

How Do People Express Identity Online, and Why Is This Important for Online Interaction?

Who are we when we go online, and how do we express that to others? Much internet activity consists of presenting oneself before others in one fashion or another. As a result, how we describe ourselves online shapes online interaction in critical ways. It is one of the most fundamental design choices that we make in creating online sites. To start exploring these issues, we need a nuanced understanding of face-to-face interaction. Erving Goffman's classic 1959 book, *The Presentation of Self in Everyday Life*, is a good place to start. Goffman wrote, "When the individual presents himself before others, his performance will tend to incorporate and exemplify the officially accredited values of the society, more so, in fact, than does his behavior as a whole . . . The world, in truth, is a wedding" (Goffman 1959, 35–36).

The Presentation of Self in Everyday Life

What really is a wedding? At a wedding, everyone dresses up and collectively enacts a ritual that is meant to convey information to the entire group – these two people are now a family. Everyone at the wedding is playing a role – like bride/groom, mother of the bride/groom, the bride/groom's

school friends, the officiant, etc. Each participant is supposed to dress and behave in a certain way. We learn these social norms from personal and cultural examples.

I was more nervous before my own wedding than before giving significant professional talks to large audiences. The role of "professor" is one I'm comfortable with. The role of "bride" was unfamiliar. We are all always playing a role, and we play different roles on a daily basis. On a typical day I might drive my teenage son to school, stop off at the allergist for my allergy shot, buy a cup of tea at a café, meet with a graduate student, teach a class, and have a conference call with a collaborator. In each of these situations, I present different sides of who I am. Amy the mom, Amy the allergy sufferer, Amy the tea drinker, Amy the advisor, Amy the teacher, and Amy the research collaborator are all a bit different. I present myself differently in each of these settings. If I swapped two of those performances – for example, if rather than approaching the café counter and addressing the next available staff member to order tea, instead I stood at the front of the café facing everyone and projecting my voice to get everyone's attention as I would at the start of class – the results would be comic and awkward. My behavior in each setting is different, and who I am in each setting is also different. Together, all these aspects make up who I am.

Students in my "Design of Online Communities" class sometimes fall into the trap of thinking of these different facets of ourselves as facades masking our "true selves." In fact, there is no "one true self." It doesn't exist. We are all always performing, and who we are at the core is a synthesis of all these aspects (Turkle 1995, 261).

work here.” I’ve also been mistaken for the employee. For example, at a recent trip to a clothing store, after I picked a sweater in my size from a pile, I then straightened the pile. A fellow customer saw me straightening clothing, and reasonably assumed that I worked there. These kinds of mistakes taken in interactions can be uncomfortable because, as Coffman notes, having a particular role entitles a person to be treated in a particular way. Mistaken interactions happen often in clothing stores because staff typically do not wear a special uniform, so, unlike with the nurse at the allergist, we are missing attire as a cue to a person’s role.

According to Coffman, information we might want to know about someone includes their socio-economic status, their competition of themselves, their attitude toward you, their competence, and their trustworthiness. Goffman assumes we can easily infer someone’s gender, age, and race because we can see them. Online, we may (or may not) want ways to infer those aspects of personal identity.

Cartiers of that information about the individual in face-to-face settings include clues from a person’s behavior and appearance. This includes physical characteristics, how they dress, and how they hold themselves. We also infer information from a person’s likelihood of being in a setting – the person calling my name from the shot room is probably the shot nurse, and the person standing at the front of the room at the start of class is probably the teacher.

What role does everyone here have? Who am I speaking to? As we will see, how we represent identity online shapes how these processes unfold in online interaction.

Goffman has a wealth of insights into human interaction and presentation of the self. It's worth going through these in detail, because most of these have analogs in online interaction. The original Goffman text is worth reading, though I need to warn you, as I always warn my class, that it has sections that are offensive (sexist, racist, classist, etc.) to a more modern sensibility.

"When an individual enters the presence of others, they commonly seek to acquire information about him or to bring him into play. Information about him already possessed . . . enables others to know in advance what he will expect of me. I need to know who (of the dozen people present at the allergist's office) is the nurse giving shots today. I arrive at the office and sign in, and the nurse calls my name when they are ready. I can infer that the person who calls my name when I am called is the nurse giving shots today. I can support my conclusion by their name after I've signed in) convey that information. But if I am confused, I can support my conclusion by their clothing — nurses at the office wear medical scrubs and a badge with their name.

Have you ever confused someone's role? It has happened to me many times, especially in clothing stores. I might ask, "Do you know if this comes in other colors?" and my embarrassed interlocutor replies, "I'm sorry, I don't

In each setting, we are always consciously and/or unconsciously trying to convey an impression to others. However, visitors, islanders sometimes took pleasure in watching the house, islanders usually made it possible to observe the visitor unobserved as he approached the door. However, some visitors, in appreciating the examination was occurring, would blindly adopt a social projection of a constant image. (Goffman 1959, 8)

Here we have a kind of arms race between the visitor trying to convey a particular impression (impressions given) and what the host actually infers (impressions given off).

