SILICON SIMULACRA

Post-humans of the Machine Worlds

Len Ellis

Chapter 5

Virtual Me

fewer than one in five see the exchange of demographic informa-
tion for more relevant advertising to be worthwhile. Double that
number, however, would share information about future purchases
in exchange for relevance. See "Consumers Are More Willing to
Share Purchase Plans Than Demographic Data," *Consumer Techno-
graphics August 2004: North American Devices, Marketing, and Media
Online Study* (Cambridge, MA: Forrester Research, August, 2004.

36 Patricia Mell, "Seeking Shade in a Land of Perpetual Sunlight:
Privacy as Property in the Electronic Wilderness," *Berkeley Technology
Law Journal,* vol. 11 (1996), www.law.berkeley.edu/journals/btlj/
articles/vol11/Mell.pdf, reviews how U.S. law defines our property
rights in our own information.

37 See "The Implicit Web," http://www.avc.com/a_vc/2006/12/2007_
the_implic.html.

CHAPTER 5

VIRTUAL ME

How dreary to be somebody!
How public like a frog
To tell one's name the livelong day
To an admiring bog!

—Emily Dickinson, *Poems* (1861)

If you want to communicate, you have to be connected.
And if you are connected, then you are part of a community
that expects to know something about you.

—Geoff Smith, Capgemini (1999)

Everyone has an online presence. Even without
ever going online, each of us has what the Pew Internet &
American Life Project calls a digital footprint with passive
and active parts.[1] The passive part consists of birth cer-
tificates, marriage licenses, real estate deeds, court cases,
charitable donations and other public records, which any
investigative service will find in a few hours for a modest fee.
Also included are any other public mentions of one's name,
such as being listed as a conference speaker on an organizer's
Web site or as a family member at a wedding announced in a
local newspaper; any search engine will find those references
in a few seconds for free. This part of the footprint is passive
because it does not require any deliberate activity by the indi-
vidual. In contrast, the active part consists of content created

and published by the user. That's the part that's recently exploded.

Many people jumped at the chance to publish as soon as the Internet went public. In those text-only early years, people joined Usenet newsgroups and logged on to bulletin board systems, where they read and wrote to each other on every conceivable topic, from diabetes to foot fetishism.[2] When the World Wide Web arrived in 1994, a self-publishing land rush followed the next year. A new site, GeoCities, provided its users with very simple tools to author and publish Web pages about themselves or their businesses, and within two years it had signed up a million "homesteaders."[3]

Today, an expanding variety of second-generation Web, or Web 2.0, applications enable users to create and publish content easily. They're cropping up everywhere.[4] Topic-specific and affinity-based sites provide such tools, encouraging their visitors to coalesce into frequently visited conversational communities. Brand-specific sites do so as well, hoping to deepen relationships with customers and stimulate customer attachment to their brands.[5] Even online media sites, although focused like all media properties on the content they produce, are enabling visitors to chip in.

Amid all this UGC, there are five Web 2.0 services that provide platforms for individuals to build out their own online presence: social network sites like MySpace and Facebook, blogs and microblogs like Twitter, file hosting sites like YouTube for videos and Flickr for photos, social bookmarking sites like Digg and Delicious and reviewer sites like the comprehensive Epinions and the specialized TripAdvisor.[6] This is where tens of millions of us are typing ourselves into cyber-existence.[7] By 2008, over 79 million US Internet users had created their own profiles at social network sites, including half of all teens and one in five adults (aged 18 or older) while between 23 million and 27 million of us (depending on the source) have started our own blogs.[8] Many millions more have taken smaller steps, posting and signing product reviews, sharing and rating music and videos, tagging and commenting on news stories.

Individual motives in this rush to self-publish are already irrelevant because having some form of positive online presence is emerging as a social expectation. According to Pew, 6 percent of U.S. adults, 11 percent of all adult Internet users and 18 percent of working college graduates report that their employers expect some form of online self-marketing as part of the job. Similarly, one in five working US adults (20 percent) say their employer has a policy about how employees present themselves online, including what can and cannot be shared on blogs and elsewhere.[9] Not surprisingly, hiring officers, as many as half according to one 2007 estimate, vet candidates via online searches, and in 2007 almost half of U.S. Internet users (44 percent) checked what recruiters and others found by searching their own name.[10] Being findable and knowable online is extending into our private lives, too. Homebuyers check out their prospective next-door neighbors; hobbyists and volunteers look each other up; singles research their dates, even their live-in partners. Today, the purposeful production and management of one's self-presentation via Web 2.0 services is an asset. Tomorrow, as more of our everyday lives occurs or gets replicated online, this task will likely be inescapable.[11]

The typical advice about presenting ourselves online is schoolmarmish. Rightly, we're told to express ourselves appropriately since whatever we publish is "an advertisement for what you want other people to know and remember about you." It's also true that the more personal information we share, the more vulnerable we are to scams, spam and identity theft. Finally, everyone really should remember that the Internet is a permanent record. Deleting something doesn't make it disappear, since anything published online could have been viewed, e-mailed, printed or archived by almost anyone else.

