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CULTURAL STRATIFICATION ON THE INTERNET: FIVE CLUSTERS OF VALUES AND BELIEFS AMONG USERS IN BRITAIN

William H. Dutton and Grant Blank

ABSTRACT

Purpose — This paper identifies patterns of online stratification based on cultural values and beliefs among internet users in Britain.

Methodology/approach — Using a nationally representative random sample of respondents from the 2013 Oxford Internet Survey, we identify groups of individuals who share beliefs about the internet.

Findings — Each group represents a distinctive cultural perspective on the internet: e-mersives are fully at home in and positive about the digital environment; techno-pragmatists use the internet for instrumental and work-related purposes; the cyber-savvy use all aspects of the internet, but are also primed to be aware of online risks; cyber-moderates are blasé, neither strongly positive nor negative about the internet; and adigitals harbor overwhelmingly negative beliefs and attitudes about the internet. These cultures are largely unrelated to socio-demographic factors, but

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appear to be shaped by experience online and general dispositions toward learning, and have major implications for patterns of internet use.

Social implications — These cultures of the internet are significant because they suggest that stratification online is strongly influenced by cultural values and meaning because they influence social mobility, skill development, and digital choice.

Keywords: Internet; stratification; culture; cyberculture; attitudes; values

The focus of research into inequality on the internet has been on the role of socio-demographic factors like age, gender, social class, or race. Age has been one of the most consistent predictors of all kinds of internet activities (Bonfadelli, 2002; Dutton & Blank, 2013; Fox & Madden, 2005). For all devices and most activities, young people are more likely to be active online than are older people. That said, older people are more likely to search for health information and buy products online (Jones & Fox, 2009). Gender differences have been found by several studies (Valkenburg & Peter, 2007; Zillien & Hargittai, 2009). Although in some countries, such as the United Kingdom, gender differences have diminished (Dutton & Blank, 2013), they are pronounced in many less developed nations.¹ Social status, education, and income tend to be strongly positively related to internet use (e.g., Dutton & Blank, 2013; Zillien & Hargittai, 2009). This literature is extensive and the above studies are only a small subset (see Hargittai & Hsieh, 2013; and Cardoso, Liang, & Lapa, 2013).

These studies of the internet are part of the larger sociological study of socio-demographic inequality which has a very long history, dating back well over a century. There is another stream of work that considers stratification based on culture. Notable work includes Bourdieu's (1984) distinction-based stratification, DiMaggio's (1982) study of culture as a way for elites to maintain their status, Levine's (1988) study of the emergence of high culture in the United States, and Becker's study of status in *Art Worlds* (1982), among many other works. Considering the impact of the cultural turn (Jacobs & Spillman, 2005), it is striking that cultural issues have been largely neglected in the study of inequality on the internet. There

is literature on cultures of the internet, but this work has been primarily focused on patterns of use and it has not had much impact on the empirical literature.² The goal of this exploratory paper is to make the case that more systematic consideration of the role of culture would benefit scholars of the internet. Before we review prior work on culture and the internet, we want to clarify what we mean by culture.

Culture is a notoriously complex and slippery concept, leading to multiple conceptualizations. Our definition emphasizes the close relation between meaning and culture. Cultural theorist Raymond Williams (1961, p. 57) identifies this as the “social” definition of culture, saying that “culture is a description of a particular way of life, which expresses certain meanings and values ... in institutions and ordinary behavior.” From this perspective, in order to make sense of a cultural object like the internet, people have to attribute meanings to it. The meanings are not inherent in the object; instead, they are constructed or produced through cultural practices. This emphasizes the role of practice: we construct meaning by what we *do* with the object. Concrete practices generate what we think about an object; that is, its meanings. As we do things on the internet and describe our actions, we use words and images to form concepts that refer to aspects of the internet, thereby constructing meaning.

This definition gives us a methodological approach to cultures of the internet. We can look at the words people use to describe what they do on the internet to infer the meanings that the internet has for them. We return to this point in the methodology section below. In complex, post-industrial societies like contemporary Britain, objects rarely have a single, unitary meaning throughout the society. Instead, meanings vary from group to group. Our goal then is twofold. First, to understand the cultural meanings that the internet has for different groups, and second, to relate those meanings to actual practices on the internet. With this understanding of culture, we turn to a review of prior work on internet cultures.

THE IDEA OF INTERNET CULTURES

In its early decades the diffusion of the internet was linked to the rise of a “cyberculture” – a particular pattern of beliefs and attitudes about the virtues of being online (Castells, 2001 Bell, Loader, Pleace, & Schuler, 2004). Many early discussions of a cyberculture were tied to particular kinds of users, such as the culture of participation in early virtual communities,

which Howard Rheingold (1993) likened to “homesteaders,” or to intensely engaged programmers, such as “hackers” (Weizenbaum, 1976), or to the hacking ethic (Himanen, 2002). In the founding decades of the internet, cybercultures often defined these and other pioneering groups of those who were early, leading-edge users of the internet.

Since the turn of the century, the internet has diffused to large proportions of the populations of many nations, and the number of settlers has long since overrun the early homesteaders. Nevertheless, the cultures of the early and contemporary creators of the internet remain important and are often believed to be associated with the values and interests of the internet’s evolving creative sector, from computer scientists to entrepreneurs, which continues to shape the internet’s design and development (Castells, 2010). There is still evidence of a hacker culture (Jordan, 2008), often associated with a dedication to the craft of networking (e.g., Savitz, 2012), and the values of an open and global internet.

However, characterizations of the early adopters have become increasingly far removed from the values and attitudes of most users, since the user population has begun to more closely mirror the general population of nations and regions. For example, with over three-quarters (78%) of people in Britain online by 2013 (Dutton & Blank, 2013), the proportion of hackers would be almost undetectable in a general population survey. Internet users are no longer homesteaders. For this reason, it is becoming more common for people to speak of the culture of the internet generally, or a cyberculture being shaped by the internet (Bell et al., 2004; Lévy, 2001).

An exception to this general characterization is the concept of a “youth” (Mesch, 2009) or “born digital” culture among internet users. These terms are generally used to mean those who grew up with and have become acculturated to the internet – the so-called “digital natives” (Helsper & Eynon, 2009; Palfrey & Gasser, 2008). While other research (Helsper & Eynon, 2009) and our findings identify limitations of this conception, as discussed below, it does seek to identify systematic cultural differences among users, which we aim to progress in the present study.

