Chapter 8

User Types and the Life Course: Toward Understanding the Universality of User Types

The ICT User Typology not only predicts ICT use among older adults, but also suggests that these five user types are universal and not generationally bound. While the typology was discovered using a generational (or birth cohort)-specific study of ICT domestication, evidence suggests that these types develop over time as every generation ages. This is illustrated in the secondary data – data from the friends, family, and coworkers collected as part of the investigation of the older adult's ICT use in their relationships.

Data we have already explored from our Lucky Few participants provide substantial clues as to user type development. A review of the retrospective stories told by older adults suggest that a person's ICT user type begins developing in early childhood and is influenced by events through middle age. By the time, an individual reaches elderhood, their user type is set, and is unlikely to be influenced.

But what about technology? Can the introduction of a fantastic new technology change someone's type? The ICT User Typology suggests that the historical introduction of ICT innovations makes little difference. Enthusiasts, who were encouraged to use the ICTs of their youth (which are often quite different from those of their elderhood), remain enthusiastic about technologies through old age. Guardians, once they have experienced a life-changing traumatic event involving ICTs, remain suspicious of all technologies and their ability to cause harm. No matter the next latest and greatest innovation, Enthusiasts will be interested in trying it and Guardians will be cautious and limited in their use. Technologies, no matter how innovative, cannot change a person's user type once it has been established. All further technological experiences are filtered through the perspective of their type. There is no technological innovation that will change a Guardian into an Enthusiast.

A person's ICT user type can be viewed as a life trajectory. Life trajectories represent a series of events that a person experiences in their lives which, taken together, represent a pathway through that person's life (Elder & Giele, 2009; Fry, 2003; Giele & Elder, 1998). A person's individual path, or trajectory, is influenced by the life events they experience and their interpretation of these life events. These occurrences, and the meanings they develop for a person, can dramatically alter a trajectory (Giele & Elder, 1998). If we view a person's user type

as such a trajectory, the events in childhood (such as exposure to ICTs, positive or negative experiences, and encouragement to tinker) are the starting point of that trajectory. For Enthusiasts, this starting point represents a positive, tinkering, mentored relationship with technology, setting them on a lifelong trajectory of loving ICTs. This love often leads them into technologically focused careers.

Guardians, however, somewhere along their user type trajectory, experience a technological life event that is extremely disruptive and involves significant loss. For Guardians, a traumatic event involving technologies becomes the impetus for creating their sensitivity to the negative consequences of technology. Be that loss of a family (Natalie) or a job (Margaret), this traumatic event leads Guardians to have a much different trajectory compared to Enthusiasts: Guardians come to distrust and have a lifelong suspicion of technology. Their development into Guardians influences their life choices as well: they choose to limit their technology use and are cautious about allowing too many ICTs into their daily lives.

Traditionalists within any generation can only be observed as that generation ages. As young people, they are involved in many of the technologies readily available. They love technologies when they are young − much like Enthusiasts. However, over time, Traditionalists' love of technology does not move onto the latest innovation, as Enthusiasts' does. Instead, Traditionalists continue to heavily use the ICTs of their youth, rejecting newer ICTs.[1] Therefore, a given generation's Traditionalist becomes apparent as the generation members age and technology advances.

Other types are reinforced by their environmental surroundings over time. Socializers tend to have large families (with many children) and build large intergenerational social networks. They prioritize maintaining contact with these large networks, for which ICT use is incredibly important. As they age, they begin to mimic the communication patterns and devices used by their youngest contacts. While they are excited by technology and consistently find social ICTs fun, what really matters is how they can use a technology to maintain connections with others. An important part of their identity as Socializers develops throughout their lifetimes, particularly when they, as older adults, engage younger individuals, mimicking the young's communication patterns.

But what about younger generations? The ICT User Typology predicts that those who are young now − Millennials and Generation Z − will eventually develop the five user types. The common thought in popular literature on younger individuals (particularly Millennials) is that they are digital natives − they grew up using and surrounded by technology and, therefore, are innately able to use software, applications, and new devices. However, research has shown that younger individuals are not necessarily digital wizards: there is great diversity in

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[1]Future research will need to determine how these differences between the Traditionalist and Enthusiast types develop. One important difference between these types is that Enthusiasts report having had technological mentors and being encouraged to tinker in childhood; Traditionalists report neither.

the ICT use and skills among Millennials (Helsper & Enyon, 2010; Weiler, 2005). Rather, like all generations before them, Millennials simply have the advantage of society considering them the legitimate users of recent technology because they are young (Larsen, 1993). When Millennials have been replaced by newer and younger generations and technology has advanced, they will no longer benefit from these stereotypes.