While sound, these cautions are misleading. They point toward privacy, toward withholding oneself from view. The

worriers are missing the opportunity that beckons from the other direction—advancing oneself into view. Exposing and promoting one's personality in public has traditionally been the preserve of entertainers, athletes, some debutantes and other headline-grabbers. Going forward, it's for everyone and rather than shrink from it, we should embrace it according to cyber-sociologist and blogger danah m. boyd [sic]:

> Carefully crafting and cautiously managing one's public image is a critical aspect of living in a mediated public world. Every advice column I've read warns people of the dangers of living online. I think that this is idiotic. People need to embrace the world we live in and learn to work within its framework. Don't panic about being public— embrace it and handle it with elegance.[12]

Understanding how Web 2.0 services shape our self-presentation in different ways has pragmatic benefits for this task but before exploring those specifics, two features of the entire terrain should be introduced.

First, becoming visible via these services has two dimensions—quantitative and qualitative, one's presence and reputation, respectively. Presence refers to the volume of online content, both *about* the individual (passive) and *by* the individual (active). Reputation refers to what others think about the quality of that content, expressed explicitly by their ratings of and implicitly by their linking to that content. (Reputation can have consequences. For example, search engines count the number of links going to a piece of content as the measure of its authority; the more links the content gets, the higher it's ranked on the search engine results page.) One can build one's presence by contributing content, but one must earn one's reputation from others, when they rate that content highly or insert links to it.

The second feature of the Web 2.0 terrain is that self-presentation occurs with and co-depends on others. Indeed,

many Web 2.0 applications are referred to as "social media" because they enable users converse with and link to each other. Both one's presence and reputation are first and foremost the patterns of these connections: *You are whom you network with, how often you share, whom you link to and who links to you.* In short, the post-human version of us in the Web 2.0 world is a network effect.

Social Network Sites

On social network sites (SNSs) each of us is the star of our own social system. These sites assume that the self is a social entity, that the individual and her network go together, and all enable both self-presentation and the connections with whom to share it. In concrete terms, a new user begins by filing out a form that asks for individually descriptive information and by uploading one or more photos; the answers and images are then published on a preformatted page as the user's profile. Once the self-portrait is in place, the user invites other users whom she already knows from real life— relatives, friends, coworkers, classmates—to link their profiles, creating a network of *friends, fans, contacts* or other term for these connections.[13] In addition to these "strong ties" of our everyday lives, these networks can also include our "weak ties," such as a person met at a conference, a former teacher or a fellow hobbyist; indeed, the ability to maintain our weak ties more easily may constitute the SNSs' novel contribution to social life.[14] In any case, each of us is the center of our own small world on this Web 2.0 platform.

Consumer SNSs such as Facebook and MySpace and business SNSs such as LinkedIn and Plaxo realize this basic structure in different ways. A Facebook profile includes age, gender, location, interests and hobbies, plus favorite movies, books and quotes because its purpose is to convey what the user is like as a person. A LinkedIn profile is largely a résumé; it includes work history, expertise and education because its purpose is to convey how the profile owner can be

useful to her business network—employers, clients, partners or other business entities.

Other features line up behind these basic purposes. Facebook friends can "scrawl" messages on a "wall" on the profile owner's page; LinkedIn connections can write references for other LinkedIn users whom they know as current or former coworkers, supervisors and clients. Facebook users can create whatever groups suit their interests. LinkedIn users can create groups, too. Early on, groups were limited to a few pre-set categories: one's *alma mater*, current employer, former employer and professional associations; recently, the site adopted a more liberal policy. Facebook makes it easy for users to connect with friends, their friends' friends and so on. On LinkedIn in contrast the user's connections are categorized as direct, once removed and twice removed, and using those connections to meet someone new requires personal referrals at every step. Such differences align with our personal and professional purposes, and many people create profiles at multiple SNSs.[15] (I have profiles at Facebook and LinkedIn.)

