frequent reason for surveillance programs that followed.

With so much attention paid to social networking services, it is not surprising that also law enforcement got into online people watching. A University of Oklahoma freshman who suggested on Facebook that users "could all donate a dollar and raise

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[161] Klein, Mark. "Wiretap Whistle-Blower's Account." *Wired News.* 4 July 2006. Web. 14 July 2009. <http://www.wired.com/science/discoveries/news/2006/04/70621>.

millions of dollars to hire an assassin to kill President Bush" was promptly visited by the Secret Service.[162]

Openness and control are a puzzling combination. Online surveillance is not even a very new pastime for the Pentagon and some employers. The Pentagon has a record of illegal uses of ARPANET going back to the late sixties.

An addition example is the mid-2008 ruling of a judge ruled who decided that Google had to turn over every record of every video watched by YouTube users, including users' names and IP addresses. This court order appeared after Viacom (the parent company of MTV, Nickelodeon and Comedy Central) had sued Google for allowing its copyrighted material to appear on YouTube.[163]

It is apparent from these examples that users should not blindly trust telecommunication companies or the government. The reasons for concern and distrust are real.

Chapter 13. Being Worked On

> [N]ot only exploitation is an issue, but also an ideology that promotes conformity, that makes dis-identification and dissent extremely rare.
> (Holmes)[164]

> The expressed is not an ideological valuation but an incitement (it forms a sign), an invitation to espouse a way of life: a way of dressing, of having a body, of eating, communicating and travelling, a way of having style, a way of speaking etc.
> (Lazzarato 189)

In a previous chapter I addressed the mechanics of the institutionalization of labour, which forces our loyalty to a particular mainstream online destination. I am

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[162] Haas, Nancy. "In Your Facebook," *The New York Times.* 8 January 2006. Print.
[163] Helft, Michael. "Google Told to Turn Over User Data of YouTube." *The New York Times.* 4 July 2008. Print.
[164] Holmes, Brian. "[iDC] Identification and dis-identification." *Mailing List of the Institute for Distributed Creativity.* 15 June 2009. Web. 14 July 2009 <https://lists.thing.net/pipermail/idc/2009-June/003545.html>.

wondering about all this attention, our physical presence in front of screens (even on the go), and all that spare time. What are we doing to ourselves? Nothing seems more natural to my students than tagging a photo on Yahoo's Flickr, or "liking" or "detagging" a photo on Facebook. They perform themselves on Twitter. They are creating each other and all of that is infused with the image of a particular, -- capitalist-- identity that shapes people. It shifts their sense of self. The convergence of formerly private and public life on Facebook, for example, leads to a subtle shift in how people perform themselves. My students are hyper-aware of the fact that they are entering a job market. Consequently, they are putting certain conversations on Facebook, they update their "status" in a way that --ever so subtle-- presents them as marketable. That is a small part of what we are doing to ourselves.

While not always initially designed for that purpose, first and foremost the goal of social networking services once investors are on board is to turn over profits. The refusal to participate in new social media is a result of utter privilege of those who are not inflicted by professional dependencies. Only the privileged can afford to withdraw from new social media. Complete refusal is an illusion.

In advanced capitalist societies, participation in new social media is an imperative. We are made malleable, available, and useable, we are put in a place we can be "worked on". Taylor and Ford could not reach into the pockets of leisure time of their workers but new social media make us easier to use. New social media platforms are Pavlovian structuring and framing devices just like the cinema stage before it, a platform that can decisively organize our attention, affect, perception, and voice (Beller 312). Television acts through example rather than through discipline... (Lazzarato 191) Just like the printing press (1453), radio (1896), and television (1927), new social media occupy our brains and bodies and steer what we can imagine as future action. They revise our conception of ourselves.
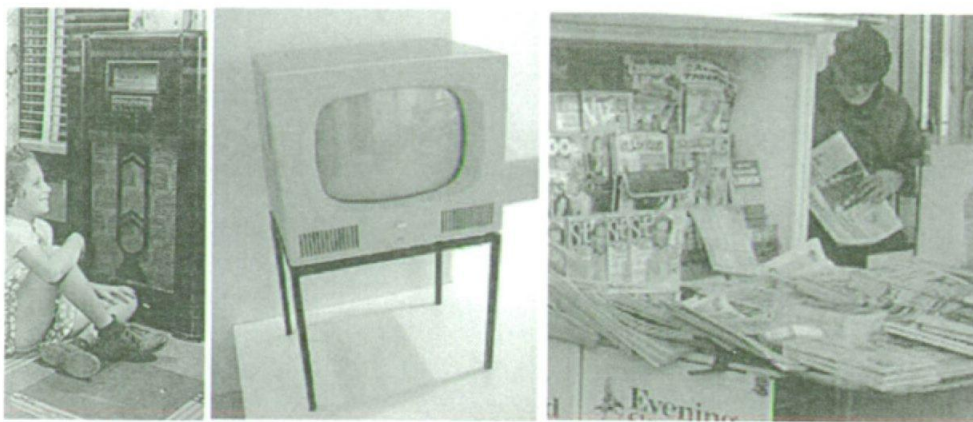
We are sculpted in time.[165] We are changed through the immediacy of our communication. Facebook does not only influence us. Wealth, speculative value, and individuals are equally produced. We are not just on Facebook; we are becoming Facebook. We are becoming the brand. The corporate Social Web moulds us in its image.

The process of involving people does not require brute force. It is all about offering something that people want: experiences, ad hoc access to other people, respect, information, and praise. Desperate for meaning, the need for peer acknowledgement and the feeling of being of some use to society, we are working for free. We are trying to emotionally blend in; we are performing for each other and through each other in a way that conforms to what is expected of us as members of the capitalist workforce. We are not who we say we are. We form ourselves in the mirror image of collective tastes and norms. Some argued we should be paid to pay attention (to watch TV, listen to the radio, or now new social media. I will argue in support of all these claims throughout this chapter.

> And what is the raw material out of which these convictions and passions are made, which contemporary workers use in the same way as industrial workers used iron, coal, etc.? This raw material is the habit, that is, opinions, tastes, customs and know-hows... behaviours, the ways of life?
> (Lazzarato 204)

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[165] The reference of sculpting in time is to a book by the Russian filmmaker Andrej Tarkovsky's "The dominant, all-powerful factor of the film image is rhythm, expressing the course of time within the frame."

As late as 1900, most general stores sold staples like sugar, vinegar, flour, nails, and pins unmarked and unlabeled from barrels and bins but new concepts of marketing and advertising took off in the 1920s, reflecting the growing determination of businesses to empty their warehouses and increase the pace of consumption to match ever-accelerating productivity. Brand names, once an oddity, became a permanent feature of the American economy.

Manufacturers started to sell directly to the public using brand labels. Many of these products were new and they required a change of lifestyles (e.g., eating habits) of consumers. Jeremy Rifkin describes how people never bought corn flakes were taught to need them: those formerly content to buy oats scooped from the grocer's bin were informed about why they should prefer Quakers oats in a box. At the same time, they learned how packaged breakfast cereals fit modern urban life-styles, suiting people seeking convenience (Rifkin 21). In 1885 Quaker Oats introduced the cereal box, making it possible to buy in quantities predetermined quantities.

In 1977 the economist Dallas Smythe introduced the concept of the media audience as a "commodity" manufactured and sold by advertising-supported media (Smythe 1-27). He argued that the act of consuming media represented a form of unwaged labour that audiences performed on behalf of advertisers; desires for products would be called up and translated into demand for commodities.

Before social networking services, television and the print media made abundant use of the free labour of their audiences/readers. Tiziana Terranova illustrates this being "worked on" when she suggests that "the price to pay for all those real-life TV experiences is usually a heavy dose of moralistic scaremongering: criminals are running amok on the streets and must be stopped by tough police action; wild teenagers lack-esteem and need tough love…" (Terranova 89) To the same effect, the filmmaker Jean L. Godard suggested that people should be paid for watching TV. Bodies congregate for the attractive experience of watching a film and in turn the audience is exposed to a pool of material that can later become reference points.

Today, the being "worked on" that Terranova described with regard to the broadcast medium of television is more circulatory, interactive, much faster, and altogether far more intensive. We are creating ourselves in the image of the taste that is established among us. Some of my female students told me that they spend most of their time browsing through profiles on Facebook, going through photos, checking out what other young women are wearing and what they are doing. This practice works strongly in favour of normalization where deviance from social norms is becoming increasingly unlikely. In addition, I am frequently surprised, how most of my students are more than willing to make excuses for the corporations like Yahoo, Microsoft, Google, and also Facebook. At times it seems as if the interests of these corporations are closer to them than their own, as if they do not really feel their own needs or think that they do not have many rights and that they should be grateful that they are allowed to use services like Facebook for "free".

On MySpace, for example, legendary "Tom" befriended Smart, the profile page for the fast food restaurant chain Wendy's. According to Smart's profile, he is a 28-year-old male based in New York. In the "about" section of his page he demands; "EAT ME! Do a square burger at Wendy's and do what tastes right". Smart has tens of thousands of friends. Comments on the page include "I heart Jr Bacon Chburger!!!!!!!!!", "YOU ARE LIKE ME HERO OMGGZZZZZ", and "hey i ate you today!!"[166]

This practice of befriending and interacting with commercial products, encouraged by MySpace, signifies how deeply we internalize commoditization. The unwritten assumption is that products are our friends and that companies are on our side. Our identity is increasingly defined by our consumptive activities, not just in the direct way of being exposed to an advertisement but even the association with others as

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[166] "Wendy's Square Burgers Official Profile." *MySpace.* 21 Apr. 2006. Web. 14 July 2009. <http://www.myspace.com/wendysquare>.

"friends", the performance of our personal relationships, is infiltrated commercialization.

The market ideology of Web 2.0 works not just at us but also through us. In *Decoding Advertising*, Williamson explains ideology as something that we enact and recreate and not something that we merely receive from above.

We constantly recreate it. It works through us, not at us (Williamson 41). We are drawn into the transformational space between the units of the ad. Its meaning only exists in this space; the field of transaction; and it is here that we operate—we are this space (Williamson 44). Through advertising, we become encultured and we affect or infect an entire group of friends.[167] It is in this sense that I suggest that we are Facebook, we—are-- not just "on" it. We are marketing our life style to each other. We are marketing the books we read, the restaurants we go to, the films we watch, the music we listen to and even the artworks that we appreciate. We are becoming vessels for marketing messages.[168]

The commoditization of audience participation reaches deeper with social media than with other mass media like television or radio. Today, a handful of social media platforms are becoming the "one-stop shop" for our online social "needs". The mission of business was to create the wants it seeks to satisfy and by congregating millions in an interactive, experiential nexus, targeting their subjectivities is now in reach. Users look at what is in front of them; they may link to it and take it in as they move on. Now, they can create and tap into the expressive habits of members.

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[167] Many years ago I came across an undergraduate student who said that loves to help Amazon.com by writing book reviews or them because buys all his books from the company. I paid for a service and in return, out of gratefulness, I surrender my free labour? This is what enculturation looks like.
[168] In some cases, I may want to know about that book, camera, or coffee that my friends think is unbeatable and a must have. This suggestion, however, needs to be conscious and consensual: I need to sign off on providing and receiving this information.

We're not deciding what's cool. Our users are [...] MySpace is all about letting people be what they want to be".
(DeWolfe)[169]

With the long tail *"new audiences can be worked on:* their enthusiasm can be played to, for example through the medium of websites that act as 'honey traps'... through all manner *of devices that are intended to capture and foster enthusiasms and automate 'word of mouth.'*
(Thrift 287-288)

Some people go so far as to say that "people [who are] paying attention to you will want whatever it is you want. They are implicitly on your side".[170] Most MySpace users, however, may not be unconditionally on the side of NewsCorp but they are exposed to the ads and message spam that are served to them on a daily basis. Their enthusiasm can be captured and "friending products" becomes the contemporary version of "word of mouth". Another form of "word of mouth" is "social advertisement", which Facebook founder Mark Zuckerberg celebrates as the future of advertising. He writes: "it is no longer just about messages that are broadcast out by companies, but increasingly about information that is shared between friends. So we set out to use these social actions to build a new kind of ad system".[171] The age-old entanglement of friendship and commerce becomes intensified by today's social media platforms.

Norms are increasingly established and socially confirmed as being desirable. *We* are following these norms, we are enforcing them by working on ourselves, by controlling our impulses each and every day. Who does not conform gets shamed and discredited. We are shamed if we do not look "presentable" or if we do not

[169] Coté, Mark, and Jennifer Pybus. "Immaterial Labour 2.0: MySpace and Social Networks." *Ephemera.* 2007. Web. 14 July 2009 <http://www.ephemeraweb.org/journal/7-1/7-1cote-pybus.pdf>.
[170] Goldhaber, Michael. "The value of Openness in an Attention Economy." *First Monday.* 5 June 2006. Web. 14 July 2009. <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1334/1254>.
[171] "Social advertising." *Wikipedia.* 14 July 2009. Web. 3 Jan. 2008. <http://en.wikipedia.org/wiki/Social_Advertising>.

belong to mainstream social networking services and many people are anxious about that.

We assess, compare, and discipline ourselves in relation to the norms that surround us. Sometimes we may halt and wonder if we could not be more mature, more resistant to praise and shame. The self-help industry is built on a lack of self-esteem. Going to the gym, pepping up our sense of self through consumption, and signing on to social networking services are activities that are powered by similar desires.

Who do we hope to become how do we go about getting there? Which part of ourselves do we work on and to what extent is what we are becoming compatible with the needs of capitalist production? Which profile photo do we pick on Facebook? How do we represent ourselves through images, notes, status updates, and the news items that we are posting? Whose updates do we comment on? Out of all the material that we are exposed to each day- what are we selecting for distribution on Facebook? Whom do we ignore? Depending on why we are on Facebook, we may calculate the number of our friends. Whom do we befriend and whose friend requests do we reject? We do not only define ourselves through what we are buying or selling, but increasingly our activities on social media services show a large group of acquaintances who we are (or pretend to be).