More often, especially since the bursting of the dotcom bubble, the most frequent categorizations of users have been technical rather than cultural. For example, it is common to distinguish between users and non-users, as well as ex-users (Dutton, Shepherd, & di Gennaro, 2007). Among users of the internet, households are often referred to as narrow or broadband households or users (Dutton, Helsper, & Gerber, 2009). Mobile internet users are another category. The category of more-skilled and less-skilled users is yet another frequently used distinction (Hargittai, 2002). Since

2011, our own work has distinguished between first- and next-generation users, where next-generation users have multiple devices, some of which are portable, to access the internet (Blank & Dutton, 2013; Dutton & Blank, 2011). All of these distinctions are meaningful as they have strong relationships with how people use or do not use the internet, but they are not directly connected to the beliefs or attitudes and values of users, except to the degree that the appropriation of particular technologies signals their acceptance and the affordances they provide.

However, people within any nation are likely to have contrasting perspectives on the internet that do not directly map onto the particular devices and technologies they use. This is evident in everyday conversations as well as in national debates over such issues as content regulation and privacy online. It is not necessarily the case that some people are right and others wrong, but that groups of individuals are likely to have differing values, attitudes, and beliefs about the internet – that is, debates are likely to be shaped by different cultures of the internet.

For example, in the case of Britain, since the earliest surveys, the Oxford Internet Survey (OxIS) has found that a sizeable proportion of non-users say they have no interest in the internet, and this is one key reason why many have chosen not to get online – what we have called their “digital choice” (Dutton et al., 2007). In 2013, 81% of non-users in Britain said they had no interest in the internet (Dutton & Blank, 2013).

Others are excluded from the online world due to their location, such as in a remote rural area, or their inability to afford being online. Yet, even among the online public in Britain – those who use the internet – there are likely to be people with dramatic as well as subtle differences in views about how use of the internet fits with their own values and interests. Are they (un)comfortable with living and working online, for example, or with sharing information and photographs with people they may not know?

As noted above, one of the most conventional views is that there is a set of “digital natives,” primarily younger people who grew up around the internet and are more comfortable using the internet in their everyday life (Palfrey & Gasser, 2008). While the concept of the “digital native” has been challenged by a number of researchers (e.g., Helsper & Eynon, 2009), the idea squares with some anecdotal evidence, and reinforces the perception that there may be categories of users with systematically different perspectives on the internet that might be tied to their cohort or to technologies that predominated when they were young.

However, with the exception of some debate over the concept of digital natives, the diversity of cultures among internet users has not been a focus

of research. It has been under-researched in part because of the early associations with the culture of the early adopters or internet pioneers and also because of a focus of early research on the take-up and mere use of the internet and associated artifacts, such as mobile smartphones. As more of the population of the world moves online, the study of early adopters and simple use is being replaced with more attention being given to patterns of use that differentiate users and shape the societal implications of the internet.

No contemporary research program focuses directly on culture and the internet. For example, [Rice and Fuller's \(2013\)](#) comprehensive review of theoretical perspectives on the internet does not find culture to emerge as a significant theme. However, if broadly defined, there are a number of people whose research contributes to an understanding of internet culture and practice, defined as implications of the internet on patterns and practices of everyday life and society ([Graham & Dutton, 2014](#); [van Dijk, 2012](#); [Wellman & Haythornthwaite, 2002](#)). Specific foci include community, such as work by [Raine and Wellman \(2012\)](#), who argue that the internet changes the meaning of community and friendship toward what they call "networked individualism." Networked individuals are no longer bound by the restrictions of a small, local group; instead, they are linked locally and more virtually to large, loosely connected networks of friends that expand their access to resources and their opportunities for personal growth.

Conceptions of culture are embedded also in discussions of youth online, such as the degree to which adolescents use the internet for personal identity development and growth, for example in friendship formation and maintenance, as well as for a source of entertainment ([Mesch, 2009](#)). Other specific foci have been around the role of the internet in changing conceptions of time ([Qiu, 2013](#); [Wajcman, 2015](#)), and the structure of class and social inequalities ([Hargittai & Hsieh, 2013](#); [Helsper, 2011](#); [Qiu, 2013](#)). The participatory platforms of Web 2.0 have increased the importance of personal meaning on the internet. [Livingstone \(2004\)](#) points out that active audience participation on social media means that ordinary people are involved in the creation of meaning and can publicize their personal interpretations on the internet. This example indicates that a growing body of research sees value in an empirical examination of how individuals themselves find meaning in the internet.

Likewise, worldwide research underscores cross-national similarities and differences in cultures of internet users, such as in the ways they associate freedom of expression, privacy, and other values with use of the internet ([Dutta, Dutton, & Law, 2011](#)). Similar differences might arise within nations. Given the extent of internet use in many developed nations, such

as Britain, where almost four-fifths of the population are online, our working hypothesis was that by capturing the diversity of internet cultures, we would be able to better explain patterns of internet use among the online population.

Since this area is relatively under-theorized we focused on empirically locating the meanings carried by the internet among those who choose to use it in their everyday life and work. Those who tend to share a set of beliefs and attitudes about the internet could be called a distinctive culture of the internet.

If there are multiple cultures of the internet, how can we identify and characterize these cultures? Our approach is based on the case of Britain, where we have gathered extensive data over years about the attitudes and values of internet users, but not systematically examined the degree they cohere in ways that could define distinct internet cultures.

METHODS AND DATA

This study is based on the most authoritative surveys available on use and non-use of the internet by the UK population. We used data from the Oxford Internet Surveys (OxIS), which have been a core project of the Oxford Internet Institute of the University of Oxford. Conducted biennially since 2003, these surveys are nationally representative random samples of more than 2,000 individuals aged 14 and older in England, Scotland, and Wales. Interviews in the field are conducted face to face, in respondents' homes, by an independent survey research organization. The 2013 sample contained data from 2,657 respondents, as the sample size was boosted in 2013 to enable study of individuals living in rural areas, and weighted to reflect the national population. The response rate for the 2013 sample was 52%. The analyses below are restricted to the 78% of the population in Britain who were internet users in 2013, $N = 2,083$.

IDENTIFYING CULTURES OF THE INTERNET

Our approach was to identify cultures inductively by locating clusters of users who shared common attitudes and beliefs about the internet. This involved a four-step process that led us to identify five cultures of the internet in Britain.

First, our survey allowed us to assess the meanings that the internet has for respondents by asking them about the extent to which they agreed or disagreed with certain statements. We identified 14 variables from the 2013 OxIS that measured attitudes toward the internet (see Table 1). Each item was measured on an identical five-point Likert scale ranging from “strongly disagree” to “strongly agree.” These items have been developed and refined since the first survey in 2003. They include both positive and negative items to avoid a response set bias.