As we fulfill our purposes on SNSs, we also fulfill the SNSs purposes—to sell our eyeballs to advertisers. LinkedIn's sales pitch promotes its premium membership of managers and professionals and its ability to target them in three ways: in their entirety; by business function (e.g., C-level executives, small business owners, entrepreneurs, financial professionals, IT professionals and sales professionals) and with customized lists defined by industry, job function, seniority, company size, geography, gender and number of connections. Consumer SNSs do the same. Thanks to their members' profile pages, they know not only our demographic and geographic attributes but also the books we read, movies we watch, music we enjoy and other targetable lifestyle attributes. As technology columnist Will Harris explained:

> The one thing Web 2.0 sites have in common is that they are mining information about you and

> your buddies. What you like. What you like that your buddies like. [W]hat stories you've submitted, what demographic you're in, how other people in your demographic react to what you post. [They] can break users down by almost any statistic imaginable, then mine that data for more information about what it is you're doing and sharing online, and how that relates to your friends in the same or different demographics.[16]

The SNSs are growing other revenue streams, but first and still foremost they sell targets to advertisers.

Consumers don't object. All ad-supported media sell our eyeballs; that's how we get free TV programs, for example. In this instance, we get a platform for self-presentation and, so far, we insist on only one thing—control of that presentation's publicity. Not its privacy. No one creates a SNS profile to be anonymous; we do it to be known. In this context, users want to control the scope and manner in which our self-presentation is shared with others.

Most SNSs enable profile owners to control access to their profiles by selecting from options on an account settings page. The default setting on Facebook, for example, allows only friends to access a profile. It can be reset to broaden access to friends of friends or everyone or reset to narrow access to subsets of friends. These user-managed settings also control access by those outside the SNS; most important, users can now decide whether search engines can spider and retrieve their profiles. Indeed, variations around visibility and access are one of the primary ways that SNSs differentiate themselves from each other because users are keen to control who can see what parts of their online profiles.[17]

More dramatic, user control of profile information's publicity was *the* issue in the loud and successful protests over two Facebook initiatives. The first was a mini-news feed that automatically pushed to a profile owner's friends any new photos, friends, links and other changes on the profile owner's page.

The profile owner had already made that content public; she published it right on the profile page. So the issue wasn't privacy but who controls the proactive sharing of the user's profile information. Facebook's mini-feed was a usurpation, users protested and Facebook backed off. Its Beacon feature blundered in a similar way. This service pushed to the profile owners' friends her activities at other Web sites, such as movie tickets bought at Fandango, items sold on eBay and vacations planned at Travelocity. Again, users protested the unauthorized publicity and Facebook retreated.[18]

Users expressed their desire to control their publicity in a positive way, too, by demanding that their profiles and networks be portable. The argument was simple: we spend time and effort creating both and should be able to repurpose them elsewhere. The SNSs acceded. What's essential for them is to be *the* platform for their users' ongoing disclosure of personal and professional information. Since portability increases the utility of that self-disclosure for members, the SNSs are implementing it. *Facebook Connect,* for example, enables users to port and share their profile information with some 5,000 partner sites.[19]

What's essential for users is control so we can upload our better photos, announce our accomplishments, demonstrate our tastes with lists of favorites, assemble our endorsements and in other ways create whatever attractive self-presentations that we want and make them public to some or all others inside the SNS and elsewhere. Such control has made the social network profile a popular component and, for some, the anchor of their online presence.

The SNSs can't do much for one's online reputation, however. The members of one's network don't rate the profile owner's page, and they've already given their links to the profile owner in accepting the invitation to connect their pages. Without any opportunities or mechanisms for others to evaluate the profile owner, what passes for reputation on the SNSs consists of a few measures of the profile owner's activity: the profile's completeness, the frequency of updates,

the inclusion of photos, the number of group memberships and other behaviors.

At the end of the day, the SNS profile is a preformatted but refreshable self-portrait presented to the profile owner's small world of strong and weak ties. It is important and popular for the control it affords for self-presentation but is in other ways limited. Presence is a single page or multiple single pages at multiple SNSs, and reputation is not available.

Blogs

Blogging is a more demanding and more powerful platform for building out one's Web presence and reputation. It's more demanding because bloggers have more freedom in how they can present themselves than profile owners do; their self-presentation is not structured by a formatted profile and not confined to a single page. Rather, bloggers present themselves by writing on topics of their choosing on their own blogs and by posting comments on others' blogs. It's more powerful because bloggers depend more on interactions with others to establish their presence than profile owners do and depend on those interactions to earn their reputations. Here's how blogs work.[20]

The word *blog* is a contraction of *Web log*, and blogging software enables users to publish diary-like entries called *posts*. Specifically, it date-stamps every post, presents the most recent first and, as posts age, automatically archives them by month. Tens of millions of people now blog regularly, and the content of all this self-publishing falls into three general categories.

Historically, the first approach to content was to share with one's readers links to little-known Web sites with brief explanations of why readers will likely find those sites interesting. All the early blogs—Steve Bogart's News, Pointers & Commentary, Dave Winer's Scripting News, Michael Sippey's The Obvious Filter and Jorn Barger's Robot Wisdom—provided this "filtering" service. This free (but not selfless)

exchange of useful information is the founding ethos of the blogosphere, still delivers value and is regularly incorporated into the other two approaches to blog content, the personal and the topical.