13.2. Emotional Work

> There is, in other words, an uncomfortable status quo in a world in which, *if 'marketers' only real choice is to become more dependent on emotional ties or face ever-dwindling profits'.*
> (Thrift 301)

On Facebook, people who know each other, share news items, they recommend each other web sites, they add photos of their children, they refer to music videos, and they publicize their pregnancy with uploads of ultrasound images. People who know each other and share a rough set of interests (and perhaps even values and political views), circulate relevant items amongst themselves. They comment on each other's

posts, sometimes at length. They recommend or advise against films that they have seen. This is really quite a wonderful feature but it also signals a management of our emotions. This "daily we", the daily news stories, make us stay in tune with updates from our friends. We look at what they looked at and are sometimes moved by what moved them. We smile at what they thought was hilarious and we clinch at what displeased them. Occasionally, our emotional responses to a news story or YouTube video may differ. We can also "vent" our occasional frustrations. We can find resonances for our own anger, fear, joy, frustration, and excitement. We may feel like we are belonging to a group, a public that is built on the joint attention of its members. It is soothing to stand in the shadow of a large flourishing company.

Are there rules for how users should feel or which feelings they should express in their updates or notes on Facebook? Users are not on the job and Facebook cannot assert control in this way. The company cannot make up a rule that you have to "smile with words" or look happy in your profile photo. Nevertheless, the emotions of users become commodities in other ways.

In the essay "Emotion Work, Feeling Rules and Social Structure," Arlie Russell Hochschild discusses such commoditization of emotions (Hochschild 551-575). According to Hochschild, emotional work involves managing emotions so that they are consistent with institutional rules no matter if they match with actual feelings. Traditionally, this kind of work was associated with nurses, restaurant workers, and secretaries.

> When deep gestures of exchange enter the market sector and are bought and sold as an aspect of labour power, feelings are commoditized. When the manager gives the company his enthusiastic faith, when the airline stewardess gives her passengers her psyched-up but quasi-genuine reassuring warmth, what is sold as an aspect of labour is deep acting.
> (Hochschild 569)

People who use social media platforms perform emotional work. They are not part of the waged labour force in the way that Hochschild describes it but there are similarities.

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> The bank manager, the IBM executive, for example, may be required, in part, to sustain a definition of self, office, and organization as 'up and coming, or 'on the go,' 'caring,' or reliable, meanings most effectively sustained through acts upon feeling.
> (Hochschild 570)

Equally, on Facebook users are concerned about how their pool of contacts may perceive them. Not unlike the manager, users may feel required to project a certain image of themselves: They may want to appear as having a strong personality, happy, verbally expressive, thoughtful, mysterious, busy, or successful. Facebook is seen as a place to relax or be entertained by following telegraphic life reports of others and by adding our own into the mix.

Hochschild asks "Why, generally speaking, do people feel gay at parties, sad at funerals, happy at weddings? This question leads us to examine, not conventions of appearance or outward comportment, but conventions to feeling." (552) Concomitantly, I ask: Why do people portray themselves as perky on Twitter or Facebook? Why do people generally express feelings that fit the emotional norms of everyday rituals in a social milieu like Facebook? Why do not they also share dark thoughts and depressive states? Where are the noonday demons? Do all those upbeat users who perform emotional work --make themselves feel -- in a way that fits in? I do not have all the answers to all of these questions but in part there are simply the imperatives of the job market that dictate how people present themselves. More research is needed on this topic. In the last chapter, which follows now, I will sum up the discussions from previous chapters and close with a set of proposals.

Chapter 14. Conclusion and Tangible Entry Points to Action

In this chapter, I will first make a set of proposals before summing up the findings of this dissertation.

14.1. Politicizing Our Own Lives, Embracing Hybridity, Engagement Rather Than Isolation

How can we politicize our own life? How can we act authentically, unpredictably, based on our own reflection, without being pushed along? In a recent iDC discussion a contributor asked how we can un-think the template of the network, which makes deviation from social norms only possible in private, non-surveilled spaces, away from the network.[172] How can we learn to take life seriously from time to time? How can we deviate from common life and cultivate our ability to say "no"? Life is about more than just straightforwardly being successful, being "better" than others, and one possibility is to lead an exemplary life, which is harder than anything and it starts with scepticism, the will to resist through endless micro-decisions, which will rarely be applauded; it also means acting independently of demands and temptations. And many of today's pleasures and temptations are brought to us through screens.

What are we doing to ourselves? It is harder to "keep appearances", we have become more transparent, more vulnerable to each other. With each curtain that we drop we become more vulnerable to the other and to the corporations that serve as our hosts, as the owners of our playgrounds.

People affirm their being-in-the world through participating in new communities of all kinds. Labour gets organized alongside routines, habits, and actions. Even "resistance from within" feeds into the processes of value generation. Which

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[172] Mejias, Ulises. "[iDC] Introduction: The Internet as Playground and Factory." *Mailing List of the Institute for Distributed Creativity.* 15 June 2009. Web. 20 July 2009.
<https://lists.thing.net/pipermail/idc/2009-June/003541.html>.

devices are we left with? I am arguing for an involvement in politics, a sensible use of technology, and an anti-isolationist approach to institutions and to life.

> If the information workers of the post-industrial era buy into the notion that computers and the network economy will bring about a peer-to-peer utopia, as many still do, they run the risk of perpetuating the forms of suffering and exclusion that plagued the back-to-the-landers.
> (Turner 257)

Turner describes those living in the communes of the 1960s as being often supported by the pocket books of their parents or friends, disconnected from the locals wherever the communes where established, lacking basic rules with regard to the ways in which they govern their togetherness, thereby falling back into sexist role models. But Turner's conclusion concludes that today's p2p supporters may share a similar isolationist naiveté, which does not take into account the many visions of people who integrate their vision into existing realities. I argue that users should engage with politics. Mistakes of 1967 included the withdrawal from politics and from society, the belief that you could force the future into existence by living it the kind of binary activism does not work: talk with opponents accept the hybridity of the situation, contribute to politics.

14.2. For Media Literacy, Against Refusal and Withdrawal

The suggestion of withdrawal from the Internet is an unrealistic and irresponsible proposal, especially in overdeveloped countries and in conversation with young people. Some argue that the most radical refusal would be to cut us loose from the chain of networked recognition, expropriation, the play with micro-fame, and the insatiable thirst for praise, entertainment, and peer recognition. They ask, "Why do we _tolerate_ being included in this networked society?"(Holmes)[173] One response comes from Peter Coyote (actor, and Black Bear commune member) who came to the realization that the physical separation from mainstream society and the

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[173] Holmes, Brian. "[iDC] Identification and dis-identification." *Mailing List of the Institute for Distributed Creativity.* 15 June 2009. Web. 14 July 2009. <https://lists.thing.net/pipermail/idc/2009-June/003545.html>.

withdrawal from direct involvement in politics were the gravest errors that they had made in the 1960s and 1970s (see chapter 3.5.). Today, a withdrawal from the Internet and the daily rituals that it implies, is -at least in overdeveloped countries-- very close to withdrawal from mainstream society (and from involvement in politics).

Toward the end of chapter 4, I point to the trajectory from ARPANET, BBS, Usenet to the Internet and I argue that access to the Internet and World Wide Web has expanded to mobile devices and that the globally unified network of networks has become a personal and professional imperative (chapter 4.4). In post-industrial countries mobile devices even start to play the role of desktop computer at home. Worldwide there are more than 3 billion mobile phones in use globally and that includes much of the economically developing world. Being included in the networked society is not a choice; it is not something most people have the opportunity to opt out of.

In 1984, William Gibson published his novel *Neuromancer* in which he coined the term cyberspace that emphasized the geographical dispersal of networked individuals who collaborate. Congregating in cyberspace became so popular that, in 2005, Kevin Kelly -an early associate of Stuart Brand and technology writer for USA Today, described an increasing dependence on computers. He points to a world that is manufactured by users, a world in which many people when divorced from the machine will not feel like themselves, they will feel lobotomized. (Kelly) A survey conducted by Intel in 2008 found that some of the women interviewed preferred Internet access to sex. [174] Daniel Markham, for example, compares today's (networked) technologies to heroin. "[P]eople get fatter and fatter," he writes. "They are unable to get around or physically accomplish normal chores from a 100 years ago. Intelligence is going down as fewer and fewer books are being read. ... [Internet

[174] "Most Adults Find Internet Access Essential to Daily Life in Today's Economy: Intel Survey." *Intel.* 15 Dec. 2008. Web. 14 July 2009.
<http://www.intel.com/pressroom/archive/releases/20081215corp.htm?iid=pr1_releasepri_20081 215r. >.

technology] is slowly creeping up our leg and strangling our minds, our souls, millimetre-by-millimetre, year-by-year. By the time we figure this one out, it might be too late."[175] It is accurate that new social media have become a "time vampire". People spend a lot of brain-time in a small number of online destinations. (11.9% of all time spent on a single site in 2007 is spent on MySpace.)[176] We are investing time and energy to stay in touch with our pool of contacts on a social networking service and we send out "friending requests" and "poke" others. We reflect and comment on the posts of our contacts. We read news stories that our contacts suggested for us, which vary from political topics to trivia. We suggest some of our contacts to befriend a friend of ours. In these ways, we build inter-communal ties. In short, we keep the Ferris Wheel of the Social Web turning.

However, addiction to Internet use is in many ways comparable to television, especially with regard to the fact that people can turn it off. Admittedly, that is exactly not what is happening often enough with television given that the TV is on for an average of 6 hours and 47 minutes in American households.[177]
This is where media literacy/education must play an important role. Teaching "participation literacy" also means teaching when to switch off.

[175] Markham, Daniel. "Technology is Heroin." *What To Fix*. 6 Feb. 2009. Web. 14 July 2009.
<http://www.whattofix.com/blog/archives/2009/02/technology_is_h.php>.
[176] In 2008, Facebook that consumed 16% of all time spent on a single website.
[177] Herr, Norman. "Television." *California State University, Northridge*. Apr. 2002. Web. 14 July 2009.
<http://www.csun.edu/science/health/docs/tv&health.html>.

14.2.1. "Email is a wonderful thing for people whose role in life is to be on top of things"

> *Prof. Donald E. Knuth*
> *Computer Science Department*
> *Gates Building 4B*
> *Stanford University*
> *Stanford, CA 94305-9045 USA.*
>
> I have a wonderful secretary who looks at the incoming mail and separates out anything that she knows I've been looking forward to seeing urgently. Everything else goes into a buffer storage area, which I empty periodically.
>
> My secretary prints out all messages addressed to `taocp@cs.stanford.edu` or `knuth-bug@cs.stanford.edu`, so that I can reply with written comments when I have a chance. If I run across such a message that was misaddressed — I mean, if the message asks a question instead of reporting an error — I used to just throw the sheets in the wastebasket. But now I save them for scratch paper, so that I can print test material for *The Art of Computer Programming* on the blank sides.
>
> You might also try faxing me at 650-725-4671. But be warned that I look at incoming fax mail *last*, perhaps only once every six months instead of three.
>
> `I don't even have an e-mail address. I have reached an age where my main purpose is not to receive messages.' — Umberto Eco, quoted in the New Yorker

Arguments for refusal and withdrawal from social media such as email have been made many times before. In 1990, for example, Stanford University computer scientist Donald Knuth decided to no longer have an email address. "Email is a wonderful thing for people whose role in life is to be on top of things", he wrote. "But not for me; my role is to be on the bottom of things. What I do takes long hours of studying and uninterruptible concentration".[178] Such withdrawal is admirable, even inspirational, and it makes a lot of sense, at least for Dr. Knuth who may indeed be better able to concentrate. However, his ability to withdraw is a clear sign of privilege. Professor Knuth is in the very fortunate position of being able to unhook from email. (His secretary prints out his messages, as he states above.) For many of us this is simply not a realistic option. I may slightly envy professor Knuth but I do not think that his example can be held up high for all of us simply because most people are not as privileged. Professional demands make not just email but also new social media, an imperative. It is a mistake to think of social media as a choice. They are a requirement for students and most university faculty alike and far beyond that, of course, in times of economic crisis, job seekers cannot afford to put

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[178] Knuth, Donald E. "Knuth versus Email." *CS-FACULTY & STAFF Home Page.* 12-Apr-1995. Web. 14 July 2009. <http://www-cs-faculty.stanford.edu/~knuth/email.html>.

themselves at a disadvantage by logging off.

> That surplus value generating labour is an emergent property of capitalist production means that production and accumulation will break down if this labour is withdrawn. It is the essential part of the capitalist production process. That produsers conduct surplus-generating labour, can also be seen by imagining what would happen if they would stop using platforms like YouTube, MySpace, and Facebook: The number of users would drop, advertisers would stop investments because no objects for their advertising messages and therefore no potential customers for their products could be found, the profits of the new media corporations would drop and they would go bankrupt.
> (Fuchs 31)

In my opinion, the scenario proposed by Christian Fuchs is unrealistic. Not only would people hurt themselves professionally, they would also have to pay a steep price for exiting, which I argued in detail in the chapter on institutionalized labour (chapter 10.11). I suggested that social networking services are like religious sects: extremely easy to join but exceptionally hard to leave. As there has never been a social networking service of the size of Facebook, for example, there is also no precedence to members leaving the service in very large numbers. Even those who repeatedly insisted that Facebook is "evil", recently came on board; gave up, gave in, joined. It felt just like the Eternal September phenomenon.[179] Those who resisted Facebook now tolerate it because it has become a social and professional imperative. Refusal is a choice for the privileged.