Second, the 14 variables were analyzed by using a principal components analysis (PCA) with varimax rotation and Kaiser normalization to

Table 1. Principal Components Analysis Items and Factor Loadings.

Item	Components and Factor Loadings			
	Enjoyable escape	Instrumental efficiency	Problem generator	Social facilitator
Going online helps me escape from things I would rather not deal with.	0.4882			
Going online helps me pass the time when I am bored or have nothing to do.	0.4443			
When I am online I don't feel lonely.	0.4121			
I just enjoy being online to see what comes up.	0.4034	0.2136		
Going online is an efficient means for finding information.		0.6808		
The internet makes life easier.		0.4661		
The internet helps me save time.		0.3799		0.2877
It is difficult to delete personal information once it is online.			0.501	
The internet is frustrating to work with.			0.535	0.2427
There is too much immoral material online.			0.4624	
Dealing with email takes up too much time.	0.288		0.4518	
People can find personal information about me online.				0.7254
Going online allows me to keep in touch with people.				0.3861
It is easier for me to meet people online than in person.	0.3186			0.3254
Eigenvalues	2.66	1.86	1.66	1.53

Notes: Factor loadings after varimax rotation and Kaiser normalization. *N* = 1,448. Loadings less than 0.20 have been left blank.

determine whether a smaller number of dimensions could summarize the variance among the respondents. This analysis yielded four components with eigenvalues greater than 1.0 (see [Table 1](#)). This solution is based on the set of 1,448 internet users who had no missing values on the 14 internet attitude variables. We examined the factor loadings and named the components according to the variables where they have the highest loadings. These four dimensions represent the degree that respondents draw particular meanings from the internet:

1. Enjoyable escape: providing an enjoyable activity that is a good way to pass time and to escape from day-to-day activities, meet people, and not feel alone. Four variables load most strongly on this factor.
2. Instrumental efficiency: by making life easier, such as providing ways to save time, for example by finding information quickly. Three variables load on this component.
3. Problem generator: such as being frustrating to work with, wasting time with email, creating difficulties in controlling personal information, and exposing people to too much immoral material. Three variables load on this component.
4. Social facilitator: helping you keep in touch with friends, such as helping people to find information about you, and making it easier to meet people. Four variables load on this component.

Given our approach, each of the four dimensions is independent of the others, so that someone can view the internet as a wonderful escape, but also feel that it is a source of problems (such as wasting time).

Third, to identify groups of users who share common beliefs about the internet, we generated factor scores for each dimension and used hierarchical cluster analysis to find groups or clusters of respondents. We looked for a similarity measure and distance metric that generated a small number of well-defined clusters. Ward's clustering with squared Euclidean distances produced the most interpretable clusters. This approach identified five clusters of individuals among the internet users, each corresponding to what we defined as a particular culture.

Finally, to characterize each group of internet users, we positioned them along the four cultural dimensions. Our procedure was to calculate the percentage of respondents in each cultural group who had factor score values above the mean. The percentages above the mean are presented in [Table 2](#).

Table 2. Culture Groups Characteristics.

Dimension	e-Mersive	Techno-Pragmatist	Cyber-Savvy	Cyber-Moderate	Adigital
Enjoyable escape	99%	35%	100%	39%	3%
Instrumental efficiency	88%	97%	63%	26%	12%
Social facilitator	79%	81%	81%	30%	24%
Problem generator	0%	28%	90%	47%	78%

Note: This table shows the percent of those who have factor scores above the mean on each dimension. Shaded cells highlight where over 50% are above the mean.

FIVE CULTURES OF THE INTERNET

In Table 2, each cluster was named by examining the components where 50% or more of the individuals in that cluster were above average. The cells above 50% are shaded. While these five cultures overlap, each cluster has a distinctive profile. We defined the profiles as follows:

e-Mersives: Large proportions of respondents classified as “e-mersive” saw the internet as an escape (99%), an efficient tool (88%), and a social facilitator (79%). This group of users is comfortable and naturally at home in the online world and happy being online. For them the internet means they have an escape, a way to pass time, and a source where they can meet people and be part of a community. These strongly positive meanings lead to the view that the internet is a technology they can control – a tool they can employ – to make their life easier, to save time, and to keep in touch with people. They are immersed in the internet as part of their everyday life and work. They constitute about 12% of the UK’s internet users (Fig. 1).

Techno-pragmatists: 97% of techno-pragmatists find that the internet is a source of “instrumental efficiency”: it saves them time when they need to find information, and generally makes their lives easier. This cluster of users stands out by the centrality they accord to these uses of the internet. Like the e-mersives, they feel in control of the internet, employing it for instrumental reasons that enhance the efficiency of their day-to-day life and work. Unlike the e-mersives, the pragmatists do not view the internet as an escape, nor do they often go online just for the fun of it. For them the primary meaning of the internet is as an instrumental tool that helps them be more efficient. Pragmatists comprise about 17% of the UK’s internet users.

Cyber-savvy: A third cluster of users found ambivalent meanings on the internet. On the one hand, they saw it as a source of positive meanings:

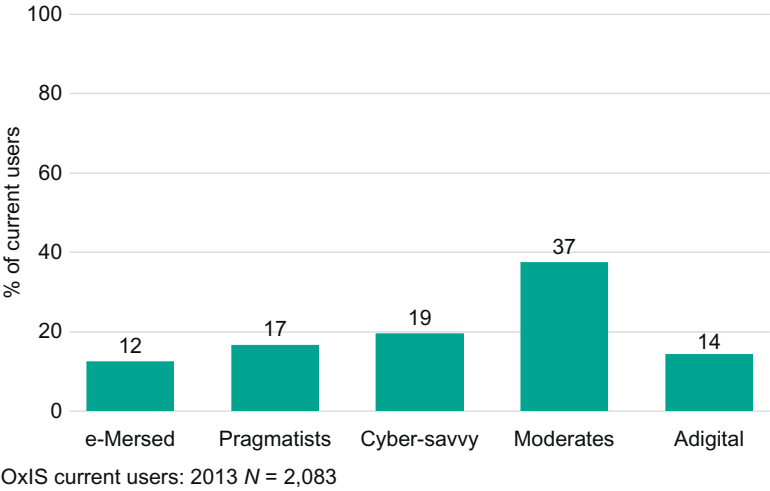


Fig. 1. Internet Cultures in 2013.

enjoyment at being online, a way to pass time, easily find information, and become part of a community into which they could escape and meet people. On the other hand, there were also negative meanings for them: they felt that the internet might be taking control of their lives because it can be frustrating, waste their time, and invade their privacy. Rather than always feeling in control, they felt that they might lose control to technology, which could drain them of time and privacy. Despite their concerns, they fully exploit the internet as a pastime, as an efficient information resource, and a social tool. For this reason, they are in some sense streetwise, or cyber-savvy, living comfortably in an internet world but aware of the risks. They represent nearly one in five (19%) of the United Kingdom’s internet users.

