Introduction: Habitual New Media, or Updating to Remain (Close to) the Same

New media exist at the bleeding edge of obsolescence. They are exciting when they are demonstrated, boring by the time they arrive. Even if a product does what it promises, it disappoints. If an analysis is interesting and definitive, it is too late: by the time we understand something, it has already disappeared or changed. We are forever trying to catch up, updating to remain (close to) the same; bored, overwhelmed, and anxious all at once. In response to this rapidly cycling and possibly manic depressive time scale, much analytic, creative, and commercial effort has concentrated on anticipating or creating the future, the next big thing: from algorithms that sift through vast amounts of data in order to suggest or predict future purchases to scholarly analyses that assess the impact of technologies that do not yet exist. What matters most: figuring out what will spread and who will spread it fastest.

But is this really the best approach? What does this constant move to the future, which dismisses the present as already past, erase? What do we miss if we assume new media are simply viral or disruptive? *Habitual New Media* counters this trend to analyze the present through soothsaying by revealing that **our media matter most when they seem not to matter at all**, that is, when they have moved from the new to the habitual. Search engines are hardly new or exciting, but they have become the default mode of knowledge acquisition. Smart phones no longer amaze, but they increasingly structure and monitor the lives of their so-called owners. Further, sites that have long since disappeared or which 'we' think have, such as *Friendster.com* (as of 2015, it was mainly a South Asian gaming site), live on in our clicks and our habitual actions, such as 'friending.' Whether or not a virus spreads depends on habits, from the regular washing of hands to practicing safe sex. **Through habits users become their machines**: they stream, update, capture, upload, share, grind, link, verify, map, save, trash, and troll. Repetition breeds expertise, even as it breeds boredom.[1]

At the same time, even as users become habituated to and become inhabitants of new media, new media, as forms of accelerated capitalism, seek to undermine the habits they must establish in order to succeed in order to succeed. Habituation dulls us to the new; because of the shelter—the habitat—offered by habituation, the new is barely noticed. Most new commodities are ignored, which is why grocery stores routinely change their layout to call attention to new products: the best way to break an established habit is to change the environment.[2] Further, new media cannot survive if they simply are disruptive—new, singular, for the first time—for what matters is not first contact (the mythic patient Zero 'responsible' for a viral outbreak) but the many ones that follow. Most concisely, **habituation and the new are the dreams and nightmares of new media companies.** New media remain in habits and in off-shored trash heaps.

New media, if they are new, are new as in renovated, once again, but on steroids, for they are constantly asking/needing to be refreshed. They are new to the extent that they are updated. (In this sense, hackers are software companies' best friends: users regularly download the latest corporate spyware in order to avoid potential security flaws.) **New media live and die by the update**: the end of the update, the end of the object. Things no longer updated are things no longer used, useable, or cared for, even though updates often 'save' things by literally destroying—that is, writing over—the things they resuscitate. (In order to remain, nothing remains, so now nothing remains even as everything does.) Things and people not updating are things and people lost or in distress, for users have become **creatures of the update. To be is to be updated:** to update and to be subjected to the update. The update is central to disrupting and establishing context and habituation, to creating new habits of dependency. To put it in a formula: **Habit + Crisis = Update.**

This book investigates the twinning of habits and crisis that structure networked time. It argues that if "networks" have become the dominant concept, deployed to explain everything new about this current era from social to military formations, from global capital to local resistance, it is because of what they are imaged and imagined to do. As I explain in more detail in chapter 1, "networks" render the seemingly complex and unmappable world of globalization trackable and comprehensible by transforming time-based interactions and intervals into spatial representations: they spatialize temporal durations and repetitions. Networks embody "glocal" combinations by condensing complex clouds of interactions into definite, traceable lines of connection (or connections imagined to be so) between individual nodes across disparate locales. Network maps mediate between

the local and the global, the detail and the overview. Their resolution 'illustrates' the relationship between two vastly different scales that have hitherto remained separate—the local and the global, the molecular and the molar—by reducing the world to substitutable nodes and edges. Not everything, however, becomes an edge. Imaged and imagined connections, this book reveals, are most often habits: things potentially or frequently repeated. Habit is information: it forms and connects. **Habits are creative anticipations based on past repetitions that make network maps the historical future.** Through habits, networks are scaled, for individual tics become indications of collective inclinations. **Through the analytic of habits, individual actions coalesce bodies into a monstrously connected chimera.**

Habitual repetition, however, as I explain in chapter 2, is also constantly undone by the other temporality of networks: crisis. As many others have argued, neoliberalism thrives on crises: it makes crises ordinary.[3] It creates super-empowered subjects called on to make decisive decisions, to intervene, to turn things around. Crises are central to habit change: in the words of Milton Friedman, creator of crises par excellence, "only a crisis—actual or perceived—produces real change."[4] Crises become ordinary, however, thwart change and make the present, as Lauren Berlant has put it, an impasse, an affectively intense cul-de-sac.[5] Crises make the present a series of updates in which we race to stay close to the same and in which information spreads not like a powerful, overwhelming virus, but rather like a long, undead thin chain.[6] Information is not Ebola, but instead the common cold.