Only those who have a trust fund or are in positions of great power do not need to rely on social networking services to support their professional network.[180]

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[179] The expression "the long September" refers to September 1993. It suggests that an endless influx of new users since that date has degraded the behaviour and level of discourse on Usenet. This is similar to what happens on Facebook now. Many of the newcomers seem to use the site merely as a promotional space where they broadcast their activities. They do not confirm to the more communicative behaviour of earlier users of the service.
Grossman, Wendy. "NET.WARS." *NYU Press*. 1 Jan. 1997. Web. 14 July 2009.
<http://www.nyupress.org/netwars/pages/chapter01/ch01_.html>.
[180] A study by the Pew Internet and American Life Project (04/2009) showed a trend: the lower the household income, the higher the participation in social networking sites turns out to be. Less than $30,000 -45% | $30,000 - $49,999 -38% | $50,000 - $74,999 -30 % | $75,000 + 31%

While it is not even entirely clear if a well-maintained profile directly helps people in getting a job, it is well-documented that employers start looking at the social media profiles of potential employees (however unethical that may be), not having a profile puts the applicants at a disadvantage as employers simply know less about these job seekers. "Social-networking sites are becoming, for some users, platforms from which to network for job leads, to forge professional contacts or even to announce to friends that you are out of work", writes Stephanie Rosenbloom for *The New York Times*.[181] The recent move by Facebook to make all status updates public by default supports this practice. Social media profiles, updates, and photos give employers a deeper look into the life of a prospective applicant. This is, of course, questionable in endless ways that I do not have room to debate here. Just as leaving the house is not possible or desirable for most people, not using the Internet is not a realistic option either. Unless capitalism as we know it is forced to its knees, withdrawal is an unrealistic and irresponsible proposal.

> The only way out, short of complete expropriation of the expropriators, a radical redistribution of wealth and complete overhaul of the human network (whatever that would look like), is to drop out completely, that is, for all practical purposes, to cease to exist, to cease to speak, write or be written as the discourse of the spectacle. Otherwise, you (or at least chunks of you) are working for the man.
> (Beller 295)

I agree with Beller who uses the old Russian revolutionary slogan "expropriate the expropriators". Indeed, unless you believe in the possibility of "looting the looters" (another revolutionary slogan of the time), refusal is not a viable option. Also Nicholas Carr argues for the participation imperative.

It also showed the same trend when it comes to education. People who graduated from college participated less in social networking sites than those who did not finish high school, for example. Moskalyuk, Alex. "Demographics of Social Network Users" *ZDNet*. 4 Apr. 2009. Web. 14 July 2009 <http://blogs.zdnet.com/ITFacts/?p=15716>.

[181] Rosenbloom, Stephanie. "Status: Looking for Work on Facebook." *The New York Times*. 1 May 2008. Web. 14 July 2009.
<http://www.nytimes.com/2008/05/01/fashion/01networking.html?_r=1?_r=1>.

> As individuals, we may question the technological imperative and even withstand it, but such acts will always be lonely and in the end futile. In a society governed by economic trade-offs, the technological imperative is precisely that: an imperative. Personal choice has little to with it.
> (Carr 23)

Indeed, we are always, at least partially, complicit in corporate structures as long as capitalism reigns supreme. Suggestions of withdrawal are irresponsible and, in the end, a powerless gesture of resistance. Suggesting withdrawal to today's youth is irresponsible. They rely on the social web for their livelihood in one way or the other (i.e., websites for job seekers but also social skills).[182] Furthermore, job applicants are able to discover new prospects because many people in their wider network are aware of their expertise. Professional reputations, beyond the details that are documented in a resume, are made available through sites like LinkedIn. Social networking services use what sociologist Mark Granovetter called "weak ties.[183]" LinkedIn is a prime example of this effect. Granovetter writes, "Acquaintances, as compared to close friends, are more prone to move in different circles than oneself" (Granovetter 201-233).[184] In the case of LinkedIN, the large network of contacts will hear about job openings that we are not aware of.

The refusal to participate is ineffective but at the same it is accurate that by giving in to the pressures of the job market we are shaped into personalities that match the needs of late capitalist society.

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[182] For many young people who just graduated from college, social media tools feel like an extension of their identity. One of my students said MySpace and Facebook feel like a pair of pants to her; it is a second skin. She was acutely aware of the problematic hiring processes at Abercrombie & Fitch but she was completely unaware of the perilous flipsides of the social pleasures of MySpace. Education really matters in this context.

[183] In his 1973 essay "The Strength of Weak Ties," Grannoveter argued that the people to whom we are only loosely tied have more relevant information about jobs than close friends would have. But people to whom we are only linked through weak ties have access to information that we do not have already.

[184] "The Strength of Weak Ties." *American Journal of Sociology.* 78 (6): 1360-1380, May 1973. Print.

14.3. Entry Points to Action

14. 3.1. Self-organization and Class-Consciousness on the Internet?

> For me it is rather hard to see and identify radical class-consciousness on the Internet...
> (Fuchs)[185]

> The production of a class consciousness is precluded by the atomisation and individuation of terminals.
> (Cubitt)[186]

> The question of who uses the Internet is both necessary and yet misleading. It is necessary because we have to ask who is participating in the digital economy before we can pass a judgment on the latter. It is misleading because it implied that all we need to know is how to locate the knowledge workers within a 'class', and knowing which class it is will give us an answer to the political potential of the Net as whole.
> (Terranova 81)

The most desirable form of interactivity labour is a situation in which net publics gain a degree of self-realization and organize themselves collectively. However, such self-organization is not currently in the making. It is a somewhat outlandish proposal for networked publics to think of themselves as a class, bound by the afflictions of their networked activity. There is no unified class-consciousness among the one billion Internet users who are spread across the globe, sitting at their individual terminals, and therefore it is hard to conceive of some kind of transnational resistance. Neither gender nor a particular age group dominate the Web by now.[187]

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[185] Fuchs, Christian. "[iDC] Class and the Internet, New Capitalism, and (True New) Socialism for the 21st Century." *Mailing List of the Institute for Distributed Creativity.* 25 June 2009. Web. 14 July 2009. <https://lists.thing.net/pipermail/idc/2009-June/003638.html>.

[186] Cubitt, Sean. "[iDC] Class and the Internet, New Capitalism, and (True New) Socialism for the 21st Century." *Mailing List of the Institute for Distributed Creativity.* 25 June 2009. Web. 14 July 2009 <https://lists.thing.net/pipermail/idc/2009-June/003640.html>.

[187] According to this recent study by the Pew Internet & American Life Project the majority of US American Internet users are older adults. However, most American teens use social networking services. They still dominate that particular social milieu.

In order to think about the ability of networked publics to self-organize, we need to define those publics. Who are they? This is of course incredible hard to determine. Are there any members of the capitalist class; those people in households with a net worth of $1 million or more heavily engage online? Studies suggest that the more education a person has, the less they engage in social networking services.

But given that 200 million Internet users have an account on Facebook, it does make sense to think about self-organization as the same corporate governance affects these very many members.[188] Is the unionization of Facebook even thinkable? What about Facebook groups? What would all Internet users have in common? Are there common interests? Users of a specific service may come together to publicly air their disagreement and negotiate with the service provider. In relation to the completely international phenomenon of the use of the work of Internet users, there is, however, little unity among users. Many Americans believe in a simple three-class model that includes the "rich", the "middle class", and the "poor" and most count themselves as middle class.[189] Those who spend time online, come from many different educational, occupational, and economic backgrounds. They differ when it comes to power, authority, life style, and culture. E.P. Thomson's argued that it took years of conflict between the English factory workers and those who ruled them before they would self-identify as a class. For Internet users, however, such moment of class-consciousness is perhaps in the distant future, but it may useful to consider if there are new binding forces that go beyond the old categories that defined class belonging.

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[188] About 220 million Americans are online, or 70 percent of the population, according to the Nielsen Company. China had some 253 million Internet users in February 2009, which represents roughly 19 percent of the Chinese population. Growth of Internet Usage in China has been mainly among teens.
[189] Netizens, elancers, cognitarians, swarm-capitalists, hackers, produsumers, knowledge workers, pro-ams... these are just a few of the monikers that have been applied to the new social class emerging from the networked workplace.

Danah Boyd assigned MySpace to the working class (e.g., soldiers) and Facebook to the middle class (think: officers)[190] but Terranova pointed out that mapping existing class onto the Internet does not make much sense. The situation is constantly shifting; and more and more older adults are online, also on Facebook.

I do not have a ready answer to the question of self-organization but I suggest that it is a crucial area for further research.

14.3.2. Working Toward Decentralization, for Public Media, Hybrid Economies

Where are People Spending their Time?
(% of total time spent online in the United States - December 2006)   compete.com

Top-20 Domains 39%
Other Domains 61%

myspace.com 11.9%
yahoo.com 8.5%
msn.com 3.7%
ebay.com 3.7%
google.com 2.1%
aol.com 1.7%
pogo.com 1.6%
facebook.com 1.0%
amazon.com 0.7%
craigslist.com 0.6%
go.com 0.6%
youtube.com 0.6%
live.com 0.5%
bankofamerica.com 0.4%
wikipedia.org 0.4%
walmart.com 0.3%
mapquest.com 0.3%
neopets.com 0.3%
adultfriendfinder.co 0.2%
aim.com 0.2%

Read as: Of all time spent online by all U.S. internet users, 11.9% was spent on Myspace.com

Most of the transactions that we undergo every day are highly centralized. Our bank transactions are processed by a small number of institutions and our mediated social life is facilitated in the same way. Almost 12% of all time spent on a single website was spent on MySpace in 2006. The number of companies that own all the sites that have extremely high traffic can be counted on two hands. This ownership model in many ways repeats the 19th century ownership model of the mass media more than many would have hoped. In this YouTube economy, everyone is free to play, but only a few reap the rewards (Carr 247). However, it is hard to make somewhat pragmatic suggestions in response to the realization of the centralization of ownership. Leaving Facebook for Ning, as some suggest, is not a very potent answer. Most places, including Netscape-owned Ning are part of this same dynamic.

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[190] Boyd, danah. 2007. "Viewing American class divisions through Facebook and MySpace." *Apophenia.* June 24 2008. Web. 14 July 2009 <http://www.danah.org/papers/essays/ClassDivisions.html>.

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However, I would support any action that thoughtfully contributes to decentralizing these everyday processes. ·

From the early years of ARPANET, discussed in chapters 1-3, we learned that alternative networks and communication systems (e.g., Usenet, BBS) could be powerful in offering parallel systems. The contemporary equivalent could be to move our data to an independent, small Internet Service Provider and install the open source blogware Drupal instead of going the convenient route of using a big operator. Also user-contributed archives like the Internet Archive can challenge the content hegemonies of institutions and their stranglehold on intellectual property. Knowledge collectives around sites like the Internet Archive help to move more and more content into the open and counteract the danger of centralization of resources and the increasing commercialization of knowledge.

It is also important to keep calling for non-commercial social networking services. Until now, there is no such service with significant traction and many experts claim that it cannot be done. The costs for server farms, programmers, and even electricity, are tremendous and insurmountable for not-for-profit initiatives, critics claim. Where is the non-commercial refuge for social networking?
Pat Mitchell, the director of Public Broadcast Society (PBS) argues that, in a media environment where everyone seems to be selling something, and everything is for sale, our non-commercial model is more important than ever.

Apart from propagating non-commercial social networking solutions, I propose strong support for businesses such as Craigslist, which operates under the motto. "Give People a Break". Craigslist is a for-profit company. It does not take a dime from the government. And yet, profit-maximization is not its main motivation. Craigslist makes the very wealthy pay appropriately for real estate listings, for example, and the profits are big enough to technically support its nine billion page views per month, and to pay its employees. While companies that do not do business online may find it harder to adopt the Craigslist model, its financing system could be

replicated on the Web. It would make the Web into a place that caters more to the interests of its occupants. The World Wide Web is not exclusively about commerce; it is not just Empire gone networked. Due to the obduracy of the creators of few non-profits, there are still a few stubborn outposts in the wide fields of the Yahoos and Googles, for hundreds of miles there stands a lonely small house. They turned down the large buyout that they could have made if they would leave their property. Craigslist is one of those intractable resisters. Craig Newmark's team could take in an extra half a million dollars a year in revenue ach year but instead, they are making some money off those who have more than enough, giving all others a break.

14.3.3. Data Portability as Competitive Advantage

> Capital "is obliged ([in] a life-and-death necessity for the capitalist) not to 'redistribute' the power that the new quality of labour and organization imply.
>   (Lazzarato)

A book titled *Groundswell* builds on a 2006 Forrester Research Report about social computing and coins the term groundswell to mean "a spontaneous movement of people using online tools to connect, take charge of their own experience, and get what they need- information, support, ideas, products, and bargaining power--from each other." Mainstream social networking services are very good at capturing desire. What happens, however, if people do want to leave services like Facebook? Would Facebook have an estimated value of $10 billion if you could, with one click, remake your profile and all your submitted content, on the site of another service? No.

In chapter 12, I concluded that "It is apparent [from the AT&T/NSA domestic spying case] that the reasons for concern and distrust are real. Such distrust may well be the reason to leave one service platform. In chapter 10, I argued for the existence of institutionalised labour and argued that "it is at the core of most 'Web 2.0' start up companies to make it as easy as possible to take in material and then lock it up on

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their platform". The lack of export features demonstrates a variant of corporate violence. Users are invited to contribute material but are not able to export it if they feel that it is time to leave. Data want to migrate but are locked up everywhere.

Data portability means to be able to take your data (videos, photos, and texts, profile information, friend lists, and perhaps even conversations) and move them to a competing service. From the perspective of users, data portability is common sense. Companies like Facebook are in it for profit, and more specifically, the advertising opportunities that the attention of their users offers. If they would allow their members to take their attention elsewhere, they would severely hurt themselves.

