



0142

Privacy by Design

C. Nippert-Eng

Illinois Institute of Technology, Chicago, IL, United States | nippert@iit.edu

Privacy is a socially gifted commodity. It comes in many forms, granted to or withheld from us by many types of people. These especially include the professionals who design objects, environments, services, and technological systems. In this paper, I present a way of thinking about privacy that may prove useful to designers, especially if privacy becomes a conscientious focus of their normal work process.

Privacy is an extremely cultured concept. Each culture has different ideas of what privacy means and its desirability. My conclusions here are based only on the insights of U.S. scholars and the reflections of 74 mostly middle and upper-middle class individuals residing in Chicago, Illinois.ⁱ These people were interviewed between June 2001 and December 2002 on the ways in which privacy is challenged and enabled in their daily lives.ⁱⁱ

In the United States, privacy is inevitably a multifaceted concept, an outcome of the country's unique history as a geo-political entity (Smith, 2000). Yet today's sense of privacy largely centers on the degree to which an individual believes she or he has control over the accessibility of things that are "private." This might be some aspect of the self (including one's body), a thought, a behavior, relationship, piece of information, chunk of time, a certain space, or an object.

This sense of privacy is apparent in the ways participants try to achieve privacy. Their activities range from things like withholding information from others to physically isolating themselves. Regardless of how they do it, these behaviors all exhibit the underlying principle of selective disclosure and concealment. Individuals strive to share some things with some people at some times and places, but not with others, or at other times or places. Privacy as controlled accessibility is routinely operationalized in this way, in other words, suggesting that the affordance of such selectivity may be key for designs intended for the U.S.

This conceptualization of privacy is evident in the comments of the following study participant. "David" is a 47-year-old husband, father, and engineer.



(Interviewer) What does privacy mean to you?

(David) Privacy to me means I can draw the boundaries around myself or my family or my job where I want them to be. It's the boundary between what is readily accessible to anyone and what I want to keep to myself and want to not have easily discovered or disclosed.

Okay. Do you think that control aspect is an important part of the definition?

I think it has to be. Because my experience with people suggests that the placement of the boundary is a highly personal decision.

It's about who I am and how much of myself I am prepared to disclose in a setting.

Okay. So, the next question is: What does it mean to you if something is private?

It means I own some part of it and can either want to or can control access by others. Primarily meaning limit and uh-- I guess thinking about-- I'm probably going to contradict my answer to the first question. I'm assuming that this is the way it's going to go (laughter).

Yep.

Um, I think it means that I-- The areas that I consider private are the areas where I will exercise what I call fine judgment or extremely high levels of control over how I disclose information and circumstances.

Okay. Interesting. We might get back to that. (Laughter). Um, and the next question would be how would you define something that's public?

Sort of my analogy would be the exterior of my dwelling versus the interior. The exterior is completely public. Anyone can walk up to it. Anyone can view it. I choose when I draw the shades. I choose to whom I open the door. When someone comes in I choose how far in my dwelling someone goes and may see. So, that's sort of how I would choose-- how I would define the opposite. It's the places where I legally, morally, legitimately cannot have control over access or viewing.

--

At any given time, David -- or anybody else -- might use different words, examples, or imagery to convey his thoughts on this matter, possibly emphasizing quite different aspects of privacy and related concepts in the process. Yet across all the participants' descriptions, the ways they think about these things are amazingly consistent with the work of recent scholars.



ones are relatively accessible. These are not dichotomous variables at all, however; they are continuous ones, distributed along a sliding, analog scale rather than an either-or, digital one.

The theme of access underlies Anita Allen's (1988: 15 -16, 18) definition of privacy, too. Personal privacy is a condition of inaccessibility of the person, his or her mental states, or information about the person to the senses or surveillance devices of others.

...Privacy is best viewed as a kind of parent or umbrella concept to those p-concepts [privacy-concepts] that denote a person's conditions of inaccessibility to the senses and surveillance devices of others...: seclusion, solitude, anonymity, confidentiality, secrecy, intimacy, isolation, and reserve.