Habit + Crisis = Update also makes clear the ways in which networks do not produce an imagined and anonymous 'we' (they are not, to use Benedict Anderson's term, "imagined communities") but rather, a relentlessly pointed yet empty, singular yet plural YOU.[7] Instead of depending on mass communal activities, such as reading the morning newspaper, to create national citizens, networks rely on asynchronous yet pressing actions to create interconnected users. In network time, things flow noncontinuously. The NOW constantly punctures time, as the new quickly becomes old, and the old becomes forwarded once more as new(ish). **New media are N(YOU) media**; new media are a function of YOU. New media relentlessly emphasize you: *Youtube.com*; What's on your mind?; You are the Person of the Year (see figures 0c.1 and 0c.2).

Networks trace unvisualizable interactions as spatial flows, from global capital to environmental risks, from predation to affects, by offering a resolution that pierces through the 'mass' or community to capture individual and preindividual relations.[8] Importantly, YOU is a particularly shifty

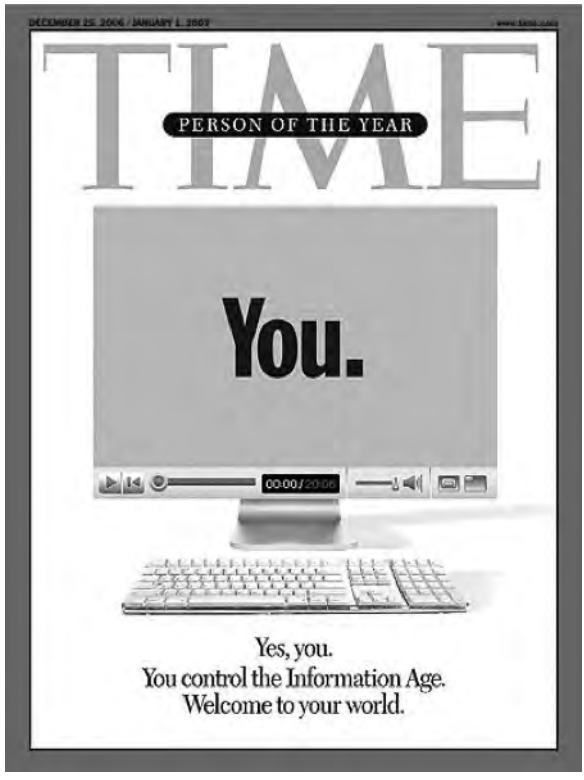

Figure 0c.1
Time magazine cover*: YOU as Person of the Year*. Reprinted with permission.

shifter: YOU is both singular and plural; in its plural mode, however, it still addresses individuals as individuals. This YOU, as I argue in chapter 3, is central to the changing value of the Internet, to the transformation of the Internet into a series of poorly gated communities that generate YOUs value. This YOU seeks to contain the leaky network that is the Internet. It perverts the Internet's wonderful creepiness through a logic that freezes memory into storage.

Further, Habit + Crisis = Update reveals the extent to which habit is no longer habit. Constantly disturbed, habit, which is undergoing a revival within the humanities, social and biological sciences, and popular literature, has become addiction. Habit has moved from *habes* (to have) to *addictio* (to lose—to be forfeited to one's creditor). Habit is now a form of dependency, a condition of debt. As the book's conclusion asserts, to be

Figure 0c.2
Time magazine cover: *YOU as Person of the Year*

indebted is not necessarily bad, but indebtedness must be complemented by a politics of fore-giving: of giving in excess and in advance. *Updating to Remain the Same: Habitual New Media* thus ends with a call to embrace the ephemeral signals that are constantly touching and caressing us. It concludes by refuting the politics of memory as storage—a society in which I do not remember, YOUs do not forget—by outlining a different kind of exposure and writing that repeats not to update, but to inhabit the inhabitable.

Contradictory Habits

Habits are strange, contradictory things: they are human-made nature, or, more broadly, culture become (second) nature. They are practices acquired

through time that are seemingly forgotten as they move from the voluntary to the involuntary, the conscious to the automatic. As they do so, they penetrate and define a person, a body, and a grouping of bodies. To outline some of the contradictions habits embody (and habits are all about embodiment): they are mechanical and creative; individual and collective; human and nonhuman; inside and outside; irrational and necessary.[9]