But why do we not see Traditionalists or Guardians among Millennials? Currently, it would be difficult to spot Traditionalists and Guardians among Millennials because the Traditionalist and Guardian types develop over the life course. Millennial Traditionalists blend in with Enthusiasts because both types love the technologies of their youth and early adulthood − and Millennials are young! After all, Traditionalists do not reject all technology, they just reject technologies that are introduced after they reach mid-adulthood.[2] Until a generation reaches mid-adulthood, Traditionalists blend in with Enthusiasts, both sharing their love of the present technology. Guardians have had a traumatic event by mid-adulthood that they credit with changing their technological perceptions. Millennials, as a generation, have not yet reached mid-adulthood. Many who will eventually become Guardians have not yet accumulated such a traumatic life event.

Socializers, Enthusiasts, and Practicalists may be more easily spotted in the earlier adult years of a generation. Practicalists express that they have a lifelong appreciation for ICTs as tools, and in younger generations they express that they see ICTs as being important for specific tasks, or that they use them in specific areas of their lives. Enthusiasts will express a love for all ICTs and demonstrate heavy use across many areas of their lives. However, because it will be difficult to separate Enthusiasts from Traditionalists in a younger generation due to their shared love of technology, it is important to examine other hallmarks of the Enthusiast type such as technological mentorship and tinkering experience. Socializers may be spotted because of their focus on maintaining connection − but it will be important to remember that they will not be speaking about how they need to communicate with younger individuals and mimic their communication patterns − because they are the younger generation!

Despite these user types developing over time, it is important to note that these types are *not* just specific to older adulthood or a single generation. The next sections focus on exploring each user type through the secondary data available from generations other than the Lucky Few. These data come from the other four generations that are present as adults in the United States Society: the Good Warriors/WWII Generation (born in 1909−1928), the Baby Boomers/Boomers (born in mid-1946−1964, one of the largest generations ever born in

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[2]Much of the discussion about digital natives assumes that technology will not progress or develop beyond our current abilities. Technology 50 years from now is likely to have as drastically changed as it has over the past 50 years.

the US), Generation X/ Gen Xers (born in 1965−1982, a small generation), and Millennials (born in 1983−2001) (Carlson, 2009).[3] The secondary data presented in this chapter suggest the universality of these types among several generations, countering the idea that all younger people are Enthusiasts.

The secondary participant data represent the analysis of 22 individuals who were friends, family members, and coworkers of the older adult members of the Lucky Few generation, the focus of this book. These individuals underwent a single interview with the researcher, either in-person or over the telephone. The secondary participant data are weighted more heavily toward Boomers (as the vast majority of the friends, cousins, siblings, and children of the Lucky Few generation were Boomers), a few Gen Xers, and a Millennial (all of whom were children of the Lucky Few participants). Since this chapter is specifically focusing on user types in generations *other* than the Lucky Few, data from the friends, family members, and coworkers of the primary participants also from the Lucky Few generation are not presented.

The 22 individuals analyzed in this chapter, their generation and their user type are illustrated in Table 2.

The Boomer generation is so large that scholars have suggested splitting it into two halves for analysis. While the late and early Boomers have more in common with each other than other generations before (WWII Generation) and after (Gen Xers), such a split can make the data easier to conceptualize (Reisenwitz & Iyer, 2007), so the data in this chapter separate Boomers into two such groups: early Boomers (born in mid-1946−1954) and late Boomers (born in 1955−1964).

Enthusiasts

Enthusiasts see technology as a fun toy to be played with and are excited to incorporate technology into every aspect of their lives. Enthusiasts were observed in the WWII Generation, Early Boomers, Late Boomers, and Generation Xers.

Bob, a WWII Generation member, was an Enthusiast who spoke at length for his love of technology, as Enthusiasts tend to do. When asked to define technology, he spoke about its long history, then turned toward how he used the computer:

> Well, [ICT] could be anything from the radio in the past or you could go back to dot dot dot (Telegraph) and all the way up to the Internet. It's the Internet today. And everything in between […] I use it for a lot of different things. We have a mail-order

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[3]Generation Z individuals are just starting to enter adulthood, with the eldest members born in 2002. Since generations are typically approximately 20 years in length, and often are bookended by major historical events, it is unclear if Generation Z has ended or will continue for several more years.

Table 2. Secondary Participants by Generation and ICT User Type.