The idea of a continuum between what is "private" and "public" is supported in Edward T. Hall's (1968: 116-128) work on space or, perhaps more accurately, proxemics. There is a social logic to physical distancing between people, he argues. Depending on the closeness of their relationship with each other, individuals typically learn to arrange themselves according to four corresponding zones of spatial distances. This socio-spatial continuum begins with individuals separated by "intimate" distance on the one end, followed by "personal," "social," and finally "public" distances on the other.

Alan Westin and Irwin Altman focus more explicitly on the dynamic nature of privacy also alluded to by Zerubavel, and the fact that individuals constantly seek a balance between withdrawal from and connection to others. From Westin (1967: 7):

Privacy is the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated to others. ...[It is] the voluntary and temporary withdrawal of a person from the general society through physical or psychological means, either in a state of solitude or in small-group intimacy or, when among larger groups, in a condition of anonymity or reserve. ...[E]ach individual is continually engaged in a personal adjustment process in which he balances the desire for privacy with the desire for disclosure and communication of himself to others, in light of the environmental conditions and social norms set by the society in which he lives. The individual does so in the face of pressures from the curiosity of others and from the processes of surveillance that every society sets in order to enforce its social norms.

Irwin Altman (1976: 3, 10-12, 18) also sees this adjustment as a personal boundary regulation process, foreshadowing David's insights presented previously.

For my purposes, privacy will be defined as *selective control of access to the self or to one's group.*"



[P]rivacy is a central regulatory process by which a person (or group) makes himself more or less accessible and open to others.... Privacy is an interpersonal boundary-control process, which paces and regulates interaction with others. Privacy regulation by persons and groups is somewhat like the shifting permeability of a cell membrane. Sometimes the person or group is receptive to outside inputs, and sometimes the person or group closes off contact with the outside environment....Privacy is a *dialectic* process which involves both a restriction of interaction and a seeking of interaction.

Both of these definitions provide the background for Amitai Etzioni's desire to focus on the socially, politically constrained nature of privacy as a negotiated realm or condition free from disclosure, accountability, or scrutiny. As in Westin's observation that privacy is achieved within a context of others' curiosity and surveillance, Etzioni also focuses on society's role in placing constraints on the individual (Etzioni 1999: 196). For him, privacy is

The realm in which an actor (either a person or a group, such as a couple) can *legitimately* act without disclosure and accountability to others. Privacy thus is a *societal license* that exempts a category of acts (including thoughts and emotions) from communal, public, and governmental scrutiny.

Barry Schwartz (1968: 741) addresses the social nature of privacy from a slightly different angle than Etzioni by focusing on the ways privacy conventions manifest in recognizable, everyday behaviors. Schwartz looks to the realm of culture, personal practices, and the built environment for his view of privacy, which is

a highly institutionalized form of withdrawal.... [where] rules governing entrance into and exit from privacy are most clearly articulated on the level of the social establishment and are reflected in its physical structure and in proprieties concerning the uses of space, doors, windows, drawers, etc.

Writing in 1890 in response to increasing trespass by the press against the very institutionalized expectations for withdrawal that interest Schwartz, Samuel Warren and Louis Brandeis made famous another succinct definition, where privacy is

the right to be let alone

and, foreshadowing the disclosure element in previous definitions,

the right of determining, ordinarily, to what extent his [each individual's] thoughts, sentiments, and emotions shall be communicated to others.



Over a century later, Jeffrey Rosen (2000: 15) weaves this disclosure element back into the accessibility thread, claiming that privacy is

Our ability to control the conditions under which we make different aspects of ourselves accessible to others.

And Robert Ellis Smith (2000: 6) does the same, with his telltale focus on the history of this concept in the U.S. For him, privacy is

The desire by each of us for physical space where we can be free of interruption, intrusion, embarrassment, or accountability and the attempt to control the time and manner of disclosures of personal information about ourselves.

In the first half of our history, Americans seemed to pursue the first, physical privacy; in the second half – after the Civil War – Americans seemed in pursuit of the second, “informational privacy.”

Most interestingly, the latter includes (2000: 55) “a principal of privacy that was to become crucial in the years from 1970 to 1990 – that personal information gathered for one purpose ought not be used for any incompatible purpose, without the consent of the individual.” The wisdom of this last observation became especially evident in the definitions of privacy offered by the study participants. I turn to them now.