Based on this thesis research I concluded that a struggle for data portability is one important and tangible proposal for action. Initiatives like Dataportability.org focus on this struggle. Dataportability.org is an organization that focuses on putting users in control of their own data, which they contributed to various Internet services. They suggest that not only profiles should be stored in a central, civic space like OpenID but also that all "friends, conversations, files and histories" are to be made "moveable." They write: "Each of the services you use can draw on this information relevant to the context. As your experiences accumulate and you add or change data, this information will update on other sites and services if you permit it, without having to revisit others to re-enter it". One way to encourage data portability is to propose it as a competitive advantage in the sense that people will be more likely to join sites that offer data portability.

As Maurizio Lazzarato points out, retention or redistribution of "the power that the new quality of labour and organization imply" is an existential issue for companies and I suggest that the struggle for data portability is a good, concrete place to begin to challenge the monopoly of companies like Facebook. Data portability can break the exploitative or expropriative potential of otherwise institutionalized labour on social networking services.

14.3.4. Self-Worth, Social Sabotage, Deviance, False Data, and Anti-Social Networking

In today's overwhelmingly commercial World Wide Web, some suggest, sabotaging the corporate Social Web, throw a cog into the wheel of capital, is the only viable option. In chapter 11, I suggested that what is often reported as user rebellion or "revolution" is nothing more than well-channelled, real-time consumer feedback. Short of bringing down the system, are there any meaningful starting points for resistance to the expropriation (12.5.) and exploitation (11.1.) that I revealed in previous chapters? How can we offer adequate responses to the expropriation and exploitation that take place in front of or eyes?

Sabotage has been one of the more surprising strategies of the past years. There is some sabotage among users of social networking services. *The Chicago Tribune* reported that prospective students who applied to top US colleges sent in anonymous, incriminating letters to university admission officers pointing out damaging Facebook photos of competing applicants.[191] But "peer sabotage" is hardly the kind of sabotage that I am probing.

The question is, however, if "social saboteurs" can in fact deliberately weaken large corporate operators. In the current economic crisis, a very large portion of the work force is unemployed (as many as one in seven New Yorkers in June 2009, for example), a situation that can eat away at the sense of self-worth of a person without a job. Social participation online does not often address the need for making a livelihood but it does give individuals an opportunity to get attention, it allows them to apply themselves, and to belong to a network of peers that values them. The Social Web offers them some praise and it allows them to contribute to society

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[191] Perez, Sarah. "Students Competing For Slots At Elite Colleges Resorting To 'Facebook Sabotage'" *ReadWriteWeb.* 23 Oct. 2008. Web. 17 July 2009
<http://www.readwriteweb.com/archives/students_competing_for_college_committing_facebook_sabotage.php>.

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in some productive and arguably meaningful way. In 9.2, one Verizon volunteer said that he works all these hours for free because thousands of people will find his answer useful. It appears as if this society runs on the lack of self-worth of its citizens. While such volunteering can have positive effects for the jobless, I wonder what would happen to the economy if we would all feel better about ourselves? The true saboteurs of the 21st century may well be those with a deep sense of self-worth that makes them, at least in part, resistant to praise or blame, peer acknowledgment or rejection. Therapy and meditation rather than the Social Web would be starting points for this unhooking from an unhealthy reliance on the network.

But what would this sabotage look like? It is a fairly common practice among underage MySpace users, for example, to enter fake, or obfuscating information about their age, interests, location, or income in their membership profiles. Underage MySpace members frequently claim that they over are 100 years old or make $250,000. On dating sites, users frequently lie about their age and weight. Similarly, on Facebook one user states that she is married to a female high school student. Another one user quotes Hillary Rodham Clinton as saying "On Facebook everybody becomes a teenager" (and that "quote" turns to be fictional). While such data entries may trick other users, they will not significantly lower the efficiency of these social networking services to collect data.

What is effective sabotage? In the 1980s the CIA tried to incite sabotage in Nicaragua by distributing leaflets that suggested cutting down trees over highways but these efforts did not pay off. Today, it is extremely hard to "sabotage" the corporations that account for most traffic on the Social Web. Not many people would be inclined to cut down trees on the streets leading to the headquarters of Yahoo or the secretive cloud computing facilities of Google.

Perhaps the most efficient "sabotage" is currently taking place in Brazil and India where YouTube is booming. In developing countries many web companies who are heavily supported by advertising, are experiencing rapid growth but do not make

any money. People who, on the one hand have lots of time and on the other do not purchase anything through online ads especially challenge sites like YouTube, Facebook, and Flickr. A business model that is based on dealing with people in their role as consumers is faced with poor regions of the world where the "financialization" of everyday life may just not be possible. Companies like YouTube and MySpace's NewsCorp consider serving different services to its customers in developing countries (i.e., lower resolution video and stripped down, less bandwidth consuming profiles).

One "The part of me that wants to change the world says, 'This is unfair, it shouldn't be like this,' " Mr. Shapiro said. "On the other hand, from the business side of things, serving videos to the entire world is just not supportable at this time".[192]

Equally, in Turkey and Indonesia, Facebook is rapidly growing. A survey has shown that the Chinese spend the largest fraction of their leisure time online.[193] *The New York Times* article describes that despite this expansion, neither of these services is turning even the tiniest profit in these countries because it is costly to invest in infrastructure in these geographic regions where bandwidth is limited and the returns on online banner advertisements are minimal. In Asia, Latin America, and the Middle East, the desire of many people to watch user-generated videos for long periods of time means that Internet companies have to pay for the necessary bandwidth that enables these services. As online advertising in the mentioned countries is inexpensive, companies like YouTube end up losing money. Technically, this may not exactly be sabotage but the fact that there is no financial return for the offered services makes them "more free" and less laden with expropriation than the same services in the United States or Europe.[194]

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[192] Stone, Brad. "The New York Times." *The New York Times.* 26 Apr. 2009. Web. 17 July 2009. <http://www.nytimes.com/2009/04/27/technology/start-ups/27global.html>.

[193] "A survey of more than 27,000 web users in 16 countries showed that people in China spend largest fraction of their leisure time online." *BBC NEWS.* 31 Dec. 2008. Web. 17 July 2009 <http://news.bbc.co.uk/2/hi/technology/7789494.stm>.

[194] Stone, Brad. "In Developing Countries, Web Grows Without Profit." *The New York Times.* 26 Apr. 2009. 17 July 2009 <http://www.nytimes.com/2009/04/27/technology/start-ups/27global.html>.

In April 2008, a user submitted a photo of the London marathon to the *Sky News* website. It showed a runner in his late eighties. The photo, however, was a hoax; the runner was photo-shopped into the image. This was a wakeup call for the news organization (and many like it), which had already received a large number of fake damage photos after a small earthquake in the UK earlier that year.[195]
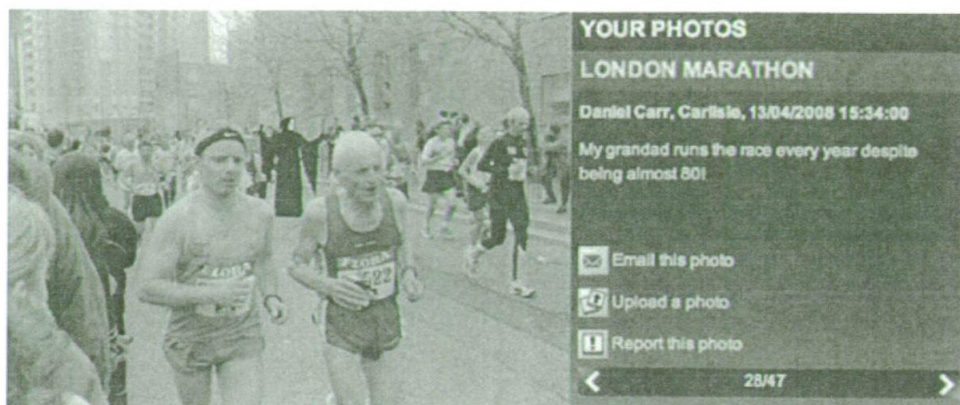
Like SkyNews, *also CNN's* iReport is affected by this phenomenon. Launched in 2006, "iReport is *CNN's* public journalism initiative that allows people from around the globe to contribute pictures and video of breaking news stories from their own towns and neighbourhood".[196] So far, viewers have mainly submitted photographs of natural disasters. Throughout the presidential elections in 2008, however, *CNN* started to increasingly use free, viewer-generated material to report news events, which allowed them broader coverage. Over the past years there have been many examples of fake news items that were distributed through *CNN's* iReport. Users submitting fake images or false news reports have become one way of at least temporarily disrupting large companies that now have to reckon with the possibility of altered material being submitted.[197]

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[195] Oliver, Laura. "Photoshopped marathon pictures fool." *Sky News. Editors' Blog.* 15 Apr. 2008. Web. 17 July 2009. <http://blogs.journalism.co.uk/editors/2008/04/15/photoshopped-marathon-pictures-fool-sky-news-website/>.
[196] Other news stations launched equivalent programs (*ABC*: i-Caught, *Fox*: uReport, *MSNBC*: FirstPerson).
[197] In 2008, a teenager submitted a fake news story to iReport saying that Steve Jobs had suffered a heart attack. The story led Apple shares went down by many points.
Scheer, David. "Teen Is Said to Have Faked Story About Apple's Jobs." *Bloomberg.com.* 24 Oct. 2008. Web. 17 July 2009 <http://www.bloomberg.com/apps/news?pid=20601103&sid=ahAlYCNB4qVo>.

YOUR PHOTOS

LONDON MARATHON

Daniel Carr, Carlisle, 13/04/2008 15:34:00

My grandad runs the race every year despite being almost 80!

✉ Email this photo

🔁 Upload a photo

❗ Report this photo

‹ 28/47 ›

http://blogs.journalism.co.uk/editors/20 1

Recently, several art projects aimed to symbolically challenge the popularity of social networking by creating anti-social platforms.[198] What some people call anti-social networking is another strategy to critique contemporary social media. Anti-social networking is sometimes also considered a strategy of refusal but in my opinion most of the projects that emerged under that category including Hatebook (http://www.hatebook.org/) and Snubster (http://www.snubster.com/) congregate people around ideas of common hatred or dislike instead of shared likes. Introvertster (http://airbagindustries.com/introvertster) lets only selected people know that you are online. Isolatr (http://isolatr.com/) is a spoof site that offers support for anti-social behaviour (i.e., it sets your online status to "away" etc). Hatebook and Snubster are offering niche social networking services based on disapproval; it is a spin on social networking- not a critique.

But one symbolic project, called NOSO, does step outside of this notion of social participation by presenting itself as a real-world platform for temporary, 1-30 minute long disengagement from social networking environments.

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[198] The Bristol-based cultural space Arnolfini set up an online gallery of anti-social notworking projects. Arnolfini. "Antisocial_notworking." *Arnolfini.* 1 Jan. 2008. Web. 17 July 2009. <http://project.arnolfini.org.uk/projects/2008/antisocial/index.php>.

*The NOSO experience offers a unique opportunity to create NO Connections by
scheduling NO Events with other NO Friends.* These "NO" events, called NOSOs,
take place in designated cafés, parks, libraries, bookstores, and other public
spaces. Participants "whose identities remain unknown to one another"
agree to arrive at an assigned time and remain alone, quiet and un-
connected, while at the same time knowing that another "Friend" is present
in the space.

      (NOSO about section)

NOSOs are scheduled by users through the NOSO website and after no longer than

half an hour participants disperse. The project is poetic and raises awareness of our

obsession with being socially connected, distracted, and entertained.
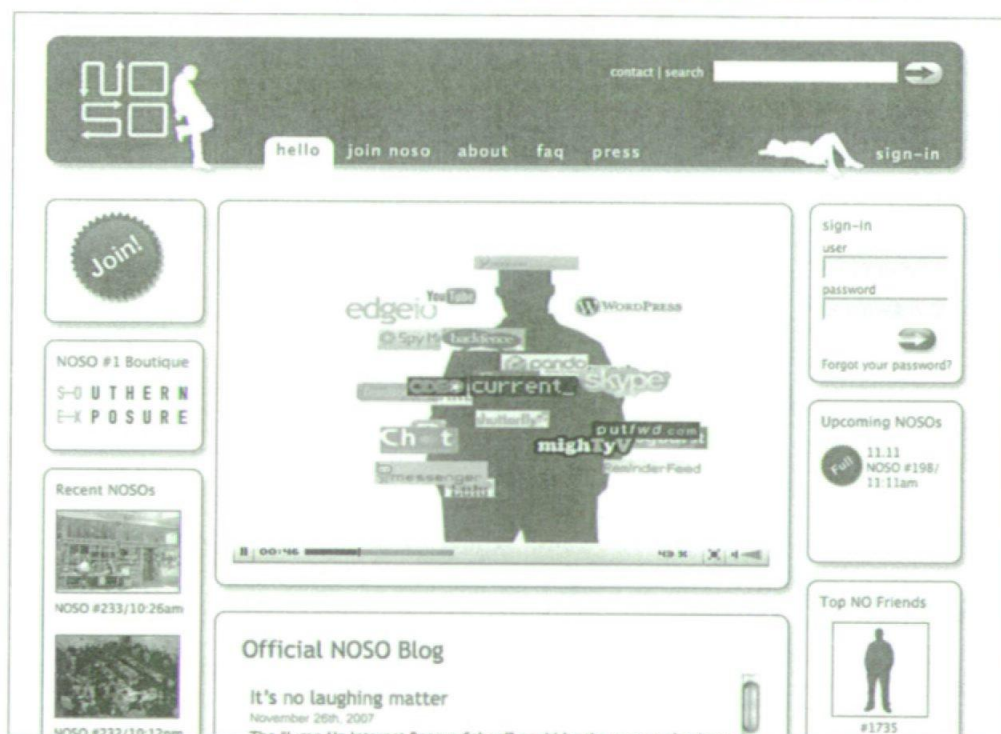
These so-called anti-social networking projects (e.g., Snubster, Hatebook) merely

offer another niche in the broader landscape of social networking services. They

barely offer a critique. NOSO is somewhat different as it really does suggest an

action (the NOSO) that aims to temporarily disengage us from the "fangs" of the

network of networks. At the same time, however, it also uses the very same tools

and practices that it creates.