People's performances can be sincere or cynical. I can try to convey to you that I am an excellent financial advisor because I actually am skilled in that field (sincere) or because I am actually a swindler and would like to convince you to trust me so I can take your money (cynical). To add another layer of complexity, in the case of the sincere performance, I may be correct that I am a skilled advisor or I may be deluded. My interlocutor uses cues to interpret both the sincerity of my performance and my likely actual competence. Human interaction is fundamentally collaborative. The start of an interaction establishes important collaborative interactions on the part of participants. Goffman shares the example of a teacher's approach to the first day of class:

The first day I get a new class in, I let them know who's boss . . . You've got to start off tough, and then you can ease up as you go along. If you start off easy-going, when you try to get tough, they'll just look at you and laugh. (Becker 1952, 45; cited in Goffman 1959, 12)

Expressions Given and Expressions Given Off

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how the food is. The visitor might reply "delicious!" -

might "take note the rapidity with which the visitor lifted his fork or spoon to his mouth, using these signs to check the feelings of the eaters" (Goffman 1959, 7). The chef is checked impressions given off to try to develop a deeper because we know that people try to control what impression they are making, as interpreters of others' behavior we divide someone's performance into more and less easily controlled aspects. The dinner guest's speech is more easily controlled than the enthusiasm with which they move their fork.

Goffman's story of a guest approaching a Shetland cottage conveys an intriguing interpretation between a performer trying to convey a particular image and a recipient interpreting the lack of physical obstructions outside the cottage warm smile as he passed through the door in the cottage would ordinarily wear at least a hint of an expectant smile. When a neighbor dropped by to have a cup of tea, he ing that performance: a guest approaching a Shetland cottage conveys an intriguing interpretation between a performer trying to convey a particular image and a recipient interpreting the lack of physical obstructions outside the cottage warm smile as he passed through the door in the cottage would ordinarily wear at least a hint of an expectant smile. When a neighbor dropped by to have a cup of tea, he

Whether you are playing an official role in an online interaction or just hanging out, you have a personal front. People adapt how they interact with you based on how you present yourself – the elements of your personal front. At the simplest level, many online sites have textual usernames. In some cases, your username is chosen for you. Everyone at my son's school has to use the username that is their last name. A period, and then their first name, so I am Bradkman.Amy. Standardizing usernames makes it easy to find anyone, and many information technology departments enforce this at schools and corporations.

In the 1990s through 2000s, some sites for kids like Cartoonetwork.com standardized user names by letting you pick from a fixed list of adjectives and nouns

Identity Online: Usernames

In some cases, there is a gap between the front and the person's actual role. For example, "A patient will see his nurse stop at the next bed and chat for a moment or two with the patient there. He doesn't know that she is observing the shallowness of his breathing and color and tone of his skin. He thinks she is just visiting" (Goffman 1959, 31). As a result, nurses sometimes don't get the respect they deserve as skilled professionals. Similarly, much of the work of an undertake is not visible to the customer, the bereaved family. Consequently, undertakers charge a great deal of money for the casket (something the family can see), and this helps cover the cost of all their services (Goffman 1959, 32).

Fronts and Roles

Based on those initial expectations, participants establish working consensus that helps get them through the situation. Once we have established that I am the patient and you are the allergist shot nurse, then we have a set of routines or "scripts" that we follow that help us get through the rest of the interaction smoothly (Schank and Abelson 2013).

Many sites require each username to be unique. Enough of the namespace is taken on large sites like Reddit that it can be hard to find a username that expresses what you want, unless you add a number to the end. For email, the site hosting your account also conveys information about who you are. Posting from a university or corporate account conveys an official capacity.

time he was a seventeen-year-old freshman to the time he was a master's student trying to build a professional image. "User 'Jalisa'" was an administrative staff member who conveyed a warm and friendly, informal tone by using her first name. User "Jik" was faculty, and used initials for a more professional self-presentation. How we choose to present ourselves online conveys how we see ourselves, and how we feel about the particular online setting.

One question that comes up for administrators is whether to allow obscene user names. The answer depends on what kind of site you are running. On the bulletin board system ECHO (a kind of New York version of The WELL), founder Stacy Horn decided that she would "let people have whatever id they want. Go ahead, call yourself bigdick. See if I care. I think people would rather know than not know that you are the kind of person who would call themselves bigdick. It says something about you" (Horn 1998, 18). In Stacy's view, someone choosing a rude name is performing a public service by warning everyone what kind of person they are. Allowing rude user-names was a great strategy for ECHO, but wouldn't be appropriate for another site like, for example, one aimed at kids or adults.

and adding a number - so you'd end up being something like BravEParr0331. The intent was to give people some degree of choice while making absolutely sure there would be no bad words included, and without having to pay a customer service representative to manage usernames. However, this style of username didn't work particularly well because the restricted choice didn't make you feel like this "was you." Nevertheless, this was the result of the company's service offering at Georgia Tech: In most cases on the internet, people get to choose their username, and you can tell a surprising amount about a person based on what name they select. Consider the following three usernames from the College of Computing names. One of them is a professor, one is an undergraduate, and one is an administrative staff member. Can you guess who is who?