Toward the beginning of their interviews, a majority of participants were asked three questions:ⁱⁱⁱ “What does privacy mean to you,” “What does it mean to you if something is private,” and “How would you define something that is public?” These were warm-up questions, designed to help participants find a starting place. From here, they could continue to elaborate, fine-tune, and get more specific on the subject over the course of the interview.

Fifty-seven participants answered the first question. Three common themes emerged from their answers reflecting the backbone of American’s views of privacy. (A single response was coded into multiple categories if it focused on more than one aspect of privacy.)

What does privacy mean to you? (Total responses = 57)

- 1) The ability / power to control access to some thing, place, or piece of information and its dissemination
(n = 45)
- 2) The condition of being: alone / without others’ demands,



interruptions, intrusions / secure, safe, at peace

(n = 17)

- 3) The freedom to do / live / make decisions, without regulation / restriction

(n = 7)

The most popular conception of privacy focuses on the ability to control the accessibility of something – anything that the participant wishes to be private. It is a managerial conception of privacy, built on the idea that there is nothing intrinsically, inherently “private.” Anything may be accessed. Whether or not it is (or should be) depends on the situation and one’s relationship with the potential sharer. The key to this sense of privacy is the extent to which the individual has the ability to decide whether or not someone else needs to have access to something and to have her or his wishes followed. This kind of definition is well represented by the following quotes:

Case 080

What does privacy mean to you?

Getting to choose the level to which people-- Getting to choose the amount of and kind of information that is about your life that is available elsewhere, other than to you. You know-- your own control.

Case 090

For privacy, I mean, in general, I think it means the same to most everybody. It is the ability to maintain control over what part of life that we call our own, however great or small that may be. Um, maintain that certain level of confidentially. Maintain the first level of, of being able to say, “No one else knows but me -- or whoever I want to know -- any particular business of mine.

Case 005

How would you define privacy?

I know it when I see it.

Or maybe when you don’t see it.



that's a very private moment for me. But, um-- I would like my home to be more private than it is. And it isn't that it isn't a private space. Well, it's owned by someone else because we rent it. And they send these people into it to fix things and to comply with the electrical code. And I try to beat them out the door and-- I feel a lack of privacy.

Case 057

Privacy means sort of an intimacy with one's own self and time alone.

Case 089

I think, privacy to me, means, um, being alone. Being, um, having a-- no interruptions, and having time to sort of, I guess, turning off for a moment without interruption.

The last and least mentioned type of definition zeros in on the Libertarian tradition. Here, privacy is conceived as freedom from oversight, surveillance, or regulation, especially regarding decisional privacy. These answers not only referenced inappropriate oversight by governmental agencies but also by friends, family, and businesses.

Case 066

What does "privacy" mean to you?

That's a really tough one to answer. I think-- Trust and respect are certainly two words that come to mind. Respect for an individual's personal way of life and the freedom to live the way you choose to.

Case 030

No, well I think, um, privacy is, is really the ability of an individual to, to make personal decisions without public intervention or intervention on the part of even significant others in your own family, or friend, or group of friends. Um, the right to be left alone. You know, which occasionally everybody needs.

Case 049

I guess, after September 11th, privacy means a very different thing to me than it did initially. Um. I have for a long time been interested in the law, and interested in becoming a lawyer because of the strong faith I have in people's constitutional rights. Um. And



rights that indirectly sort of, I guess, touch on what my conception of privacy is. Um. After September 11th, with the new laws that have been passed by congress, I think that their privacy-- Privacy means a lot more to me because now I see how easily my privacy can be violated. But I guess what it means to me is the freedom to interact socially, economically, physically with my environment without worrying about someone being aware of my activities, without telling me, or without having the right to be aware of my activities, or judging them, or being able to monitor my activity in any sense of the word. Um. Without my, without my permission or without my knowledge. And I guess, post September 11th because I am an Arab-American, that is impossible now, technically. Which is pretty scary, and very disturbing.

Few things are more disturbing to people than altering – or threatening to alter – their most fundamental cultural categories, like what is “private” and “public.” These participants as if they have privacy when the things they wish to be private are as private as they wish them to be. Individuals feel their privacy is being respected when they feel in control, then, free to open or close specific windows of access at specific times to specific others – who will likewise follow their wishes. As long as the level of access is what they want it to be, then participants’ senses of privacy are maintained. If the level of access exceeds what they wish it to be, then there is a sense of violation.