14.3.4.1. Fiction on New Social Media Platforms: A New Genre?

Apart from fake content, there are also some hybrid strategies. The Canadian experimental poet Darren Wershler-Henry has specifically created poetry for Facebook and Amazon.com. In addition, his collaborative piece *Apostrophe Engine*[199] uses Google to generate poetry. The San Francisco poet Kevin Killian is among the hundred top reviewers on Amazon.com. Killian reviews everything, from Sweet potato baby food to Giorgio Agamben's book *State of Emergency*. His reviews are more autobiographical fiction than product reviews. A red ruby necklace may remind him of a necklace that decorated a grand lady depicted in an oil painting in his mother's house. Killian's writing practice is situated on Amazon.com with its built-in unsuspecting readership. The large readership and exposure that Killian gets on Amazon.com would probably be hard to achieve with traditional print publications. Is this a new genre that we ma call fiction on platforms?

The analysis that I presented through the chapters attempts a positive critique. A radical critique makes alternatives possible rather than despair convincing. I would like to suggest directions for action that are based on glimpses that we can recognize today. My approach is not based on the idea that capitalism will be forced to its knees in the foreseeable future. The challenge is not merely to critique but to offer some alternative, creative responses that work on the personal level, for today or the near future. How can we manage the asymmetrical relationship between platform owners and the people who populate these environments? I structured my proposals for a positive critique of the expropriation of users along eight themes: profit sharing, data portability, artworks, user rights, peer created and owned public media, greed-free businesses, free software, and learning from the "Summer of Love".

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[199] *Apostrophe Engine* is a collaborative project between Bill Kennedy and Darren Hershler-Henry. They designed the artwork, which uses a poem by Kennedy to search the web. When you click on a line, parts of that line are sued as search on Google. The apostrophe engine program selects from the results phrases that begin with "you are" and end in a period. It then shows the results as a new poem. Google's algorithm co-writes the poem. (http://www.apostropheengine.ca/)

Some artists playful enact deliberate actions aimed at symbolical dissonance and the weakening of Internet companies.

Hans Bernhard, Paolo Cirio, Alessandro Ludovico, and lizvlx, for example created the project *Google Will Eat Itself* (GWEI). The artists established more than 50 Adsense accounts for hidden websites on which they let Google place their Adsense links. Then they are clicking on these links to generate income, which they are then using to buy Google shares. In fact, if somebody navigates one of their many sites, it is counted as clicks on all of their websites. Some may call it "click fraud" while others celebrate it as conceptual art. Should their revenue stream steadily continue on its current course, the artist group predicts that it will completely own Google in 202 million years. Essentially, they would buy Google financed by its own advertisement. "Google eats itself - but in the end 'we' own it!" *Google Will Eat Itself* does not significantly sabotage Google but it does point to the virtual mechanisms with which Google generates its profits.

14.3.5. Partial Financial Independence for Individuals through Corporate Profit Sharing

Beyond providing information and amusement, the Web is now an environment, which allows individuals to generate some income through the platforms of large companies.

There are projects like Google Adsense, as well as YouTube's and Amazon's Affiliate Program. Only in very rare cases are individuals able to quit their day job to make a living through these new sources of income. (One example for a contributor who makes a living on YouTube is the *What the Buck Show*.[200]) However, these profit sharing programs do *contribute* to the livelihood of a significant number of people.

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[200] The *What the Buck Show* on YouTube is a video channel with contributions from a young British stand-up comedian who posts his routines to the site.

The YouTube Partner Program: *Cash in on your creativity*

YouTube partners are independent video creators and media companies who are looking for online distribution and who meet our qualifications. Becoming a partner gives you the ability to share in ad revenue from your YouTube videos.

Why become a partner?

Effective Revenue Sharing
YouTube maintains a positive user experience with automatically targeted, creative ad formats that generate revenue when your videos are viewed. All you need to do is create compelling video content.

Widest Reach
Your content will be delivered to the largest worldwide online video community via YouTube and our syndication partners.

Non-Exclusive Agreement
We don't restrict where you can upload and distribute your videos.

Who qualifies for partnership?
To become a partner, you need to meet these criteria:

You create original videos suitable for online streaming.

You own the copyrights and distribution rights for all audio and video content that you upload — no exceptions.

You regularly upload videos that are viewed by thousands of YouTube users.

See our current content partners

Do you qualify, and want to become a partner? Apply now

Please note: all uploaded videos are subject to the YouTube Community Guidelines and Terms of Use.

14.3.5.1. Google Adsense, Etsy, Amazon.com, YouTube

In June 2003, Google started its Adsense program, allowing individual bloggers to make a bit of money from the traffic on their weblog. On the one hand, bloggers who set up Google Adsense become Google franchisees of sorts, but on the other hand it is does help individuals to generate some extra income.
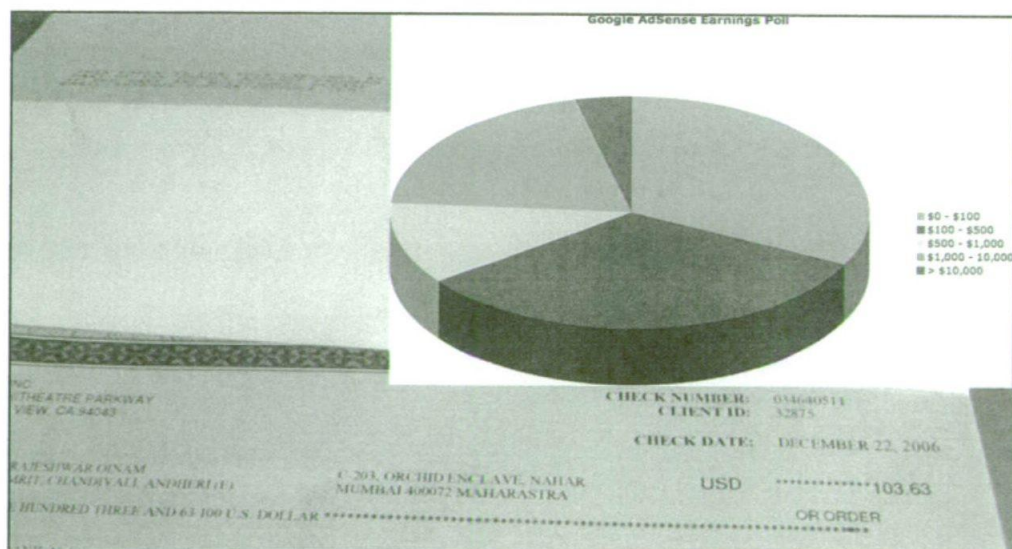
In other ways, sites like eBay and Etsy allow a degree of economic independence from within the constraints of capitalism. On Etsy, for example, people can sell hand-

made crafts objects. The platform allows independent artisans to sell their work. In his article *HandMade 2.0* Walker argues that "...there's a case to be made that [Etsy] is an art movement, or an ideological movement, or a shopping movement, [but] it is also — and probably fundamentally — a work movement." (Rob Walker)[201]

According to information in an Amazon.com discussion forums, the company derives about 40% of its sales from affiliates whom they call "Associates" as well as third party sellers who list and sell products on the Amazon website(s).

An Associate is an independent seller or business that receives a commission for referring customers to the Amazon.com site. Associates do this by placing links on their websites to the Amazon homepage or to specific products. If a referral results in a sale, the Associate receives a commission from Amazon. Worldwide, Amazon has over 900,000 members in its affiliate programs. One blogger calculated that in five years he facilitated about $1,500,000 in sales for Amazon for which he received about $70,000.[202]

It would be short sighted to dismiss these projects that are part of a hybrid economy in the sense that they help companies to turn a profit while at the same time they are contributing to the livelihood of individual users.

[201] Walker, Rob. "HandMade 2.0" *The New York Times.* 16 Dec. 2007. Web. 17 July 2009. <http://www.nytimes.com/2007/12/16/magazine/16Crafts-t.html?pagewanted=all>.
[202] Rose, Darren. "An Open Letter to the Amazon Associates Program." *ProBlogger.* 29 Nov. 2008. Web. 17 July 2009 <http://www.problogger.net/archives/2008/11/29/an-open-letter-to-the-amazon-associates-program/>.

14.4. Conclusion

Returning to the hypothesis posed at the beginning of this dissertation, it is now possible to state that the interactivity labour of networked publics is indeed expropriated (e.g., chapters 8-13). In chapter 10, I unearthed some of the mechanisms and instruments with which financial value is generated: From advertising (10.5), to complex data collection, data streams, and institutionalized labour (10.3), to the co-creation of virtual objects (10.2, 12.5.3), monitoring, speculation, and the myth of the free service (10.6). The results of this study indicate an overwhelming need for education with a particular focus on media literacy. There are a number of important changes, which need to be made. This includes underwriting students for the commons by teaching them the social and technical skills that it takes to collaborate using social media. This includes clear judgment about the credibility of online information sources as well as the ability to collaborate well with others, to compare notes, and organize knowledge online. What is now needed is curriculum that offers a critically assessment of the environments in which we are participating. Play and meaningful experimentation as ways of working are other crucial competencies and so is the ability to search, summarize, and share knowledge. Considerably more work will need to be done to adequately prepare students (and all learners) for the realities of new social media.

The findings of this study suggest several courses of action for Internet users, which I began to outline in this chapter. The aim of this investigation was to assess "playful, virtual volunteerism, and social production" online and to reveal the ways in which people are made available and useable and to uncover the mechanisms with which value is extracted from them. This study has found that while exploitation (in the most technical sense) does exist, generally the relationship between "users" and "operators" is a mutually beneficial and consensual expropriation of interactivity. The results of my discussion in chapter 13 support the idea that the ideological long-term effects on users may lead to an extreme adaptation of the individual to the needs of capitalism where what looks and sounds

like rebellion is nothing more than consumer feedback loops (11.2). Also in this section I introduced the term "Spectacle of Internet Democracy".

This dissertation has investigated some historical roots for the expropriation of networked publics. Firstly, I uncovered the official narrative of ARPANET and the alternative communication systems that emerged in response to it. I argued that the surprising popularity of network mail showed that users at the grassroots level can adapt computational tools for personal communication. I revealed that there were alternative and parallel communication systems (1.3. and 2.1.2). ARPANET was merely one of the networks that shaped the social practices on the Internet (2.2). Behavioral templates also originated from Minitel, Usenet, and BBS.

I am tracing, what is sometimes called "participatory cultures" (or "Web 2.0"), back to educational and artistic experiments starting in the 1960s (3.1.). These experiments also set the cultural backdrop for the technical experiments with networking at the time. The following conclusions can be drawn from chapter 4. There have been four participatory turns: I) the sudden and surprising adoption of network mail on ARPANET, BBS, and Usenet in the 1970 (4.1), II) the World Wide Web and the astonishing success of the Mosaic browser (4.2), III) the remarkable popularity of technologies and phenomena recently associated with social media (Java, blogs, podcast, etc) starting around 2005, and IV) the use of mobile phones by 3 billion people worldwide (see 4.4). Given the evidence that I provided I then demonstrate what motivated people to participate in the network of networks (5.1-5.3.). Some key motivators are praise, peer recognition (12.1 and 12.4), access to knowledge, entertainment, and fun with the content of others as well as joy of creation.

In chapter 6, I unpacked early historical moments that shaped the expectations and social norms of Internet users: from concerns about privacy and netiquette on MsgGroup, to volunteerism for Project Gutenberg, and Digitale Stad. I conclude that the idealism that many volunteers felt about sharing on the Internet was later

expropriated by businesses that found ways of monetizing virtual communities. Artworks like *Les Immateriaux* and also early Internet art are miniature mirror worlds of today's ambiguous relationships between users and operators of online services (3.4). I argued that it is only very few companies that manage to attract large numbers of users and which company succeeds, I argued, depends on luck and on who offers a particular service first (5.4).

The Web 2.0 Ideology that I debunked in chapter 7 is in the way of a productive, positive critique because it misleads our imagination of a future World Wide Web. It suggests a new version of the World Wide Web and inaccurately proposes novelty of technologies that often originated in the early 1990s. More broadly speaking, the Web 2.0 Ideology distracts our imagination of a future Web and its potentials for unmarketed spaces and public media (7.2. and 7.3.).

This research project was undertaken to reveal more about the nature of work, play, labour, and leisure. Based on the historical unpacking in chapters 1-3, I was able to reveal some prequels to today's interactvity labor. Especially, in chapter 8, I focus on this topic. Here I argue for the term interactivity labour to account for the paradoxical, profit-generating work that is being performed all across the Web by millions of people, often unknowingly. This has important practical implication for education. How can we create broad awareness of interactivity labour?

Today's interactivity labour is unthinkable without the norms and social expectations that were shaped ever since the 1970s. It is also unimaginable without the massive growth for which I argued in chapter 4. Social technologies have become increasingly easier to use. In chapter 8, and later on throughout the thesis, I propose that interactivity labour is rarely, but sometimes exploited (11.1), and that the Social Web is mostly characterised by pervasive mutually beneficial relationships, trade-offs, complex balancing acts between praise and peer recognition on the one hand and commercial and government surveillance on the other (chapter 12). Taken together, the results from this thesis suggest that there is

a triadic mix between self-interest, network value, and corporate profit (9.1.) at work.