Habits are both inflexible and creative. According to psychologist Wendy Wood, habits are voluntary actions initially taken on to achieve a goal; these actions, however, soon become autonomous programs.[10] As "memory chunks," habits are inflexible. Whereas a goal, such as weight loss, may be satisfied in many ways (exercise, various forms of dieting, etc.), there is only one way to satisfy a habit: doing it (eating potato chips while watching TV). This possible divergence of habits from goals can make habits, Wood argues, "vestige[s] of past goal pursuit."[11] At the same time, the involuntary nature of habit—its seemingly mechanical repetition of the same—combined with its tendency to wander, makes creativity and rational thought possible. According to Elizabeth Grosz, habit in the work of Gilles Deleuze, Félix Ravaisson, and Henri Bergson "is regarded not as that which reduces the human to the order of the mechanical … but rather as a fundamentally creative capacity that produces the possibility of stability in a universe in which change is fundamental. Habit is a way in which we can organize lived regularities, moments of cohesion and repetition, in a universe in which nothing truly repeats."[12] Habit enables stability, which in turn gives us the time and space needed to be truly creative, for without habit there could be no thinking, no creativity, and no freedom.[13] Further, habit, as a form of second nature, reveals the power of humans to create new structures and reactions in response to their environment; it is, as Catherine Malabou writes, a sign of human plasticity.[14] Habit, unlike instinct, is learned, cultivated; it is evidence of culture in the strongest sense of the word. Moreover, habit itself is creative. As David Hume has observed, habit can create fanciful relations between things by invoking false experiences.[15]

This creative accrual of habit is central to personality, to subjectivity (or the lack thereof), and to ideology. Maurice Merleau-Ponty has argued, "my own body … is my basic habit";[16] Gilles Deleuze has similarly stated, "we are habits, nothing but habits—the habit of saying 'I.'"[17] Drawing from this work, Clare Carlisle contends that habits, defined as what one has, conceal the fundamental emptiness of the self.[18] A habit, of course, is also a literal covering, and the nun's habit reveals that, even as habit covers and fits an individual, it also connects bodies.[19] According to Gabriel Tarde, this cohesion happens at a level beneath rationality and consciousness: modern man

is a somnambulist who is linked to others through habit.[20] This link has been traditionally formulated in terms of class formation, most clearly in Pierre Bourdieu's work on *habitus*. *Habitus*, as the "generative principle of regulated improvisations"[21] ensures seemingly spontaneous harmony between members of the same class: "if the practices of the members of the same group or class are more and better harmonized than the agents know or wish, it is because … 'following only [his] own laws,' each 'nonetheless agrees with the other.'"[22] Bourdieu was influenced by William James's argument that habit prevents class warfare by keeping "different social strata from mixing."[23] Habit, James writes in a widely cited passage, "is … the enormous fly-wheel of society, its most precious conservative agent. It alone is what keeps us all within the bounds of ordinance, and saves the children of fortune from the envious uprisings of the poor. … It holds the miner in his darkness, and nails the countryman to his log-cabin and his lonely farm through all the months of snow."[24] In this sense, habit is ideology in action; indeed, it is ideology as action, as opposed to false consciousness. According to Slavoj Žižek, ideology is structured like a fetish: we know very well that X is not Y, but we continue to act as though it were. We are "fetishists in practice, not theory."[25] Žižek makes this point by quoting Blaise Pascal's famous instructions on how to become a believer: "You want to find faith and you do not know the road. … [L]earn from those who were once bound like you and who now wager all they have. … Follow the way by which they began. They behaved just as if they did believe, taking holy water, having masses said, and so on. That will make you believe quite naturally, and will make you more docile."[26] This formulation links individual faith to others' habits. To acquire a habit, one deliberately learns from others: habits are forms of slow training and imitation that lead to belief, or at least the appearance thereof. Bourdieu similarly emphasizes the importance of practice to *habitus*. *Habitus* reveals the limits of rationality and regulations, for *habitus* cannot be explained through 'rules.'[27] This move to habit to understand the 'irrational' is also prevalent in institutional economics, which uses habit to critique game theory's reliance on rational choice theory.[28] Increasingly, habit is the productive nonconscious.[29]

Habits link not only humans to other humans, but also humans to nonhumans and the environment. Classically, crystal formation is a habit. Contemporary neurological examinations of the basal ganglia connect this evolutionarily 'ancient' part of the human brain, which is central to habit formation, to other animals: the basal ganglia is allegedly the same in fish and humans.[30] Further, habits link people to the environment. As Heidi Cooley states in her analysis of mobile technology, mobile devices are

designed to be responsive and spontaneous, to work at the level of manual habits.[31] According to John Dewey, habits are "things done *by* the environment by means of organic structures or acquired dispositions."[32] Wood, among many other psychologists, has argued that habits are provoked by environmental cues, hence the importance of environmental changes and context—"disruption"—to habit change.[33] At the same time, though, habits also habituate. They enable us to ignore new things; they dull us to sensation and the environment.[34]

Given the diverse understandings of habit outlined above, it is tempting to portray habit as deconstruction embodied. Habits reveal the creative in the mechanical, the machinic in the creative. They trouble the boundary between self and other; they embed society in bodily reactions; they move between the voluntary and the involuntary. At a time when deconstruction is allegedly dead—killed by the very return to vitalist philosophy that grounds this return to habit—its spirit lives on in habit as *pharmakon*.[35] Perhaps. But the return to habit and to nineteenth- and early-twentieth-century theories of habit within sociology, psychology, and philosophy should make us pause. Why is habit—largely disregarded by critics during the era of Taylorism, in which humans were perhaps perversely theorized as rational agents—resurging in the era of neoliberalism, in which we are all individuals; in which, as Margaret Thatcher declared, "there is no such thing as society"?[36] **Are habits what endure as society within collectives in which there is no society?** What ideology remains as in allegedly postideological, post-class-based networks?