How, then, do the individuals in my study actually achieve privacy? First of all, they do so only with others’ permission. Sometimes this is granted via legislation, case law, or collective bargaining agreements, but not usually. Most often the granting of privacy is highly interpersonal, informal, customary, and/or actively negotiated. But within these parameters, privacy is further achieved through the use of signals, space, time, sensory and other information blocking techniques, and reserve (Nippert-Eng, 2005b.)

signals (i.e., Using culturally understood, shared behaviors that indicate a desire for privacy. These signals include behaviors centered on the following, but each also has an analytically distinct affect on the achievement of privacy.)

space (i.e., Physically removing one’s self)

time (i.e., Physically and/or mentally achieving more – or less -- inaccessibility through scheduling and facilitating one’s availability)

sensory and other information blocking techniques (i.e., Mentally removing one’s self from immediate sensory stimuli and staving off other potential demands for attention – with or without others’ assistance and/or technological aids)



reserve (i.e., The selective withholding of intimacy and information in order to restrict one's accessibility to others)

The ways participants use their wallets and purses exemplify this last principle in particular (Nippert-Eng and Melican, 2003). If anything constitutes an island of privacy in the United States, it is one's wallet and/or purse. Yet even these and the items they contain are not fully, constantly inaccessible to others. Displaying and temporarily surrendering an individual item from one's wallet or purse is considered a relatively safe, normal, daily act. The key is maintaining control over the objects so that only the people you want to see or use them can do so.

The following participant makes this point quite vividly when asked to identify the things in his wallet that are 'more private' and those that are 'more public.'

(Participant) ...OK. There's nothing 'private' in my wallet.

(Interviewer) OK.

Everything that's in here I could, you know.... I've got a picture of my kids. That's the only thing that I thought about pulling out. It was kind of private but I realized that every time that I open my wallet to use my credit card – which is, you know, a hundred times every day – everyone sees this picture of my kids so it can't, obviously, be that. And in those instances I'm proud of it 'cause, "Oh, look at all these...." You know....

Right.

But in terms of, if someone said, "Can I go through your wallet?" I could care less. There's you know, two credit cards, two bank cards, drivers license, a CTA [Chicago Transit Authority] card and an insurance card, a AAA [Automobile Association of America] card and two museum passes, and that's-- And, why, today I have a lot of money. I have forty-seven, forty-eight dollars. Normally I have about twenty-five dollars. And a couple receipts, and that's-- Anything else hidden back here? That's a, oh, um, my frequent photo card from Triangle Imaging.

OK. And none of that stuff is private?

No. I mean these are all things that, you know, that people see all the time. I mean, I would be upset if I had, you know, to have to go and replace this stuff. I wouldn't want anyone to steal it.



Right.

This is all stuff to me. Now if someone, you know, if-- Here again, if I'm sitting there handing my wallet to someone who says, "Can I see your wallet?" and I handed it to them. Fine. If I left my wallet in my car, and I have locked my car, and someone broke in my car, ripped the radio out and went through my wallet, took all the credit cards, drivers license -- took everything and threw them out on the seat, took the cash and threw the wallet onto the seat, and I came back and discovered that. I would probably feel, you know, that I was horribly violated. Raped, in some way. But, how do I then--? You know, I just said that I could care less if you looked in my wallet. Here again, I'm giving you, I'm letting you. I am controlling the situation.

So privacy does not rest in the inherent nature of an object, itself, but with the ability to control who may access it at a given time. The same principle is present in the following story. In this case, another participant reflects on a visit to the fitting rooms at a high profile clothing store in Manhattan.

...[I just went to the store for] Prada, the clothing designer. They have a huge retail store that just was built, designed by Rem Koolhaas.

Yeah. I read about it in Newsweek.

In Soho. Yeah. So they're banking the whole company on this. ...Have you heard anything about these dressing rooms?

Nope.

Very high tech. ...There have been these problems. Now they're building a second Prada store in Beverly Hills and they want to do it right this time. So they're doing testing on the existing ones in New York.

