ABSTRACT

Tinkering with Technology and Religion in the Digital Age:
The Effects of Internet Use on Religious Belief, Behavior, and Belonging

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The intersection of religion and technology has been a primary issue in sociology since the inception of the discipline. Internet technology presents a new conceptual reality, one that could potentially challenge religion in previously unimaginable ways. Few sociologists of religion, however, have attempted to evaluate whether using the Internet impacts the way people think about and practice religion. This paper elaborates on the concept of "tinkering" discussed by Berger, Berger, and Kellner (1974), Turkle (1997), and Wuthnow (2010) to argue that Internet use affects how people think about and affiliate with religious traditions. Using data from Wave III of the Baylor Religion Survey (2010), I find that Internet use increases the likelihood of being religiously unaffiliated and weakens religious exclusivism. At the same time, I find that television viewing is linked to decreases in religious attendance and other time-related religious behaviors, but these outcomes are not impacted by Internet use. To explain these disparate findings, I argue that the Internet is fundamentally different from previous technologies like television and thus impacts religious beliefs and belonging but not time-related religious behavior.

Tinkering with Technology and Religion in the Digital Age: The Effects of Internet Use on
Religious Belief, Behavior, and Belonging.

by

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CHAPTER ONE

We construct our technologies, and our technologies construct us and our times.

–Sherry Turkle, *Life on the Screen*

Introduction

This paper explores the extent to which Internet use affects religion. The two have an intriguing relationship, for while religion is as old as humanity itself, the Internet is merely twenty-five years old. Despite its infancy, however, the Internet demands greater sociological attention, not only because of the sheer amount of time many of us spend on it, but also because of the possibility that it subtly restructures how we think, behave, and relate to others. In the last two decades, Internet use has grown drastically in post-industrial countries. As the Pew Forum Internet Project reports, 87% of American adults use the Internet today, while prior to 1995 fewer than 15% of the Americans were online (Fox and Rainie 2014). To date, though, virtually no one has examined the connections between the Internet and religion from a sociological perspective, thus warranting the present exploratory study.[1]

The term I wish to introduce in this paper is "tinkering." Tinkering is an activity associated with workmen and women of various sorts. Through the ages, blacksmiths, mechanics, artisans, and woodworkers have all tinkered with their products, usually hoping to improve upon their work so that it can more easily serve them or their clientele.

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[1] As will become evident in later sections of this paper, excellent research has been done on the Internet and its social effects, technology and religion/theology in general, and the links between social networking sites and religious affiliation. For the latter, see Miller, Mundey, and Hill (2013).

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More recently, the concept of tinkering has been invoked in the sociology of religion by Berger, Berger, and Kellner (1974) as well as Wuthnow (2010), all of whom use tinkering as a metaphor to describe how people think about and practice religion. Similarly, MIT social scientist Sherry Turkle (1997), while not discussing religion, appeals to the concept of tinkering to describe how Internet users take on new ways of thinking about themselves and the social realities they navigate. Thus, as will become clearer in the course of this paper, I will argue that Internet use encourages people to tinker with their religious affiliation and beliefs in ways that have gone mostly undetected.

One exception to this comes from computer scientist Allen Downey in his work on Internet use and religious affiliation. Using data from the General Social Survey, Downey shows that Internet use decreases the likelihood of religious affiliation, while increases in Internet use since 1990 "account for about 20% of the observed decrease in affiliation" (Downey 2014). Clearly, Downey's findings are striking, for he shows that the explosion of Internet use beginning in the early 1990s parallels the rise of Nones that began around the same time (Baker and Smith 2009; Hout and Fischer 2002; Kosmin and Keysar 2008; Lim, MacGregor, and Putnam 2010; Liu 2012; Putnam 2012). Of course, Downey does not claim that Internet use automatically leads people to disaffiliate. His paper shows the relevance of other factors like increases in college education and the effects of nonreligious upbringing, both of which play a significant role in the increase in Nones. Nevertheless, Downey thinks the connection between Internet use and religious non-affiliation is likely a causal factor.

In the forthcoming analysis, I use Downey's surprising findings as a springboard for further investigation. Using data from the Baylor Religion Survey (Wave III), I will present empirical results that link Internet use with specific religious variables. Several research questions pertaining to religious affiliation, belief, and behavior animate this project. First, will increased Internet use affect religious affiliation, or the way one belongs to a particular religious tradition? Second, will spending more time online impact the way individuals behave religiously? That is, will individuals who spend more time on the Internet be more or less likely to attend religious services or be active participants within an organized religious group? Third, will increases in Internet use be associated with changes in religious belief? In particular, will the Internet, by exposing people to diverse religious tradition and belief systems, encourage people to tinker with their beliefs and adopt a less exclusivistic posture towards their own tradition?

With these questions in view, it is first necessary to evaluate any pertinent literature that can inform this study. As mentioned, few studies have directly explored the connections between the Internet and religion in the field of sociology. Nevertheless, important theoretical progress has been made that can be carried over to the present discussion. In what follows for this multi-hypothesis project, then, I will highlight these important contributions and appropriate the relevant theoretical insights to examine the effects of Internet use on religious affiliation, behavior, and belief.