		ICT User Type				
		Enthusiasts	**Practicalists**	**Socializers**	**Traditionalists**	**Guardians**
Generation/Birth Cohort	Good Warriors/WWII	Bob				
	Boomers	Lauren	Bobbie	Kate	Bette	Amanda
		Peggy	Charles	Julie	Marge	Marcy
			Dilly		Veronica	Mya
			Donna			
			Erica			
			Tom			
	Gen X	Adriane	Allison	Lynn		
		Chloe				
	Millennials		Katrina			

> business and we have a website, and a catalog and I always put together the stuff for both of them. And I do a lot of creative things too. I check my email. I've gotten so I look at things like Al Jazeera, foreign news places, and that's essentially it I guess. I'll look at what different people are saying about different things. (Bob, 1928, WWII Generation)

Bob is enthusiastic about technology and speaks about all the different ways he uses the internet: to run his business, to communicate, to read the news, to read comment forums. As an Enthusiast, Bob also speaks about how he stretches his use of the computer and internet across all domains of his life: he uses them in his work, leisure, and family. (This is an excerpt of a much longer quote in which he speaks about all the ways he uses his computer and cell phone.)

Many Boomers were also Enthusiasts. Peggy, a friend and former coworker of Belinda (herself a Practicalist), discussed her love of technology:

> I just like technology. I like gadgets, I'm a gadget person. I have a desktop computer in my home. I have a laptop that I use at work with a docking station with a larger monitor and a keyboard and a mouse, but I can take the laptop with me if I need to do presentations and stuff. I just received a new iPad, third generation. I have an iPhone and I have a Blackberry, I have a digital camera, trying to think of what else I have, and I tend to use all of them. Oh, I have a flip camera too, I use them all. I mean I have two phones because the iPhone is my personal and the Blackberry is my work. So that's the only thing that I actually have redundancy, but I need to use both for different reasons. I also have the netbook, I'm not using the netbook as much because the iPad is replacing the netbook. (Peggy, 1947, early Boomer)

Peggy, like all Enthusiasts, describes her use of ICTs with passion. She describes her many "gadgets" and the way that she uses them in an almost breathless fashion, reminiscent of Fred (Chapter 2). It is not uncommon for Enthusiasts to describe their technologies as 'gadgets' in a loving way. Such phrasing brings out the play and fun aspects that Enthusiasts experience when experimenting with technology. Enthusiasts, be they WII Generation, Lucky Few, Boomers, or Gen Xers, all speak about technology in such excited ways. Lauren (a late Boomer), shares:

> These children are spoiled; they have no idea how simple they have it. Technology makes life so simple whereas we didn't come up like that. We didn't have that. These children don't know how simple this life is as far as this technology. It makes life simple, so

simple. You can pick up your cell phone or you can email any person you need to. Email is like super quick especially if a person is always on their computer checking their email. If they have access to a computer. The phone, super quick, you can have them pick up or you can leave a message. It's simplified, it's super convenient, I would put super in front of convenient and so simple. All the technology makes life so simple […] You can now alleviate paper with portable scanner that you can have in your own home. You can have a fax. It's really awesome. I love all this. This technology makes life so simple. We thought it was a big thing when we got a remote for the television as kids, that was totally awesome. I'm telling you when the electric typewriter came around I was in awe with that and the remote control. [When I first] saw the cell phone and I thought 'I don't believe this can work' and it did. It was big and blocky, not small and fancy like now. With technology you can communicate anything anywhere via Skype, that's awesome. I have friends in China we spoke every Sunday morning with my son before he went away to school. Anything you need to do. Gwen and I should get more into Facebook. I think we should get more into the email thing. What else is there? Oh, Skype. We should do Skype. In the future one of us may move away, or if we go on vacation I might Skype with her. (Lauren, 1960, late Boomer)

Like Fred, Lauren states that she *loves* technology. It is "awesome," she "loves it," it makes life "simple." Most importantly, with Lauren's quote one can see that she has a typical Enthusiast's lifelong technological love affair. She reminisces about how she has been impressed with technology since a child, speaks about all the different uses for ICTs in her life, and how she uses them across her family, work, leisure, and community contexts. Not only does she use many ICTs, there is even more she wants to try. Her excitement about technology jumps off the page. Importantly, technology is a toy, something to be experimented and played with, as Peggy shares:

So, I tend to use a lot of newer stuff, like right now I'm playing with SpringNote and Via Lock and EverNote […] So, I'm always kind of picking and choosing ones that will end up being some of my favorites that I'll continue and integrate into my ICT world. I'm always looking for new stuff, new innovative Web 2.0 tools to support teaching and learning. So, I think of all that kind of all blended together. (Peggy, 1947, early Boomer)

Peggy shares how she "plays" with technology, much like Fred, Alice, and Harry (the Lucky Few Enthusiasts) do. Play is an essential view that Enthusiasts incorporate into their experiences with ICTs; they feel that technology is a toy, a

fun experience. Adriane shared her motivations in acquiring what she considered her new toy, at the time, a cell phone:

> When I got my cell phone, I remember it was one of those giant silver things that looked like a mini suitcase, I think I was in college, probably 1993 […] It was just a new toy. I was 18 and wanted to be up in the latest technology, the latest trend. It wasn't so much that I needed to communicate with anybody, just something I had to have. (Adriane, 1974, Gen X)

Like all Enthusiasts, Adriane, a Gen Xer, shared her motivation in acquiring her cell phone was to have the latest "thing." Adriane had no specific use for her cell phone − she did not need it for a task or to connect to someone − she wanted the latest toy to play with. Love and toys were common language seen throughout the Enthusiasts of all ages.