Currently, the majority of blogs are person-centric updates. These bloggers address the question "How was your day?" with regular reports from their daily lives that range from the meaningful to the inconsequential. Typically, a personal blog is shared with the small circle of the blogger's real-life intimates. As cyber-sociologist Clay Shirky points out, most bloggers don't have audiences, they have friends.[21] SNS members behave similarly. On Facebook, for example, the average user has 120 friends but leaves comments for and chats with less than 10 of them. Similarly, the average power user has 500 friends but leaves comments for and chats with no more than 26 friends.[22] In the blogosphere and at the SNSs, personal updates are for what sociologists call the "strong ties" of each individual's "small world."

The third approach to blog content is to focus on a topic in which others are interested. Given the diversity of our interests, this can be just about anything—nature photography, windsurfing or other hobby, any business or professional competency, from polymer extrusion to estate planning, or any special situation that one shares with others, such as living with diabetes. Bloggers who aspire to punditry combine the personal and topical. Focusing on some popular topic area, such as sports, music, celebrities or politics, they use their blogs as personal op-ed columns, sharing their reactions to the current affairs of those domains.

Whatever the content, blogging is more challenging than updating a SNS profile. The SNSs offer built-in tools for users to publish personal news, upload photos, list favorites, share calendars, add third-party applications and in other ways keep their profiles interesting and fresh. All that bloggers get is the total freedom of a blank page. Fortunately, the diary-like layout calls for and the built-in functionalities support short-form content. Unfortunately, those same features

also set up an expectation of regular publishing, and that requires commitment. Some editorial discipline is also needed. Bloggers must write using a consistent set of keywords so the search engines will associate those keywords with their blogs and rank those blogs high in the list of search results when those keywords are queried. Similarly, bloggers need to tag each of their posts with a consistent set of commonly used keywords so readers can search their blogs in that way. Certain courtesies are also expected, most notably, the ability to subscribe to a blog so new posts are delivered to reader's desktop or inbox.

Similarly, generating the connections within which self-presentation occurs is harder in the blogosphere than on the SNSs. On the latter, we simply invite those we already know to friend us. Person-centric bloggers also rely on family and friends. Topic-specific bloggers often start there, too, but most want to get beyond their own social systems. They do so by posting comments on others' blogs, generating content for and links back to their own. Since one or more blogs on almost every topic already exist, commenting is sometimes called joining the conversation.

Doing so takes a little work. One has to identify those blogs that address the topics to which one wants to contribute, read them regularly to identify those specific posts to which one can contribute something substantive and contribute more than occasionally to make evident the quality of one's content and the level of one's commitment. But the work involved in joining the conversation is exactly what blogging software enables, facilitates and rewards. Just as SNSs assume that the self and her network go together, blogging software assumes a blogger and her commentators go together.

This expectation of conversation is enabled by four features of all blogging software. First, at the bottom of every blog post, the software presents readers with a section in which to leave comments as well as a chronological thread of prior reader comments and the blogger's responses to those comments. Second, bloggers assign to each post a permalink,

a permanent URL that enables readers and other bloggers to link directly to and discuss that particular post, regardless of its publication date. Almost as important, trackbacks is a tool that acknowledges an inbound link and returns the favor; that is, when one blog links to another, the blog receiving the link can reciprocate with a link back to the originating blog. Finally, bloggers endorse each other via a blogroll, a popular sidebar where the blogger lists and links to other bloggers whom she recommends.

By joining the conversation, a blogger can generate both content for and links to her blog. Here, as elsewhere, content builds out presence while reputation is earned when others link to that content. The more links a blog collects, the higher it will rank on a search engine's results page. As *Wired* columnist Clive Thomson explained, "The only way to influence reputation is to be part of the conversation. Being transparent, opening up, posting interesting material frequently and often is the only way to amass positive links to yourself and thus to directly influence your Googleable reputation."[23]

All this so-called link love among bloggers who are joining each other's conversations can be viewed in two opposing but equally true ways, like sides of a coin. The cynical view sees these interlinking conversational clusters as mutual admiration societies in which each blogger drives her own online reputation by patting the backs of others who will then link back to the blogger. For example, one popular blog post is a list of the best blogs on a particular topic. By posting such a "Best of…" list, the blogger not only implicitly asserts a level of expertise sufficient to filter other Web resources for other users but also attracts inbound links from the sites and bloggers who have made it onto the list. What's more, those other sites and bloggers often republish the list, generating more links to themselves and to the list-compiling blogger.[24]

Mutual interlinking for the purpose of improving one's online reputation is certainly prevalent but is too harsh as a judgment upon the blogosphere. It's human nature to like

and associate with those who are similar, and all of us self-sort with others with whom we are alike. Birds of a feather do flock together, on- and offline. In fact, mapping the links among bloggers reveals that we all flock, but not in the same way. For example, a 2008 map of the links among liberal and conservative bloggers revealed a major difference. Each cluster has a core of general-interest liberal and conservative blogs and issue-specific sub-clusters, but liberals had two sub-clusters that conservatives did not: one about getting things done with Beltway politics and the other about getting things done with local activism.[25] Whatever the reasons for this difference, both blogospheres are based on preferential and reciprocal linking among those who share similar views of the world. This basic human pattern is not a flaw.