CHAPTER TWO

Literature Review, Theory, Hypotheses

Research into the Internet's effects on our religious and social lives is in its early stages. Though a promising field of study, it is unsurprising that few researchers have addressed this subject matter to date because the Internet itself has only been in the public eye since the mid-1990s. Still, scholars from various disciplines have recognized the importance of the Internet as a cultural game changer and possibly a religious one as well. Given the wide-ranging nature of the emerging subject known as "Internet studies" (Campbell 2005), it is important for social scientists to grasp some of these essential theoretical arguments as they apply to religious outcomes.

Does the Internet Change the Nature of Religious Belonging?

Some of the most contested arguments over the effects of the Internet relate to its capacity to strengthen or diminish social networks. Typically, these arguments invoke the popular concept of social capital espoused by Bourdieu (1984) or Putnam (2000; 2004) and then attempt to determine whether the Internet enhances or weakens participation in larger social groups. While social capital is usually (and rightly) measured without consideration of religious affiliation, the arguments pertaining to it deserve attention because they raise an important question for Internet studies: namely, how does spending more time online affect our affiliation with religious individuals, ideas, and institutions? In *Bowling Alone*, Putnam (2000) asks a similar question when he wonders whether the Internet is more like the telephone or the television. If the former, Putnam thinks it may

help extend people's social networks and reinforce existing bonds with other individuals who may be affiliated with a religious tradition. If the latter, the decline of social capital will continue, especially for those who regularly surf cyberspace, and individualism will only intensify. Again, while civic engagement, social capital, and religious affiliation are hardly interchangeable constructs, the dynamic interplay between these constructs and Internet use is a subject worthy of further investigation.

The problem with Putnam's brief assessment, however, is that he sees the Internet more as a tool and not as a new kind of sociocultural reality we inhabit. One can pick up a tool and quickly put it back in the toolbox. One cannot as easily leave behind a country of residence or the norms and attitudes of a different geographical space. In the same way, if we see the Internet as a space that shapes and conditions our view of reality, including our notions of what religious affiliation entails, we may arrive at a different theoretical picture. Addressing Putnam's oversight, Felicia Wu Song (2009) mines thirty of the Internet's most popular websites and in the process asks whether these sites promote or discourage affiliation with larger social groups.[1] In her own words, "because the internet is constituted by a cultural and normative environment, the structural and discursive features of online communities can illuminate significant cultural conceptions and patterns that bring into focus what a society privileges, dismisses, or takes for granted" (2009:8). Ultimately, Song remains skeptical that the Internet promotes community. Her content analysis shows that because popular websites often depend on

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[1] In her epilogue, Song notes that she collected the bulk of her data in 2004 when "notions of Web 2.0 were just on the horizon." (2009:133). Since then, social networking sites like Facebook have drastically altered the way people interact online. However, even though these online communities offer greater promise for facilitating existing relationships (as opposed to the largely defunct chat rooms of Web 1.0), Song concludes that Web 2.0 is still marked by a "consumer sovereignty" that nurtures ephemeral relationships with individuals and institutions.

the support of advertising revenue, they tap into a consumerist mentality that privileges the individual and undercuts notions of affiliation with broader social institutions. On the Web, it seems, individualism and commercialism trump community and social solidarity.

Countering Song's skepticism are those who argue that the Internet is an inherently social medium capable of bringing people together. Religious affiliation, from this point of view, should not be weakened as a result of increased Internet use. Chief among these technological optimists is Barry Wellman, a Canadian sociologist who advances the notion that today's wired age is one marked by "networked individualism." In fact, from Wellman's perspective, "It is becoming clear that the Internet is not destroying community but is resonating with and extending the types of networked community that have already become prevalent in the developed world" (2001: 2032). Accompanying Wellman are a number of other sociologists who believe the Internet has the capacity to generate substantial engagement with one's community. In "The Internet and Social Life," for instance, Bargh and McKenna (2004) argue that the Internet promotes community-enhancing activities. Unlike television, which typically induces social passivity and isolation (Putnam 1995; 2000), the Internet is an interactive mass medium that promotes affiliation with others. As Bargh and McKenna explain, "the evidence suggests that rather than being an isolating, personally and socially maladaptive activity, communicating with others over the Internet not only helps to maintain close ties with one's family and friends, but also, if the individual is so inclined, facilitates the formation of close and meaningful new relationships within a relatively safe environment" (2004:582).

Not surprisingly, for this reason a number of religious organizations have tapped into the power of Internet technology in an attempt to grow their congregations. This trend, as Scott Thumma (2011) finds, clearly shows that the vast majority of American congregations use websites and email to promote their message and attract potential converts. In fact, according to his sample, 90% of the congregations Thumma studied used email in 2010, and 34% of the churches had both an Internet and Facebook presence. Thus, any predictions that modern technological achievements in America would necessarily undermine religious affiliation or exacerbate the long march towards a secular age must be tempered with the recognition that American religious organizations are generally technologically savvy. As Stewart Hoover has observed (2008; Hoover et al. 2004), not only is religion increasingly in the media in a post-9/11 world, but individuals more commonly use social media technologies to express their beliefs, search for pertinent information, and maintain affiliation with religious groups.