To answer these questions and to understand their implications, this book attends to the ways that habit itself is changing and to the contradictions between the many different understandings of habit outlined above. Change, of course, is central to the very notion of habits. However difficult it is to change habits, habits are acquired: they are not 'hardwired' involuntary actions, such as breathing. This is especially clear in the popular literature on habit, which focuses on self- and corporate improvement. This literature which, according to Amazon's data on the most highlighted passages in Kindle texts, is one of the most popular types of books, studies habits in order to change them, to improve the self.[37] Charles Duhigg has most famously argued that habit is a loop (see figure 0c.3), initially provoked by a cue and a reward. However, once a body is habituated, the person anticipates the reward, so that craving drives the loop. This explanation of habit reveals that something very strange is happening cloaked within this apparent renewal of habit. **Habit is becoming addiction: to have is to lose.**

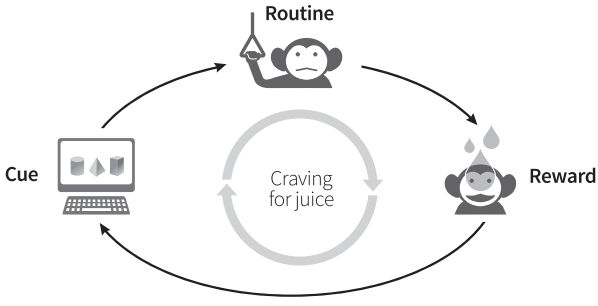

Figure 0c.3
The Habit Loop, from Duhigg, *The Power of Habit* (redrawn by Seungyeon Gabrielle Jung)

Examining the differences between nineteenth-century definitions of "habit," which are currently being rehabilitated (in particular Félix Ravaisson's, which is cited by almost every critical theorist), and Duhigg's loop makes this transformation clear. According to Ravaisson, habit is central to a living being's persistence in the face of material transformations to its body and environment: it is unity of diversity. Nonliving things thus do not have habits, because they are inanimate and uniform.[38] Further, habits are not instincts; they are not automatic reactions. Habit, rather, implies an interval necessary for creative response. It signals a change in disposition—a disposition toward change—in a being which itself does not change, even as it does. (My cells clearly change on a regular basis, but I am still me.) Habit frames change as persistence, as it habituates: it is a reaction to a change—to an outside sensation or action—that remains beyond that change within the organism. Through habit, we transform a change provoked by the outside into a change generated from the inside, so that receptivity is transformed into an unreflective spontaneity, beneath personality and consciousness. Habit therefore makes act and goal coincide, for habit occurs when an action is so free that it anticipates and escapes the will or consciousness (repetition breeds skill). The example Ravaisson offers of the moral person encapsulates this nicely. At first, becoming a moral person requires effort because there is a difference between the state of the person who wants to be moral and the state of morality. Gradually, though with effort, morality becomes effortless, and certain actions become pleasurable in and of themselves, so that, Ravaisson argues, pity for a certain person at a particular time becomes charity in general. Through habit, we become

independent of both cue and reward, spontaneously producing actions and sensations that satiate and satisfy.

Ravaisson's definition of habit could not be more different than Duhigg's loop, in which habit is anything but spontaneous and self-sustaining. Rather, habit is driven by a craving that relies on a reward and a cue: it is addiction and dependence, not receptivity become spontaneity. Tellingly, Duhigg offers alcoholism as one of his key examples of habit, and he also draws heavily from examples in advertising. This transformation of habit into addiction is accompanied by a pathologization of habituation, that is, habit as *habes*. To be satisfied with what one has—to not want the next thing, the next upgrade—is to be out of sync. To hold onto what one has makes one a borderline 'hoarder,' in need of an intervention. Autonomous habituation supposedly disconnects. In contrast, 'habit as loss' habituates us to constant change, to the constant updating of habits needed to develop new dependencies. These dependencies drive 'networked society' and its logic of capture, crisis, and optimization. As Steven Shaviro has pointed out, networks thrive on debt.[39]

Neoliberal Habits: Privacy Depraved and Deprived

Habits are central to understanding neoliberalism, in particular to comprehending its simultaneous dissemination and contraction of privacy. Neoliberalism, to repeat a cliché, destroys the public by fostering the private. It leads to the rampant privatization of all public services, and, at least in the United States, gives private corporations the rights of citizens. Neoliberalism, as David Harvey succinctly explains, is "a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade."[40] In a neoliberal society, the logic of the market has become its ethics; all human interactions, from love to education, become economic transactions to be analyzed in terms of costs and benefits. As Margaret Thatcher put it, neoliberalism "change[s] the soul"[41] by becoming, Michel Foucault argues, the "grid of intelligibility" for everything.[42] According to Wendy Brown, neoliberalism destroys democracy and the political by reconfiguring and constructing "all aspects of existence in economic terms."[43]