Cyber-moderates: The fourth cluster of users is most clearly defined by patterns of attitudes and beliefs that show them to be more moderate in their view of the internet as a good place to pass the time, an efficient way to find information or shop, or a good way to maintain and enhance their social relationships. On the other hand, they are also not uniformly fearful that there is a risk that the internet will expose them to immoral material, pose a threat to their privacy, or waste their time. They seem to find neither strongly positive nor particularly fearful meanings, thus we have called them “cyber-moderates.” They are the largest single cluster of internet users in Britain, accounting for 37% of users (Fig. 1).

Adigitals: Not every user of the internet is comfortable or happy to be online. Some harbor such major reservations about the internet that we have called them adigitals. For over three-quarters (78%) of the adigitals, the internet is primarily viewed as a set of problems. This adigital group does not feel that the internet makes them more efficient, nor do they enjoy being online to be entertained or escape from the real world. These strongly negative meanings foster perceptions that the internet is out of their control, potentially controlled by others. For example, they feel frustrated because the internet is difficult to use and harbors too much “immoral material.” They feel excluded from a technological culture that is “not made for them.” What resonates most strongly with members of the adigital group is the risks, difficulties, and problems of being online. This adigital culture fits about 14% of the United Kingdom’s online population.

The following sections show the characteristics of these groups, and their implications for patterns of use, as well as for policy and practice.

THE STABILITY OF INTERNET CULTURES

While these meanings cluster in systematic ways, are they quite ephemeral or erratic – constantly changing? On the contrary, over the years, there has been remarkable stability in the meaning of the internet. While OxIS is not a panel survey, we did find that the proportion of the public that hold particular beliefs, such as about the instrumental value of the internet, is relatively stable. There has been some change, such as a drop in the proportion of users who believe there is too much immoral material online, but the overall stability of attitudes and beliefs was one factor that led us to look at these attitudes and beliefs as indicators of cultures of the internet, rather than more ephemeral reactions to recent events.

THE CHARACTERISTICS OF INTERNET CULTURES

Are these culturally similar clusters of individuals simply a surrogate for demographic factors, such as youth being e-mersives? We can consider this question using multinomial logistic regression, with our dependent variable being membership in a particular internet culture. The variables in the regression are explained in [Table 3](#) and the results from three regressions

Table 3. Variables in Multinomial Logistic Regression.

Name	Content
Age	Age in years
Acorn status ^a	Two-category Acorn code: 0 = Wealthy, prosperous, comfortable; 1 = moderate or hard-pressed
Female	Gender: 0 = male; 1 = female
Lifestage	Four-category lifestage, students omitted
Income	Three-category income, <£12,500/year omitted
Education	Education: No qualifications omitted
Bad experiences	Bad experiences on the internet, for example, credit card fraud
Skills	Self-rated internet skill index
Openness to learning	Openness to learning new things and new skills scale
Use SNSs	Whether respondent uses social network sites (SNSs)
Amount internet use	Amount of internet use

^aAcorn is a socio-demographic and lifestyle classification scheme developed for the UK by CACI, see <http://acorn.caci.co.uk>; retrieved June 30, 2015. It classifies, not individuals, but postcodes. This gives us a measure of the characteristics of the community in which the respondent lives.

are in Tables 4(A) 4(B). Note that the cells contain relative risk ratios compared to the omitted adigital category.

The regression on the left, labeled “Demographic” contains the best-fitting model with only socio-demographic variables.³ The results here are generally what you would expect. Age is always negative and significant, indicating that the adigitals are more likely to be older. Female is negative only for e-mersed, indicating people in this category are more likely to be male. Lifestage is significant for three of the four dependent variable categories and it is always negative, indicating adigitals are less likely to be well educated. Other comments can be made about the specific coefficients; however, they do not address the most interesting result, that McFadden’s R^2 is only 6%. The socio-demographic variables explain relatively little about who is a member of a particular culture. The cultures are not simply surrogates for particular socio-demographic groups, such as youth.

Our definition of culture suggests that, rather than being related to demographic factors, people are more likely to draw meaning in part from what they have or have not experienced on the internet. One factor likely to shape one’s perspective is bad experiences online. Our surveys asked about bad experiences online so we could see if these sensitized people to problems of the internet. Second, we expected that more skilled users would be more at ease and find the internet less intimidating (see Hargittai, 2002, Hargittai & Hinnant, 2008, Hargittai & Hsieh, 2013). Third, the

Table 4A. Multinomial Logistic Regression Results
Cells Contain Relative Risk Ratios Compared to the Adigital Category.

Variable	e-Mersed versus Adigital			Techno-Pragmatist versus Adigital		
	Demographic	Skills and learning	Internet activity	Demographic	Skills and learning	Internet activity
Age	0.94***	0.95***	0.97	0.96**	0.98	1.00
Acorn	1.50	1.58	1.39	0.40**	0.44*	0.42*
Female	0.54*	0.69	0.63	1.13	1.38	1.41
Lifestage						
Employed	0.09*	0.12	0.13	0.24	0.31	0.30
Retired	0.20	0.3	0.32	0.26	0.32	0.33
Unemployed	0.08*	0.15	0.19	0.13	0.21	0.22
Income						
>£12,500 – £30,000	1.47	1.29	1.25	1.21	0.99	0.99
>£30,000	1.63	0.82	0.81	1.59	0.92	0.89
Education						
Secondary	0.61	0.33*	0.33*	1.00.	0.56	0.60
Further ed.	0.49	0.22*	0.20*	1.02	0.41	0.43
Higher ed.	0.29*	0.09***	0.09***	0.76	0.26**	0.28**
Bad experiences		1.12	0.88		0.96	0.83
Skills		1.93**	1.36		1.79***	1.34
Openness to learning		1.33***	1.32***		1.42***	1.41***
Use SNSs			1.83***			1.27
Amount internet use			1.08*			1.10***
Constant	194.96**	0.13	0.01*	29.60**	0.01**	0.01***

Notes for three regressions:

	Demographic	Skills and Learning	Internet Use
N	1,356	1,350	1,322
McFadden's R^2	0.06	0.125	0.164
BIC	4,900	4,651	4,452

Adigitals are the omitted category.
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

internet is not static: it keeps reinventing itself every few years. This implies that extensive use of the internet over time requires constant learning and relearning. We therefore used a scale that taps a person's willingness to learn new things. It consists of items such as "I learn new things on my own just because I want to" and "I am no good at learning new things."