When I do this exercise in class, students almost always get it right. As you might guess, "wedge" is the became a master's student, he regretted the silly name and begged our technology services organization to change it to his first initial and last name. At the time it was against policy to allow username changes, but someone took pity on him and urged him to do it. Later in his career at Georgia Tech, when he became a graduate student, he regretted the silly name and begged our technology services organization to change it to his first initial and last name. At the time it was against policy to allow username changes, but someone took pity on him and urged him to do it.

sexual orientation, race, and age. On non-dating sites, race and age are rarely explicitly marked. In the 1990s, people with university accounts often looked down on people posting from large commercial providers like America Online (Donath 2002). This is less true today, as free email services like Google's Gmail have become widely accepted. But the transition from AOL to Gmail has been relatively easy to express on a site, the designer is small identity are easy to express which elements of personal identity are easy to express which chooses who you were starting a face-to-face business, like installing solar panels. Decisions you might make include: Do you employees wear a uniform? If there is no explicit uniform, do you give them guidelines on what to wear? Do they have business cards? Clipboards? Do they drive a car with a company logo? All these decisions affect the impression your employer makes on customers – you are designing their front. Similarly, when you are creating a new online site, you decide how users may present themselves to one another – should we have profile pictures? Should users be pseudonymous or identified by real names that we verify? Should we have people state their gender? Which elements you emphasize shapes the kinds of interactions that ensue.

Gender Online

In 1983, Lindsay Van Gelder was on Compuserve, an early bulletin board system (BBS), and became friends with another user, Joan. Van Gelder tells Joan's story in her 1985 Ms. Magazine article, "The Strange Case of the Electronic Lover" (Van Gelder 1985). Joan was a neuropyschologist who had been severely injured in a car accident involving a drunk driver, and had ongoing challenges with both her mobility and speech. Talking on the BBS was her main social outlet. Online, Joan was outgoing, charming,

down on people posting from large commercial providers like America Online (Donath 2002). This is less true today, as free email services like Google's Gmail have become widely accepted. But the transition from AOL to Gmail has been

Elements of Online Identity

Usernames are just one of myriad elements of personal identity we express on online sites. A host of design features contribute to people's online self-presentation. Elements of an online profile include: a real name, or an image the person chooses; a 3D avatar; profile text written by the person; links to the person's past posting history on the site; the person's past posting on other sites; a "character class" the user has chosen (for games); membership in subgroups of the site (like guilds, for multilayer games); achievements within the community (like Reddit karma); and information, with details like religion, political orientation, sites like dating sites may delve much deeper into personal information, with details like religion, political orientation,

My observation is that for text-based communication, we still judge one another – but by a different set of markers. Notably, in writing, one judges by writing skill. In more visual modes of communication, such as Snapchat and Instagram, traditional identity markers like age and race are back in the forefront of interaction. Stacy Horn has a different view from Van Gelder. When Horn has a different view from Van Gelder, she feels that “You can’t always tell. At first, But you can often tell over time. The illusion of free and unbiased communication can only be maintained and then only briefly, as long as people hide. It’s a trick. In time, if you act like yourself, as long as people hide. It’s a trick. In time, if you bodies with us, I don’t log on and suddenly forget I’m female. Oh, I’m online! Now I can forget a lifetime of socialization” (Horn 1998, 85). Andre Brock agrees, writing that “the digital is the mediator of embodiment and identity, not an escape from it” (Brock 2020, 20). Questions about how one’s real-life gender shapes member “Embarrassable Ewe” (who was in the process of transitioning from male to female) into the women-only forum on ECHO, WIT, Horn writes, “I’m in over my head . . . Is gender a biological or social construct? . . . If let her into WIT, will it feel like there is a man in the room, or a woman?” (Horn 1998, 82). When Horn started ECHO,

Bertram and I returned to his first example about gender. However, behind one door and a computer behind the other. However, in The Turing Game, a panel of volunteers all pretend to be a particular identity. Any identity is possible, and game types were chosen by users. Suppose everyone is pretending to be women. The panelists are supposed to answer questions as if they are women, and each chooses a woman's name as a temporary pseudonym. Some really are women, and some are not. The audience votes to say who they believe. A moderator chooses among questions suggested by the audience. When the moderator decides the game is over, everyone's real identity is revealed and a discussion ensues about how the audience knew the truth or how they were fooled. Here's an example from a game where people were pretending to be women:

QUESTION: Describe your last really bad haircut.

PENNY: I had it layered and I got a perm. Since my hair is wavy, it was Annie style.

WENDY: Sopomore year, decided to cut it really short, and I looked like a little boy. My boyfriend was very disturbed.

MOST PEOPLE CORRECTLY GUESS THAT "PENNY" IS REALLY A WOMAN AND "WENDY" IS NOT. THE REASONS ARE INTERESTING TO REFLECT ON. AT THE SIMPLEST LEVEL, THE REAL WOMAN SHOWS A DEEPER KNOWLEDGE OF WOMEN'S HAIRSTYLES. BUT MORE INTERESTINGLY, THE PERSON PRETENDING TO BE A WOMAN IS WORRIED ABOUT WHAT THEY BOYFRIEND THINKS RATHER THAN WHAT SHE HERSELF THINKS. IN MY EXPERIENCE, WOMEN TEND TO WORRY MORE ABOUT WHAT THEY THEMSELVES THINK.