Neoliberalism emphasizes individual empowerment and volunteerism. In neoliberalism, the *homo oeconomicus*—the figure of the individual that lies at the base of neoliberalism—moves from "the [liberal] man of exchange

or man the consumer" to "the man of enterprise and consumption."[44] Harvey asserts that neoliberalism does so by creating a general "culture of consent," in which the majority of people endorse neoliberal policies that actually hurt them, since these policies foster ever widening income disparities between the 99% and the 1%.[45] Neoliberalism's portrayal of itself as liberating drives this consent, for it has incorporated progressive 1960s (habits of) discontent with government while at the same time disassociating these protests from any critique of capitalism and corporations. Milton Friedman most forcefully linked economic freedom to political freedom: neoliberalism, he contended, is "a system of economic freedom and a necessary condition for political freedom" (although late in life he questioned the necessity of political freedom).[46] This economic and political freedom depends on information, for neoliberalism rests on the "proposition that both parties to an economic transaction benefit from it, *provided the transaction is bi-laterally voluntary and informed*."[47] It is a system, as Brown notes, based on competition rather than equality or exchange.[48] In this 'open' system, individuals' habits—their abilities to quickly use freely available information—allegedly separate the winners from the losers.[49]

Neoliberalism's emphases on individual interest and market transactions spread the private (as market) and by doing so apparently destroy the private (as the intimate, darkened space necessary for growth and freedom); yet privacy traditionally was considered a state of deprivation: in monarchial systems, 'private' subjects, unlike public ones, could hold no power. More recently, as Oskar Negt and Alexander Kluge have argued in relation to 1970s Germany, the public sphere established its authority by dismissing the proletariat context of living as "'incomprehensible' … ultimately, it becomes a private experience."[50] This bourgeois denigration of the private, however, also coincided with the reification of the bourgeois private or intimate as a shield from publicity (a shield pointedly not offered to [former] slaves). John Stuart Mill most famously maintained that liberty depends on the separation of public and private spheres, effectively transforming privacy from something privative to something sacred.[51] Jürgen Habermas and Hannah Arendt, among others, have argued that the cultivation of a refined and refining private sphere (or more properly an intimate, family sphere) was central to the emergence of rational public discourse.[52] To all these thinkers, from Mill to Kluge, the domestic was key to defining the boundaries between public and private, for the walls of the home sealed the private from the public. As Negt and Kluge put it, "the family … [both] protect[s life] from the world of work and … [erects] the libidinal structure … whereby individuals become capable of being exploited"; more

positively, Arendt states, "these four walls, within which people's private family life is lived, constitute a shield against the world and specifically against the public aspect of the world."[53] The walls of the home, however, are no longer secure, if they ever were: there is no shield from competition, for the twin forces of media and market compromise domestic 'protection.' **Privatization is destroying the private, while also fostering state surveillance and security as house arrest.**

Clearly, this spread and wane of the private extends far beyond social media and the Internet. The Internet, however—with all the hype portraying it as ideal public sphere, ultimate surveillance machine, hotbed of radicalism, and/or dangerous pornographic badlands—remains central to understanding how this depraved and deprived privacy is negotiated and implemented. New media call into question the separation between publicity and privacy at various levels: from technical protocols to the Internet's emergence as a privately owned public medium, from *Google.com*'s privatization of surveillance to social networking's redefinition of "friends." As I explain in chapter 3, social media are driven by a profound confusion of the private and public. The very notion of a "friend," initially viewed as a way to restrict communications in social media sites such as *Friendster.com*, has led to various 'crises' that stem from breaches in the boundaries between private and public, friend/boss/mother. Tellingly, Senator Dan Coats, during the U.S. Senate debate on the Communications Decency Act—the first attempt by the U.S. government to regulate content on the Internet, an act lodged within a larger one that also privatized the Internet backbone—described the Internet as "taking a porn shop and putting it in the bedroom of your children."[54] The Internet has been perceived as an unstoppable window that threatens to overwhelm the home and existing zoning laws. As the second half of this book makes clear, **Internet users are curiously inside out—they are framed as private subjects exposed in public.** They are children with porn shops in their bedroom.

Rather than accepting the current terms of the debate, which reduce privacy to secrecy or corporate security and which blame users for systemic vulnerabilities, *Updating to Remain the Same* asks: What happens if we take seriously the leakiness of new media? As I elaborate further in chapter 1, our networks work by promiscuously exchanging information: a networked personal computer is an oxymoron. Our networks leak, however, not only at the level of technical infrastructure, but also at the level of content. New media erode the distinction between the revolutionary and the conventional, public and private, work and leisure, fascinating and boring, hype and reality, amateur and professional, democracy and trolling. As Ethan

Zuckerman has argued, the same medium used to organize political protests disseminates countless images of cute cats: banality of content supposedly equals stability of platform.[55] This combination of gossip with politics is not an unfortunate aspect of new media and digital culture, but the point. New media blur these distinctions because they are part of the postindustrial/neoliberal economy.[56] This blurring drives the logic of crisis allegedly provoked by these leaks (chapter 2), as well as the massive extension and contraction of privacy and of the state that is neoliberalism (chapters 3 and 4). This blurring reveals a logic of containment, which is always imagined as already transgressed.