But, anyway, the dressing room itself had the kind of glass that had an LED inside that when you-- So when the switch was rigged such that when the door was open-- It was a sliding door. Okay. So this glass-- You close the door, basically the glass goes from clear to opaque. So when you're walking up to the dressing room, you're thinking, is this a dressing room? Or, what's that glassed-in room that you can see into? So you go in and they shut the door and then it goes opaque and you think, okay, now I can take my clothes off. But when's it going to go clear again? And the way that you made it opaque was by -- you had to tap on a little button on the floor, which was very hard to-- It was very Rem Koolhaas -- cool design, but not very clear. So, is there some way that the door's going to open?



Because it also closed automatically. You didn't pull it. It closed automatically. So is it going to go flying open? Do I have any control over this thing?

Exactly. Control.

Then you learn that you're moving around in here and there's a projection onto this glass that is you from behind, so you can see what you look like from behind. But it's delayed a couple seconds, so that you can see what you looked like from behind like two seconds ago. Not that you want to see that necessarily, but it gives it this kind of atmospheric sort of "I'm on TV" kind of look, but they're fuzzy. It was a very cool experience looking at it. But you're thinking, okay, there's a camera pointing at me in the dressing room here. Where else could it be? Is it being recorded? Is it being projected anywhere?

Is it being stored?

Yeah. ...Right. Which didn't occur to me at the time. That occurred to me later, even after I'd left.

A clear sense of personal privacy was missing in this environment because there was no clear sense of control for this participant over her accessibility.^{iv}

One observation from this story is that users' current, situated expectations for control and accessibility are clearly rooted in prior experience. What do we expect a dressing room look like and work? Any assessment of how good the current possibilities are for privacy inevitably reflect whatever has happened to an individual before.

The following participant's view of his current workspace, for instance, – a private office in a relatively new workspace – is informed by 1) his experience in two previous work environments, as well as 2) his expectations for how much privacy someone of his age and in his occupation should be allotted. Before his current office, he occupied a newly designed cubicle located among many perfectly laid out others just outside his present office door. The workspace before that was also a cubicle, but in an old, well-lived-in and eclectic space in another building.

Has there ever been a time in your life, when someone you know or you yourself felt you where almost desperate for privacy?

Without a doubt. I mean-- Probably worth qualifying that. We, ah, this organization was in a different building when I started working here, and a space they had been in quite a while. ...And the place had kind of just grown up around the organization. You know,



there were cubicles, but it wasn't planned as cubicles. This building [the one we're in now] was purposely built for us. It has very much that feel. ...And [in the old office] ...some people had offices and the assistants just had a more make-shift sort of cubicles outside of the person's door who they were working for and there were smoked glassed barriers and stuff and there was a little bit more of a kind of Habitrail element to it that, you know-- Like, I didn't have an office, but somebody had to kind of turn around the corner and go around in order to look in and get to it.

So that creates more privacy right?

Yes. Yeah, so when we moved here it was kind of shocking for me because I had more privacy and then it was just, like, stripped away. And the organization had expected everyone to be so happy because they had new furniture.

Right.

And for me -- though I had more desk space here, more shelves space and stuff -- the fact, the fact that my back was turned and my screen was facing anybody who wanted to see it, was just-- I mean it sent me in an unbelievable funk for months. You know, so... I think it's a real bad set-up, you know, your back to the door kind of thing. In our design department-- ...They and the head of the department sort of negotiated to have their cubicle setup in a different way so that rather than be like that-- ...They're visible, but they are facing the door more or less and their monitors are facing another direction. No one can see it. So it was recognized that that was a priority for people doing that job. I think it's priority for anybody that's *human*.

...Everything felt very different. Um, it felt a little bit more organic to me at the other place, you know, I mean, if I needed, if I needed more surface space, I would you know, find a table that wasn't being used somewhere and I would stick at the end of my area and start piling manuscripts and stuff there. And here, there's the sense of everything has its place. You know-- These are your file cabinets. They've got these shelves that, above the cubicle desk, that have these plastic fronts that come down over them and when you lift them up the top goes like that over the top of the thing and they're designed like that so that you can't put anything on top. You can't, you can't clutter the space. And so, you know, to me that seems like a very insidious office design. Right? That not only does everything have a place, but some places are meant for nothing. And that, in a sense, has already been programmed into the furniture itself. Whereas in that old building -- skinky as it was and it was very inadequate for a lot of people who benefited from a cubicle here. Ah, skinky as it was there -- and just felt like something hemmed them in -- but like, well, this table is here because I decided I needed a table and I went and fetched it.