Enthusiasts, like Chloe, are always looking for the latest "gadgets" to experiment with:

> I think it's more about looking for a new gadget, looking for the latest thing to use. I'm looking at what's out there on the market. (Chloe, 1969, Gen X)

Enthusiasts spanned many of the generations of secondary participants, including the WWII Generation, Boomers, and Gen Xers. Their love of technology and their view of ICTs as toys and play echoed their fellow Enthusiasts in the Lucky Few Generation. In addition to the generational diversity observed in Enthusiasts, there was also large a number of Practicalists among the secondary participants.

Practicalists

Unlike Enthusiasts, Practicalists do not view ICTs as fun toys to experiment with, but instead as tools that allow them to accomplish a specific task or purpose. Practicalists were observed among Boomers (both early and late), Gen Xers, and Millennials.

Bobbie, a friend of Nancy's and a fellow assisted living resident at the same facility, shared that she used the computer most notably to find information. To Bobbie, an early Boomer, the computer was one piece of her life, not the most important part of her life:

> I am computer literate. We have a computer available to us here that I use frequently for almost anything. It's amazing the technology, well we're talking about technology of the computer, I mean you can logon to just about anything and find it and if you can't there's something very wrong. I also like to read, do

> crossword puzzles, and just basically spend time with my family
> of course. I don't do any of the email, Facebook or all that. [I'd
> like to use] email. (Bobbie, 1951, early Boomer)

While Bobbie enjoys using the computer and would like to learn to use more functionalities (she also uses a cell phone), she views its use as only one among her list of activities, which include non-digital tasks such as reading, spending time with her family, and doing crossword puzzles. For Bobbie, the computer is primarily a leisure device. Similarly, Donna, another early Boomer, shared that she also used the computer for several activities:

> As a matter of fact, I got it on [the computer] right now. I play
> games a lot on it, but I do get on the internet to look up informa-
> tion and stuff. I just sent an email a couple days ago. (Donna,
> 1949, early Boomer)

Both Donna and Bobbie are Boomer Practicalists due to their views that the computer is one part of their life, a tool that allows them to accomplish some important tasks in their lives, but not a toy that's use they constantly seek to expand. Other early Boomers commented on how their use of ICTs was limited to certain functions and purposes. ICT use was just a piece of their lives, not a subsuming activity like it is for Enthusiasts:

> I don't use Twitter, I don't use Facebook. I don't have a need. If
> I was in the government setting that I needed to have a Facebook
> or Twitter account then I would certainly explore that as a need.
> Just because a technology is out there doesn't mean that's appro-
> priate for use […] As a guy who was [once] a computer weenie
> [geek] I have basically cast aside some of these new technologies
> because they just don't fit my need. It's not like there's not valid-
> ity there [for people to use them]. (Tom, 1954, early Boomer)

Tom's use of the computer is extremely focused. He does not reject Facebook or Twitter because he dislikes them, but because he does not have a practical need for using them. He can easily think of applications where he would want to have such accounts (such as if he was involved in government), but currently does not need such ICTs. Such a practical, function-focused analysis of technology is a hallmark of Practicalists. Many Practicalists echoed these sentiments, discussing how the ICTs they chose to use matched their needs and purposes:

> [This nutrition site is] a website where you can track your nutri-
> tion, your calories, your vitamins […] It's wonderful to see how
> many glasses of water you drank and if you're keeping up, but
> I don't think I want to sit and stare at the screen. I have a nice
> screen it's one of those wide ones. Even that I don't want to sit

here in this uncomfortable chair and be there any much longer. I want to be out and be involved with life, I have a life outside of the computer. (Dilly, 1953, Boomer)

Dilly, in her discussion of her computer use, describes how she finds a nutrition website helpful in tracking calories and nutrition. While this website is a great tool for Dilly − it is only a tool. Like any tool, it has a purpose and also times when it is not useful. Hence she finds times to log off and leave her technology to do other tasks.

