Book Review

Saul Greenberg
Department of Computer Science
University of Calgary
2500 University Drive NW
Calgary, AB Canada
saul.greenberg@ucalgary.ca

We live in a networked age. Always-on technology now links people together in a myriad of ways that was inconceivable just a few decades ago: information access, social networks, cell phones, email, instant messaging, blogs, media sharing, on-line businesses… the list goes on. The social impact of these technologies – especially over the last twenty years or so – has been massive. Networking has changed the ways we communicate, how we write, how we stay in touch with friends, how we conduct our day to day affairs, and even how we attend to things of interest. No sooner is a norm established than an emerging technology appears that disrupts that norm yet again.

The purveyors of networked technology describe these social changes with unbridled optimism, which its acolytes consume with fervor. Just recall any of the various special events that companies such as Apple, Microsoft, Samsung and others use to introduce new products, and the over-the-top enthusiasm of the crowds that attend those events. As technological consumers, we too find the technology beguiling, at least in terms of how our buying practices reflect such successful marketing, and how our use of those technologies consume more of our time.

Yet as with any social change, there has been much commentary and concern. The daily press is replete with stories about misuses of social networking (e.g., cyber-bullying), poor cell phone practices (e.g., the 'crackberry' phenomenon ascribed to people constantly

glancing at their cell phones), and technological alienation (where people spend more time with technology than each other). Various popular books by serious academics have espoused the adverse effects of technology. Sherry Turkle, to name one, has a series of books that largely call out the negative social impacts of various kinds of technology. One of her recent books 'Alone Together' is a critique that emphasizes how the superficial connectivity provided by social networks incur the cost of a decline in real relationships (Turkle, 2012). Likewise, her book 'Reclaiming Conversation' implores people to eschew mere connection in favor of face to face communication (Turkle, 2015). Robert Putnam's 'Bowling Alone' is yet another critique that ascribes people's dis-engagement from social discourse and civic participation as partly due to peoples' adoption of technological surrogates (Putnam, 2001). When reading these and other technological critiques, it is quite easy to nod our heads in agreement, for we have all seen (and likely commented on) cases of technological abuses by others and by ourselves.

We thus have a dissonant view of networked technology. We can simultaneously love and hate it. We are concerned about it yet we buy and use it. Yet perhaps the issue is that we need a better foundation to understand the changes to both individuals and society that are occurring as we appropriate that technology.

This is where Rainie and Wellman's book 'Networking' makes an important contribution (Raine and Wellman, 2012). In particular, they identify how the affordances of the 'Triple Revolution' of technology – social networks, the internet, and mobile devices – are fundamentally reshaping societal and individual structures towards a new 'social operating system' they call *networked individualism.* They contrast networked individualism to the longstanding 'operating system' formed around large hierarchies and small, densely knit groups such as households, communities, and work-groups. They describe several ways that each of the three Triple Revolution technologies has affected how people behave as a networked individual.

> "First, the Social Network Revolution has provided the opportunities – and stresses – for people to reach beyond the world of tight groups. It has afforded more diversity in relationships and social worlds – as well as bridges to reach these worlds and maneuverability to move among them. At the same, it has introduced the stress of not

having a single home base and of reconciling the conflicting demands of multiple social worlds.

Second, the Internet Revolution has given people communications power and information-gathering capacities that dwarf those of the past. It has also allowed people to become their own publishers and broadcasters and created new methods for social networking. This has changed the point of contact from the household (and work group) to the individual. Each person also creates her own internet experiences, tailored to her needs.

Third, the Mobile Revolution has allowed ICTs to become body appendages, allowing people to access friends and information at will, wherever they go. In return, ICTs are always accessible. There is the possibility of a continuous presence and pervasive awareness of others in the network. People's physical separation by time and space are less important. …

Together, these three revolutions have made possible the new social operating system we call "networked individualism." The hallmark of networked individualism is that people function more as connected individuals and less as embedded group members. … Networked individuals have partial membership in multiple networks and rely less on permanent memberships in settled groups. (Pages 11-12).