she didn't anticipate having to be the arbiter of questions like the fundamental nature of gender? In a botched To answer the question of whether to invite a transitioning person into an all-female group, we need to have a more nuanced understanding of why we are creating a single-gender space in the first place. Oldenburg notes that the Third Place (see Chapter 1) is often single-gender explicit as predominantly one gender, but few have self-select as predominantly single-gender online spaces? Today, many spaces explicitly single-gender online spaces? (Oldenburg 1989). What are we trying to achieve with Oldenburg's gender restrictions. Ultimately, Horn allowed explicit gender restrictions. Ultimately, Horn allowed Embarrassable to join WIT after she met a series of criteria, but writes that she regrets not simply accepting her as who she says she is. Our sensibilities on this topic have evolved since the 1990s. Who is right, Van Gelder or Horn? Is the online world "dizzily egalitarian" or can you "always tell"? To explore this question, then-Georgia Tech graduate student Joshua Bertram and I created a multiplayer identity game called The Turing Game, which we launched in 1999 (Bertram and Bruckman 2001). The Turing Test is a challenge to see how far artificial intelligence has progressed — can a person tell the difference between written answers to questions from a person and a computer? In Alan Turing's original paper about the Turing Test, he explains it first in terms of a gender test. Imagine that you have a man in one room and a woman in the other, and you can only communicate with them by slipping typed questions under the door. Could you tell who is who based on how they answer? Turing goes on to ask the reader to now imagine that there is a human

example, in one game in which people were pretending to be women, one question was: "What's your favorite alcoholic drink?" One respondent said, "Scotch on the rocks." The audience correctly reasoned that a man pretending to be a woman wouldn't say that, and that was true in that particular case. But now that you know that trick, you might consider trying a double reversal to fool people (like the movie *Victor Victoria*). The ultimate lesson from The Turing Game is that we need to work hard to distinguish between stereotypes and empirical reality verifiably real. And those are moving targets—both the stereotypes and the reality are always evolving.

In the end, Van Gelder and Horn are both partly right. Sometimes this new mode of interaction can be surprisingly egalitarian, and sometimes not. The exact details of how sites are designed and how people can present themselves matter, but ultimately it's the identity workshop that matters.

Identity Workshop

"Joan" was playing with aspects of identity online, you can pretend to be someone you're not, and that process can help you reflect on your face-to-face identity and sense of self. That was the title of my final paper in Sherry Turkle's class on sociology of technology in 1992. Talking Turkle's class and serving as her research assistant for part of her book *Life on the Screen* (Turkle 1995) were transformative experiences in my graduate-school career.

Identity Workshop

The game quickly became popular, with 12,000 users from all seven continents over the course of a year. People played with all different sorts of identity categories in addition to gender – like guessing who is really over 30, or who is Canadian. It was particularly popular with people who were transitioning their gender, people under house arrest, and the staff at a research station in Antarctica. The point of the game was to get people discussing these issues of identity, and to develop some deeper insights into how people act online and how your personal identity shapes those interactions. And it did – sort of.

Analyzing data from games played, we found that people often made decisions based on stereotypes. For example, someone might say, "I knew player two was a woman because she used such long sentences." This is grounded in the idea that women use longer, flouncier sentences with lots of dependent clauses and men say things like "I'll be back". The only problem is that this idea is just a stereotype. Studies of how many words men and women use per turn have different answers depending on whether they're talking to men or women, the medium of conversational interaction, etc. A blanket "women talk more" stereotype is false (Baron 2004; Fox et al. 2007). The game surfaced stereotypes (some false, some true), and reinforced them, but didn't help people to distinguish stereotype from reality.

The second problem with The Turing Game as an interactive, philosophical experiment is that the first thing you really want to know before judging someone's performance is how many times they have played the game. For instance is how many times they have played the game.

Does it help? If people are playing with concepts of identity, are they growing in a healthy way as a result? We wrestled with this basic question all summer, and had no conclusion by September when I went back to my regular research at the Media Lab. Here final conclusion in the book is: some times, For some of the people we interviewed, they explored personal issues they were struggling with for a period of time, and later made life changes that showed growth. Others just struggled more and more. In psychological terms, some were "working through" and others were "acting out." The technology is evocative, but a range of things can happen as a result.

Identity Deception

Gender-swapping is just one form of identity deception that takes places online. People can present themselves differently from their real selves in any dimension of personal identity. In some contexts, your real identity is expected, and deviating from that is breaking a social norm. In others, identity play is welcome and expected.

Understanding identity deception is one way to develop insights into how identity functions in online social groups more generally. Judith Donath explains deception in terms of ideas borrowed from research on animal behavior: assessment signals and conventional signals (Donath 2002). An assessment signal is a reliable signal that demonstrates the trait being shown. For example, having big muscles is an assessment signal in a healthy way as a result? We wrestled with this basic question all summer, and had no conclusion by September when I went back to my regular research at the Media Lab. Here final conclusion in the book is: some times, For some of the people we interviewed, they explored personal issues they were struggling with for a period of time, and later made life changes that showed growth. Others just struggled more and more. In psychological terms, some were "working through" and others were "acting out." The technology is evocative, but a range of things can happen as a result.

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Turké thinks deeply about the psychological foundations of our interactions with computers. In her 1984 book, *The Second Self: Computers and the Human Spirit*, she wrote about Deborah, a young girl who was concerned about issues of control in her life. When Deborah learned to program a computer in Logo, she was engrossed in an intellectual exploration of issues of control, a key emotional and psychological issue she was struggling with at the time (Turké 1984). Most research on humans and computers stays relatively at the surface: this is what people like certain activities, and why they engage in them. And the answers to those questions are not superficial – they are about who we are and who we wish to become in the most profound sense.

