

## Next Generation Users: Changing Access to the Internet

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### Abstract

We investigate some implications of the rising use of mobile devices and multiple devices to access the Internet. Next Generation Users are defined as Internet users who access the Internet (1) on mobile devices and (2) on multiple devices. Data from the 2011 Oxford Internet Survey shows that Next Generation Users are disproportionately likely to use the Internet for entertainment, content production, and information-seeking. Logistic regression shows that Next Generation Users tend to be younger, wealthier, have positive attitudes toward technology and to have used the Internet longer. We conclude that mobility and multiple devices are reconfiguring their access to information, people and services in ways that are likely to empower them in relation to other users. This may herald the beginning of a new digital divide.

### Keywords

Next Generation User; Internet; mobile use; Oxford Internet Survey; digital divide

Many people believe that Internet use has entered a “post-PC” era. These people make arguments like “more and more consumers are using their mobile devices as their ‘default gateway’ for accessing the Internet” (King 2012), or “As soon as three to five years from now, the average business professional will be transitioning from ‘Heavy’ clients such as desktop PCs and business laptops with large amounts of localized storage and localized applications ... to very small and extremely power efficient, ... systems ... which will function mostly as cache for applications that run remotely” (Perlow 2012). Mobile devices offer new kinds of access to the Internet but, as we shall show, the relationship between PCs and mobile devices is a great deal more complex than simple replacement of one device by another.

Three theoretical perspectives bear on the social implications of a shift in patterns of access to the Internet. They are all qualitative explanations of patterns of relationships, rather than operationally defined models, but they capture the major competing perspectives on the role of the Internet in everyday life.

### ***Technical Rationality***

The technical rationality perspective draws on major features of new technologies to reason about the likely implications of adoption.

### ***Domestication: A Social Rationality***

In contrast, work on ‘domestication’ of the Internet argues for a more socially determinist perspective on the social role of the Internet and related information and communication technologies (ICTs) in the household. Domestication (Haddon 2006, 2007, 2011; Silverstone et al. 1992) emphasizes the influence of households or work places on shaping, taming or domesticating technologies as users fit them into the values and interests of their particular social context.

### ***Reconfiguring Access***

A different theoretical perspective focuses on ‘reconfiguring access’ (Dutton 1999; 2005). From this perspective, it is impossible to determine the implications of technologies in advance, either by rationally extrapolating from the technical features of the innovations or by assessing the interests and values of users. This distinguishes this perspective from both a more technologically determinist view and a socially determinist position. Reconfiguring access takes note of the fact that users often reinvent technologies, employing them in ways not expected by their developers.

### ***Methods and Data***

This paper addresses these issues around new patterns of Internet access by analysing survey data gathered in Britain as part of the Oxford Internet Survey (OxIS). Based on demographic, attitudinal and Internet use questions it is possible to construct profiles of the survey participants, which include users and non-users of the Internet.

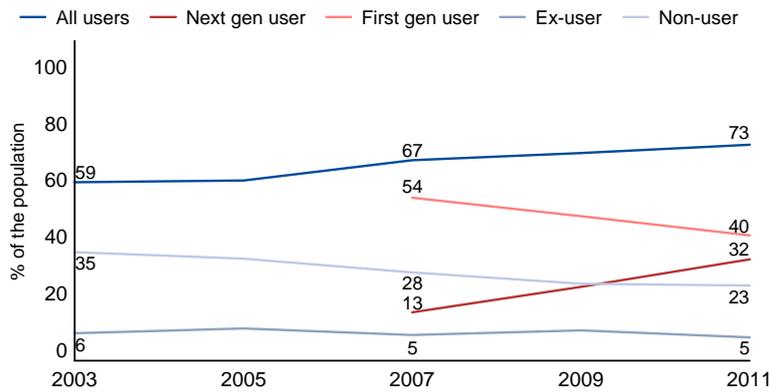
### ***The Emergence of Next Generation Users***

We identified two categories of users. First, we define the Next Generation User (NGU) as someone who accesses the Internet from multiple locations and devices. Specifically, we operationally define the next generation user as someone who uses at least two Internet applications (out of four applications queried)<sup>i</sup> on their mobile and who fits two or more of the following criteria: they own a tablet, own a reader, own three or more computers. By this definition, in 2011, almost a third of Britons, and 44.4% of Internet users in Britain, were Next Generation Users (Figure 1 and Figure 2).