To state the obvious, this notion of new media as erosion depends on the prior acceptance of networks as fundamentally personal and private, a notion that depends on certain habits of privacy that often undermine the very privacy sought.[57] Further, as the second half of this book elaborates, this logic thrives via an epistemology of outing, which constantly exposes open secrets. To break from this logic of leaking and outing, this book contends that we need to embrace the fundamentally nonpersonal nature of our networked communications. To be clear, I am not arguing that state and corporate surveillance are irrelevant or that the leaks exposed by Edward Snowden amongst others should be ignored. What I am saying is that what is most surprising and alarming about the Snowden revelations is the fact that they counted as revelations. Not only have whistle-blowers been revealing the existence of deliberately constructed back doors in email programs and massive packet sniffing on Internet backbones; promiscuous networks operate by making users vulnerable.[58] Rather than accepting a 'security' which renders all public transmissions (many without which there could be no communications) into 'leaks' and thus fosters a fundamental ignorance about networking technologies, chapter 4 reveals that we need to fight for the right to be vulnerable and not attacked. That is, we need modes of networked inhabitation that engage with and buttress publicity, rather than seek a false refuge in privacy.

Habits Not Viruses

To foreshadow these modes of networked inhabitation with which I end this book, I want briefly to outline how habits refigure what we too quickly call affective contagion or disruption. In the era of network maps, which trace node-to-node contact, everything, from obesity to marketing, supposedly spreads virally. While clearly some things do spread in this manner, not everything that mimics node-to-node infection is a virus. This fact was made clear in responses to the controversial study that 'revealed' that

obesity spreads person to person.[59] In this study, the authors reused and correlated data from the Framingham Offspring study, initially set up to diagnose risk factors for heart disease, to create a social map for this group.[60] Analyzing this data, they found that "the risk of obesity among alters who were connected to an obese ego (at one degree of separation) was about 45% higher in the observed network than in a random network. The risk of obesity was also about 20% higher for alters' alters … and about 10% higher for alters' alters' alters. … By the fourth degree of separation, there was no excess relationship between an ego's obesity and the alter's obesity."[61] Based on these findings, they concluded that social proximity plays a more important role than physical closeness in the spread of obesity. Further, the strength of the friendship matters: "between mutual friends, the ego's risk of obesity increased by 171% … if an alter became obese. In contrast, there was no statistically meaningful relationship when the friendship was perceived by the alter, but not the ego."[62]

There has been much controversy around this report, and for many it has become a poster child for bad network analysis.[63] The soundness of the statistical model used, the authors' guiding assumptions, and their conclusions have all been scrutinized. These critiques have argued that, even if these observations are correct—even if these correlations are real—the conclusion is not true. In particular, as Cosma Rohilla Shalizi and Andrew C. Thomas have shown, it is mathematically difficult to distinguish between viral spread and peer homophily, the tendency of peers to "behave similarly as a result of 'correlated effects' such as common environmental shocks or shared characteristics rather than social influence."[64] It is equally probable that the "spread" of obesity is due to the tendency of peers to hold and develop similar habits, and Shalizi and Thomas's definition of "homophily" corresponds almost perfectly to Bourdieu's notion of *habitus*—people who are "alike" spontaneously act the same—without, of course, Bourdieu's emphasis on class.

The vehemence of the responses against the report reveals the (still) close tie between medically accepted causality and physiology (obesity clearly is not a virus; it should not be confused with one), as well as a commitment to therapeutically useful analyses. Although the initial Framingham Heart survey was criticized for the narrowness of its cohort, it has been praised generally for helping to identify major cardiovascular disease risk factors, from smoking to cholesterol to heredity.[65] In contrast, the obesity study offers no clear therapeutic benefit. Even if the correlation is true, it is unclear how it could be useful in preventing or treating obesity, since the implied solution is the social isolation of obese people. For whom, besides

insurance companies, is this correlation—the revelation regarding mutual habit formation—useful? These studies, as discussed in chapter 1, are not designed to foster justice.