My class paper explored concepts of identity in MUDs, text-based virtual-reality environments that were popular at the time (see Chapter 1). A MUD is like a massive multiply multiplayer game, except that the whole world is created in text (for example, the description of The Living Room on a MUD called LambdaMOO begins: "It is very bright, open, and airy here, with large plate-glass windows looking southward over the pool to the gardens beyond . . ."). In addition to describing objects and places, you can describe yourself. Because you can easily describe yourself as anything you want, it becomes easy to experiment with identity. The following summer, I helped Turké study MUDs further, assisting with research for *Life on the Screen* (Turké 1995).

Turké is a psychonaut, and one fundamental question she asked about this online identity play was:

had them step on a scale to get an accurate weight. They found that people generally do lie – but just a little bit. If you are hoping to eventually meet someone face-to-face, lying a lot isn't strategic. However, stretching the truth just a bit is so tempting that most people do it. Eight out of ten people lied in at least one category. They write, "weight was the most frequently lied about attribute, followed by height, and least of all age. For those identified as lying on an item, the magnitude of the deception was usually small. The average deceptiveness of the participants' actual age was only 2.09% of the participants' actual height, 5.5% of the participants' actual weight, and 1.4% of the participants' actual age" (Toma et al., 2008). The ecosystem of people being more or less truthful on online dating sites is like the ecosystem of butterflies and moths – deceptive presentations create a cost for others.

Age and Race

Gender is the most studied component of online identity, but is not necessarily the most important. It's an interesting research question in itself to think about why researchers to date have been so focused on gender and have paid less attention to other aspects of identity. Other factors like age arguably shape how you interact with others in face-to-face interactions more.

Many online interactions are low-stakes – it may not really matter if the person you are chatting with is not really as they describe themselves (as long as you're not relying on them for medical or legal advice). One higher-stakes example is dating sites. If someone lies about who they are, people may waste time they could spend talking with someone more suitable, and may have uncomfortable interactions with their real selves. They looked at people's online profiles to confirm age, measured their height, and drivers' licenses to compare them to their height, and people lie on dating sites. To find out, they had people on dating sites come into a lab setting and compare their face-to-face encounters. Toma et al. wondered how much with someone more suitable, and may have uncomfortable interactions more.

Personal identity often went unmarked, and if it was unmarked people assumed others they were interacting with were white (or Asian) males – the stereotypes for computer scientists and engineers at the time. As the internet became a mass phenomenon in the 1990s, this changed. During the first dotcom boom in the late 1990s, when early internet companies thrived and venture capital was widely available for any internet idea, a number of niche online sites were created to appeal to other demographics. For example, the site Village was launched in 1995 to appeal to women. Around the same time, Third Age was launched to appeal to older adults, and Black Planet to appeal to African-Americans. In the early days of Village, developers tried to create content to appeal to people like themselves – technologically literate, college-educated women. Over time as actual internet users became more diverse, the site was re-focused on the kind of content that you might find in a women's magazine sold in a supermarket checkout line, with articles about topics like weight loss, dating, clothes, and makeup. A similar pattern occurred on many sites. When I interned at Third Age, a website for older adults, in summer 1997, the site was investing lots of money in hiring freelance writers to write thoughtful long-form articles on topics like how your worldview changes when you retire, and how to manage finances on a fixed income. However, looking at the web server logs, they realized that those articles were hardly being read. Instead, users were doing puzzles and using the dating service to manage finances on a fixed income. The same lesson again can be seen when Christian Sandvig studied a community network installed on a Native American reservation in 2004. Sandvig documents how tribe members emphasize the

scene with a teenager is not only creepy, it's potentially a serious illegal act. It just never occurred to the *LivesJournal* role-players to check someone's age, especially since the social norm of the group was to not ask people about their real-life identities (Friesler 2007).

Age is particularly salient as an aspect of identity in countries where age strongly shapes interpersonal interactions. In Korea, the language itself changes depending on how old the person you are addressing is – you use different words to talk to someone older than to a peer. A Korean student in my "Design of Online Communities" class once told me that he believes that the notable popularity of massively multiplayer online games in Korea is linked to that fact. Online, Koreans address everyone as a peer, and he believes that makes online interaction particularly satisfying for them. It would be interesting to try to study whether the student's intuition is correct.

Race is often not expressed in online interaction. Andre Brock laments that the default internet user is middle class, white, and heterosexual. As we'll see, spaces like Black Twitter help to decentr the default internet user is middle class, white, and heterosexual. As we'll see, spaces like Black Twitter help to decentr their cultural particularities" (Brook 2020, 87).

The internet was initially developed from the 1960s to early 1980s by largely male engineers at research universities, its formative years, that demographic was dominant.

Rookie Magazine published issues for seven years, and then folded in 2018 due to business issues. It's interesting to think about whether a site like this could be financially sustainable. One thing, though, is clear: It is impossible if initial funding comes from venture capitalists who demand a high rate of return on their investment.