Late Boomers also shared their views on ICTs as tools. For instance, Erica (Boris' daughter) shared that she used her computer mostly for playing games (and used her work computer for work tasks). She had social media, but used it in a limited way to observe what her friends were doing and to participate in reunion activities:

I'm on the computer quite a bit playing games. I play World of Warcraft, it's a multiplayer game where you have your own character that you build. I don't know if you're familiar with the game at all […] I do everything on my cell phone. As far as my father, Boris, is concerned I really only call him on his home phone because even though he has his cell phone he never takes it with him anywhere. My father and I are both on Facebook, but we don't talk on Facebook at all. I very rarely post on Facebook. I use it just to kind of find out what's going on with everybody else and for class reunions and stuff like that. I don't do a lot of posting on it. (Erica, 1964, late boomer)

For Erica, her personal computer is predominately a leisure device. She has no intention or desire to spread its use to other areas of her life, nor is she eager to play with it to find new functions or applications. While some late Boomers spoke about ICTs in terms of the functions they used them for, some were very explicit about their views of technology as a tool. Charles, a late Boomer, shared his view on technology:

Well, ICTs are tools. Tools to achieve a purpose. I don't look at anything else from a technology perspective other than that. I don't play video games. I'm as jaded as hell when it comes to technology. I see, I immediately begin to look for a purpose for those tools to be used because that's what they are. They're tools to achieve an endpoint, or a goal, or a project goal, or a purpose, or some kind of project development. I am still in that mode where I didn't grow up with a cell phone and I certainly don't need one. I work with a laptop, I love having one, it has been very good but I don't necessarily need one. I mean I've seen it all develop and it's just, to me they're just tools. That's the first thing

that comes to mind. Technology comes to mind as a tool.
(Charles, 1964, late Boomer)

In Charles' mind, ICTs are tools that serve a specific purpose: to reach goals, develop projects, or make something. Unlike an Enthusiast, he does not want every ICT he could possibly use, but rather is specific in what technologies he uses, what purposes he uses them for, and why. He prefers a laptop to a cell phone, as he has use for a laptop. The focus in Charles' statement is on how ICTs are task-specific tools that allow people to accomplish activities.

Younger secondary participants were also observed to be Practicalists. Allison, a Gen Xer, spoke about how she carefully delineated work ICTs (such as her work computer) from more personal uses of technology (such as Facebook and Twitter). In her work, as an administrative assistant in a front-facing office, she was careful to not use what she considered leisure ICTs (be they devices or software) that would make her appear unprofessional. While she would occasionally read and quickly reply to personal emails that were sent to her work email address, she did not look at social media or use her cell phone while at her desk. She elaborated further on how she felt that all ICTs were tools, and as tools different ICTs would appeal to different individuals:

> [When one speaks about ICTs], you have different populations that are using different things, some that only use Twitter, that only use Facebook, that only use their email accounts, and some that don't want to receive those things. Those people get information from watching the morning news or they listen to their radio as they're driving to work because they don't want to go on the computer, or they don't want to deal with the tweets. So, you have all of these different places trying to get their message across in order to make sure that their messages are received. (Allison, 1977, Gen X)

When reflecting on the uses of technology, Allison considered how institutions, companies, and other organizations use them as communication tools to reach the general population. In order to reach everyone, an organization would have to use different types of media as different individuals are using different media forms. Her view reflects that individuals use ICTs for specific purposes, just as her own use was targeted.

Katrina, a Millennial, also shared her Practicalist views. She compared her own ICT use to that of her father, Harry, an Enthusiast. She described her use as more limited than her father, stating that she mostly used her cell phone and computer to communicate, while she also used her radio to listen to music:

> The things that I use right now are my cell phone and my computer to communicate. That's primarily what I use. I listen to the radio […] (Katrina, 1984, Millennial)

Later in our conversation, Katrina would speak about how Harry had influenced her ICT use, particularly when it came to using the digital editing software she used in her work. It is important to note that Katrina emphasized how much more technological skill her father had, despite being several generations older:

> Information technology gives us (my father Harry and I) something else to talk about and some common ground, so he talks about what's new, like the newest cell phone. I've shown him my computer, or my work, and we'll talk about it. Whereas my mom might not know what I'm talking about or might not care just because she doesn't know about it. For my job I edit video on a computer a lot. Harry has started to do that, and he'll have suggestions for me and so we talk about that a lot. I call him for questions more than not. He's sort of known as the computer guy for the family. My brother, my sisters, my aunts and uncles, they all call my dad for computer problems or computer suggestions. He is the technical support guy [for our family]. [But] they're not usually the oldest. (Katrina, 1984, Millennial)

There is much to unpack in this statement. First, Katrina stands in contrast to the stereotype of the young Millennial who is a digital native. Her daily work involves video editing and heavy computer use; however, she often approaches her father Harry, an older adult, with questions not only generally on computers, but also specifically on video editing. Second, we can see that not all young people are Enthusiasts but can vary in their approach to technology. Katrina approaches her ICT use as a Practicalist: she seeks to better understand the technology she finds a use for in her everyday life, such as video editing. Her father, an Enthusiast, picked up video editing as a side interest when his daughter mentioned it to him. He, as an amateur video editor (due to his Enthusiast perspective and interest in playing with new technologies), is often able to give his professional video editing daughter tips and advice. The contrast in these two approaches illustrates how Katrina is a task-driven Practicalist, but Harry a fun-seeking Enthusiast.