These three variables – bad experiences, skills, and openness to learning – were added in the middle regression. Bad experiences are significant for the cyber-savvy, explaining why they are primed to expect problems. Skills

Table 4B. Multinomial Logistic Regression Results
Cells Contain Relative Risk Ratios Compared to the Adigital Category.

Variable	Cyber-Savvy versus Adigital			Cyber-Moderate versus Adigital		
	Demographic	Skills and learning	Internet activity	Demographic	Skills and learning	Internet activity
Age	0.95***	0.95**	0.97	0.97*	0.98*	0.99
Acorn	1.07	1.15	0.98	0.71	0.73	0.66
Female	0.85	0.93	0.86	0.73	0.78	0.74
Lifestage						
Employed	0.09*	0.10*	0.10*	0.10*	0.10*	0.11*
Retired	0.12	0.16	0.16	0.15	0.18	0.17
Unemployed	0.11*	0.16	0.17	0.08*	0.10*	0.11*
Income						
>£12,500 – £30,000	2.08*	2.01*	2.12*	1.71*	1.69*	1.73*
>£30,000	2.68*	1.95	1.98	1.72	1.32	1.35
Education						
Secondary	0.57	0.39*	0.40*	0.65	0.56	0.58
Further ed.	0.45	0.27**	0.29**	0.63	0.53	0.55
Higher ed.	0.43*	0.20***	0.22***	0.49*	0.40**	0.42**
Bad experiences		1.47***	1.27*		1.04	0.96
Skills		1.02	0.75		1.15	0.95
Openness to learning		1.13*	1.11*		1.02	1.01
Use SNSs			1.84***			1.48***
Amount internet use			1.03			1.03
Constant	112.86***	14.11	5.98	113.92***	38.80**	19.58*

Notes for three regressions:

	Demographic	Skills and Learning	Internet Use
N	1,356	1,350	1,322
McFadden's R^2	0.06	0.125	0.164
BIC	4,900	4,651	4,452

Adigitals are the omitted category.
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

are significant, but only for techno-pragmatists, which makes sense given their instrumental orientation – those who use the internet to get things done – but do not relate significantly to being among the e-mersives. However, the openness-to-learning scale is significant for both e-mersed and techno-pragmatists, confirming the fit between their cultural values and the demands of the internet. For e-mersives, for example, the internet provides a continuing opportunity to learn new things, which they enjoy doing. However, the most important point is that these additions more than double McFadden's R^2 to 12.6%, and they reduce BIC by 249 points.

Clearly these factors are important predictors of internet culture, more important than all the socio-demographic variables combined.

Finally, we looked at measures of the amount of activity on the internet, assuming that experience online will be critical to shaping meaning. Two measures, in particular, told an interesting story: whether or not the respondent uses social network sites (SNSs) and the amount of internet use. The indicator of amount of internet use is based on a scale constructed by taking 43 variables that previous research had shown were related to internet use. Each variable is identically measured on a six-point Likert scale, asking respondents how often they do the activity where “never” = 0 and “more than once per day” = 5. This supplies a measure of how much any respondent does each activity. The sum of the variables measures the total amount of internet use.⁴

The amount of internet activity addresses the question of how people become part of one culture or another. Users who become part of the e-mersed or techno-pragmatist cultures tend to spend a lot of time on the internet. The question is, is this predictive? It turns out that it is for e-mersed and techno-pragmatists, but not for others. In fact SNS use is predictive for cyber-savvy and cyber-moderates, but not for others, while sheer amount of use is not. Our other work has underscored how many heavy users of the internet are sometimes more traditional users of email and the Web and less focused on social media, and therefore less likely to share experiences with social media users.

These indicators are added to the right-most model in [Tables 4\(a\) 4\(b\)](#), and both are highly significant. Amount of internet use is significant and positive for e-mersed and techno-pragmatists; not surprisingly, they use the internet more than adigitals. SNS use is significant and positive for cyber-savvy and cyber-moderates, but sheer amount of use is not significant. This suggests their much more limited internet use. Again, the most important point is that these two variables again add about four percentage points to McFadden's R^2 and reduce BIC by 199 points. They are important predictors of one's internet culture.

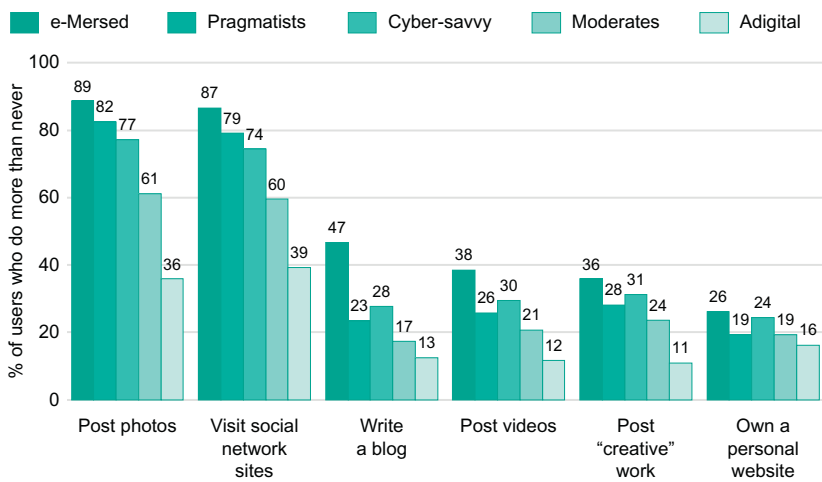
IMPLICATIONS OF CULTURAL DIFFERENCES FOR PATTERNS OF USE

What differences result from one's place in these cultures of the internet? Do the meanings that people attach to the internet have real implications

for how people use the internet and for what purposes? One of the most striking outcomes of this analysis was the range and significance of relationships between the meaning of the internet and various patterns of internet use.

For example, the e-mersives are likely to use more devices, from more locations, and for a greater variety of purposes than other cultural groups, particularly for entertainment, social networking, and content production, reflecting their digital immersion in everyday life and work. The techno-pragmatists are the most disposed to search for information such as news online, but not for flippant purposes or to pass time surfing the internet. The adigitals are least likely to use the internet for a wide variety of entertainment, social, and information purposes, but they are as likely or more likely to use the internet for governmental and political activities. They appear to find the internet critical for some activities, and use it, but are not happy about the frustrations associated with using a technology not made for them.