Most communities that focus on one particular demographic try to create a separate space just for that group. Membership may be explicitly restricted, or expectations of who belongs may lead to self-selection. For example, some Facebook groups for mothers also allow fathers to participate, and others don't.

An intriguing exception to this pattern of membership is Black Twitter (Brock 2012; Manjoo 2019). Andrew Brock writes that "Black Twitter is an online gathering [not quite a community] of Twitter users who identify as Black and employ Twitter features to perform Black discourses, share Black cultural commonplaces, and build social norms evolve differently in each subgroup." Twitter is one huge, undivided stream of content. You can also search for terms or hashtags (#term), and interact with others who post about those topics. Conversations of interest to Black members of Twitter emerge from relevant hashtags, and also from follower relationships.

As an example, the website Rookie Magazine (www.rookiemag.com) was created by a fifteen-year-old girl and had articles written by girls and young women on topics like "Meaningful Transformations," my favorite movies about change" and "The Last Train Ride, a story about friendships that fade." It was deliberately non-commercial, and focused on content that matched the founder's values.

Pseudonymity, I need to take a detour to introduce basic ideas about privacy. What is privacy and why does it matter? Privacy is the right to control a "zone of accessibility" around yourself. It includes freedom from intrusion, the ability to control information about oneself, and freedom from surveillance (Base 2013, 48). Privacy lets us be ourselves, lets us remove our "public persona," and is arguably important for individuality and freedom (Quinn 2017). SImson Garfinkel writes that:

The problem with the word "privacy" is that it falls short of conveying the really big picture. Privacy isn't just about hiding things. It's about self-possession, autonomy, and integrity. As we move into the computerized world of the twenty-first century, privacy will be one of our most important civil rights. But this right of privacy isn't the right of people to control what details about their lives stay inside their own house and what leaks to outside.

I teach about privacy each year in my class "Computing, Society, and Professionalism" (our required undergraduate class on ethics and social implications of technology). Over the years, I've found that the most important concept is the trade-off between free-market approaches and consumer-protection approaches (Base 2013, 107-110).

In a *free-market approach*, companies may treat user privacy as they wish. Consumers are encouraged to use voice and exit (see Chapter 6) to respond if they are

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While a site like a subreddit or a Facebook group has a space that is dedicated to that topic and group of members, Twitter conversation is all public. A small fraction of users have private accounts that only approved people can see; however, this is uncommon. As a result, this in-crowd conversation is taking place in view of a diverse audience. This at times is an opportunity for mutual understanding across groups, but also a catalyst for tension among those groups.

Privacy

We don't always want to reveal everything about ourselves online. Before I discuss online anonymity and

Black Twitter builds on African-American cultural practices. For example, Sarah Florini discusses the practice of “signifyin”, “a genre of linguistic performance that allows for communication of multiple levels of meaning simultaneously, most frequently involving wordplay and misdirection” (Florini 2014, 224). Florini writes that “Signifyin” serves as an interactive framework that allows Black Twitter users to align themselves with Black oral traditions, to index Black cultural practices, to enact Black subjectivities, and to communicate shared knowledge and experiences” (Florini 2014, 224). Similarly, it builds on oral traditions of call-and-response (Manjoo 2019). Some of the discourse is playful and focused on humor, creating a supportive sense of being in the presence of like-minded others. Black Twitter also has an activist focus, using the platform to draw attention to social issues like police brutality (De Choudhury et al. 2016).

disadvantages to each approach. It is a trade-off - one that we need to carefully assess in each situation.

My second post when I started my blog in January 2010 is entitled "Amy's Prediction: In 20 Years No One Will Be Qualified to Be President".

Today's teens are pouring their most personal thoughts onto the Internet. They flirt, they gossip, they angst, they brag about being naughty—just like we did when we were teens. Except the problem is, the Internet is a surprising persistence medium.

An old joke says that taking information off the Internet is like taking a backup of a pool. Sure you deleted it, but did the server keep a backup? There's likely a backup on Brewhster Kahle's Internet Archive, <http://archive.org>. Before you decided to delete it, did a friend save a copy? When you post information online, you lose control of it.

Teen's say they most amazing things. My friends and I had a great deal of fun, and I'm relieved to say it's all forgotten or at least not documented in my own words or photos. (If I appear doing anything unseemly in my friend Anne Marie's new novel, I can simply deny it!) If all that happens when young adults antics are archived?

The thought gives one pause. Will the bride data mine the room before the wedding (or vice versa)? Will the colleague with an axe to grind dig up ancient history to appalled. I think most people look back on their teen and young adult years that way. At least I hope they do.

If people can't make informed choices about how much personal information to share, this argues that we need to pass laws to protect individuals' privacy. However, some argue that the more restrictions we put on how businesses deal with user data, the more we reduce productivity and slow innovation. There are advantages and

not satisfied with how a company is treating them. In other words, if you don't like the privacy protections on a site, you can speak up or go to another site.

On the other hand, a consumer-privacy approach suggests that people are often not able to make well-informed decisions about their privacy. First, they don't and they couldn't if they tried. The reading level of these policies is well above the level of the average internet user (Jensen and Potts 2004), and reading all the policies for sites you use would simply take too much time (McDonald and Cranor 2008). People are not in a good position to make smart choices about their own privacy.