While Practicalists are function-focused ICT users, Socializers focus on the ability of technology to build, maintain, and grow relationships, as can be seen from several secondary participants.

Socializers

Socializers emphasize the social and relationship connections of ICTs. They see technology as a vital way of continuing relationships with others, as another way of connecting to their important family, friends, and community members. Socializers were observed among Boomers and Gen Xers.

Julie, a close friend of Alice (an Enthusiast), spoke about the power of ICTs to enable connection:

> There's so many ways to communicate now you know, it's like you can phone, you can text, you can write, you can email, and you still have the old-fashioned way—you can go down the street and knock on their door [...] The lifestyle of modern day people of being miles away from each other is when the technology has really been helpful. It's like less distance between us because we can communicate. When I do get come to visit [from across the country] I sometimes feel like there's less of a gap between us [...] Things feel more immediate, they don't feel as distant. I think technology has really shortened the concept consciously of having distance between people. I feel like being close to someone is enhanced by being able to text and email. If not for texting and email, I would only see Alice one month and I'd be back the next month. Instead we feel like there is a continuum between us because we text. It's like you didn't lose a step or continuity in the information and relationship. (Julie, 1953, early boomer)

Julie, an early Boomer, begins her discussion of ICTs by speaking about communication. ICTs can lessen "the distance" between people, thereby strengthening the connection and relationship between people who might not be located in the same area. The issues that Julie concerns herself with are mostly in maintaining and nurturing her relationships. Technology is not a tool, or a fun toy, but a way that Julie draws herself closer to her friends and family members.

Socializers, when asked to define ICTs, emphasize the communicative aspect of technologies. When Kate, also an early Boomer, speaks about how she used work-based ICTs prior to her retirement, she focuses on communication technologies such as video conferencing, rather than the use of software such as word processing:

> I have a cousin in Milan and every day she writes what's going on in her studies and I read her blog every day. Blogs and Facebook I read once a day, I text, I'm not big on Skyping but have Skyped. While I was working did many technology-driven meetings with video cameras and with the screen on the other side [...] Video conferencing that's the word. What's my definition of information and communication technology? The ability to communicate, the ability to transfer ideas from one person to another using a different media than face-to-face. (Kate, 1954, early Boomer)

For Socializers, like Kate, the focus of ICT use is on communicating with others. All the ICTs she mentions: blogs, Facebook, texting, Skype, and video

conferencing all have communication embedded at their heart. Kate went on to share how she specifically uses technologies in her relationships with older individuals, such as her cousin, Mary:

> The speed at which I have technology between myself and older people is not necessarily based on the information as much as it is the mentoring and the conversation and the learning. (Kate, 1954, early Boomer)

The use of technology between Kate and those older than her is for "conversation," "learning," and "mentoring." These words suggest the importance of the relationship and the role of communication in strengthening the relationship from one of just familial or friendship bonds, to one of mentorship. Technology is not an information source; it is a way of enriching social bonds. It is a way she can connect to the older generation − a way she can learn from them − not just through information, but through conversation and enrichment.

Lynn, a Gen Xer, also spoke about ICTs from a communicative perspective. While her background in education influences her, she focuses overwhelmingly on the connectivity of such technologies:

> When I think about technology, I think about social media, I think about information literacy skills. I guess my viewpoint is from an educational perspective. I definitely think that's the lens I look through. I view information and communication technologies as connection through technologies that provides channels of access and information. (Lynn, 1972, Gen X)

For Lynn, information technology is a way that people connect to one another. This focus on connection and socialization is a hallmark of Socializers.

As discussed earlier in this chapter, Socializers, Practicalists, and Enthusiasts are easier to spot before mid-adulthood than Traditionalists and Guardians, who are more easily identified later in the life course. Several Boomer Traditionalists, who love the ICTs of their youth, were spotted among secondary participants.

Traditionalists

Traditionalists love the technologies of their youth. As they grow older, however, they come to reject newer innovations. Traditionalists' lives are so full of the technologies they love; there is no room for modern innovations.

It is important to note that Traditionalists only become apparent in a given generation as that generation ages into middle to late adulthood. Since Traditionalists love the technology of their youth into middle age; a Traditionalist in a generation that has not yet passed beyond midlife is not easily recognized − as the technology they would reject has not yet been introduced.