I have pointed to many examples that make this "labour" more tangible. In chapters 1, 3, 6, and 11, I pointed to an early history of privacy violations (i.e., illegal uses of ARPANET by a Pentagon employee), spam, and the monetization of "cyber volunteering" (Digitale Stad 6.3., AOL 9.3. and Verizon 9.2.). My proposals address these realities.

The most important limitation of this study lies in the fact that most parameters that I analyzed are shifting constantly. The ways in which value will be captured in the future may differ from what describe here. This research has thrown up many questions in need of further investigation. If the debate is to be moved forward, a more contextualized understanding of labour needs to be developed.
In addition, considerably more work will need to be done to deepen the analysis of exploitation and class-consciousness, for example.

My approach for a response to the findings is focused on the social imagination, on finding ways of giving abstract processes such as exploitation specific meaning in our personal, daily life. I am arguing against a refusal of or withdrawal from the Internet (14.4.). In fact, I suggest that despite the dangers of Internet addiction, withdrawal from the Internet demonstrates power or privilege (14.4.1.). Furthermore, I am arguing in favour of self-organized publics, actions that further decentralization, public media, and data portability, and any form of deviant, unpredictable behaviour on social media platforms where our behavior has become very calculable (14.5.5). This includes artistic practices that make use of corporate platforms (14.8). The results of this research support the idea that individuals can supplement their income through profit-sharing programs run by Google, YouTube, Amazon.com, and others (14.7).

Leading an exemplary life is harder than anything and it starts with scepticism and

enthusiasm, and endless micro-decisions, which will rarely be applauded. In this concluding chapter I have linked reflections from the previous 13 chapters to proposals to what can be done, individually and as groups. These are not grandiose but rather narrow and humble suggestions, which have a chance of affecting some, small changes in the near future. When we start to be serious about our own lives, at least from time to time, then perhaps these suggestions are possible starting points that can help us to politicise our own life projects.

Glossary

Attention Economy

On the Social Web, people receive many services in exchange for their attention, their virtual presence on corporate hubs.

Wikipedia authors write that "as search engines have become the primary means for finding and accessing information on the web, high rankings in the results for certain queries have become valuable commodities, due to the ability of search engines to focus searchers' attention." Advertisers pay to have their hyper link placed next to a given search result. Consumer attention is treated as the property of the search engine.

A growing amount of time is also spent on social networking services where people manage their social relationships. Within an experiential nexus such as Facebook, for example, people may return several times throughout the day, to update their "status," post news items, or write messages.

Email spam has become a form of "information pollution." It costs the spammer hardly anything to send email message and 1 sale out of 100,000 messages makes the endeavour profitable. Some suggest that small amounts of money should be charged for email so that bulk messages would cease to be economical.

The most important question for marketers is how they can get the attention of their prospective costumers. Ads placed next to search engine results or the social networking service interface is partially successful with that. However, increasingly referral from peers is a method of getting people's attention. This has taken on several forms. In one scenario, "power users" (those who have many thousand friend son MySpace, for example) may be paid to drop the name of products into their online conversations. Another experiment is Facebook's Beacon as part of which Facebook users allow post to their news feed about the products that they bought from companies other than Facebook.

Cultural Context Provider

Currently, there is some advocacy for cultural practices that demand a particular involvement on the part of the audience, creating situations in which art projects are co-produced. People interact with networked computer systems and artefacts evolve out of experimental relationships between several people. The artist as cultural context provider solicits contributions online or in local community settings and the totality of the contributions make up his or her artwork. Individual contributors are usually acknowledged in some form but the piece itself is listed with the name of the initiating artist.

Exploitation

The term "exploitation" refers to the act of using something or somebody in an unjust or cruel manner.

The Wikipedia authors refer to exploitation as "In political economy, economics, and sociology, exploitation involves a persistent social relationship in which certain persons are being mistreated or unfairly used for the benefit of others. This corresponds to one ethical conception of exploitation, that is, the treatment of human beings as mere means to an end — or as mere 'objects'. In different terms, "exploitation" refers to the use of people as a resource, with little or no consideration of their well-being."

They include, not paying somebody fairly for what belongs to them (using somebody's labour without adequate compensation), directly or indirectly forcing somebody to work, using somebody against their will, without their knowledge, or without their consent. For Marx, the entire system of capitalism is based on exploitation. Some examples are characterised as super-exploitation.

In the context of the global economy, some theories posit the exploitation of poor countries by overdeveloped countries or large transnational corporations.

With new social media, in the absence of compulsion, corporations managed to garner sufficient supplies of labour by offering "free services." (10.6.)

Expropriation
Expropriation is the transfer of ownership of private property or other financial value unknownst or against the will of its owner. Throughout the thesis I am referring to the commercial expropriation of resources that are available in the commons.

Interactivity Labour
I am linking the term labour by linking it to interactivity, in the technical sense of the term network-enabled human-to-human communication. I am using the term labour in the sense of "micro labour", a term that is sometimes used to describe the work that is performed on Amazon.com's MTurk. But contrary to this use of the term labour solely in the sense of waged labour (e.g., MTurk), I am using it also for small acts of labour that are not paid but that do generate surplus value. I am looking at the point where interactivity and (micro-) labour (paid/unpaid, and voluntary/involuntary and consciously performed/unknowingly executed) converge. To make interactivity labour more tangible I am offering a few activities that I would associate with it (I introduced them in the chapter on Interactivity Labour): uploading and/or watching/looking at photos and videos, paying attention to advertising, random play on corporate platforms (i.e., "throwing zombies" on Facebook), micro-blogging (e.g., status updates, Twitter), co-innovating (e.g., bicycles, mountain bikes, skate boards, cars), Posting blog entries and comments (i.e., the bloggers who work for *Huffington Post*), emotional work (i.e., presenting a personality that "fits in"), socializing (i.e., playful acts of reciprocity such as flirting), posting news stories, referring (e.g., Digg.com), creating Meta data (e.g., Flickr

Commons), viral marketing by super-users, creating virtual objects (e.g., Second Life), artistic work (e.g., video mashups, DeviantArt), beta testing, providing feedback, consuming media (e.g., watching videos), consuming advertisement, data work (e.g., filling in forms, profiles etc).

Networked Publics

A networked public is a mediated public, comprised of people who are networked through a software platform. Today, most of the times, these spaces are commercially owned. Historically, networked publics started out as non-commercial spaces (e.g., newsgroups, BBS, UseNet, and mailing lists like MsgGroup). After the third participatory turn -the World Wide Web and Mosaic, described in chapter 4, people moved to platforms, and with the fourth participatory turn, they moved to the new social media that are often associated with Web 2.0.

New Social Media

Social media are thousands of years old but the term itself is fairly young. Most definitions thus far do not offer strong descriptors and instead rely on long lists of examples. From letter writing to the telegraph, and ham radio, media that enable communication or improve ties among people are by no means a new occurrence. However, networked computers have added a large number of avenues to share photos, audio, and videos, as well as knowledge, experiences, impressions, and opinions.

I am using the term "new social media" to refer to recent social media and the paradigm of periodically "new" social media in general (i.e., Usenet, BBS, ARPANET, Internet, email, mailing lists, the World Wide Web, and blogs, social networking services). In the same way, "new media" at one time referred to the radio or Television, the instances to which "new social media" refer will change. Which phenomena persist amidst frequent changes? Currently, we may think of social networking, referral, and bookmarking services, wikis, weblogs, micro-blogging, opinion sites, social news, virtual worlds, live casting, games, music recommendation sites, as well as video and photo sharing sites.

The term "social" is sometimes questioned in the context of "social media."
Judith Donath (director of the Sociable Media Group at MIT) uses the term "sociable media" to alert to the possibility (but not certainty) of occurring sociality.

Are these media "social" at all, or, are there any media that are not social? These questions also apply to term like the Social Web is sometimes used.

It was introduced in 1998 by Peter Hoschka "to describe the shift from using computers and the web as simple cooperation tools to using the computer as a social medium."[203]

The largest number of weblogs, the argument goes, does not get many comments at all; it's a continuation of the broadcast model. Sociality, here, may refer to participation rather than interaction. With some 100 million blogs set up by 2006, broad participation is clearly a -- new -- phenomenon when it comes to blogging (even when some of the novice bloggers do not return to their creations after the first post). Many blogs do respond to the interests of a very small number of close friends or family members and in that sense they are social; they take the needs of other people into account.

Many social media services like social book marking, and referral are mostly broadcast tools in the hands of very many users. Other social media tools for micro-blogging or social networking, for example, have a strong emphasis on social interaction, the projection of a certain identity, the creation of a reputation, the management of relationships, and ad hoc conversations.

In the English version, Wikipedia authors credit social media with "transforming monologues (one to many) into dialogues (many to many)" and point to a "democratization of information, transforming people from content readers into publishers." Along similar lines, the German version of the free encyclopaedia claims that social media eradicate "das Gefälle zwischen Sender und Rezipienten" (the gap between sender and recipient), which is accurate compared to the top-down model of traditional mass media.

The most common communication device for people in most parts of the world are cellphones. Sending SMS text messages is the most utilized social media practice worldwide.

Operators, New Media Corporations, Online Intermediaries, Interlocutors

> Intermediaries are computational entities that can be positioned anywhere along an information stream and are programmed to tailor, customize, personalize, or otherwise enhance data as they flow along the stream.
> (http://www.almaden.ibm.com/cs/wbi/)

An intermediary is a third party that offers intermediation services between two trading parties. The intermediary acts as a conduit for goods or services offered by a supplier to a consumer. Typically the intermediary offers some added value to the transaction that may not be possible by direct trading.

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[203] Hoschka, Peter. "CSCW research at GMD-FIT." *The ACM Portal.* Aug. 1998. Web. 11 July 2009 <http://portal.acm.org/citation.cfm?id=290576#>.

Common usage includes the financial services industry where financial advisers offer intermediation services in the supply of financial products such as mortgage, insurance and investment products.

In barter, an intermediary is a person or group who stores valuables in trade until they are needed, parties to the barter or others have space available to take delivery of them and store them, or until other conditions are met. In a larger sense, an intermediary can be a person or organization who or which facilitates a contract between two other parties.

Social Bookmarking

The collaborative equivalent of storing favourites or bookmarks within a web browser. Social bookmarking services such as Delicious allow people to store their favourite websites online and share them with others who have similar interests.

Social Costs

Social costs are the cost to society as a whole from an event, action, or policy change (i.e., pollution leads to bad air quality). Such negative external costs are often hard to quantify. It is hard to say, for example, how many trees died because of the air pollution caused by a specific company.

Social Networking Service

A social network service focuses on building networked publics of people who share interests and/or activities, or who are interested in exploring the interests and activities of others. Most social network services are web based and provide a variety of ways for users to interact, such as e-mail and instant messaging services.

Characteristic features include a personal profile (with possibility to moderate its visibility to members of the service and the public at large), an address book (a contact list), reception and distribution of messages among members, reception and delivery of notices among members (e.g., events, changes of the profile information, "pokes").

Social networking has encouraged various ways to communicate and share information. One proprietary, encapsulated service usually gains popular uptake and it mostly one such service that is dominant in most countries (e.g., Facebook in Canada or Orkut in India).

Popular social networking services include Facebook, MySpace, LinkedIn, Bebo, Hi5, XING, Badoo, Orkut, Hi5, Friendster, Orkut, Wretch, Xiaonei and Cyworld.

User

By user I am referring to a person who uses an Internet service. She consumes the service by first logging on to her account. Typically a password is required to authenticate her. The term "user" is of limited use as it emphasizes the use of a service while in many of today's web services the situation is rarely one of exclusive utilization. More often than not, "users" are co- producing the service experience.

Axel Bruns calls that produsage-- collaborative content creation, which is led by users or at least crucially involves users as producers. (Bruns) But we are not merely "users" and "producers" either. With the decline of the individual web page culture of the 1990s, web users turned from customizers into participants and later producers who read, write, subscribe, upload, listen, and moderate. Jay Rosen asks us to think of "The writing readers. The viewers who picked up a camera. The *formerly atomized listeners who with modest effort can connect with each other and gain the means to speak – to the world, as it were".[204]* User/producers create content such as texts (essays, blog posts, or comments), videos, audio files, video casts, ... stuff next to which other people can place ads.

Behind the depersonalizing term "user" are of course real people-- lovers, neighbours, "foodies", stressed-out professionals, or gamers, or (as often emphasized) consumers. When addressing individuals as "users" we are temporarily giving up or suspending their multifaceted identity. We are reducing them to their role as users of a web service. "The Facebook user".
"The Digg user".

The term "user" originates from the language of programmers who talked about the end-users of their product. Today the user groups that designers and programmers work for are much broader than those in the early days of the Web. Nobody talks about users of dishwashers, or users of retail stores, or users of telephones.[205] Why are we talking about users of web services? The problem with properly addressing people who are connecting with other people through social media services is that we simply do not know enough about them (i.e., "The man with an affinity for Finish pop who just loves dogs".). In addition, some commonalities are simply imagined. There are some commonalities, to be sure. Logging on to Facebook is an experience that some 200 million people share. We know some people with whom we share updates on Facebook but many are acquaintances and some are even strangers. It is a melange of our social circles-- from friends to employers.

What are alternative terms?

[204] Jay Rosen, "The People Formerly Known as the Audience," *Pressthink.* 27 June 2006, Web. 8 October 2008.
<http://journalism.nyu.edu/pubzone/weblogs/pressthink/2006/06/27/ppl_frmr.html>.
[205] Bernoff, Josh. "I'm sick of users." *Forrester Blogs.* 25 July 2007. Web. 11 July 2009.
<http://blogs.forrester.com/groundswell/2007/07/im-sick-of-user.html>.