The coin's obverse presents the preferential linking patterns among bloggers as a "gift exchange," a social practice in which goods and services are given without any explicit agreement for an immediate or direct *quid pro quo*.[26] Such exchange has two results. First, it ensures that valuable resources are circulated within the community of exchangers. In the blogosphere, for example, such resources are links to URLs that others may find interesting or expertise about a topic. The amount of good content produced without pay has puzzled some, but it shouldn't. Historically, scoring the big bucks was not why we pursued art, science, religion or politics, and the same is true of our blogs, whether they are about these topics or about parenting, growing petunias or big mouth bass fishing. To be sure, our contributions in such areas do yield extrinsic rewards; they're not financial, however, but social. Specifically, what we get from others in return for freely giving to them is acknowledgement, gratitude, esteem, influence, authority and perhaps power. Offline, people who present a conference paper or sing in a church choir reap similar social rewards. It's the same online. Every gift exchange yields this second result—a social hierarchy that reflects the contributions of each to the resources being exchanged among all.

Both mutual admiration society and gift exchange are valid descriptions of the preferential linking patterns that determine the reputation of each blogger and the structure of the blogosphere. On both sides of the coin, the blogger's presence and reputation occur within and are dependent on interaction with others.

Reviews, Bookmarks and Files

Contributing bylined content to product review, social bookmarking and file-hosting sites is the narrowest path to presence and reputation. Each of these three popular Web 2.0 services is a shared repository of user-generated content. Like every informational resource, each has an internal structure—the hierarchy of classes and categories of its informational domain—within which one's self-presentation is constrained into a contribution of conforming content. Reputation is also indirect. Unlike blogger-to-blogger interlinking, reputation here is generated by rating systems in which users participate anonymously. The difference among the repositories can be described briefly before examining their similar mechanics.

Product review services collect just what the label denotes and include multi-category, category-specific and location-specific services, such as Epinions, TripAdvisor and CitySearch, respectively.[27] Major retailers' Web sites including those of Wal-mart, Target and Office Depot now also enable consumers to review products.[28] At social bookmarking sites like Digg and Delicious, the content is similar to blogging's filtering practice. Contributors share links to just-published and lesser-known URLs with the contributor's explanation of why others may find them interesting, plus multiple keyword tags of the contributor's choosing. At the file-hosting services user-generated content (UGC) consists of rich media—videos at YouTube and photos at Flickr, for example—and multiple keyword tags chosen by the contributor and by other users. The categories of YouTube's "people's choice"

awards display the range of its users' contributions: Adorable, Comedy, Commentary, Creative, Inspirational, Musician of the Year and Series.

(For the record many other sites also offer UCG features. Google Maps, for instance, enables users not only to attach reviews, photos and videos to its maps but also to make, post and share customized maps on themes users devise, from best neighborhood restaurants to children's playgrounds where the water fountains actually work. Google ranks contributors based on their reviews, maps and edits, and all contributions carry a link back to the contributors' URL. For the purpose of analysis here, however, the three repository services will be the focus.)

With all three services, establishing presence requires next to nothing—literally, a rating, a keyword, an image—although most contributors do more. All three enable users to rate the content others contributed and make that easy as well, such as asking for a rating on five-point scale or for a yes/no answer to a question about helpfulness. New tools, like one-click favorites and in-line tag creation, are introduced regularly to the same end.[29] In addition to judgments expressed in explicit ratings, such as Top Rated and Most Favorited, many sites use the implicit judgments expressed in user behaviors, yielding such rankings as Most Viewed, Most Discussed and Most Shared.

Some services enable users to rate the raters, and the resulting reputations have consequences. At Epinions, for example, highly rated reviewers earn roles on the site—Advisor, Top Reviewer and Category Lead—each with privileges and responsibilities. The rate-the-rater system at Slashdot, a social bookmarking service for tech professionals, merits close inspection. It reveals how the organizer's values are written into the system's scoring rules and illustrates how others' drive-by judgments can be processed into credible and consequential individual reputations. Although Slashdot's system is logical, even ethical, another system may not be.