Traditionalists were observed in both early and late Boomers. Marge, an early Boomer, made a specific distinction between early technologies that she used (such as the telephone, television, books, and magazines) and those that she did not (such as the cell phone and the computer):

> Ham radio operators always fascinated me. Back when I was young they could talk to someone on the other side of the world, where the average person couldn't do that. Not back then. Now you can because of cell phones. That's been a change in my life-time. I would say that an information or communication technology is something that makes noise. Something that doesn't make noise isn't an information or communication technology. But a book is information. And it is passed. So not a book […] No not a book I wouldn't say. Because a book can be passed and is information just like the magazines I read. It's information I'm getting from somewhere else, from someone else. I would say it's a technology. In an old-fashioned way—an older form. Before gadgetry. I don't know what else to call it except for before gadgetry. (Marge, 1947, early Boomer)

Like a Traditionalist, Marge speaks about being fascinated with the technology of her youth, in her case, HAM Radio operators. As all Traditionalists do, she has rejected newer ICT forms such as the cell phone (she uses hers only for emergencies), the computer, and the internet. Traditionalists were also found among late Boomers, including Veronica.

Veronica rejected most newer ICT forms. She could, with some help (typically from her son), use the computer to send and receive email. But, in her own words, she was not "very good" at it. She often had her son use email and Facebook for her, as is typical among Traditionalists. In speaking about her friendship with Gwen (a Lucky Few Socializer, featured in Chapter 4), she stated:

> Gwen hasn't sent me much on email. She'd say like hi or some-thing like that. She had me try and send her something one time and I can't remember what it was but, [it didn't send]. Because I'm not very good with the computer myself so […] like even on the internet, I don't like sending things like messages to my aunt in Texas on the internet with Facebook because I don't know how to do that stuff. I have to have my son do it for me. (Veronica, 1962, late Boomer)

Veronica serves as another example of why age is not the sole determination of skills or motivation to use advanced ICTs. Her friend Gwen, as a Socializer, was much more motivated and used many more ICT forms than Veronica, despite an almost two-decade age difference (Gwen being older). Veronica, as a Traditionalist, has rejected many of the more advanced ICT forms (computers

and social media, and to a certain extent, her cell phone) and is instead an indirect ICT user (as many Traditionalists are) through her son. I asked Veronica if she would like to learn how to better use her computer or social media. She responded that she was not really interested in it. Like most Traditionalists, it is a lack of interest that leads to less developed technical skills; as opposed to a lack of technical skills leading to disinterest. Gwen indicated that she had often offered to help Veronica learn to use more technologies, but Veronica declined, always stating that she was not interested.

Bette also is an example of a late Boomer who is a Traditionalist. She is a heavy user of television, uses radio in the car, a stereo when with her boyfriend, and a cell phone. While she can text and uses a computer heavily for her work as an administrative assistant, she prefers to use older forms of ICTs from her youth in her free time:

> On television I watch all sorts of shows. I watch the news. Unless I'm in the car I don't really listen to the radio. My boyfriend has a great stereo, so I mean we'll listen to his tunes or tunes that I like. That's pretty much it for the radio. We'll listen to a basketball game; we just did that recently. I have a cell phone, and that's how I keep in touch with my mom […] sometimes I'll search on the internet with it and get text messages. I still would rather call than text. (Bette, 1964, late Boomer)

Bette establishes that while she can text and can use a computer, she often chooses not to in her personal life. While she is required to have a smartphone for her work, and occasionally uses it to answer a work email or search the internet, she does not use it for personal use, besides the occasional phone call or text. Bette, however, loves television and uses it frequently. Like June, a Lucky Few Traditionalist (Chapter 5), Bette has a high level of exposure to computers in her work life. Outside of work, however, she has little motivation to use a computer. Her life is already full of more traditional forms of media.

While Traditionalists reject newer forms of ICTs in their lives, they love older forms. Guardians, however, restrict their use of all ICTs in their lives, regardless of their vintage.

Guardians

Guardians are suspicious and cautious around all ICTs. They have a general distrust of all technologies and heavily regulate their use. In particular, they believe that if ICTs are not used in a controlled fashion, they lead to the degradation of society. Several Boomer Guardians were identified among the secondary participants.

Mya, an early Boomer, like many Guardians, is particularly concerned about the impact of ICTs on younger people. In comments reminiscent of Margaret

(Chapter 6), she speaks about ICT use isolating individuals, when they should be interacting with one another:

> The whole technology thing it annoys me because they assume everybody is into that and has the means to get the stuff and brainpower to learn it all. It's annoying to me. I know younger children drive me crazy, including my family. We'll get together and instead of playing board games they all sit with their little DS or iPod or smart whatever and they don't play this game on their little thing together. Cell phones I believe have a very good purpose, I have one, but I get very annoyed. It promotes feelings of, 'I need to know right now, quick, I want it now, I need it now' instead of waiting for things. That's how I feel we really are getting to be as a society. It trickles down to kids wanting something right now, everybody is just in the moment. I think all this has a good purpose to a point, but I think it gets a little carried away. (Mya, 1948, early Boomer)

Mya discusses how technology has a purpose. However, instead of being used correctly (in a restricted and controlled way), it is often used inappropriately. Not used in moderation, technology subsumes and addicts its users. It leads to immoral behavior: isolation, want, impatience, and excess; all negative connotations of ICT use. Such use also degrades relationships. Instead of young people communicating and building their relationships face-to-face, they are devaluing these relationships by using digital devices.