Further ethnographic studies on the effects of the Internet also play a key role in this current debate. Sherry Turkle (1997, 2005, 2011a, 2011b) has studied the effects of emerging information and social technologies on our lives for over three decades. Her ethnographic studies help move the debate beyond quantitative stalemates and document more precisely what social changes occur through online behavior. Understanding the dialectical relationship that exists between humans and social technology, she writes, "as we text, Twitter, e-mail, and spend time on Facebook, technology is not just doing things for us, but to us, changing the way we view ourselves and our relationships" (2011b:28). What Turkle finds most disturbing, though, is that newer social technologies intensify individualism by creating a communicative distance between people. As evidence of this,

Turkle has us consider the fact that when given the option to use more than one type of social technology to communicate, we often prefer the *less* intimate one.[2] "We become accustomed," Turkle writes, "to connection at a distance and in amounts we can control. Teenagers say they would rather text than talk" (2011b:29). Like Song, then, Turkle argues that the Internet, with its heightened emphasis on control and individualism, promotes anti-institutional attitudes.

Along these lines, it can be argued that the very notion of identity changes with the introduction of Internet technology. Indeed, personal identity and affiliation are concepts that, according to Zymunt Bauman (2000), have undergone massive restructuring with the development of modernity so that identities once fixed and stable are now fluid and temporary. Applying this line of thinking to current technologies, Turkle argues that our sense of self becomes a less stable concept over time, especially when the technologies allow for individuals to assume multiple identities or profiles simultaneously. Finding affinities between Internet technology and the postmodern philosophies of Lacan, Foucualt, Deleuze, and Guattari, what Turkle recognizes the most is that the Internet encourages us to play with "decentered" identities in "fluid" and "nonlinear" ways (Turkle 1997:15-17). Contrary to the modernist philosophy that characterized the Enlightenment, where notions of the self persisted in a more or less unchangeable fashion through time, the theorists mentioned above argue that our identities are always in flux, fitted to specific constraints and adjusted to meet the demands of the day. Thus, whether we are tinkering with multiple personas in an Internet chat room or constantly updating a profile on a social networking site, the cultural ethos

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[2] Put differently, computer-mediated communication creates an extra buffer between individuals, thus giving us more control over our relationships but ultimately weaker bonds.

of our technological age is that identities are malleable and never tied to any one worldview or institution. Echoing the work of French anthropologist Claude Lévi-Strauss (1966), Turkle appeals to the notion of "bricolage," arguing that recent Internet technologies encourage us to experiment with our notions of self in a way that calls into question the very notion of institutional affiliation. One might think or behave religiously, for example, but what does it mean to be religiously affiliated anymore? Are we not all simply playing different roles moment to moment, thus expressing our ultimate freedom to choose which associations we want through the Internet technologies that give us control over our identities, statuses, and affiliations? For those who hold religious convictions, affiliation with a particular religious tradition is a primary way of declaring and specifying what one's religious identity looks like. Accordingly, with Turkle's questions now articulated, and it is appropriate to specify my first formal hypothesis:

H_1: Internet use decreases the likelihood of being religiously affiliated.

Does Internet Use Displace Time Reserved for Religious Activities?

The fact that Americans now use personal computers, laptops, tablets, and smartphones as part of their daily routine is a widely acknowledged aspect of our current social reality. Though we take these quotidian activities for granted, we might still ask what social tolls these practices exact, or perhaps what other activities they displace. Is it possible that increased Internet use obstructs greater involvement in religious activities? Do religious behaviors suffer when we are increasingly drawn to technologies that promote or nurture other cultural pursuits? For some perspective on this matter, it is helpful to remember that other technologies are inversely correlated with religious behaviors. Indeed, in the same way that Putnam (1995; 2000) observed a correlation

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between increases in television viewing and decreases in civic engagement, time spent online may similarly displace opportunities ordinarily reserved for religious participation. While many religious organizations use the Internet as a vehicle to extend their religious and spiritual outreach (Brasher 2004; Hoover 2008; Thumma 2011), these tech-savvy congregations now filter their religious messages through new media, which has the effect of creating a technological buffer.[3] What the Internet offers an increasing number of people today, then, is a place where emotional, material, and even spiritual needs can be met (Detweiler 2013; Schultze 2004). For the nonreligious especially, Internet use may be not only displacing time otherwise spent practicing religion in traditional ways, but it could also be construed as a religious competitor for time.