A focus on habit moves us away from dramatic chartings and maps of "viral spread" toward questions of infrastructure and justice. To take the example of the 2014–2015 Ebola outbreak, a discussion of habit would move us away from what Priscilla Wald has called an "outbreak narrative"—a narrative that manages and diagnoses communicable disease by concentrating on identifying an emerging infection and the global networks through which it travels and is contained—toward understanding the conditions that made this spread possible: from crumbling medical infrastructures to new patterns of mobility brought about by globalization to the lingering impacts of colonialism and civil wars.[66] Studying habit moves us away from theories of affective spread and disruptions, not because they are not important, but rather because they leave us with questions: Why and how are so many things seemingly ignored? Why and how do things linger? Why and when does repeated contact produce habituation, instead of sensitization? As Lisa Blackman has argued, habit is linked to affect modulation; it enables both the regulation of and potential for engaging the new.[67] Habit moves us from the rapid time scale of viral infections and disruptions toward the slower and more stable time frame of homophily, a frame better suited to explain the 'undead' nature of information spread. Further, a focus on habit moves us away from an epistemology of outing, in which we are obsessed with 'discovering' 'Patient Zero,' as though knowing the first case could solve all subsequent problems. Relatedly, an emphasis on inhabitation and lingering turns attention away from the networked viral YOU to the possibility of a 'we.' Habit, with all its contradictions, is central to grasping the paradoxes of new media: **its enduring ephemerality, its visible invisibility, its exposing empowerment, its networked individuation, and its obsolescent ubiquity.**

YOU Are Here

The book is divided into two parts, "Imagined Networks, Glocal Connections" and "Privately Public: The Internet's Perverse Subjects." The first part unpacks how and why 'the network' has become the defining concept of our era. Revealing that networks have become key because they are imagined as ending postmodern confusion, these chapters trace how networks make possible groupings based on individual and connectable YOUs. They also elaborate on crisis as structuring the temporality of networks. The second part of the book develops more fully the inversion of privacy and

publicity that drives neoliberalism and networks. Highlighting how networks capture subjects through users 'like YOU'—that is, users who like YOU ('friends') and those determined to be like YOU ('neighbors')—these chapters both document the epistemology of outing that drives this logic and outline ways of inhabiting this outing. This part therefore concludes by examining how survivors of abuse embrace templates and repetition in order to inhabit hostile networks. Through habit—the scar or memory of others that lives on in the self—users can inhabit alterity.

Further, each chapter of this book is framed around one of the following aphorisms of habitual new media:

1. Always Searching, Never Finding
2. Habit + Crisis = Update
3. The Friend of My Friend Is My Enemy (and Thus My Friend)
4. I Never Remember; YOUs Never Forget.

These aphorisms highlight both the dilemmas and opportunities opened by N(YOU) media: the dilemmas and opportunities YOU face as a small *s* sovereign, but also the dilemmas of and opportunities for shifting the YOU, for keeping this shifter shifty. Each chapter revisits the question of habits through critical revisitings of habit. Rather than return to the alleged primary source, each chapter seeks to understand the current resurgence of habit by exploring how habits resuscitate certain critical thinkers. In other words, each chapter investigates how both new media and critical theory remain. Each chapter is also prefaced by a section, structured like a comment in a programming language, that explores an example addressing the stakes of that chapter.

Chapter 1, Habitual Connections, or Network Maps: Belatedly Too Early (Always Searching, Never Finding), outlines the relationship between habitual new media and networks. Responding to the questions "Why have networks become a universal concept employed by disciplines from sociology to biology, media studies to economics?" and "How has 'It's a network' become a valid answer, the end, rather than the beginning, of an explanation?," this chapter argues that networks have been central to the emergence, management, and imaginary of neoliberalism—in particular to its conception of individuals as collectively dissolving society. Tracing the ways in which networks, or more precisely mappings of networks, were embraced as a way to dispel the postmodern confusion that dominated the late seventies and early eighties, the chapter demonstrates that networks allow us to trace if not see—that is, to spatialize—unvisualizable flows, from global capital to environmental risks, from predation to affects. Although

they enable a form of cognitive mapping that links the local to the global, networks produce new dilemmas: neoliberal subjects are now forever mapping, but more precarious than ever; they are forever searching, but never finding. Further, networks are belatedly too early. They are both projections and histories; they are both theory and empirically existing entities. To begin to imagine networks differently, this chapter thinks about new media in terms of habitual repetition and constitutive leaks. Information, it argues, is habit.

Chapter 2, Crisis, Crisis, Crisis, or The Temporality of Networks (Habit + Crisis = Update), addresses how networks make crises habitual. It argues that crisis is new media's critical difference: its norm and its exception. New media thrive on crises, which are now both everyday occurrences and extraordinary occasions. Crises differentiate and interrupt the constant stream of information, marking the temporarily invaluable from the mundane and offering users tastes of real-time responsibility. They also threaten to undermine this agency by catching and exhausting users in a never-ending series of responses. This chapter places crises in the context of automated habits and codes (indeed, habit as code), which have been designed supposedly for our safety, and it reveals that crises and codes are complementary because they are both central to the emergence of what appears to be their antithesis: user empowerment and agency. Codes and crises together produce (the illusion of) mythical and mystical sovereign subjects, who weld together word with action, norm with reality. To combat this and to exhaust exhaustion, this chapter ends by emphasizing the plasticity of habits and memory.