In contrast to Socializers who view ICTs as connectors, Guardians view ICTs as separators. Marcy, an early Boomer, discussed how technology can cause people to withdraw, becoming reclusive:

> I know how wonderful computers and all this technology and information and everything can be, especially when you think of well medical breakthroughs and sharing information about people. But I do think that it's starting to make people very […] very secluded, not getting in touch with people as much and […] I mean there's a big difference between a text and actual being with a person and talking with them […] I think [technology is] making a lot of people very reclusive. I think that technology makes people share too much about themselves sometimes. Then you hear of all the problems like identity theft. It seems like every night on the news [criminals are] coming up with new ways [to abuse] what people put on Facebook. (Marcy, 1950, early Boomer)

For Marcy, as all Guardians (regardless of generation), technology is seen as unlocking negative traits we all have inside of us. She differentiates between "being with a person" versus using technology. Technology also leads us to

share too much information online, which opens people up to another threat of technology: identity theft. Like most Guardians, she is sensitive to the ways ICTs can be misused and impact our information security.

Marcy can identify that ICTs bring positives to our lives, such as medical breakthroughs and being able to share information. However, when ICTs are being misused (as most Guardians believe that they are), they lead to us down a path of immoral behavior and put our safety at risk.

Amanda, an early Boomer, used a cell phone and even had a Facebook account. In her view, like many Guardians, one *had* to use such technology:

> But for a lot of people [technology] just controls their life. I don't want to be controlled that way. I don't know if it's an obsessive-compulsive thing or if it's taken the place of alcohol. I don't know what the psychological thing there is, but I think some people are more intent on making a connection with people directly. And some people aren't. I go online and I'm on Facebook because of my grandkids so I can see that there's benefits to that […] You almost have to [use computers] now, because there's so many people that are doing it, if you're not you're kind of out of the loop. I want that kind of contact […] unless I want to be a hermit and never leave the house. But I don't. I want to stay connected with other individuals. (Amanda, 1947, early Boomer)

Guardians of any generation are deeply suspicious of technology and how it can be used. They personally restrict and carefully self-monitor their own use to avoid the moral pitfalls of technology, while understanding that such use is often required to be a participant in modern society. Amanda, for instance, had chosen to not use a smartphone, as she has observed people being "controlled" and addicted by their smart devices. However, she has both a cell phone and keeps a Facebook account. She uses Facebook to connect to her children and grandchildren, feeling it is a necessity in the modern world.

Following many Guardians, Amanda does not differentiate between "newer ICTs" and "older ones" in determining their value and their potential to cause harm. She shares that she has already unplugged and no longer watches her television, an older technology:

> I've already unplugged my television. There's a few times there's programs on there I want to see, but I forget when they are, and I forget to turn it back on. To plug it back in. For whatever it is. So, I just weaned myself off of it. (Amanda, 1947, early Boomer)

In the case of some ICTs, they are seen as so morally corrupting that a Guardian will reject them outright. Unlike Traditionalists, who value older ICTs above newer ones, Guardians make no such chronological distinction. Amanda, as a Guardian, like her older counterpart Jackie, has unplugged her

television. The television, a device beloved by Traditionalists, is seen as contributing too much to moral decay by Guardians.

While no younger generations of Guardians were captured among the secondary participants, this finding is not surprising. Most of the secondary participants were either Lucky Fews or Boomers, leading to a higher representation of Boomers. (Lucky Few secondary participants were not featured in this chapter, given its exploration of user types in other generations.) The Guardian type likely develops over the life span and younger individuals are less likely to have had a traumatic life experience with a technology purely due to fewer years lived.

Different Generations, The Same Types

Overwhelmingly, the secondary participant data suggest that the ICT User Typology is not just a theory of older adult ICT use, but a theory that applies to ICT users in general. Enthusiasts, Practicalists, and Socializers are seen across the life span, while there is some evidence to suggest that Traditionalists and Guardians evolve over the life course.

Enthusiasts, Practicalists, Socializers, Traditionalists, and Guardians have likely always existed. They are not products of the computer age, but rather echo society members' approaches to technology throughout time. What changes with the march of ICTs and new innovations is the set of contemporary technologies in use at any given time. The development of a new technology, no matter how disruptive, will be embraced, rejected, or cautiously adopted depending on a person's user type. Technology does not change a person's user type; a person's user type changes how the person uses (and does not use) the technology. Exploring through empirical research how and when these user types develop (and if they can be influenced or changed during the life course) is the focus of Chapter 9.