Other ways in which these cultures differ is with respect to their production of online content (Fig. 2). The e-mersives are more likely to post photos, visit social network sites, write a blog, and post videos or creative work, than are any other cluster of users. The techno-pragmatists,



OxIS current users: 2013 N = 2,083

Fig. 2. Internet Cultures by Content Production.

consistent with their instrumental perspective, are less likely to write a blog, post videos, or creative work than are the cyber-savvy, for example. Adigitals rarely produce content.

RELEVANCE OF CULTURES TO OPINIONS ON
POLICY AND PRACTICE

The implications of these cultures of the internet spill beyond use to shape opinions on policy and practice. For example, the adigitals are the most supportive of greater regulation of the internet, with e-mersives being the least supportive. However, techno-pragmatists, who use the internet to get things done, and who are less often using the internet for entertainment and social purposes, are also somewhat more supportive of greater governmental regulation of the internet, even though a majority still believe that government should not be regulating the internet more than at present (Fig. 3).

Furthermore, if people like the adigitals and cyber-moderates aren't interested in the internet, will they even acquire the basic experience needed to be effective online? This is a challenge for digital inclusion efforts. It is much harder to teach people who don't want to learn.

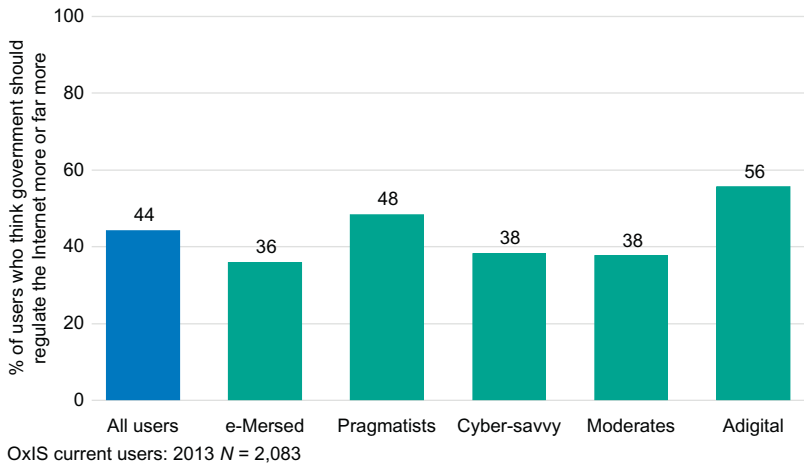


Fig. 3. Internet Cultures by Government Regulation Attitudes.

CONCLUSION AND DISCUSSION

In the early stages of online communication, there was great interest in the rise of individuals who valued virtual communities, and who became pioneering homesteaders of this new world. As the internet diffused, interest in an emerging cyberculture diminished and the focus turned to the characteristics of users, skilled users, social media users, and more recently, mobile internet users, with such technical definitions tending to define categories of users. However, with most people in developed nations using the internet, differences in the meaning of the internet are becoming more apparent.

Our exploratory study identified patterns of cultural meaning among internet users in Britain. Using a nationally representative random sample of respondents from the 2013 Oxford Internet Survey, we inductively discovered groups of individuals who represented distinctive cultural perspectives on the internet: groups we have called e-mersives, techno-pragmatists, the cyber-savvy, cyber-moderates, and adigitals.

Much prior research has linked major cultural differences with socio-demographic differences, primarily tied to the age cohorts of users, to identify the so-called “digital natives.” However, our analysis shows that this characterization over-simplifies and exaggerates the role of age cohorts. In fact, as our analysis shows, cultures are largely unrelated to socio-demographic factors, but appear to be shaped by experience online and general dispositions toward learning. Moreover, these cultures are important because they have major implications for patterns of internet use.

A New Perspective on Stratification

One of the most significance implications of these cultures of the internet is that they could play a role in stratification online – shaping the role of the internet in social mobility, skill development, and digital choice.

Stratification online has typically been seen as a result of socio-demographic, structural factors like income, education, and age. Attitudes have been added to this mix in recent theory (van Deursen & van Dijk, 2014). We have contributed to this literature (e.g., Blank, 2013; Dutton & Blank, 2013). This paper argues, not that this approach is wrong, but that it overlooks an important additional factor, culture.

The cultural object that is the internet is stratified by how people interact with it. The regressions show that some people embrace it enthusiastically;

they get caught up in it and spend a lot of time online. Others reject it outright or they use it reluctantly. These distinctions are strongly related to cultural groupings, and when culture comes into play, socio-demographics fade in importance.

Internet use is stratified on the basis of people's willingness to engage with it. Willingness to engage is mostly (though not entirely) a question of values and culture. It is influenced by openness to learning new things, which operates largely independently of other variables. People who have had bad experiences are sensitized and regard the internet with more wariness than others. People who have a pragmatic, instrumental approach to the internet feel they are highly skilled, which makes further learning easier, which promotes more activity, and so on in a virtuous cycle of engagement with the internet.

These dynamics suggest a possible mismatch between current research, focused on material factors, and actual internet use, since cultural dispositions are also important. People who value learning new things are likely to have an advantage on the internet. They are more open to the experiences of the internet; consequently, they tend to be more active on the internet, so they acquire more skills, which in turn makes it easier for them to use the internet. This is a story of the enthusiastic users who we identify as e-mersed and techno-pragmatists. It is essentially an argument that reinforces earlier findings that the internet is an experience technology (Blank & Dutton, 2012; Dutton & Shepherd, 2006). In other words, to understand the value of the internet and really take advantage of it you have to experience it. Experience is a prerequisite for sophisticated and effective use of the internet.

There are a number of implications to this perspective. First, policy agendas of digital inclusion need to take into account the symbolic role that the internet plays. If people are to use the internet, then the central issue is not simply a resource constraint, like money or lack of broadband, but also one's cultural perspective on the internet. That requires a different approach and different programs.

Another implication is that internet skills may be an epiphenomenon of culture, at least in part. First, it is notable that skills were important only for one of the five cultural groups, the techno-pragmatists. This is an important subset and a big fraction of internet users, but it is far from a plurality. A basic level of skills is important. But beyond some basic level, the value of acquiring more skills may decline rapidly. The e-mersives may be showing that it is possible to use the advantages of the internet without high levels of skill, such as through a greater reliance on social media and mobile internet applications that are relatively easier to use than a desktop computer for internet access.

More generally, high levels of skill may be an epiphenomenon that emerges among people who are interested in learning and see the internet as a marvelous source of novel things to learn. To the extent that this is true, it suggests that the skills literature might be more focused on such learning dispositions than on the simple measurement of skills. How can one shape the underlying values that make some people more receptive to learning?