Slashdot calls itself "News for Nerds." Its contributors post short articles about tech industry news (filtering, again) and other users comment about those contributions. Slashdot's rating system ignores the contributions and focuses instead on the comments. All comments start off with a score based on the commentator's existing relationship with the Slashdot community: 0 for an anonymous user, 1 for a registered user and 2 for a registered user whose previous comments scored well. This scoring rule expresses a set of values. Anonymity is allowed but has no benefit. Registration, being knowable and accountable, is rewarded at the outset. Positive past performance doubles the starting-off score. At Slashdot, being known and being respected are legitimate basis for some users to get advantages even before the rating begins. In short, all can comment but all commentators are not equal.

Comments are then rated by moderators. Randomly selected from among registered users who have commented well and regularly over time, moderators are empowered for three days during which to choose no more than five comments to rate. Thus, the community's better commentators are empowered but cannot use that power for self-aggrandizement. In short, a lot of qualified people get a little power for a brief time.

Moderators rate comments by selecting from a dropdown list of descriptive terms: *normal, off topic, flamebait, troll, redundant, insightful, interesting, informative, funny, overrated and underrated*. Each term has a positive (+1) or a negative (-1) value that is added to the comment's starting-off score. The descriptors are, of course, arbitrary, decided upon by the service's organizers They are the arguable but not objectionable qualities upon which the organizers want to shape their community.

The moderated comment can have a resulting score that ranges from –1 to +5, and that score has consequences. Slashdot users are equipped with a threshold filter that can be set from –1, to show all comments, to +5, to show only those comments upgraded by at least three moderators. The more highly rated the comment, the more likely it is to be seen while lower rated comments may be seen by few if any at all.

Slashdot's reputation system is largely transparent, ethical and credible but also reveals three obvious perils. Using scoring rules to implement values is one. Basing scores on others' drive-by judgments is another. Using sccores to determine not only ranking but visibility itself is the third. These and probably other perils of reputation systems to come need watching. At present, fortunately, most are just popularity contests: contributors upload nuggets of content with tags and a link to their own URLs, and other users rate that content and add tags of their own.

This simplicity reflects the narrow scope these repository services afford for self-presentation and the indirect structure of interaction among their users. Unlike the SNS self-portrait and each blogger's distinctive voice, contributors to these services present themselves indirectly, through the product being reviewed, behind the lens that captured the image or one step removed from the content being tagged. As for their interactions, users contribute and rate each other's contributions independently and asynchronously of each other and use the service in the same way. In other words, online presence occurs without much self-presentation, and reputation is earned through *in*direct interaction with others. These limitations, according to some, actually encourage many users and are one source of these services' popularity.

The win-win-win is straightforward. Users get relevant content that helps them decide what to read, watch, listen to or buy, as well as whom they should trust and interact with. The repository services get incremental content at near-zero cost that directly improves user behaviors, such as longer sessions and more clicks that they can then sell to advertisers. Contributors with high scores attract traffic and links to the own URLs, links to which search engines give extra weight because they come from the repositories that are themselves well-linked. Independently contributing discrete chunks of

content that are attributed, rated and linked, many users generate their online presence and reputation at these services rather than at SNSs or blogs.[30]

Presence Aggregators and People Search Engines

Of course, the more places where we leave our content, the more dispersed our cyberpersonas become. That consequence is already addressed by two meta-applications: presence aggregators and people search engines They are "meta-" because they enable the user to gather all content *by* the user from any of the Web 2.0 platforms and narrower UGC applications as well as all content *about* the user from anywhere else on the Web and to organize those pieces of our active and passive digital footprints into coherent self-presentations at a user-managed page.

Presence aggregators, née profile aggregators, were conceived as a way for users to centralize their different SNS profiles. They're broader today and enable users to assemble in one place all their blogging, rating, reviewing, sharing and other content generated by the individual. Some even enable users to gather their most recent activities into a news feed, called a lifestream, to which others can subscribe.[31] Like the SNSs, presence aggregators enable users to control access to their profiles, usually by account settings options, such as public, friends only or by permission. Some also enable users to create and manage their profiles in different versions and determine which version is shown to whom.[32]

The people search engines such as ClaimID, Naymz and Spoke cast a wider net in gathering up our digital fragments and take a further step: they require each registered user to authenticate that each fragment actually pertains to that user. Like all search engines they send out spiders to crawl the Web; theirs bring back all the pages that include the same proper name as the registered user. Since the same name may not refer to a single person, a problem that is called entity resolution, the people search engines present each item

the spiders find to the user and ask the user to claim each item by tagging it as "about me" (passive) or "by me" (active). Most also enable users to update their pages manually, again by claiming new references as "about me" or "by me."[33]

To help ensure that their registered users are findable and found, the people search engines enable queries to be narrowed by such parameters as location, gender, and employer and by tags. Some generate tags for each person automatically by mining the content their spiders find for keywords. Others enable profile owners to attach tags of their devising. A few even enable users to rate the accuracy and relevance of a profile's tags. Finally, many people search engines will for a fee register a user's profile with the general search engines so it will appear at the top of the results list, among the other sponsored links.