Consider, for example, the responses of today's growing population of religious Nones, for whom an overwhelming 88% claim they are "not looking for a religion that would be right for them" (Liu 2012). Likewise, Christian Smith's work (Smith et al. 2011; Smith and Denton 2005; Smith and Snell 2009) helps explain the cultural pressures and mindsets of young adults as they work out their understanding of religion and shows that many young adults simply do not make time for religious activities because they are too busy or too distracted with other things. Writes Smith, "Most emerging adults are close to being overwhelmed with all of the skills, tasks, responsibilities, systems, and procedures they are having to learn…. the list of new things to learn in an open-ended world is endless and sometimes almost crushing" (Smith and Snell 2009:35). This basic indifference to religious and spiritual matters is not the result of some novel apostasy or

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[3] Charles Taylor elaborates on this modern phenomenon of buffering: "For the modern, buffered self, the possibility exists of taking a distance from, disengaging from everything outside the mind. My ultimate purposes are those which arise within me, the crucial meanings of things are those defined in my responses to them (2007:38). Applied to the current discussion, Internet use provides the technological buffer that often precludes affiliation with a religious institution greater than oneself.

the growth of New Atheism. A simpler answer, rather, is that they are increasingly distracted by many of the Internet technologies which have moved to the center of our lives.[4] Confirming these suspicions through quantitative research, Nie and Erbring argue that those who surf the Web with greater frequency tend to "lose contact with their social environment" (2002:278). Tracking a sample of over 4000 respondents, Nie and Erbring found that over a quarter of the respondents who use the Internet regularly report feeling that using the Internet has "reduced their time with friends and family, or attending events outside the home," which includes religious services.[5] Indeed, a substantial and growing number of works manifest serious concern over how distracting modern technology is and how it changes the way we think, behave, and relate to one another (Borgmann 2003; boyd 2008; Carr 2010; Dill 2012; Dreyfus 2008; Kross et al. 2013; Noble 1999; Powers 2011; Roberts, Yaya, and Manolis 2014; Roszak 1994; Sunstein 2009; Wang et al. 2012; Warschauer 2003).[6]

Given these observations, it seems probable that the changing religious landscape is brought about in part by the technology that competes for our time and attention. The Internet, then, should not be viewed as simply a new kind of library or supermarket that we can access from home. Instead, by enabling us to live out our existences online, it may displace those activities that require full participation with social groups, including

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[4] Nicholas Carr verifies that online distractions are a problem, especially for educators: "Dozens of studies by psychologists, neurobiologists, educators, and Web designers point to the same conclusion: when we go online, we enter an environment that promotes cursory reading, hurried and distracted thinking, and superficial learning" (2010:115).

[5] "Regular use" in this context means more than five hours per week, or less than one hour per day.

[6] Earlier works such as Ellul's *The Technological Society* (1967), Mitcham and Grote's *Theology and Technology* (1984), and Grant's *Technology and Justice* (1991) must also be recognized as essential precursors to the more current literature.

religious attendance, and in doing so it may divert our attention from theological and religious reflection. Accordingly, a second hypothesis may now be put forth:

H$_2$: Internet use decreases the likelihood of participating in religious activities.

Does the Internet Act as a Pluralizing Mechanism?

Beyond a time displacement as suggested above, a third feature of the Internet is its function as a carrier of pluralism. Here, the theoretical avenue to pursue can be found in the work of Peter Berger (1969; Berger et al. 1974), whose understanding of "plausibility structures" and pluralism suggests that when a rapid influx of ideas, beliefs, and practices are introduced into a new social environment, an individual's deeply held convictions about reality are undermined (1969:127). When applied to religious truth claims in a digital age, the Internet is a prime carrier of pluralism because it introduces a variety of "life-worlds" that compete for an individual's allegiance. Whether through social media or the sheer proliferation of competing truth-claims found on popular websites, the Internet is the perfect breeding ground for new "life-worlds" that systematically chip away at one's certainty. The more time one spends online, the more one is barraged with various ideas, beliefs, and truth claims about what is good, true, and of ultimate importance. [7] Again, Berger: "The individual, wherever he may be, is bombarded with a multiplicity of information and communication. In terms of information, this process proverbially 'broadens his mind.' By the same token, however, it weakens his integrity and plausibility of his 'home-world'" (1969:127). For anyone who spends time flitting about from one website to the next, Berger's words suitably

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[7] For further illustration, consider Bryan Turner's description of our "information-saturated world" which has the effect of making religion "yet another consumption choice and particular lifestyle" among many competing preferences (Gorski 2012:138).

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express the feeling of information overload and its possible effects on our religious beliefs.

At the same time, it would be an oversimplification to suggest that the Internet works uniformly in this manner. Granted, some people might lose their faith because of the pluralizing effects which weaken plausibility structures, but others could just as likely experiment with multiple faiths and religious congregations thanks to the accessibility Internet technology provides. Borrowing from Berger and his coauthors (1974), those who spend more time online may be more likely to develop a *"problem solving inventiveness"* or *"tinkering attitude"* that carries over into other aspects of life including religion.