Second-Order Effects

This pattern of findings could have implications for careers, and therefore larger issues of stratification. People who are more enthusiastic and place a high value on learning will learn to use the internet. To the extent that internet ability is central to many jobs, careers, and professions, then these people will have a better chance of advancing their careers, which could have important implications for social mobility. To the extent that the internet is important for upward mobility, people willing to learn new things are more likely to be occupationally mobile.

In such ways, cultural values supporting the internet could have larger stratification implications by reconfiguring who gets ahead. Having cultural values that are a good fit to the demands of the internet is a big advantage for those who would be upwardly mobile in a networked society.

Cultures of the Internet

In conclusion, our analysis raises several general issues around cultures of the internet, including issues of control, the proportion of moderates, and the diversity across internet users. At the broadest level, the cultures are separated by differences in their sense of control over the internet. Two cultures, the e-mersives and the techno-pragmatists, feel that the internet as a technology is more or less under their control, although the groups differ according to whether they use the internet for enjoyment. Members of the three other cultures differ in the degree to which they believe the internet can be used to serve their personal needs and interests, but also see their control to be limited in ways that put them at greater or lesser risk, such as with respect to privacy. At the extreme, the adigitals express views that suggest that the internet is out of their control, and they feel excluded from the world of the internet. In line with this, they are the most supportive of increased government regulation.

Second, in some respects the cyber-moderates are the most interesting culture. While groups that feel strongly for or against the internet are widely discussed by journalists and policy-makers, groups like the moderates are not. Cyber-moderates underscore the degree to which a large proportion of internet users, at least in Britain, do not fit into the stereotypes of enthusiasts like the e-mersives and the techno-pragmatists. They don't see major payoffs from the internet, but they don't see great risks either. They have found a middle way in being online as part of everyday life, but without much fervor. Surprisingly, they are the single largest culture, exceeding one-third of the British population. Given their tempered views on the internet, they are unlikely to be pressing the frontiers of internet use, or exploring new applications. They are unlikely, for example, to feel happy about the government plans for services to be digital by default, or available only in digital form. The Next Big Thing is not their thing. Importantly, the rise of such cyber-moderates could be a drag on innovative uses of the internet in Britain and other developed nations, where other studies have uncovered greater levels of innovative use of the internet in developing nations of East Asia and the Global South (Dutta et al., 2011).

Third, a notable fact about these cultures is the diversity they expose among internet users. They show that the internet contains a wide spectrum of viewpoints on its value and also its risks. Moreover, many online are among the adigitals, whose approach to the internet could be a brake on its role in Britain and other nations of the evolving internet world, for better or worse. When over half of the online population is either unenthusiastic cyber-moderates or negative adigitals it is clear that getting the public online is not enough. Neither of these groups is likely to use the internet by preference. Under many circumstances they are likely to prefer other means of communication.

Directions for Research

Our review of literature in this area suggests that the cultures of the internet have not received sufficient attention in empirical research. During the early years of internet development, much discussion focused on the unusual cultures of pioneering users, developers, and hobbyists. The diffusion of the internet into the mainstream has marginalized such groups, but mainstream users can also be differentiated by contrasting sets of cultural beliefs and values about the internet in everyday life and work.

It has become common to think in terms of categories of internet use (e.g., Blank & Groselj, 2014; Brandtzæg, 2010; Livingstone & Helsper, 2007;

van Deursen & van Dijk, 2014). We argue that these five cultural categories are not just another typology. Instead they constitute a (partial) rethinking of how people understand the internet. Cultural categories supply a lens that is more complex than socio-demographic categories, attitudes, and access to particular technologies, such as broadband, because they address the question of the meaning of the internet. Meanings are fundamental components of how people use the internet in the sense that they seem to override demographic, structural characteristics to help explain the use of technologies. This paper provides an example of how to collect data on those cultural meanings, and how to analyze it. The cultural lens encompasses multiple meanings; this research suggests that five are common among internet users in Britain. Further research over time and across different national and regional contexts is required to determine whether these patterns can be generalized beyond Britain. However, this research would suggest that cultural differences are likely to emerge among users within nations across the world in ways that have major implications for patterns of use that shape the societal implications of the internet.

NOTES

1. For example, see World Internet Stats: www.internetworldstats.com/usage.htm. Retrieved on June 30, 2015.
2. Van Deursen and van Dijk (2014, p. 513) consider attitudes, but for their methods section explain that attitudes are comparatively low level: "motivations that can be directly related to types of usage," such as entertainment, personal development or information seeking. They use this to identify "usage types." This is related to our understanding of culture, but it does not focus on the different meanings that the internet has for groups. They do not attempt to identify the particular values and attitudes characteristic of different groups. Their work is not, in other words, a study of distinctive internet cultures.
3. Other models with additional socio-demographic variables, like marital status or urban—rural, do not fit as well, measured by reduction in BIC.
4. A detailed description of this scale is in Blank and Groselj (2014).

REFERENCES

- Becker, H. S. (1982). *Art worlds*. Berkeley, CA: University of California Press.
- Bell, D. J., Loader, B. D., Pleace, N., & Schuler, D. (2004). *Cyberculture: The key concepts*. London: Routledge.

