

Introduction

So far this semester, we have discussed six areas where information and communication technologies (ICTs) have social and organizational impacts. These six issues were (a) the future, (b) work and telecommuting, (c) privacy, (d) digital divides, (e) design, and (f) ethics. While all six of these are of at least some importance, privacy and work and telecommuting are of special importance. In addition, design and the future are of less overall importance. In this essay I will discuss each of these four issues in turn and why they have been chosen, beginning with the most important. In all cases I will relate my comments to the literature we have read so far.

Most Important Issues: Privacy, Work, and Telecommuting

Privacy is one of the most important social issues to consider in relation to ICTs. The majority of Internet users are concerned about privacy, as shown by Paine, Reips, Stieger, Joinson, and Buchanan's (2007) survey; their concerns (p. 531) include viruses, spam, spyware, hackers, access to personal information, security, and identity theft. While each is a major concern individually, when combined their importance is further stressed. In addition, Wyatt and Vega (2010) noted the variety of groups that have a stake in online privacy: multiple agencies and branches of government, consumer advocacy groups, consumers themselves, Internet companies (e.g. Google), professional marketing organizations, and many more. These key stakeholders share a strong belief in considering the mutual effects between privacy and ICTs.

Paine et al. (2007) did find different levels of privacy concern by age; younger age groups were less concerned. While one could certainly argue that younger users have "grown up" with the Internet and thus are more comfortable with online privacy, they still need education and training in and on privacy topics to ensure they fully understand the implications. Within the context of organizational use of ICTs, such education and training should follow the

advice of Culnan and Williams (2009): ensure they are part of a culture of privacy that begins at the top, provide for accountability in the case of privacy breaches, and—key for this younger demographic—encourage them to consider privacy personally. As digital natives increasingly become part of and lead ICT development and adoption, they need to become privacy natives as well, understanding the full range of concerns of multiple stakeholders and key implications.

Another particularly important issue is the pervasive and mutual effects of ICTs on work and telecommuting. While fully covering the extensive effects of ICTs on the way we work would take many pages, iPass's annual mobile workforce survey, reported by Gahran (2010), is indicative of continuing trends. Employees are increasingly using smartphones, laptops, and other mobile ICTs for work and play, activities which are increasingly blurring together. Sawyer and Tapia (2003) also stressed that work efforts are becoming increasingly computerized, although "the effects ... are less clear" (p. 96). Applying the social informatics perspective, they argued that ICTs are both embedded in and shape "the context of their use," that ICTs often have "paradoxical and unintended effects" (p. 97), and that ICTs "are not neutral artifacts" but exert power and influence (p. 98). Thus, those designing and working with ICTs must consider and deeply understand not just the potential effects—intended and not—that they have on work and organizations, but also the reciprocal effects work and organizations have on ICTs.

This is especially true in the context of telecommuting, as shown in the context of both work and leisure by Mokhtarian, Salomon, and Handy (2006). They found—echoing Sawyer and Tapia—that the effects of ICTs that support telecommuting and "virtual" leisure activities were not quite as expected: for example, travel often increased rather than decreased. ICTs were also found to have expanded "the individual's choice set, both of activities and of ways to conduct" them (p. 281), but there was "no guarantee" that these new choices would be taken up;

contextual factors affected decisions. These contextual effects on work, and the organizational and social contexts they are part of, are very important issues for information system designers, developers and managers who wish to understand the adoption and use of ICTs.

Less Important Issues: Design, the Future

While all six of the issues we have examined so far this semester are important, some are less so than others. Design, in particular, tends to be subjective. On one hand, Capps (2009) provided numerous examples of highly successful but relatively low-tech products and systems; their design was simple and “good enough” for the task at hand. On another, Parnas (2010; Parnas & Clements, 1986) argued for a rational, disciplined design process—or at least the general appearance of one—that should aim for “great,” not just “good enough.” Finally, Tweney (2010) believed in an “Undesigned Web” (para. 18) that uses minimalistic design that can be thrown out, if necessary, if the user wishes to format the content differently. Capps and Tweney clearly share a belief, however, that design is not as important as functionality, adoption, and use; whether design is minimal or simply “good enough,” it does not rise to the level of importance of other key issues. Parnas might disagree, but even his calls for discipline and rationality apply most strongly to the actual development of software and systems, and less to Capps’s focus on product design or Tweney’s focus on interface and graphic design. I personally would not go as far as Tweney; design and usability need some consideration by ICT designers and managers. However, I do agree with Capps and Tweney that other issues, particularly the relations between ICT use, privacy, and organizational work, are more important considerations.

Another issue of relatively less importance is that of the future of ICTs. Certainly it would be bad to ignore the future completely; all of the issues raised in this course indirectly relate to how ICTs will impact and constrain it. These relations, however, show it is unimportant

as a standalone issue. For example, the potential future of the “Internet of Things” (SRI Consulting Business Intelligence, 2008; IBM, 2010) has clear implications for organizational work, design, ethics, digital divides, and privacy. As a new—albeit broad and disruptive—ICT under development, the effects of the Internet of Things in the context of other important issues must be carefully considered. The future as an issue unto itself, however, is less important.

Other possible future scenarios, such as those presented in the Pew Internet and American Life Project’s third survey of Internet experts (Anderson & Rainie, 2008), are also best considered in the context of other issues. For example, the survey asked experts whether “social tolerance [would have] advanced significantly” by 2020, “due ... to the Internet” (p. 5). This is best considered in the context of digital divides, since increasing tolerance through ICTs requires reducing the barriers to use between groups. Another example is whether “lives [will be] touched by the use of augmented reality” (p. 5); this should be placed in the context of synthetic worlds (which we have yet to cover). Finally, consider the question asking if, in 2020, “few lines [will] divide professional time from personal time” (p. 6). This clearly fits within the effects of ICTs on organizational work and telecommuting. The future of technology is thus best placed, in my view, in the context of other critical issues, rather than seen as a standalone issue on its own.

Conclusion

All of the social issues we have discussed so far in this course are worth consideration in the development, implementation, management, and use of ICTs. However, as argued above design and the future are somewhat less critical and are better considered in the context of other issues, rather than by themselves. On the other hand, privacy, organizational work, and telecommuting are especially critical and *must* be considered strongly by all involved in ICT development, adoption, and use, and especially by information system developers and managers.

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