Even though we are now forty years removed from Berger's arguments, recent research substantiates many of the claims made about both the Internet and the current religious atmosphere. Concerning religion, Robert Wuthnow's (2010) study on the religious beliefs of young adults confirms many of the ideas initially propounded by Berger and company. As Wuthnow explains, "The single word that best describes young adults' approach to religion and spirituality—indeed life—is *tinkering*" (Wuthnow 2010:12). By this, Wuthnow means that young adults experiment with different religious and spiritual beliefs in a way that is mostly unique to their generation.[8] "Like the farmer rummaging through the junk pile for makeshift parts," writes Wuthnow (2010:15), "the spiritual tinkerer is able to sift through a veritable scrap heap of ideas and practices from childhood, from religious organizations, classes, conversations with friends, books, magazines, television programs, and Web sites. The tinkerer is free to engage in this kind

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[8] Indeed, Bengtson, Putney, and Harris (2013:52) argue that generations prior to the "Older Boomers" (1946-1954) did not have separate categories for religion and spirituality.

of rummaging." Adopting a provisional approach to spirituality, they are less committed to institutional religion, preferring instead an individualistic approach where they can customize temporary beliefs and practices to whatever their life situation demands. Carried forward, this provisional approach is especially favorable for religious Nones who, by definition, refrain from adopting labels that might misrepresent their spiritual smorgasbord of beliefs as well as those who adopt the label "spiritual, but not religious." Surprisingly, Wuthnow barely mentions technology or the Internet as a key independent variable, but his analysis dovetails smoothly with Berger's earlier predictions concerning the pluralizing effects of modernity and the ideas baked into modern technology.

The prevailing ethos for those who spend increasing portions of their days online is similarly related to the tinkering posture described here. In other words, since the technological mindset is also one of trial-and-error, there exists an uncanny similarity between the technological tinkering as described by Turkle and the spiritual tinkering discussed by Wuthnow. As Turkle elaborates in a chapter aptly titled, "The Triumph of Tinkering," computer users [today] are encouraged to tinker…" (1997:52), and "new interfaces project the message, 'Play with me, experiment with me, there is no one correct path' (1997:60). In light of these arguments, what the literature here suggests is that more attention should be paid to the effects of the Internet on one's reported religious exclusivism. The flipside of exclusivism, naturally, is religious pluralism, which defined here is the position that views all religions as equally true, either from a moral or salvific standpoint. While it is well known that religious pluralism is frequently adopted by those who claim to be "spiritual, but not religious" (Besecke 2013; Fuller 2001; Schmidt 2012),

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fewer have tested to see whether there are associations between Internet use and the posture of religious pluralism. Thus, a third hypothesis can now be made:

H_3: Internet use decreases the likelihood of being religiously exclusive.

CHAPTER THREE

Data and Methods

This study draws from data found in Wave III of the Baylor Religion Survey (BRS). The Gallup Organization conducted the study during the fall of 2010 and administered surveys to a total random sample of 1,714 adults nationwide who were ages 18 and older. The present paper evaluates the responses to a variety of questions from the BRS and attempts to draw connections specifically between variables that measure religion and Internet use.

Table 1

Descriptive Statistics, Baylor Religion Survey 2010.

Variable	N	Mean	Std. Dev.	Min.	Max.
Age	1664	55.928	16.152	18	108
White [a]	1714	0.824	0.381	0	1
Female [b]	1714	0.535	0.499	0	1
Education	1669	4.632	1.625	1	7
Income	1581	4.280	1.622	1	7
Place	1688	2.415	0.989	1	4
Kids	1276	2.585	1.384	0	10
Political Party	1681	4.036	1.945	1	7
Evangelical	1714	0.300	0.459	0	1
Mainline	1714	0.241	0.428	0	1
Black Protestant	1714	0.023	0.151	0	1
Catholic	1714	0.236	0.425	0	1
Jewish	1714	0.016	0.125	0	1
None	1714	0.099	0.299	0	1
Other Religion	1714	0.054	0.227	0	1
Television viewing	1691	2.255	0.821	1	5
Internet use	1609	1.511	0.692	1	5
Religious Affiliation	1662	0.899	0.303	0	1
Religious Activities [c]	1555	7.080	2.927	5	20
Attendance	1702	3.901	2.975	0	8
Exclusivism	1620	5.814	1.706	2	8

Note: [a] Binary variable where non-white = 0 and white =1; [b] Binary variable where male = 0 and female =1; [c] Religious activities includes church social gatherings, education programs, choir or other musical practices, witnessing/sharing one's faith, community prayer groups, and Bible studies.

Dependent Variables

A number of dependent variables are used in this analysis. In the first model, I tested to see whether certain variables could predict the likelihood of being religiously affiliated. Following the lead of Downey (2014), I have run a binary logistic regression to determine whether Internet use is a predictor of having a religious affiliation. In my analysis, religious affiliation is a binary dependent variable coded so that non-affiliation = 0 and religious affiliation = 1. With the aim of assessing the relationship between Internet use and religious affiliation, even when controlling for other demographic variables, this binary regression will produce odds ratios that measure the effects of Internet use on being religiously affiliated.