Über users? Persons? People? Information-seeker? Praise-addict? Member? Participant? Prod-user? Pro-am? Blog gardener?[206] One person suggests "people writing the web", Bruce Sterling talks about "wranglers", stockholders, others use phrases like "person-created content".[207] Business people refer to those who use their technology as customers. Patrick Flichy uses the term "Internaut", which at least in English brings up associations of somebody who is space-bound rather than screen-focused. The term "user" feels dehumanizing to me but it often sounds just as awkward to use other terms and that is why I am making an effort not to use the term whenever it seems to make sense.

User-generated content (UGC) refers to videos, audio, photos, virtual 3D objects, and texts created and submitted to social networking or media sharing services by people who are rarely professionals in the respective fields and who are not paid for these contributions. Platform providers such as YouTube or Facebook employ web administrators who partially monitor the content that Internet users can upload at no charge. However, each piece of content that an amateur photographer uploads to Facebook, for example, also makes it less possible for her to leave that service as there are no export features, which would allow her to move the images to another service. User-generated content that is uploaded to social media services becomes the irremovable furniture of today's mainstream social milieus.

Sometimes people prefer to watch each others' creations to paying for big-budget Hollywood productions. Platforms like DeviantArt and YouTube attest to this.

Questions of ownership of UGC have been hotly debated. News media headlines like "Whose data is it anyway?" or "Facebook: All Your Stuff is Ours, Even if You Quit", show this resonance. The default, on most social media platforms is content ownership by the intermediary, the platform owner. However, the question of content ownership of UGC matters less than most users think, at least so far, simply because users are not allowed to move the photographs, videos, and text entries they made. In addition, there have been no concerted efforts to *directly* monetize the uploaded content (i.e., as in Yahoo selling photos uploaded to Flickr to newspapers). So far, however, this has not happened, which does not mean that it will not happen in the future. In the virtual world Second Life, "residents" created the entire world. Everything you see, except the "real estate" – the virtual land itself—was created by users/players in the virtual world. Second Life decided to hand over the intellectual property rights for these creations (everything from virtual trees to cars or planes) to its creators, which substantially helped the reputation of LindenLabs, the company behind the virtual world. Like on Facebook, MySpace, or Flickr, it is not possible to export all one's creations, ownership is merely an act of corporate good will.

[206] "The term 'user'." *Zephoria*. 6 October 2004. Web. 11 July 2009.
<http://www.zephoria.org/thoughts/archives/2004/10/06/the_term_user.html>.
[207] Vander Wal, Thomas. "Still Thowing Out the User." *Vanderwal.net*. 21 June 2006. Web. 11 July 2009. <http://www.vanderwal.net/random/entrysel.php?blog=1841>.

Various games including Counterstrike and LittleBigPlanet (for PlayStation 3) have attempted to incorporate player-generated content.

The BBC established a team for ugc in 2005. CNN launched iReport (http://en.wikipedia.org/wiki/CNN_iReport) in 2006. The project aimed to bring user-generated content to CNN (e.g., eye witness reports of hurricanes or wild fires). Increasingly, CNN, Fox News, and Sky News use such projects to report on a wide range of issues beyond eye witness-type contributions.

Virtual Community

From biology, sociology, and computer science the term community has various connotations. Definitions vary from the Latin roots in communis (suggesting togetherness and responsibility) to the German (and much broader) Gemeinschaft, which Ferdinand Tönnies defined as "a tighter and more cohesive social entity, due to the presence of a 'unity of will.'" (*Gemeinschaft and Gesellschaft*, 1887).

Virtual community is a community where people encounter each other and interact via the Internet. Howard Rheingold eloquently described the sense of "community" that he experienced on The Well (http://www.rheingold.com/vc/book/1.html). "When people carry on public discussions long enough, with sufficient human feeling, to form webs of personal relationships..." He talked about a medical doctor whom he contacted on the Well to learn about the removal of a tick from his daughters head, for example. In 1993, it was crucial to understand that indeed, emotionally meaningful group interactions can take place online.

Today, various definitions of "virtual community" (or "online community") fill volumes. Other terms, like community of practice followed (Lave, Jean und Wenger, Etienne, 1991). Today, however, these terms do not sufficiently describe what is happening on social networking services like Facebook where many of the participants may be unknown to each other or where group interaction is made difficult. While message exchanges in small groups are common, one cannot send messages to groups that one created on Facebook if they exceed a certain number of members. The number of friends is limited to 50000. What does it mean when we post a video to YouTube and start by saying "Hi, YouTube" or "Hi, YouTube Community." YouTube in their Community Guidelines ask users to "Respect the YouTube Community" and "Remember that this is your community!"[208]

YouTube is not a community. Facebook is not a community. Delicious is not a community. Last.fm is not a community. There may be instances of community but for the most part what Howard Rheingold for the Well is not happening on today's

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[208] "YouTube Community Guidelines." *YouTube.* Jan. 9 2008. Web. 11 July 2009. <http://www.youtube.com/t/community_guidelines?locale=en_US>.

social media and other concepts are needed. In the thesis I am using the term networked publics and on occasion I refer to Michael Warner's term of *a public*.

Walled Gardens

According to Wikipedia, a walled garden refers to a closed set or exclusive set of information services provided for users (a method of creating a monopoly or securing an information system). This is in contrast to providing consumers access to the open Internet for content and e-commerce. The term is often used to describe offerings from interactive television providers or mobile phone operators, which provide custom content, and not common carrier functions. Another use of the term refers to quarantining malware-infected computers which exhibit symptoms of botnet activity in a way that the user can still access tools to disinfect the machine, usually with a Web browser. Yet another example is where an unauthenticated user is given access to a limited environment for the purpose of setting up an account - after they have done so they are allowed out of the walled garden. Some walled gardens are created and maintained by the use of firmware upgrades that wall-out alternatives (e.g. Apple iPhone hacks).

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Appendix

Appendix #1

Questions from A Worker Who Reads

Who built Thebes of the seven gates?

In the books you will find the name of kings.

Did the kings haul up the lumps of rock?

And Babylon, many times demolished.

Who raised it up so many times? In what houses

Of gold-glittering Lima did the builders live?

Where, the evening that the Wall of China was finished

Did the masons go? Great Rome

Is full of triumphal arches. Who erected them? Over whom

Did the Caesars triumph? Had Byzantium, much praised in song,

Only palaces for its inhabitants? Even in fabled Atlantis

The night the ocean engulfed it

The drowning still bawled for their slaves.

The young Alexander conquered India.

Was he alone?

Caesar beat the Gauls.

Did he not have even a cook with him?

Philip of Spain wept when his armada

Went down. Was he the only one to weep?

Frederick the Second won the Seven Years' War. Who

Else won it?

Every page a victory.

Who cooked the feast for the victors?

Every ten years a great man.

Who paid the bill?

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So many reports.

So many questions.

Bertolt Brecht

"Fragen eines lesenden Arbeiters" - translated by M. Hamburger

from Bertolt Brecht, Poems 1913-1956, Methuen, N.Y., London, 1976

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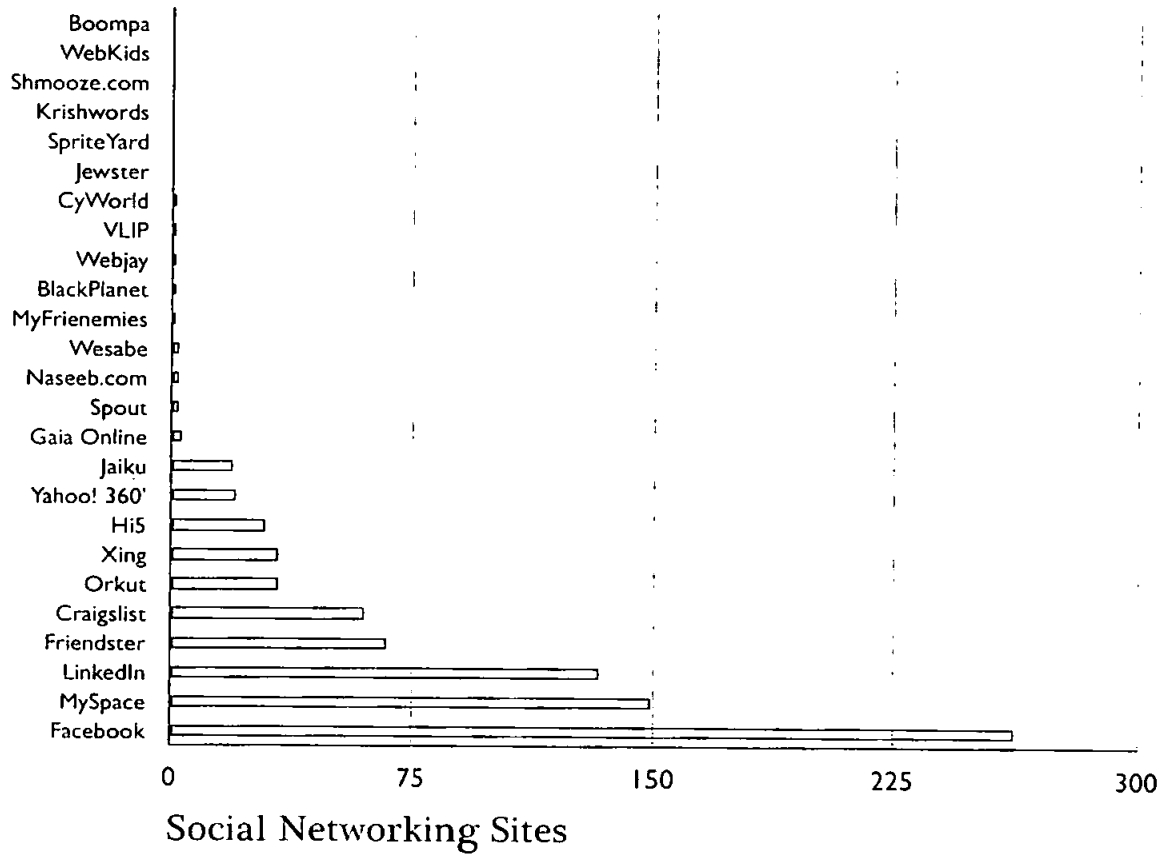
286
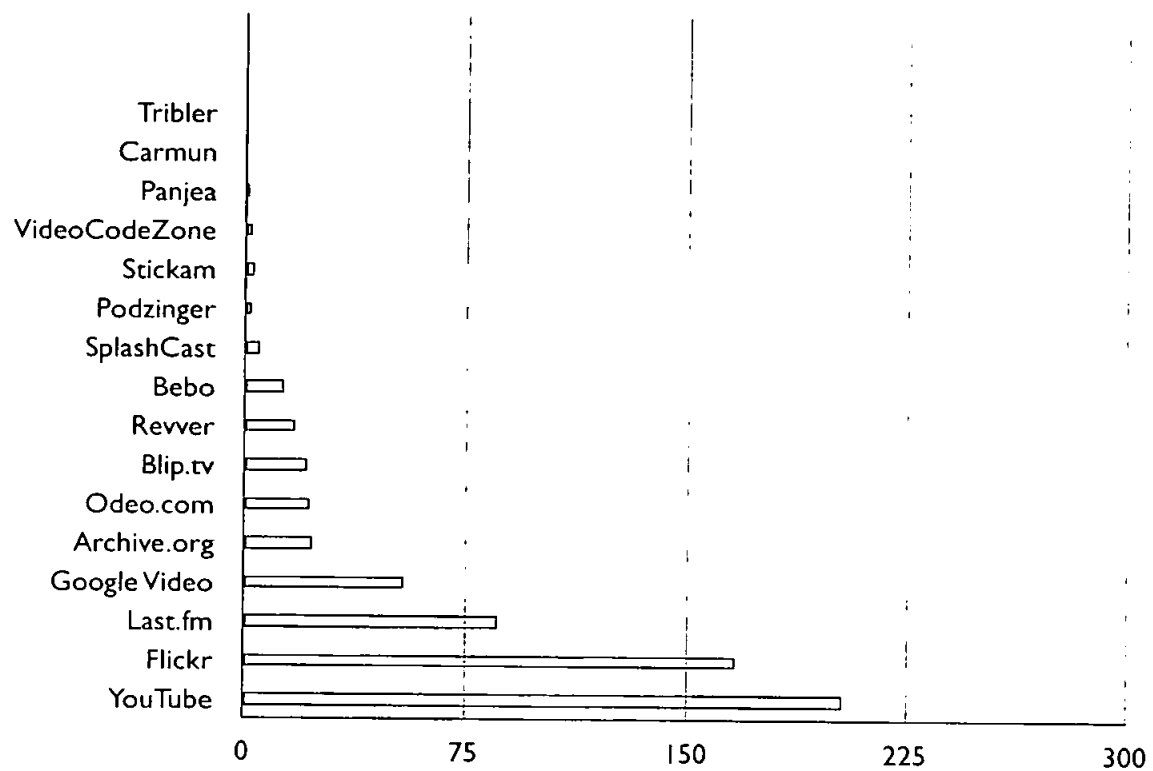
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Why do you participate in networked social platforms?

	very important	important	somewhat important	not important	Rating Average	Response Count
It allows me to hang out with my friends	18.4% (38)	**32.9% (68)**	28.0% (58)	20.8% (43)	2.49	207
I can establish a good reputation	15.9% (33)	25.5% (53)	28.4% (59)	**30.3% (63)**	2.27	208
I can access information	**50.5% (106)**	35.2% (74)	10.5% (22)	3.8% (8)	3.32	210
Here I can relax	7.7% (16)	25.8% (54)	**35.4% (74)**	31.1% (65)	2.10	209
I find entertainment	25.7% (53)	**50.5% (104)**	18.0% (37)	5.8% (12)	2.96	206
Finding emotional support	2.9% (6)	12.4% (26)	29.7% (62)	**55.0% (115)**	1.63	209
Getting dates	1.0% (2)	4.8% (10)	11.1% (23)	**83.1% (172)**	1.24	207
Here I find new friends..	9.2% (19)	22.3% (46)	**39.3% (81)**	29.1% (60)	2.12	206
It helps me in getting jobs	8.1% (17)	21.1% (44)	25.8% (54)	**45.0% (94)**	1.92	209
It helps me to archive my memories (photos, video, texts)	23.7% (49)	**31.4% (65)**	22.2% (46)	22.7% (47)	2.56	207
Here I can find a group that I can belong to...	5.7% (12)	23.9% (50)	**39.2% (82)**	31.1% (65)	2.04	209
I can have fun with the content of others	14.8% (31)	**38.8% (81)**	27.3% (57)	19.1% (40)	2.49	209
I can have the joy of creating things	20.2% (42)	**37.5% (78)**	26.0% (54)	16.3% (34)	2.62	208
I can experiment with my identity	5.7% (12)	16.7% (35)	27.8% (58)	**49.8% (104)**	1.78	209