Both meta-applications enable us to aggregate our cyber-pieces, organize them into one or more coherent presentations and selectively disclose them. They resemble the user-managed interfaces being designed for the virtual consumer who supplies, authenticates, updates and discloses subsets of her personally identifiable information to selected merchants. But the content and the context are different. Disclosing purchase intentions and brand preferences, we advertise ourselves as consumers to merchants. Web 2.0 invites us to promote our thoughts, tastes and activities as individuals to whoever will give us their attention. In short, one's online presence and reputation constitute a new public face for the individual.

Promoting one's personality to others through the user-managed disclosure of personal information is a novel situation. It's the antithesis of the privacy paradigm in two ways. First, the privacy paradigm assumes the individual wants her information withheld from view but, as discussed, Web 2.0 assumes the individual wants her information advanced into view. Second, the privacy paradigm assumes a passive individual. Specifically, surveys about privacy issues rarely included the individual among possible solutions and, more telling,

the few that did only flummoxed the surveyors. One research group simply asserted that including the individual among the solutions "distorts the results greatly" and quickly moved on. Another team reported that consumers prefer user-controlled solutions but interpreted that to mean that consumers trust no one. Respondents to yet another survey rated consumer control higher than both business and governmental control, but the researchers ignored this finding in their discussion.[34]

The two assumptions underlying the entire Web 2.0 terrain are the opposite of the privacy paradigm: specifically, that we want to publicize ourselves and that we want to control that publicity. Both will only become more complex as new opportunities for UGC are created, more comprehensive as more of our everyday life either occurs or is replicated online and more important as one's online presence and reputation migrate from a social asset for some into a social expectation for many. The mechanics of the current services and solutions reveals that our content and our connections shape how we appear across the entire terrain, not with perfect uniformity but with enough similarity to allow generalization.

First, our content has two dimensions: presence based on the quantity of contributions and reputation based on others' judgments about the quality of those contributions. The mechanics of the different Web services shape in different ways how we build the former and earn the latter. Tomorrow's services will have their own mechanics and will likely yield presence and reputation, too. These dimensions are rooted in and express the foundational Web 2.0 assumption that users want to generate content for the attention of others. Of course, presence and reputation may not remain the only dimensions. For example, thanks to the global positioning systems on which cell phones and in-car navigation systems rely, our coordinates in real-life space and time are readily available and are well on their way to becoming socially expected.

Indeed, cyber-persona could one day have many dimensions. Today, it has two: presence and reputation.

The second feature of one's cyberpersona in the Web 2.0 world is its dependence on connections with "the other." Specifically, the profile sits at the center of its social network, the blogger is in conversation with commentators, even contributors must have peers with whom to co-create their common resource. And reputation, by definition, depends on others. This co-creation occurs in the form of links, the building blocks of any network, the Web included. Setting up a social network means inviting others to link their pages to the profile owner's page; in the blogosphere, joining the conversation means giving and receiving links to and from other bloggers; even the repository services rely on contributors' links to attribute and connect content. As network phenomena one's online presence and reputation rest on, express and emerge from one's connections—with whom one shares, to whom one links and who links back, and how often those connections are turned on by our communicating, commenting and contributing. The "machine" determines how we can appear within it, and as nodes in the linked-based network of the Web, our post-human form consists of the patterns and rhythms of our connections with other nodes.

Both content and connections—what you know and who you know—have always been important in real life, of course, but their expression in our cyber-personas may have unintended salutary consequences. Ever since modernity chunked up social life into disparate domains, modernists have worried about a self that is divided, fragmented, even multiplied. The scattered pieces of our cyber-personas confirm that situation, but the opportunity, perhaps soon the necessity of sewing those pieces together may help us give up the notion of an integrated self and become comfortable instead with a being that is plural, protean, perhaps permanently partial, even contradictory.[35] Similarly, the dependence of one's cyberpersona on its connections may help us retire, once and for all, the hero of

modernism—the autonomous being whose will is exercised in choice and action—and to embrace instead a self that emerges from its interactions. Certainly, all the Web 2.0 social media examined here assume that cyber-persona is a social entity and enable its co-creation with others. Indeed, Web 2.0 assumes that not only who we are but also what we know is social, and various experiments are trying and claiming to create collective intelligence.