Uh huh.

Ah, and if I wanted to stack shit up to the ceiling nobody was going to say anything, you know. And that, that-- Even though I was not always doing the most exulted work, it was like, you know, that little space was kind of mine.

Uh huh.

And, you could imagine people doing editorial jobs in old New York publishing houses, probably doing far more exulted work and far more demeaning spaces. So it wasn't like I saw that as a reflection of who I was or whatever. It was more living here and seeing the standardization that it felt like the sense that that standardization was a little bit, intended to be a little more directed to the production of useful workers, you know, who needed a different kind of supervision and just a kind of surveillance that was not really possible even -- certainly didn't exist so much as in any other place.

...It, it seems that it's inherent in the architecture and that bothers me whether or not that potential is being exercised at any given point. It is a product of a culture of surveillance and, ah, it seems to me that an institution that has that as one of its goals, ah, ah, is inhibiting the dissemination of free thinking. That the people who work in a service of these sort of clips that we do should themselves be allowed a certain measure of improvisational autonomy or something like that.

...You know, I mean it's also tied to the fact that I, I was little bit older when I was out there. That many of the other people you know, you know, came to this kind of late and there was a sense of 'God, I'm thirty-two years old and still here, in a place like this. Hell, what's going on here, this is wrong' (laughing). You know. Whereas my assistant that has the job that I had is twenty-five and that's her first job, you know. There's a sense of I don't think that's what you expect. You know?

Uh hum.

So maybe I, I think that my rage against it maybe a little bit uncharacteristic of the place in general.

...It was kind of unnerving to me and all. When I went over there, all I could dream was 'I just got to get into that god damn office and just close the door.' You know?



There are practical difficulties posed by a physical environment like this. But it is its symbolic meaning that nibbles away at the soul of its victim. Losing the ability to selectively allow other people to see some things but not others -- including even the decision about where things will be kept -- translates as a lack of respect from his employer and not being in a good place in his life.^v

These are but a few examples of the ways in which the principle of selective disclosure and concealment runs through individuals' stories about privacy.^{vi} For designers, this suggests that in order to afford privacy, an object, environment, system or feature should provide the user with the ability to selectively and easily make some things available to some people at some times but not to other people at other times -- to personalize or customize accessibility. Moreover, the designed object should do this by using familiar (local), easily understood mechanisms and metaphors.

Most importantly, this work also suggests that while accidental outcomes are a fact of life for designers, perhaps explicit conversations about privacy should not be among them. Reflecting on the ways in which users envision and experience privacy might be an important step for designers who wish to think more deeply about their work products. Whether intentional or not, the allocation of privacy clearly falls within the designer's purview. Every design process could therefore include some creative, hard thinking about the implications of the proposed product for the privacy of each different stakeholder. It is an opportunity to reflect on the ways in which privacy is and is not, might and might not, should and should not be afforded by any given design -- and whether or not this is a good idea. In particular, this might help designers become more aware of the privacy conflicts and choices embedded in their work products and more conscious of the ways in which the final outcome preferences some stakeholders' interests at the expense of others.^v At the very least, by turning privacy and the inherent socialness of an object into figure rather than ground, one may learn things about its essence that would have remained hidden otherwise.

Acknowledgements: This work was supported by a grant from the AIM Research Council of the Intel Corporation: "Islands of Privacy," C. Nippert-Eng, Principal Investigator. It also reflects a most fruitful collaboration with Jay Melican, a postdoctoral fellow funded by that grant and now a Senior Researcher at Intel Corporation.



Allen, Anita. 1988. *Uneasy Access*. Lanham, Maryland: Rowman & Littlefield Publishing.

Altman, Robert. 1975. *The Environment and Social Behavior: Privacy, Personal Space, Territory, Crowding*. Belmont, California: Wadsworth.

Etzioni, Amitai. 1999. *The Limits of Privacy*. New York: Basic Books.

Hall, Edward T. 1966. *The Hidden Dimension*. New York: Anchor Books.