When using a site do you care about:

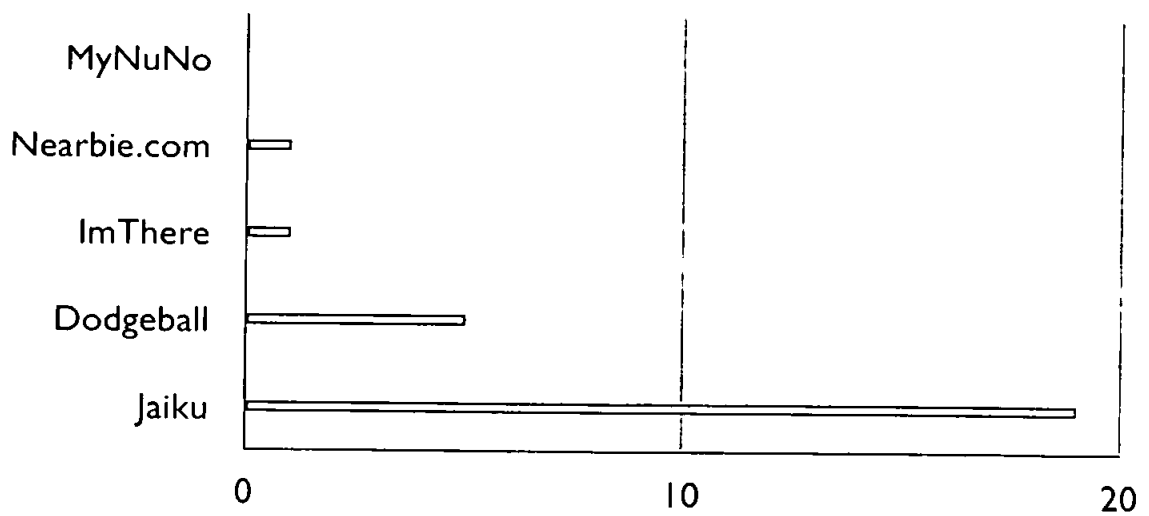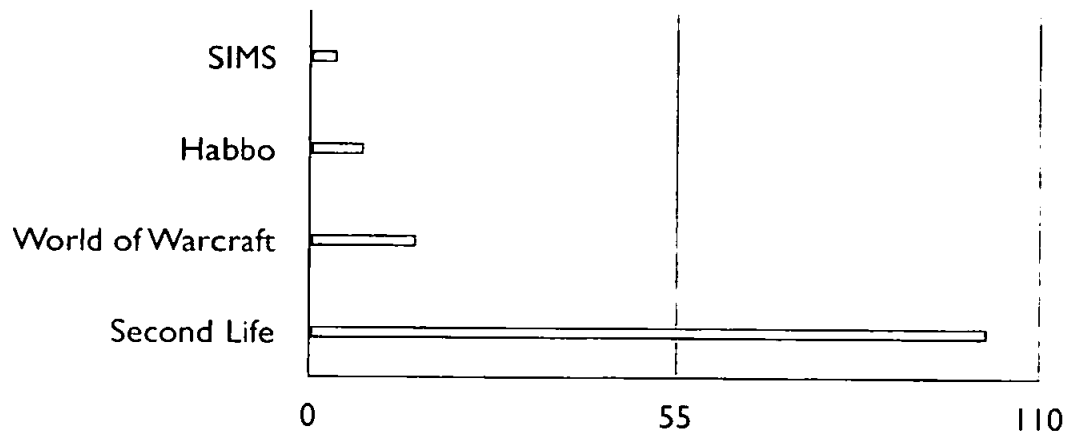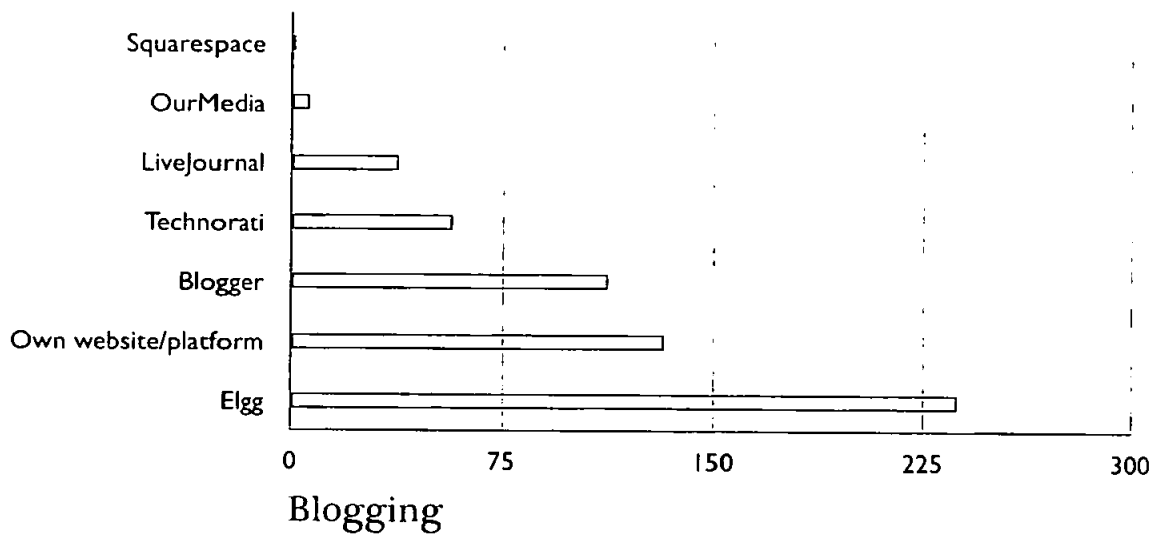|	I care a lot	I care somewhat	I do not care	Rating Average	Response
The values (or ethics) of the company that offers the service...	45.3% (117)	46.5% (120)	8.1% (21)	2.37	258
The ease with which this service allows me to switch to another service...	29.0% (74)	45.1% (115)	25.9% (66)	2.03	255
The transparency of the ownership and privacy rules of the site...	47.1% (121)	44.4% (114)	8.6% (22)	2.39	257
The amount of spam that you receive...	82.9% (214)	14.7% (38)	2.3% (6)	2.81	258
The number of ads on the site...	45.1% (116)	45.5% (117)	9.3% (24)	2.36	257
The social class of others on the site...	9.0% (23)	27.8% (71)	63.1% (161)	1.46	255
The gender of others on the site...	5.4% (14)	21.4% (55)	73.2% (188)	1.32	257
The tone, passion, personality of posts on the site...	48.2% (123)	44.7% (114)	7.1% (18)	2.41	255
The user interface...	77.1% (199)	19.4% (50)	3.5% (9)	2.74	258
The topical orientation of the content...	53.3% (137)	37.0% (95)	9.7% (25)	2.44	257
The ability to share videos and photos with others...	36.3% (93)	50.0% (128)	13.7% (35)	2.23	256

Social Networking Sites

Boompa				
WebKids				
Shmooze.com				
Krishwords				
SpriteYard				
Jewster				
CyWorld				
VLIP				
Webjay				
BlackPlanet				
MyFrienemies				
Wesabe				
Naseeb.com				
Spout				
Gaia Online				
Jaiku				
Yahoo! 360'				
Hi5				
Xing				
Orkut				
Craigslist				
Friendster				
LinkedIn				
MySpace				
Facebook				

0   75   150   225   300

Tribler
Carmun
Panjea
VideoCodeZone
Stickam
Podzinger
SplashCast
Bebo
Revver
Blip.tv
Odeo.com
Archive.org
Google Video
Last.fm
Flickr
YouTube

0   75   150   225   300

Media Sharing Sites

Instant Messaging

Social Mobile Space

SIMS			
Habbo			
World of Warcraft			
Second Life			

0 55 110

Virtual Worlds/Networked Social Games

Squarespace
OurMedia
LiveJournal
Technorati
Blogger
Own website/platform
Elgg

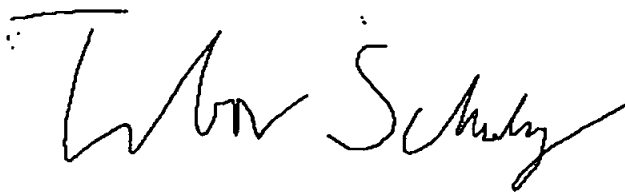0 75 150 225 300

Blogging

Frequency of Use

Participatory Activities
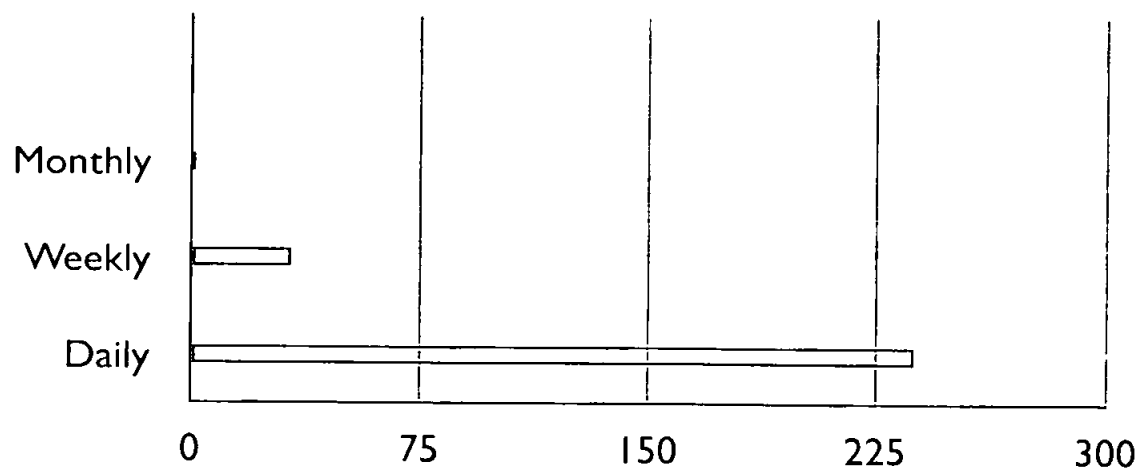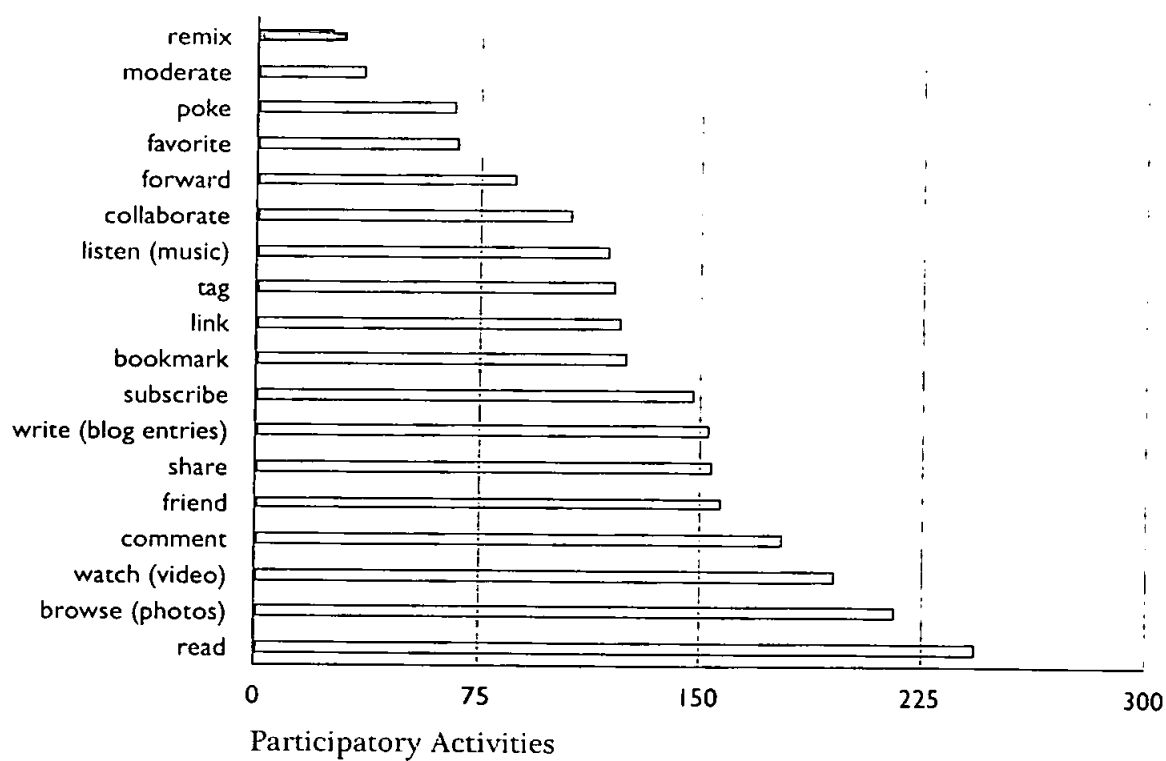
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