Second, from the Oxford Internet Institute’s (OII) first survey of Internet use in 2003, access has been primarily via a personal computer in the home. For many, this was complemented by similar access at work or school. While access has moved from dialup to broadband, wireless connections have expanded, and broadband speeds continue to increase, this pattern of Internet access from a stationary computer characterizes the ‘first generation user’.

Figure 2 shows the rise Next Generation Users in the context of overall Internet use. British Internet use grew from just under 60% in 2003 to 73% in 2011, leaving more than a quarter of the British population without access to the Internet. There has been a steady but slow decline in the proportion of people who have never used the Internet (non-users), and relative stability in the proportion of those who have used the Internet at one time but who no longer do so (ex-users). Despite multiple government and private initiatives aimed at bringing people online, digital divides remain in access to the Internet. The slow growth in the proportion of British people with access to the Internet contrasts dramatically with the rapid rise of Next Generation Users. They increased from 13% in 2007 to 32% of the British population by 2011. There is a corresponding decline in First generation users from 54% to 40% of the British population.

Figure 2: **Next Generation Internet Users in Context**



OxIS 2003: N=2,029; OxIS 2005: N=2,185; OxIS 2007: N=2,350; OxIS 2009: N=2,013; OxIS 2011: N=2,057

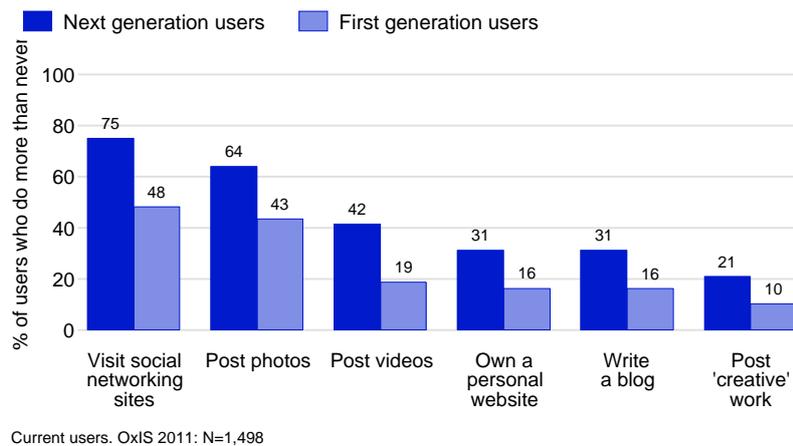
### ***Why Does this Matter?***

Access to the Internet shapes the ways in which individuals use the technology, and how people wish to use the Internet shapes the technologies they adopt. This is shown by the contrast between first and next generation use of the Internet in three areas: content production, entertainment and leisure, and information seeking. In each case, a technical rationality might see innovations reducing the openness and generativity of users, while from a domestication perspective, you would expect to see little change in patterns of use between next and first generation users.

### ***Content Production***

In contrast to technical rationality, with its focus on how the limited openness of new devices restricts users, next generation users are more likely to be producers of content than are first generation users, who concentrate more on consumption rather than production. For many types of content, next generation users are as much as 25 percentage points more likely to be producers. Specifically, next generation users are more likely to update or create a profile on a social networking site (Figure 3). They are also more likely than first generation users to post pictures and videos, post messages on discussion boards or forums, and post stories, poetry or other creative work. For more demanding types of content, such as maintaining a personal website or writing a blog, next generation users are almost twice as likely to be producers than are first generation users. Innovations are reconfiguring access by enabling greater production of content by next generation users, but in a direction opposite to that expected on the basis of the more limited features of appliances.

**Figure 3: Next Generation Users by Content Production**



The paper goes on to discuss differences between Next Generation Users and first generation users in entertainment and leisure, and content production, illustrated by additional graphics. We do a pair of logistic regressions to describe the characteristics of the people who have become Next Generation Users. The paper concludes by discussing the implications of the Next Generation User concept for the future development of the Internet, especially for the mobile Internet.

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<sup>i</sup> The four applications are: browsing the Internet, using email, updating a social networking site, or finding directions.