Lane, Frederick S. 2003. *The Naked Employee: How Technology Is Compromising Workplace Privacy*. New York: AMACOM.

Nippert-Eng, Christena. 2004. "Disclosure and Concealment: Wallets, Purses, and Modern Identity Work" With Jay Melican. Paper presented at the 2004 Annual Meeting of the American sociological Association, San Francisco, CA, August.)

----. 2005a. "Usable Privacy." Paper presented at Usable Privacy conference, Intel Corporation, March 6.)

----. 2005b. "Boundary Play." *Space and Culture*. Vol 8 (no.3).

----. 2005. "Social Accessibility and ICTs: New challenges to an old problem." With Jay Melican, Rachel Hinman and Ryan Pikkell. (Paper presented at the 2005 Annual Meeting of the American Sociological Association, Philadelphia, PA. August 15.)

Rosen, Jefferey. 2001. *The Unwanted Gaze: The Destruction of Privacy in America*. New York: Vintage Books.

Schwartz, Barry. 1968. "The Social Psychology of Privacy." *American Journal of Sociology*, Vol. 73 (1968): 741-752.

Smith, Robert Ellis. 2000. *Ben Franklin's Website: Privacy and Curiosity from Plymouth Rock to the Internet*. Providence, Rhode Island: Privacy Journal.

Warren, Samuel D. and Louis D. Brandeis. 1890. "The Right to Privacy." *Harvard Law Review*. Vol. IV, no. 5.

Westin, Alan F. 1967. *Privacy and Freedom*. New York: Atheneum.

Zerubavel, Eviatar. 1979. "Private Time and Public Time: The Temporal Structure of Social Accessibility and Professional Commitments". *Social Forces*, Vol. 58, No. 1 (September, 1979): 38-58.

ⁱ This project, "Islands of Privacy," was generously funded by the AIM Research Council of the Intel Corporation, C. Nippert-Eng, Principal Investigator.

ⁱⁱ The people who participated in this research project may be characterized as a "judgement sample" (Honigman, 1973); they were not randomly selected. Rather, individuals were approached and asked to participate based on some foreknowledge of their living arrangements, biographical histories, and/or professions. It was believed that each individual would likely possess 1) an interest in "privacy," and what is "private," 2) specific insights into the nature of these concepts and the practices that surround them, and 3) a willingness to talk about these things with (or for) the principal investigator (Nippert-Eng).

Participants are characterized by the following:

residence

live in Chicago	74
raised outside Chicago	57
US citizens	74
born in US	70

sex

men	38
women	36

age

range	20-80
median	41

race

Caucasian	63
African-American	6
other	5

living

2-7 person household	61
----------------------	----

arrangements



live alone	10
college dormitory	3

household income (45/74 data points)

range	under \$20K –\$250K+
average	\$90K – \$100K

occupation

professional/technical	50
exec/management	3
sales	2
admin support/clerical	5
military	1
service occupations	3
private household	4
students	6

education

high school	3
some college	6
college grad	20
some grad school	7
master's degree	27
JD	2
MD	1
PhD	8

The interviews for this study lasted between 2 and 17 hours each, yielding some four linear feet of single-spaced transcript pages and literally thousands of insights and stories on the subject of privacy.

ⁱⁱⁱ Some of the participants provided “expert” interviews and did not follow the formal schedule used for the majority of the interviews. Hence, not all participants answered these three questions.

^{iv} Interestingly, the same issue persists in the McCormick Tribune Campus Center bathrooms on the Illinois Institute of Technology campus, also designed by Rem Koolhaas and the Office of Metropolitan Architecture (Nippert-Eng, 2005a). Here, the translucent bathroom walls allow people standing out the hallway to see the shadows and actions of the people using the stalls inside them. Students regularly avoid using these bathrooms for this reason. Koolhaas’s sense of what is cool and playful seem to stretch the boundaries a little too far in both cases, given users’ expectations of control and what should and should not be accessible to others.

^v For knowledge workers in the U.S., this loss of control – of everything being increasingly open to surveillance – has become a central feature of 21st Century workplace alienation (Lane 2003.)

^{vi} See Nippert-Eng, Pikkell, Hinman and Melican, 2005 for similar examples on the ways in which these same participants try to control who has access to them in what way and at what times via personal networks of communication technologies.