Generational Differences in Informational Technology Use & Political Involvement

Mack C Shelley mshelley@iastate.edu, Iowa State University
Lisa Thrane lthrane@iastate.edu, Iowa State University
Stuart W. Shulman stuart.shulman@drake.edu, Drake University

While Internet access steadily expands, the ability to take advantage of that increasing access hinges on information technology literacy (ITL) levels among citizens. Structural inequality is reproduced as social factors intersect with infrastructural barriers to IT access. The lack of access to and the desire to use IT among economically disadvantaged and aging citizens exacerbates their ability to function as citizens in a democratic society. Community members, particularly in certain more economically vulnerable groups, often lack basic skills and concepts required when navigating an expanding electronic interface with government. Information technology (IT) makes it easier for some citizens to participate in a democratic system; by the same token, it widens the gap between the haves and have-nots. Digital inequality is further compounded as the technology changes by leaps and bounds; existing skills become antiquated, and no ready path is available to acquire new skills. This study assesses the impact of generational and SES differences on IT literacy and political participation. Technological literacy, almost by its very definition, is evocative of generational differences in orientations to politics and of age-related differences in levels of political interest and political involvement, up to and including voting in elections at all levels. The theory that undergirds our research is redolent with generation gaps and evokes the notions of a younger "cyber generation" and an older generation for which Internet technology is somewhat episodic if not producing a mild case of technophobia. High school and college students who can program and Websurf circles around their parents provide a stereotype that often reflects reality.

Data were collected from a 2003 national computer-assisted telephone interview random sample survey (n = 478) of phone numbers appearing in telephone directory listings representing three regions of the country among adults living in Colorado, Iowa, and Pennsylvania. The overall response rate was 31.4%, ranging from 37.4% in Iowa to 26.7% in Pennsylvania.

A structural equation path model (estimated by maximum likelihood in LISREL 8.50) fits the data well (χ^2 = 11.86; df = 10; p = .31; GFI = .99, AGFI = .98, NFI = .98, RMSEA = .02, AIC = 63.7). The estimates meet the usual criteria for being stable and reliable. As age declined, respondents reported more support for IT (ß = -.33) and fewer technological disadvantages (ß = -.34). Younger-aged persons showed more desire for public IT availability (ß = -.26) and e-political participation (ß = -.20). However, older-aged respondents had a pronounced preference for traditional electoral involvement (ß = .43). Those with higher levels of education held more favorable views toward information technology (ß = .22) and held positive attitudes toward public IT access (ß = .17), and were more active in both traditional (ß = .26) and electronic forms of participation (ß = .25). Those who had a positive attitude toward information technology also were inclined to see the more negative aspects of IT (ß = -.15). A positive attitude toward technology led to greater involvement in e-political participation (ß = .26) and an interest in e-elections (ß = .20). Individuals with less concern and fear about IT were more supportive of digital citizenship. They were more involved in e-politics (ß = .17) and inclined toward e-elections (ß = .19). Supporters of public IT access held more supportive attitudes toward e-lections (ß = .12).

Younger respondents saw fewer IT disadvantages, while those who held positive views of IT also were capable of seeing its detrimental influences. This indirect effect (.05) accounted for only 13% of the total effect. A statistically significant indirect effect was found between age and e-political participation, although the direct effect accounted for 61% of the total effect (-.20). For the most part, the effect of age on e-politics was mediated through IT advantages; older persons saw fewer advantages, while IT advantages had a positive impact on e-political participation. The path from the predictor to the negative aspects of IT to the advantages played a less significant role. In addition, education also indirectly increased support for e-politics. This indirect effect (.06) accounted for 19% of the total effect. Higher levels of education led to stronger support for IT, which in turn led to a more positive attitude toward the

outcome measure. Age decreased support for e-elections through several channels (-.16) (IT advantages, IT disadvantages, and public IT access; the effects were strongest through IT advantages and disadvantages). Education also had an indirect impact (.06) on e-elections through public IT access and (more so) IT advantages. Generational differences are mirrored in orientations to technology and voting patterns. Younger cohorts favor cyber involvement, while older citizens prefer more traditional forms of citizenry. Older cohorts are increasingly likely to hold pessimistic attitudes about IT, which short-circuits their participation and interest in e-politics. In addition, older respondents held less favorable attitudes toward IT access than did their younger counterparts. Older respondents may see fewer IT benefits in their own lives and may speculate that other citizens are better off without technology. Opting for digital citizenship decreases respondents' engagement in voting and the political process. There may be a trade-off, as younger people exchange community involvement for e-citizenry and thus invest less in their communities.

Not surprisingly, education promotes IT literacy and extrinsic efficacy. Education has the net effect of stimulating support for technology and viewing public computer availability and Internet instruction favorably. Citizens' acquisition of technological skills is consequential for the educated, which in turn leads respondents to endorse Internet-based elections. Education has a direct impact on citizens' empowerment and voice in technological and traditional electoral participation and an indirect influence through IT benefits.

Personal characteristics carry great weight in shaping one's access to innovation and receptivity to exploring technological advances. Older citizens and the less educated may face unique challenges that influence their desire to become fluent with information technology. Becoming a digital citizen is a process influenced by technological attitudes that may have the effect of widening the digital gap. Information technology permits some citizens to conduct their routine business with the government more easily; it appears to be widening the gap between the IT literate and those without basic navigational skills. As society becomes increasingly dependent on e-government, social barriers will be compounded as non-electronic voices are marginalized from political participation.

The positive direct effect of age on electoral participation denotes that older respondents were more likely to say they engaged in the traditional forms of engagement in politics and government. This relationship is enhanced by the negative direct effect between age and electronic forms of political participation; younger respondents clearly prefer this more contemporary and innovative mode of engagement, versus the preference among their elders for more traditional patterns of political involvement. Although the effect is entirely indirect, the negative relationship between age and e-elections similarly demonstrates the positive valence for newer electoral cohorts of "with it" modes of casting votes that older cohorts may find to be inappropriate, insecure, or simply too new and untested.

Future research may do well to investigate whether the evident effect of age on preferences for e-government will continue as cohorts age in place within the electorate. Life cycle patterns and the impacts of dramatic events, such as political bombshells or key technological innovations, certainly are expected to be important, and efforts to tease out the differential effects of age, period, and cohort should continue to provide a fertile source of novel research propositions as well as exciting opportunities to enhance knowledge in this rapidly-evolving aspect of modern governance. Of particular relevance for the future research agenda is whether the digital divide will persist at about its current level, becomes more severe, or is reduced; however, in any event, it is evident that among the major driving forces behind the consequences of the digital divide are the generational differences that separate the electorate into technological haves and have-nots.