The remainder of the book introduces and discusses varies themes around the notion of the networked individual. It does this through a blend of storytelling, statistical facts, and analysis. It uses many anecdotes, stories and personal accounts to bring various themes to life. At the same time, it uses statistical reports to emphasize how society is really changing in a way that reflects the particular story and theme (i.e., the book is not merely popular hand-waving). The authors then draw on their own expertise to analyze the meaning behind the theme, the stories, and the facts.

The book unfolds in three parts. Part I largely concerns the Triple Revolution and its effect on networked individualism. Part II explores how networked individualism work in particular contexts: relationships, families, work, creators, and information. Part III offers some reflection, where it discusses how one can thrive as a networked individual and what the future may bring.

The Triple Revolution as described in these three parts is highly relevant to CSCW research. Of course, the book itself is firmly grounded in research, where it draws upon many of the social studies done at Wellman's NetLab research center (University of Toronto) and Rainie's Internet & American Life Project (Pew Research Center). Their book asks and

provides an initial answer for many highly relevant research questions, which in turn provides a fertile area for future research. CSCW researchers could select and pursue many of these questions further, especially to see how those initial answers change across different contexts, populations and over time (for example, to investigate a social media system targeted for supporting collaborative activities between parents, teachers and educators within a school system).

Perhaps more importantly, this book could help researchers interpret and apply their research more broadly. Due to the difficulty of conducting rigorous CSCW research, many researchers often investigate only a very narrow aspect of people's use of networked technology. Consequently, results and interpretations are typically limited to the particular research question being asked. Instead, researchers could reflect on both their questions and results within the broader context of the Triple Revolution. For example, when reading this book I could not help but reflect on a system we had previously built and used called Community Bar (McEwan and Greenberg, 20015). We had crafted that system to support awareness and communication between members of a small 'intimate' community, which is somewhat analogous to the tight group mentioned by Wellman and Raine. We released Community Bar to our laboratory, and performed a lengthy field study of its use. While there were successes, the study revealed many mismatches between our expectations as predicted by theory *vs.* practice (Romero, McEwan and Greenberg, S. 2007). Primarily, many of the issues we saw came down to our restrictive notion of our user audience: we expected them to be a small, tight and cohesive group, all wanting equal participation. This did not reflect the reality of the laboratory members. Had we read Rainie and Wellman's book, we would have realized that there were many diverse communities within our laboratory, with overlapping membership, and with varying desires of social interaction over time (as suggested by their social network revolution). We would have realized that, because our system was restricted to a desktop computer, it was really only useful to those members who spent considerable time at those computers (as suggested by their Mobile Revolution). We would have realized that our view of the Community Bar's communications power and information-gathering capacities were over-inflated: while it did have publish and subscribe capabilities, it was not powerful enough to fit our member's needs (as suggested by their

Internet Revolution). Perhaps most importantly, had we known about the Triple Revolution, we would have begun our system design with a completely different set of design assumptions.

Rainie and Wellman are largely optimistic about our present and future selves as networked individuals, albeit with familiar caveats. While some readers may be critical of their optimism, what is perhaps more important is that Raine and Wellman present a solid foundation for thinking about societal changes – be they good or bad or a bit of both – as a consequence of the Triple Revolution and how networked individualism has and will evolve from it.

Reviewed by Saul Greenberg, University of Calgary

McEwan, G. and Greenberg, S. (2005) Supporting Social Worlds with the Community Bar. In *Group'2005. Proceedings of the ACM 2005 International Conference on Supporting Group Work*, Sanibel Island, Florida, USA, November 6-9, ACM Press, pp. 21-30.

Putnam, Robert D. (2001) *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster

Rainie, Lee and Wellman, Barry (2012) *Networked: The New Social Operating System*, Cambridge, Massachusetts: MIT Press. ISBN 978-0-262-52616-6

Romero, N., McEwan, G. and Greenberg, S. (2007) A Field Study of Community Bar: (Mis)-matches between Theory and Practice. In *Group'2007. Proceedings of the ACM 2007 International Conference on Supporting Group Work*, Sanibel Island, Florida, USA, November 4-7, ACM Press, pp. 89-98.

Turkle, Sherry. (2015) *Reclaiming Conversation: The Power of Talk in a Digital Age.* Penguin Press.

Turkle, Sherry. (2012) *Alone Together: Why We Expect More from Technology and Less from Each Other.* Basic Books.