To measure the second hypothesis that Internet use displaces time that could otherwise be spent on religious activities, I used two independent variables related to religious attendance and other faith-based activities. The first time-related model uses the dependent variable that measures religious behaviors. The BRS asks respondents several questions related to their participation in faith-based activities within the time frame of the last month from which they answered the survey. These activities include church social gatherings, religious education programs, choir practice or other musical programs, witnessing/sharing faith, and community prayer group or Bible study. All of these activities go beyond the attendance requirement expected of most religious observers and requires "extra" time that increased Internet use could in theory displace. For the purposes of this model, I summed the above categories into one variable that measures participation in faith-based activities. For each question, respondents could answer, "Not at all" (=1), "1-2 times" (=2), "3-4 times" (=3), or "5 or more times" (=4). Using these

questions, I then created a new religious activities variable that sums together respondents' answers. The index for this variable ranges from 5 to 20, and a factor analysis of these variables generates a standardized Cronbach's alpha of .80. The second of these time-related models looks specifically at religious attendance. Hypothesizing that religious attendance could be weakened by a greater amount of time spent online, I have used religious attendance as a dependent variable. The survey asks how often respondents attend religious services at a place of worship with a total of 9 answer choices ranging from "Never" (=0) to "Several times a week" (=8).

For my third hypothesis, I have tested to see whether using the Internet with greater frequency might decrease one's religious exclusivism. In contrast to a pluralistic posture, exclusivism holds that not all religions are the same or equally effective ways of navigating the world. On the survey, respondents were given two similar statements and asked to report their level of agreement. The statements are: 1) "All of the religions in the world are equally true" and 2) "All around the world, no matter what religion they call themselves, people worship the same God." Answer choices for both questions include "Strongly agree" (=1), "Agree" (=2), "Disagree" (=3), and "Strongly Disagree" (=4). I then created an "exclusivism index" that measures respondents' answers to these choices. The newly created index includes these two questions and sums respondents' answers on a range from 2 (strongly agree) to 8 (strongly disagree). As one moves up the index, one is more likely to maintain an exclusivist view of religion. A factor analysis of these two summed variables generates a standardized Cronbach's alpha of .73, thus showing that respondents answer these questions similarly, and Table 4 uses ordinary least squares

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regressions to draw conclusions about the relationship between Internet use and religious exclusivism.

Independent Variables

The primary independent variable used throughout my models measures time spent on the Internet. On the BRS, respondents were asked, "On an average day, about how many hours per day do you "Surf the Internet (not including email)?" Answers ranged in the following ways: Less than 1 hour per day (=1), 1-3 hours per day (=2), 4-7 hours (=3), 8-10 hours per day (=4), more than 10 hours per day (=5). A second independent variable used in this study measures the amount of time one reports watching television. This variable is important for inclusion because it helps isolate Internet use as a variable distinct from being simply in front of a screen. In other words, the Internet variable by itself does not distinguish between phenomena associated with the Internet—e.g. its encouragement of "spiritual tinkering" or pluralizing effects—and the effects of simply being in front of a digital screen. By including a variable that measures hours spent watching television, however, my analyses should be able to detect whether or not there is a significant difference between watching television and surfing through cyberspace.

Beyond these independent variables, measures were also taken to control for essential demographic variables. These included age (measured as a continuous variable ages 18 and older); race (coded as a binary where non-white = 0 and white = 1); sex (male = 0; female = 1); education on a range from less than 8th grade completion (=1) to postgraduate work (=7); total household income last year before taxes ranging from $10,000 or less (=1) to $150,000 or more (=7); place of residence (where a rural area = 1,

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a small city or town = 2, a suburb near a large city = 3, and a large city = 4); and number of children (continuously from 0 to 10). The respondent's political party was also taken into consideration. Given that one's religious affiliation is often linked to their political preferences, especially in the case of the religiously unaffiliated (Hout and Fischer 2002), the regression models account for one's reported political party. On the survey, the question stated, "Do you think of yourself as Republican, Democrat, or Independent?" Possible answer choices included, "Strong Republican" (=1), "Moderate Republican" (=2), "Leaning Republican" (=3), "Independent" (=4), "Leaning Democrat" (=5), "Moderate Democrat" (=6), and "Strong Democrat" (=7).

Certain models also incorporate key religious variables. These variables include religious attendance and religious affiliation, both of which generally have strong predictive power and are frequently used in quantitative analyses by sociologists of religion. Concerning attendance, the BRS asked, "How often do you attend religious services at a place of worship?" The range of possible answers for this question included, "Never" (=0), "Less than once a year" (=1), "Once or twice a year" (=2), "Several times a year" (=3), "Once a month" (=4), "2-3 times a month" (=5), "About weekly" (=6), "Weekly" (=7), and "Several times a week" (=8). To measure the effects of one's religious affiliation, a system of binary variables was constructed with the following groups: Evangelicals, Mainline Protestants, Black Protestants, Catholics, Jews, other religions, and Nones. Following Woodberry et al. (2012), both these models have a contrast (or reference) category consisting of those who are religiously unaffiliated (or "Nones").

CHAPTER FOUR

Results

Empirical testing now follows the three hypotheses previously advanced. In Table 2, I test the hypothesis that increases in Internet use will decrease the likelihood of being religiously affiliated, even when controlling for age and other essential demographic variables.

Table 2

Binary Logistic Regression Predicting Religious Affiliation, Baylor Religion Survey 2010.