Notes

1 Mary Madden et al., *Digital Footprints: Online Identity Management and Search in the Age of Transparency* (Washington, DC: Pew Internet & American Life Project, 2007), www.pewInternet.org/PPF/r/229/report_display.asp. Geoff Smith of the IT consulting firm Capgemini is quoted in Paul Taylor, "Balancing the Benefits and Dangers," *Financial Times,* July 7, 1999.

2 The early history is recounted and analyzed in Howard Rheingold, *Virtual Community: Homesteading on the Electronic Frontier* (Cambridge, MA: The MIT Press, 2000).

3 Although many services enable users to make their own Web sites from page templates, the Web site as a genre is not especially author-friendly and is inhospitable to casual authors.

4 Tim O'Reilly, "What is Web 2.0?," O'Reilly, http://oreilly.com/web2/archive/what-is-web-20.html is a comprehensive and insightful overview.

5 Brands even set up their own pages on SNSs; consumers expect them to. See "Cone Finds that Americans Expect Companies to Have a Presence in Social Media," Cone, (September 25, 2008), www.coneinc.com/content1182.

6 These five Web 2.0 services were distinguishable in early 2010, but they imitate each other's successful applications and will likely become similar over time.

7 Charlene Li with Josh Bernoff, Remy Fiorentino and Sarah Glass, "Social Technographics: Mapping Participation in Activities Forms the Foundation of a Social Strategy," *Forrester Research* (April 19, 2007) offers a linear hierarchy of social media users based on the amount of their activity.

8 Pew Internet & American Life Project, *Tracking Survey, November—December,, 2006, www.pewinternet.org/~/media/Files/Questionnaire/Old/PIAL_Dec06_Tracking_FINAL_Topline.pdf.* Debra Aho Williamson, "Social Networks: Five Consumer Trends for 2009," *eMarketer* (February, 2009); "State of the Blogosphere 2008," Technorati Blog, http://blog.technorati.com/2008/09/state-of-the-blogosphere-2008.html. On a global basis, two thirds of the world's Internet population visited social networking or blogging sites, accounting for almost 10 percent of all Internet time, according to The Nielsen Company, *Global Faces and Networked Places* (2009), Nielsen Co., *Global Faces and Networked Places* (2009), http://blog.nielsen.com/nielsenwire/wp-content/uploads/2009/03/nielsen_globalfaces_mar09.pdf.

9 Atypically, younger users do not lead the adoption curve in online self-searching: 49 percent of 18—29 year olds, 54 percent of 30—49 year olds, 39 percent of 50—64 year olds and 28 percent of those ages 65 and older have searched for their names online

10 Ellen Nakashima, "Harsh Words Die Hard on the Web," *Washington Post* (March 7, 2007), www.washingtonpost.com/wp-dyn/content/article/2007/03/06/AR2007030602705_pf.html.

11 These days, individuals are encouraged to undertake personal branding in the off-line world as well and adopt traditional Madison Avenue techniques to their self-presentations in everyday life. See, for example, Peter Montoya, *The Brand Called You* (Peter

Montoya, 2002) and and Olivier Zara, "How to Create and Manage your "Personal Brand" on the Internet (Online Personal Branding)," Online Identity and Reputation, August 20, 2008, http://online-reputation.axiopole.info/2008/08/20/create-and-manage-your-personal-brand-online-personal-branding.

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rely on the Web's root ethos, reader beware. See Anya Kamenetz, "The Perils and Promise of the Reputation Economy," *Fast Company* 131 (December 2008), www.fastcompany.com and Roger Dooley, "Anonymous Reviews Headed for Extinction," Marketing & Strategy Innovation, December 6, 2008, www.futurelab.net/blogs/marketing-strategy-innovation/2008/12/anonymous_reviews_headed_for_e.html.

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CHAPTER 6

THINKING TOGETHER

Our ready-made individuality, our identity is no more than an accidental cohesion in the flux of time.
—D. H. Lawrence, "The Crown" (1915)

The network knows what the nodes don't.
—Kim Rachmeier, Internet advisor and investor (2008)

The mission of all computing is to augment human intelligence, and the Internet holds out a particular potential in this regard. It enables many users to connect with many other users and is unlike other communications media. The telephone network connects one person with one other person; it's a *one-to-one* medium. The Internet does that, too, with e-mail and telephony. TV, radio, magazines and newspapers are *one-to-many* media; they enable one "person," the broadcaster or publisher, to connect with many persons—viewers, listeners and readers. Web sites and blogs also enable the one to connect with the many. Alone among media the Internet enables *many-to-many* communication and holds out the prospect that we can learn how to think better together.

This has already brought power to the people. Even before the Web came along, the Internet was famous for enabling people to find each other and create conversational communities on bulletin board systems, in chat rooms, in discussion forums, even via the e-mail lists known as LISTSERVs.[1]