Chapter 3, The Leakiness of Friends, or Think Different Like Me (The Friend of My Friend Is My Enemy (and Thus My Friend)), investigates the odd transformation of the default Internet user from the lurker to the friend as indicative of a larger encroachment and recession of the private. It contends that a banal and impoverished notion of friendship grounds the transformation of the imagined Internet from the thrillingly dangerous and utopian "cyberspace" to a friendlier, more 'trustworthy' Web 2.0 (3.0, 4.0, etc.). This desire for a reciprocal and authenticating, if not entirely authentic, type of intimacy—for friendship as 'friending'—echoes and buttresses the notion of users as neoliberal, small *s* sovereigns. This mode of empowerment, however, threatens to turn the Internet into a series of gated communities, of enclosed open spaces dominated by what I call YOUs value. Further, these attempts to make the Internet more familiar and reciprocal have made it a more nasty space, in which users are most in danger when they think they are most safe, and in which users place others at risk

through their sometimes genuinely caring actions. This chapter, though, does not simply indict networks and desires for intimacy and contact. Rather, it and the next chapter point to other models of friendship, which emphasize unreciprocal or unreciprocating relations, in order to theorize the possibilities for democracy that stem from networked vulnerabilities.

Chapter 4, Inhabiting Writing: Against the Epistemology of Outing (I Never Remember; YOUs Never Forget) draws the book to a close by exploring alternative ways to inhabit networks. It starts with the observation that network safety is increasingly framed in gendered terms: the need to protect teenage girls drives calls for online transparency; at the same time, the 'bad user' is the 'girl' who threatens her own (and other people's) safety through her promiscuity. Tracing this logic in several high-profile bullying cases and linking it to the long history within the United States of defining the right to privacy in relation to white, bourgeois femininity, this chapter argues that, rather than accept this safety (which is in fact no safety), we need to fight for the right to loiter in public. Focusing in particular on Canadian teenager Amanda Todd's moving video, posted months before her suicide, in which she uses note cards to relay her story and shelter her face (a technique used by many abused young adults and by *wearethe99percent.com*), the chapter argues for a shadowy inhabitation of networks based on a right to be vulnerable and not attacked. Rather than a politics based on vengeance, we need a politics of fore-giveness and remembering.

These sections can be read out of order: those most interested in social media might want to start with part II, "Privately Public: The Internet's Perverse Subjects."

New Media: Wonderfully Creepy

To conclude this introduction, I want to place this book in the context of the two others that preceded it—*Control and Freedom: Power and Paranoia in the Age of Fiber Optics* (2006) and *Programmed Visions: Software and Memory* (2011)—for *Updating to Remain the Same: Habitual New Media* completes my trilogy on how computers emerged as a form of mass media to end mass media by replacing the mass with the new, the 'we' with the YOU. This replacement encapsulates the promise, and threat, of new media. If mass media produced consistent forms to create consistent, coherent audiences, new media thrive on differences to create predictable individuals.

The first book responded to the question: How did a control technology become bought and sold as a technology of freedom? To answer this question, it began by tracing how the Internet, a technology that had existed for

decades, became "new media" when it became fictional: when it was portrayed as embodying cyberspace, the long lost Athenian public sphere, and all sorts of other theories and dreams. This remarkable transformation of a control protocol into a medium of freedom entailed another change: the reduction of freedom to control. Against this limiting view—in which one is free only when one is in control—*Control and Freedom* argued that freedom always exceeds control: freedom makes control possible, necessary, and yet never enough.

The second book started with question: How and why have computers become key metaphors and tools for understanding and negotiating our increasingly complex world? In response, it revealed the centrality of computers—understood as networked hardware/software machines—to neoliberalism: they are essential to organizing and managing, assessing and predicting—that is, programming—populations and individuals. In making this argument, *Programmed Visions* focused not simply or primarily on the varied tasks computers now accomplish, but rather on the very notion of programmability—a vision of rationality that covers over incomprehensible and opaque executions—that they have come to encapsulate. It did so not in order to condemn and move beyond computer interfaces and software, but rather to understand how this combination of visibility with invisibility, of past experiences with future expectation, makes new media such a powerful thing for each and all.

Both *Control and Freedom* and *Programmed Visions* emphasized the generative power of the paradoxes each started from, for these contradictions ground the appeal of new media and the centrality of new media to neoliberalism.

Updating to Remain the Same continues these investigations into the founding paradoxes of new media and seeks to theorize the possibilities for inhabiting networked vulnerabilities. Like the books before it, it suggests that, if our desires for something like secure intimacy and for computers as 'personal' put us at risk, these dangers can be best attenuated not through better or more security, but rather through a wary embrace of the vulnerability that is networking and through a reimagination of networks. Networks are not maps. The constant habitual actions invoked by and provoked for connections reveal that networks, if they are anything, are everything outside of neat lines and edges. To engage this everything, we need to forego the desire to reduce memory to storage, and we must develop a politics of fore-giving that realizes that to delete is not to forget, but to make possible other (less consensually hallucinatory) ways to remember.