Variable	b		Odds Ratios
Intercept	4.491	***	--
Age	0.021	*	1.021
White	-0.485		0.616
Female	0.430		1.537
Education	0.057		1.058
Income	-0.243	**	0.785
Place	-0.022		0.978
Kids	0.160		1.174
Political Party	-0.355	***	0.701
Television viewing	-0.199		0.819
Internet use	-0.344	*	0.709
N	1081		
R^2 (rescaled)	.13		

Note: *$p \leq .05$ **$p \leq .01$. ***$p \leq .001$

As the results show, certain variables statistically predict being religiously affiliated. These include age, income, political party, and time spent on the Internet. Confirming what other sociologists have already discovered, older individuals are more likely to be affiliated than are young adults (Kosmin and Keysar 2008; Liu 2012). One's

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political party also matters, for liberals have much greater odds of reporting being religiously unaffiliated than conservatives or moderates, thus confirming Hout and Fischer's (2002) findings. As for time spent online, an increase in the amount of time spent on the Internet is linked with decreased odds that an individual will be religiously affiliated. These findings, while striking, substantiate what Downey (2014) already concluded but control for more variables. In fact, more than one's race, education, place of residence, or number of children, the more time one spends on the Internet, the greater the odds are that such an individual can be predicted to be religiously unaffiliated.

If left with only this finding, we might be tempted to side with the neo-secularization theorists who predict the demise of religion in a modern, digitizing world (Bruce 2002; Norris and Inglehart 2011). However convincing these arguments may be, it is equally important to temper such observations with evidence related to religious behavior. Table 3 indicates that increased time spent online has no statistically significant effect on the time devoted to religious activities. As expected, religiously affiliated and/or politically conservative individuals report higher levels of religious participation, and individuals who live in rural places or have children similarly report being religiously active. When it comes to screen time, the results show that people who watch more television do not generally participate in as many religious events as non-TV viewers, but the same does not apply for Internet use. As the results show, television watching is a strong negative predictor of active religious participation, but Internet surfing has no apparent effect. At first glance, then, it seems that Putnam's suspicions about the negative effects of television may be warranted without carrying these conclusions over to Internet use. However, there may be other reasons why individuals who watch lots of television

are not participating in organized religion. Those who are physically immobile, suffer from an illness or injury, or are older may all be incapable of participating in organized religious activities and watch television simply as a way to pass the time. In such cases, television would not be displacing time dedicated to religion so much as it would be providing comfort and solace to those who cannot leave their home. Regardless of how one interprets the television variable, though, two important points regarding technology can be gleaned from Table 3. First, television watching and religious participation exist in an inverse relationship. Second, this relationship does not similarly apply to Internet use and religious activities. Thus, whatever effects the Internet may have on religion, it does not appear to impact how often people participate in religious activities or attendance.

Table 3

Ordinary Least Squares Regressions Predicting the Effects of Internet Use on Time-Related Religious Behaviors, Baylor Religion Survey 2010.

Variable	Religious Activities			Religious Attendance		
	b		β	b		β
Intercept	8.589	***	0	1.353		0
Age	0.010		0.049	0.017	**	0.086
White	-0.923	***	-0.107	-0.753	**	-0.088
Female	0.152		0.026	0.238		0.040
Education	0.020		0.011	0.172	**	0.094
Income	-0.207	**	-0.105	-0.004		-0.002
Place	-0.287	**	-0.093	-0.170	*	0.056
Kids	0.192	**	0.085	0.172	**	0.079
Political Party	-0.189	***	-0.124	-0.240	***	-0.156
Evangelical	2.134	***	0.332	3.889	***	0.606
Mainline	1.652	***	0.245	3.718	***	0.551
Black Protestant	2.103	**	0.101	3.823	***	0.189
Catholic	1.541	***	0.224	3.860	***	0.559
Jewish	1.668	*	0.068	2.750	***	0.115
Other Religion	1.571	***	0.117	3.568	***	0.263
Television watching	-0.381	**	-0.103	-0.327	**	-0.089
Internet use	-0.103		-0.023	-0.153		-0.034
N	1025			1106		
R²	.13			.26		

Note: *p≤.05 **p≤.01. ***p≤.001

In Table 4, the results indicate evident dividing patterns between exclusivists and pluralists. Among the pluralists who believe that all religions are equally true are those who live in large cities, are politically liberal, or surf the Internet with increased frequency. This confirms my hypothesis that Internet use decreases one's religious exclusivism. As a pluralizing force, the Internet creates a new space through which individuals must navigate competing truth claims and ideas about what is ultimately important. Because of the overwhelming variety of worldviews, beliefs, and religious ideas that are part and parcel of one's ordinary online experience, the Internet creates an open playing field where tinkering with an assortment of spiritual options and rejecting the exclusive truth claims of any one particular religious tradition becomes more likely.

Table 4

Ordinary Least Squares Regression Predicting the Effects of Internet Use
on Religious Exclusivism, Baylor Religion Survey 2010.