MIT professor Jerry Saltzer once told me, "privacy is a database correlation problem." What ends up being most invasive is not the data from any single site, but the cross-referencing of data across different sites. Also problematic is the use of data for secondary purposes — uses other than the ones the data was collected for. If people have no reasonable way to envision secondary purposes — uses of data, they can't make informed choices about how much data to share. If people can't make informed choices about how much data to share, this argues that we need to pass laws to protect individuals' privacy. However, some argue that the more restrictions we put on how businesses deal with user data, the more we reduce productivity and slow innovation. There are advantages and

Many years ago in my "Online Communities" class (around 2001), master's student Alisa Bandlow studied people role-playing on the site LiveJournal. Some of the content included erotica. Bandlow asked one of her interview subjects how they felt about the fact that all this content was visible online, linked to their account which used their real name. After the interview, the subject deleted their account and all their posts. It hadn't previously crossed their mind to be concerned. Over time, people are becoming more aware that they need to be careful about their online privacy. One way to protect your privacy is to not use your real name for segments of your online activity.

From Anonymous to Identified

I talked earlier about email account names, and the ways that the account name you choose or are assigned expresses who you are to others. This holds not just for email addresses, but for account names we sign up for on online platforms.

An online user name is a "signifier". It's a symbol that studies the relationship between signifiers and signifieds. Semiotics points to a person in the real world, the "signified". Semiotics how language makes meaning (de Saussure 1959). A signifier is typically arbitrary. There's nothing about the name "Amy" that is specific to me – it's just a sequence of sounds. Many users make up names that are "identified", which in our selves. The problem is usually not any one piece of information, but the total picture that comes from the synthesis of those details, the meaning we attach to them.

use as a weapon? Are we entering a new age of harassment by ancient history, a golden age of blackmail?

I suspect that most teens and young adults will stay obscure, and if they're uncovered folks will just laugh and reminisce. But there's one special category of people who may not get away so easy: public figures. Actors, musicians, and athletes can probably survive the scrutiny, but what about politicians? We still elected Bill Clinton, because he said he "didn't inhale." What will happen when the future political candidate is inhaling on camera, memorialized for posterity?

I see a few possible outcomes. One is that teens over time will learn to be more careful with their personal information. This I think is inevitable. Which leads us to the prospect that we will have one lost generation of minormation. Those I think is inevitable. Which leads us to potential future politicians—the generation who didn't yet know to be careful about their personal information online. Like the donut hole in Medicare coverage, we'll have a lost zone between those too old to have been online much and those young enough to know to be at least a bit careful.

Another potential outcome is that we as a culture will learn to be more tolerant of what people do in their personal lives, especially as youth. Europeans tend to be somewhat more tolerant already—to draw a clearer line between personal and professional behavior. Americans are plagued by an endearing notion of "Character"—that what we do in our personal lives speaks to our fitness for professional tasks. When complete lives are increasingly archived, we may need to step back from that ideal and let our leaders be human. (Bruckman 2010)

between the online account (the signifier) and the real-world entity (the person). Other sites can be "anonymouse" or "pseudonymous." These are sometimes confused and the distinction is important. On a pseudonymous site, a user has a persistent pseudonym that refers to them. Reddit is an example. For example, "shirukenn" is the pseudonym of one of my fellow Reddit moderators. I know that he is male, that he is a biomedical engineer, that he runs our statistics on who had the most mod actions each month, and that he has a variety of scientific interests. I don't actually know his real name or where he lives. In semiotic terms, there is still a relationship here between the signifier and the signified. His pseudonym is not his real name, but it is still a signifier that refers to him, the real person, as the signified.

Reddit users refer to him, the real person, as the signified. This relationship to me, the human. Just like pseudonyms, the name I was given at birth is a signifier that has a legal relationship to the signified. My "real" name has a legal relationship to the signified. My "real" name is a signifier that refers to the signified. For both real names and pseudonyms, there is a signifier with a complicated relation ship to the signified. My "real" name has a legal status but otherwise operates in similar ways to pseudonyms I use.

Reddit users often use a pseudonym over a long period of time, you're careful not to. In the course of conversation, you might mention things you like and dislike, places you've been, schools you've attended, and more. The longer you use a pseudonym, the more it defines the real person. Each leaked detail links the fact to identities the real person. For this reason, users on Reddit will often create a temporary ("throwaway") account when they really want to discuss something (topic), then it is less tied to your real identity, often using "throwaway" in the name. If you only have an account for one discussion (usually on a difficult or embarrassing topic), then it is less tied to your real identity than an account that has an accumulation of leaked details about you (Leavitt 2015). Amarati et al. found that Reddit users on parenting boards who used throwaway accounts for a variety of groups, including people transitioning for a variety of reasons, millions of such reports per year. Enforcement of this policy has caused problems for Facebook reviews. Facebook requires millions of such reports per year. Facebook reviews can report another account for violating the real names policy. Facebook requires users to use their real name, and users can report another account for violating the real names policy. Facebook requires users to use their real name, and otherwise operates in similar ways to pseudonyms I use.

