OBAMA-BIDEN TRANSITION PROJECT

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MEMORANDUM

To: Jim Halpert, David McMillen, PTT

From: Eszter Hargittai, Associate Professor of Communication Studies, Northwestern University & Fellow, Berkman Center for Internet & Society, Harvard University

Date: December 18, 2008

Re: Potential Census questions to measure Internet literacy and skills

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Evidence on relatively small samples of Americans' Internet uses suggests that people differ considerably in their Web user skills, even when accounting for differences in access. They also differ in what they do online, with a strong relationship between activities and skill. Far from being randomly distributed, skill differences reflect existing social inequalities (e.g., those of higher socioeconomic status have higher-level skills). **The implications of these findings are that merely providing access to the Internet will not, in and of itself, level the playing field when it comes to achieving universal Internet literacy. Technological solutions need to be coupled with educational initiatives.**

Existing evidence on Internet uses and skills

Due to lack of data on large national samples, we only have limited knowledge about the contours of Internet skill differences across the American population as a whole. As a result, we have to rely on results from smaller studies each with important limitations. Current sources of information on Internet uses (but much less often skill in particular) are the Internet Society Module of the General Social Survey (GSS) administered in 2000, 2002 and 2004, but not since; surveys from the Pew Internet Project; and other studies by individual researchers (e.g., surveys by the Web Use Project at Northwestern University specifically on Internet skill). While helpful, they each have their limitations. The GSS Internet Module has not been administered since 2004 and the sample sizes are very small (a few hundred adults); Pew studies have relatively low response rates (around 30%) which leads to concerns about the representativeness of the sample, and also collect relatively little other information about respondents; Web Use Project surveys are not representative of all U.S. adults.

Prior CPS information on Internet use

Starting in 1994, followed by supplements in 1997, 1998, 2000, 2001 and 2003, the Current Population Survey (CPS) Computer and Internet Use Supplement (CUIS) asked respondents about their computer and Internet uses with details about locations of use as well as specific online activities. Between 2003 and 2007, undoubtedly an era in which the Internet saw considerable innovation and was likely coupled with new uses, no such questions were asked on the CPS. Moreover, **the CPS has never asked about Internet skills and literacy.**

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In 2007, three simple Internet-related questions were added to the CPS. The questions only inquire about whether respondents use the Internet, where they use the Internet, and using what connection.

Recommendations

The Computer and Internet Use Supplement of the Current Population Survey should be revived, updated, and regularly administered to CPS respondents. Supplementing earlier questions, items that measure people's Internet skills and literacy should be included. This would result in an understanding of which populations across the United States are especially disadvantaged when it comes to Internet skills and literacy thereby allowing the creation of the most relevant interventions.

Appended to this memo is a specific question recommendation. This item was developed based on my research using mixed methods from observational as well as survey data collection. It has been administered on several surveys and has proved to be useful for measuring people's Internet skills and literacy. **The sum of the individual items results in an index that captures people's Internet skills well.** The items can be modified depending on space limitations by including fewer of them or providing a smaller range of answer options. Subsequent conversations can determine the best strategy in such a case.

To preserve the ability to look at trends over time, it is important to keep some of the questions that were asked on the CPS CUIS in previous years. At the same time, recognizing that information technologies are very much an evolving and moving target, it is also important to change with the times incorporating recent advances so we have an accurate idea of Americans' engagement with and understanding of the Internet. In this vein, the CPS might consider including questions about network access using mobile devices (however, since capabilities are much more limited, these should be broken out and not lumped in with Internet access using computers).

If possible, longitudinal data about the same respondents would be especially advantageous to examine the long-term payoffs of varying levels of Internet skills and uses.

For more information on understanding the social dimensions of Internet uses and the importance of skill in particular, see the following pieces. (I am happy to provide additional sources, including work by others, upon request.)

Hargittai, E. (2008). The Digital Reproduction of Inequality. In *Social Stratification*. Edited by David Grusky. Boulder, CO: Westview Press. 936-944.

Hargittai, E. (2008). The Role of Expertise in Navigating Links of Influence. In *The Hyperlinked Society*. Edited by Joseph Turow and Lokman Tsui. Ann Arbor, MI: The University of Michigan Press. 85-103.

Hargittai, E. (2007). A Framework for Studying Differences in People's Digital Media Uses. In *Cyberworld Unlimited*. Edited by Nadia Kutscher and Hans-Uwe Otto. VS Verlag für Sozialwissenschaften/GWV Fachverlage GmbH. 121-137.

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Appendix. Survey item recommendation for measuring Internet user skill

How familiar are you with the following computer and Internet-related items? Please choose a number between 1 and 5 where 1 represents "no understanding" and 5 represents "full understanding" of the item.

	Understanding Scale				
	None	Little	Some	Good	Full
JPEG	1	2	3	4	5
Preference settings	1	2	3	4	5
Newsgroups	1	2	3	4	5
PDF	1	2	3	4	5
Weblog	1	2	3	4	5
Bookmark	1	2	3	4	5
Bookmarklet	1	2	3	4	5
Spyware	1	2	3	4	5
Bcc (on email)	1	2	3	4	5
Blog	1	2	3	4	5
Tagging	1	2	3	4	5
Tabbed browsing	1	2	3	4	5
RSS	1	2	3	4	5
Wiki	1	2	3	4	5
Podcasting	1	2	3	4	5
Phishing	1	2	3	4	5
Web feeds	1	2	3	4	5

Two methodological articles that discuss the development of this instrument are:

Hargittai, E. (In Press). An Update on Survey Measures of Web-Oriented Digital Literacy. *Social Science Computer Review.*

Hargittai, E. (2005). Survey Measures of Web-Oriented Digital Literacy. *Social Science Computer Review. 23***(3)**, 371-379.

An example of this instrument used in data analyses is:

Hargittai, E. & Hinnant, A. (2008). Digital Inequality: Differences in Young Adults' Use of the Internet. *Communication Research.* 35**(5)**:602-621.