Variable	b		β
Intercept	7.710	***	0
Age	-0.004		-0.035
White	-0.189		-0.038
Female	-0.151		-0.044
Education	0.060		0.057
Place	-0.101	*	-0.058
Kids	-0.001		-0.001
Political Party	-0.241	***	-0.274
Evangelical	0.180		0.049
Mainline	-0.018		-0.005
Black Protestant	-0.739	*	-0.064
Catholic	-0.231		-0.058
Jewish	-0.756		-0.053
Other Religion	-0.059		-0.008
Television watching	-0.070		-0.033
Internet use	-0.187	*	-0.073
N	1111		
R^2	.12		

Note: *p≤.05 **p≤.01. ***p≤.001

CHAPTER FIVE

Discussion and Conclusion

To summarize, I have empirically tested three hypotheses concerning the effects of the Internet on our religious beliefs, behavior, and belonging. I have grounded these hypotheses in social theories that deal with religion and technology. The theorists whose work guides these hypotheses, though, do not explicitly connect the two together. For example, Smith (2009) and Wuthnow (2010) extensively discuss the religious lives of America's young adults, but they fail to mention technology as a likely source for the change we see from one generation to the next. Likewise, Song (2009) and Turkle (1997, 2011a, 2011b) focus on Internet technology, but their concern is more with its effects on social capital and the changing conceptions of self rather than religion. What links all of these theorists, however, is their explicit focus on tinkering, an attitude which they think represents large portions of the American population. Thus, the foregoing analysis attempts to merge these literatures and empirically test the following hypotheses:

H_1: Internet use decreases the likelihood of being religiously affiliated. (supported)

H_2: Internet use decreases the likelihood of participating in religious activities. (unsupported)

H_3: Internet use decreases the likelihood of being religiously exclusive. (supported)

As seen above, the results from my regression analyses lend confirmation to H_1, no support for H_2, and positive support for H_3. We can say, then, that while Internet use accompanies the tendency to be religiously unaffiliated and coincides with a pluralist's

acceptance of believing that all religions are functionally the same, it does not displace religious attendance or other time-related religious activities. Put differently, the Internet impacts religious belonging and a particular type of religious belief but not religious behavior. While these outcomes may appear paradoxical, the nuances of this evaluation are important to catch, for we should not expect the Internet to have a uniform effect on religion for all people. What does appear to be the case, however, is that being online increases the likelihood of being religiously unaffiliated, and regardless of one's affiliation, Internet use also reduces the likelihood of maintaining an exclusivistic posture towards one's own religious tradition.

Though not stated in my hypotheses, the effects of television viewing produced statistically significant results that also bear further scrutiny. Curiously, television viewing affects religious outcomes in precisely those models where Internet use has no effect. Television may not change the way we construe religious self-identity or alter our notions of religious exclusivism, but it does have an inverse effect on time-related religious participation, whether those activities are measured in terms of attendance or other events such as prayer or choir groups, Bible studies, or meal-oriented religious gatherings. This raises an obvious question: does television viewing causally displace the time that could be spent on religious activities, or does it (as a variable) only capture those respondents who for some reason cannot participate in religious activities in the first place? It seems conceivable, in other words, that watching television does not stand in the way of religious participation, but it does provide a fallback activity for those who cannot leave their home to practice religion. This would be especially the case for those who are sick, injured, or otherwise physically incapable of active religious participation,

and further studies may wish to control for health and mobility to determine the causal direction. Even so, the evidence here provides an incremental contribution to the literature because it suggests that television watching and the Internet use have different religious outcomes.

Like any project, there are limitations to the data used that prompt further considerations. The most obvious of these is that the BRS only measures the amount of time respondents say they logged on the Internet. By this metric, it is impossible to know what users were doing online. Were they browsing secular websites or religious ones? Was that time spent reinforcing existing beliefs or challenging them by presenting multiple, rival viewpoints? Did the websites they visited actively put forth a religiously pluralistic message? Without knowing the exact content of their web searches, it is impossible to know with certainty. Despite these setbacks, however, this paper makes well-supported theoretical projections about how the very medium of the Internet— through its unique, pluralizing architecture and the implicit assumptions baked in it—may impact one's religious stance.

Bearing in mind these limitations, future research should aim to capture not only the amount of time spent online, but also what kinds of experiences transpire when users surf through cyberspace. While the time and content of web searches could be useful for analytical purposes, researchers should not forget that the form and framework of the Internet are equally important. McLuhan's (1994) reminder that the "medium is the message" is essential for sociologists wishing to understand the effects of the Internet precisely because the medium by which any content is delivered has a decisive influence on how this content is received. In other words, even with the inability to grasp the

content of people's online activity, we can make theoretical progress towards understanding how the Internet directs and shapes its users in subtle ways.

As digital technology makes inroads into our homes and workplaces, our religious landscape continues to evolve and reflect new sociocultural realities. It seems naïve, therefore, to think there are no connections between the two. Moving forward, it is crucial to realize that our lives today are irreversibly altered by the technologies we use. Parents, children, and peers relate to one another differently. The smartphones of today are several million times more powerful than the computers of the mid twentieth century, and now most of us have them in our pockets.[1] What this will do to us is a question worth asking, and it is one that the many sociologists and technologists cited in this paper are already investigating. To the extent that this paper reveals previously undiscovered connections between Internet use and other dimensions of our lives, it is a step in the right direction.

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[1] In fact, Kevin Kelly (2010:173) estimates our smartphones are 30 million times more powerful than mid-century computes.

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