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Pseudonymity is not always appropriate. In 1995, I started a site called MediaMOO, a professional community for media researchers (Bruckman and Resnick 1995). A MOO is an end-user programmable, text-based virtual world. The MOO software was created by Pavel Curtis, then at Xerox PARC. MediaMOO was kind of like an endless conference reception for a conference on media and human-computer interaction. When I first created the site, I allowed people to have two accounts: one anonymous and one identified by a member's real name. Curtis told me that was silly - why would anyone want to go to a professional conference and

Ano

As a culture, we have not yet sorted out how to handle the problem of permanence of information. If someone did something culturally insensitive or racist (like wearing "blackface") decades ago, does that disqualify them for public office now? When is saying "sorry" enough, and when is it not? Because more people are becoming aware of the risks of permanence, sites like Snapchat that make communication ephemeral are becoming more popular. A picture shared on Snapchat goes away in a day, and the system does its best to prevent others from making a copy. (They unfortunately can't stop people from using a copy. They suffer from a bug where a site with permanence like Instagram is used for curating a self-presentation.) Snapchat is used by teenagers for photographing out, while a site with permanence like Instagram is used for curating a self-presentation.

is permanently attached to it. (Donaith 2014)

hide their name badge or wear a bag over their head? The whole point was to meet other people and network. MediainMOO tried the two-account solution for a few years, but I eventually realized that Curtis was right. I changed our policy to specify that new accounts were to be identified only. Old anonymous ones were allowed to persist, but were rarely used. MediainMOO is an example of a context in which being identified is more appropriate.

Anonymity/pseudonymity also have a major downside: The lack of accountability can lead to bad behavior. The next chapter will talk in detail about bad behavior online and what to do about it.

This has led to a proliferation of content that many people find extremely offensive, including highly explicit images, racism, anti-Semitism, and ideas from the alt-right. The sites often also originate attacks on others, such as "brigading," where individuals encourage large numbers of people to harass individuals on other sites. In 2019, perpetrators of mass shootings posted about their plans on Schan's domain three separate times. As a result, Schan's domain name service was shut down, but it remains accessible on the dark web.

It's important to note that Schan is also a sort of "Internet meme factory" which has given us things like "LOLcats," and also held annual abuses' accountable (Berstein et al. 2011). Gabriele Colleman tells in detail the story of how the group "Anonymous" originated into a "hacktivist" group (Berstein et al. 2011).

The parts of the hacker group evolved into a "hacktivist" group over time

whether they really are a friend of one of my friends, etc. If we could tell who is who, we could stop spam, stop deliber- ate manipulation of our public discourse by foreign opera- tives, prevent kids from getting to inappropriate content, prevent phishing attacks, and more. Identity goes hand-in-hand with reputation. I imagine a system of reputation servers. A reputation server could verify that someone isn't a known bad actor, and estimate their qualifications with regard to a particular topic. Reputation needs to be multi-dimensional — that is, I might have a strong reputation as an expert on human- computer interaction but a weak reputation as a keeper of tropical fish (since I have just a small freshwater tank with easy-to-care-for fish). Further, some aspects of reputation may need to be relative to an individual's position on a particular issue — in other words, Jane has an excellent reputation as a chef for omnivores, but not for vegetarians. There would have to be competing reputation services, so individuals could pick a service they trust. Further, the design of such a system would have to make careful use of cryptography to protect people's privacy.

The Future of Online Identity

It's possible to be well behaved on an anonymous site, and to create havoc on an identified site. The difference is that an agent of chaos on an identified site is more likely to experience real-world consequences, since the link between their online presence and real identity is stronger. Those consequences serve as a deterrent to bad behavior.

The Future of Online Identity

The current mechanisms for representing identity online are woefully inadequate. Last week I was followed on Twitter by several fake accounts. I suspected they were fake because their interests had no relationship to mine, and they had few tweets to date. A quick image search showed that they had profile photos stolen from other online sources. Many such accounts are aimed at political manipulation - they create an online history that makes them appear to be a normal person, and then later use the account to spread political propaganda. There should be a way to simply say "that's not me email" or "that's a child - they shouldn't be using this site with explicit sexual content". All of these problems - political manipulation of elections, spam, children exposed to explicit content, and more - are fundamentally failures of mechanisms for online identity.

Practical Implications

Signum and Signum II are the strongest. Where a site should be along this continuum depends on the site's purpose.

As Irving Goffman described in *The Presentation of Self in Everyday Life* (Goffman 1959), we are all always performing for others. We try to make a particular kind of impression on people we interact with, and we do that differently in each social context. There is no "true self" - we are all a synthesis of different aspects of the self that we present. To do this, we use "fronts." A front includes both our appearance and manner. An observer divides people's self-presentation into more and less easily controlled aspects, and judges performances more on the less easily controlled aspects. The impression a performer wishes to make is controlled. The impression a performer wishes to make is their "impressions given," and the impression the observers actually form are the "impressions given off." Performances may be sincere or cynical.

Online, we similarly are always trying to make an impression. The key difference is that all the elements of our expression vocabulary are explicitly chosen by site designers. One critical choice in site design is whether user names should be more nearly anonymous, pseudonymous, or identified. A name (whether legal real-world name or online account name) is a "signature" that has a relationship to a "signature." As we move along the spectrum from or identified, the relationship between the many mouse to identified, the relationship between the many mouse to identified,

Theoretical Summary

improved versions of identity and reputation that help us tell who is who, but in a privacy-preserving way? The potential risks and gains are both high.