- Blank, G. (2013). Who creates content? Stratification and content production on the internet. *Information, Communication & Society*, 16(4), 590–612. doi:10.1080/1369118X.2013.777758
- Blank, G., & Dutton, W. H. (2012). Age and trust in the internet: The centrality of experience and attitudes toward technology in Britain. *Social Science Computer Review*, 30(2), 135–151. doi:10.1177/0894439310396186
- Blank, G., & Dutton, W. H. (2013). The emergence of next generation internet users. In J. Hartley, J. Burgess, & A. Bruns (Eds.), *A companion to new media dynamics* (pp. 122–141). London: Wiley-Blackwell.
- Blank, G., & Groselj, D. (2014). The dimensions of internet use: Amount, variety and types. *Information, Communication & Society*, 17, 417–435. doi:10.1080/1369118X.2014.889189
- Bonfadelli, H. (2002). The internet and knowledge gaps: A theoretical and empirical investigation. *European Journal of Communication*, 17(1), 65–84.
- Bourdieu, P. (1984). In R. Nice (Trans.), *Distinction: A social critique of the judgement of taste*. Cambridge, MA: Harvard University Press.
- Brandtzæg, P. B. (2010). Towards a unified media-user typology (MUT): A meta-analysis and review of the research literature on media-user typologies. *Computers in Human Behavior*, 26(5), 940–956. doi:10.1016/j.chb.2010.02.008
- Cardoso, G., Liang, G., & Lapa, T. (2013). Cross-national perspectives from world internet project. In W. H. Dutton (Ed.), *Oxford handbook of internet studies* (pp. 216–236). Oxford: Oxford University Press.
- Castells, M. (2001). *The internet galaxy*. Oxford: Oxford University Press.
- Castells, M. (2010, October 18). Lecture on “cultures of the internet.” OII lecture series. Summary. Retrieved from <http://www.youtube.com/watch?v=QXde6hJ1iUc>. Accessed on June 30, 2015.
- DiMaggio, Paul. (1982). Cultural entrepreneurship in nineteenth-century Boston, part I: The creation of an organizational base for high culture in America. *Media, Culture, and Society*, 4, 33–50.
- Dutta, S., Dutton, W. H., & Law, G. (2011, April). *The new internet world: A global perspective on freedom of expression, privacy, trust and security online*. The Global Information Technology Report 2010–2011. New York, NY: World Economic Forum. Retrieved from <http://ssrn.com/abstract=1810005>. Accessed on June 30, 2015.
- Dutton, W. H., & Blank, G. (2011). *Next generation users: The internet in Britain*. OXIS Survey: 2011. Oxford Internet Institute, University of Oxford.
- Dutton, W. H., & Blank, G. (2013). *Cultures of the internet: The internet in Britain*. Oxford Internet Survey 2013 Report. Oxford: Oxford Internet Institute.
- Dutton, W. H., Helsper, E. J., & Gerber, M. M. (2009). *The internet in Britain: 2009*. OXIS Report: Oxford Internet Institute, University of Oxford, Oxford.
- Dutton, W. H., & Shepherd, A. (2006). Trust in the internet as an experience technology. *Information, communication and society*, 9(4), 433–451.
- Dutton, W. H., Shepherd, A., & di Gennaro, C. (2007). Digital divides and choices reconfiguring access: National and cross-national patterns of internet diffusion and use. In B. Anderson, M. Brynin, J. Gershuny, & Y. Raban (Eds.), *Information and communications technologies in society* (pp. 31–45). London: Routledge.
- Fox, S., & Madden, M. (2005). *Generations online*. Washington, DC: Pew Internet & American Life Project.

- Graham, M. & Dutton, W. H. (Eds.) (2014). *Society and the internet*. Oxford: Oxford University Press.
- Hargittai, E. (2002). Second level digital divide: Differences in people's online skills. *First Monday*, 7(4).
- Hargittai, E., & Hinnant, A. (2008). Digital inequality: Differences in young adults' use of the internet. *Communication Research*, 35(5), 602–621.
- Hargittai, E., & Hsieh, Y. P. (2013). Digital inequality. In W. H. Dutton (Ed.), *Oxford handbook of internet studies* (pp. 129–150). Oxford: Oxford University Press.
- Helsper, E. J. (2011). *The emergence of a digital underclass: Digital policies in the UK and evidence for inclusion*. LSE media policy project: Media policy brief 3. London: London School of Economics.
- Helsper, E. J., & Eynon, R. (2009). Digital natives: Where is the evidence? *British Educational Research Journal*, 36(3), 503–520.
- Himanen, P. (2002). *The hacker ethic: A radical approach to the philosophy of business*. New York, NY: Random House.
- Jacobs, M., & Spillman, L. (2005). Cultural sociology at the crossroads of the discipline. *Poetics*, 33(1), 1–14.
- Jones, S., & Fox, S. (2009). *Generations online in 2009*. Retrieved from <http://www.pewinternet.org/2009/01/28/generations-online-in-2009>. Accessed on June 30, 2015.
- Jordan, T. (2008). *Hacking: Digital media and technological determinism*. Cambridge, MA: Polity Press.
- Levine, L. C. (1988). *Highbrow/lowbrow: The emergence of cultural hierarchy in America*. Cambridge, MA: Harvard University Press.
- Lévy, P. (2001). *Cyberculture*. Minneapolis, MN: University of Minnesota Press.
- Livingstone, S. (2004). The challenge of changing audiences. *European Journal of Communication*, 19(1), 75–86. doi:10.1177/0267323104040695
- Livingstone, S., & Helsper, E. (2007). Gradations in digital inclusion: Children, young people and the digital divide. *New Media & Society*, 9(4), 671–696. doi:10.1177/1461444807080335
- Mesch, G. S. (2009). The internet and youth culture. *The Hedgehog Review*, 11(1), 50–60.
- Palfrey, J., & Gasser, U. (2008). *Born digital: Understanding the first generation of digital natives*. New York, NY: Basic Books.
- Qiu, J. L. (2013). Network societies and internet studies: Rethinking time, space and class. In W. H. Dutton (Ed.), *Oxford handbook of internet studies* (pp. 109–128). Oxford: Oxford University Press.
- Raine, L., & Wellman, B. (2012). *Networked*. Cambridge, MA: MIT Press.
- Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier*. New York, NY: HarperCollins.
- Rice, R., & Fuller, R. P. (2013). Theoretical perspectives in the study of communication. In W. H. Dutton (Ed.), *Oxford handbook of internet studies* (pp. 353–377). Oxford: Oxford University Press.
- Savitz, E. (2012). Craftsman hacker culture: The key to IT innovation. *Forbes*, CIO Network, December 27. Retrieved from <http://www.forbes.com/sites/ciocentral/2012/12/27/craftsman-hacker-culture-the-key-to-it-innovation/>. Accessed on June 30, 2015.
- van Deursen, A. J. A. M., & van Dijk, J. A. G. M. (2014). Digital divide shifts to differences in usage. *New Media & Society*, 16(3), 507–526.

- Valkenburg, P. M., & Peter, J. (2007). Preadolescents' and adolescents' online communication and their closeness to friends. *Developmental Psychology*, 43(2), 267–277.
- Van Dijk, J. (2012). *The network society* (3rd ed.). Thousand Oaks, CA: Sage.
- Wajcman, J. (2015). *Pressed for time*. Chicago, IL: University of Chicago Press.
- Weizenbaum, J. (1976). *Computer power and human reason*. San Francisco, CA: W. H. Freeman & Company.
- Wellman, B. & Haythornthwaite, C. (Eds.). (2002). *The internet in everyday life*. Oxford: Blackwell.
- Williams, R. (1961). *The long revolution*. London: Parthian Books.
- Zillien, N., & Hargittai, E. (2009). Digital distinction: Status-specific types of internet use. *Social Science Quarterly*, 90(2), 274–291.