BOOK REVIEW

Joseph G. Bock's *The Technology of Nonviolence:*Social Media and Violence Prevention

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In the wake of the 2009-2012 Arab Spring protests—the first large-scale wave of Arab demonstrations in the Internet age—many pondered the significance of the use of Information and Communication Technology (ICT) in the movement. While the actual impact of technology in the Arab Spring is contested (Morozov, 2012), we can nevertheless tentatively note that the examples of technology being used throughout the Arab Spring are at the very least compelling for the field of peacebuilding, including violence prevention. In this unique cultural and technological contemporary moment, scholars who study violence should be asking themselves: in socially and politically tumultuous places, can technology predict or even be used to prevent violence?

Joseph G. Bock, Director of Global Health Training and Teaching Professor in the Eck Institute for Global Health, presents tempered and nuanced approaches to this question with *The Technology of Nonviolence: Social Media and Violence Prevention* (2012). Bock writes that the young protestors in the Arab Spring "did not simply step into a civic vacuum using social media to overthrow the dictators. They were organized. They had a sophisticated strategy, developed over a period of years" (p. xv). In other words, while Arab Spring demonstrators united through social media and crowdsourcing to stifle violent outbreaks, they did so while utilizing a critical synthesis of "grassroots organizing in combination with crowdsourcing techniques" (p. xv).

In this way, Bock recognizes that technology alone will not solve all the problems of violence and violence prevention in communities across the world. Bock maintains that advances in technology are potentially useful and can lead to creative violence prevention efforts when combined with strategic organizing, and that no matter what kind of technological advances are available, "a central feature of a successful violence prevention strategy is the support of *local capacity* to respond quickly and effectively when tensions begin to escalate" (p. 13, italics added). In any community where

strategic violence prevention is sought, Bock argues, the local community plays a key role as a resource for early warning and early response to violence.

Bock is primarily responding to a field that for the longest time has advocated "top-down" violence prevention efforts that involve top-level leaders or even international outsiders. Bock writes that these efforts have a "disappointing record" (p. xiii). However, to swing the pendulum the other way and advocate for primarily grassroots violence prevention is just as dangerous. Instead, Bock puts forth a compelling case of transitioning to what he calls a "middle-out" approach that links grassroots violence prevention efforts "with moderate leaders at the middle and top levels of political, civic, and religious leadership" (p. xiii). This is where technology enters. Bock writes that current technological trends in violence prevention, such as crowdsourcing and GPS software, have been encouraging. And, he writes, "while these technologies can be extremely helpful, we are learning that they are most effective if combined with sophisticated strategies and effective organizing" (p. xiii).

For example, Bock's research suggests that crowdsourcing, a data-collection approach that allows volunteer observers to identify and report events of violence, is best coupled with people "on the ground," or rather, a cadre of people who know how to get reliable information (what Bock calls "sourcing") and to disseminate that information discretely ("feeding"). Bock suggests that "bounded crowdsourcing" (crowdsourcing through a trusted network of trained individuals as well as the crowd), "bounded crowd feeding" (disseminating warnings back to the trained individuals and the crowd), and "restricted feeding" (disseminating warnings only to specific individuals, volunteers, or trusted officials) are all better and more efficient approaches than "crowdsourcing" by itself. In other words, Bock writes, "training people still matters. Organizing still matters. Strategy still matters" (p. xiv). Bock thus issues a call for a critical synthesis of innovative technological efforts and strategic violence prevention theories.

Bock, whose Ph.D. is in International Relations and specialty is violence prevention, a subfield of global health, grounds the book in theories of violence prevention from a social scientific perspective. Bock writes that early warning and early response for violence prevention involves three main activities: collecting information, analyzing it over time, and conveying warnings to those who can adequately take action (p. 37). Bock seeks to develop an applied theory of violence prevention by utilizing a range of analytical theories that has the following dimensions: "underlying conditions, time and space considerations, pathological social-psychological processes, and 'levers' for impact" (p. 35).

However, Bock also recognizes the limitations of empirical method-

ological approaches to violence prevention (p. 35). Bock instead wants to understand "the usefulness of analytical frameworks and theories," which is, by and large, a kind of "reflective practice" (p. 35). In other words, Bock differs with others in his field who value "pure social sciences" in favor of an "applied science," which requires critical reflection to understand "how violence unfolds, how we can detect that it is unfolding, what can be done to stop it, how much time there is to stop it, and who can reasonably be expected to take the actions needed to stop it within that time frame" (p. 35).

Considering Bock's twelve years of international humanitarian experience during which he oversaw programs in Bosnia, Croatia, Guinea, Iraq, Kosovo, Liberia, Macedonia, Montenegro, Pakistan, Rwanda, Serbia, Sierra Leone, Thailand, and Uganda, one can understand his almost Deweyian pragmatism: "I do not feel researchers and practitioners focused on applied theory and practice need to wait until that research is further along," he writes, "to design approaches that are useful in preventing the violence causing massive human suffering all over the world" (p. 35). Bock thus employs a pragmatic approach to conflict, citing extensive social scientific research and empirical studies but also referencing the work of social theorists such as Paulo Freire, who calls for a "collective" sense of discovery through respectful dialogue (p. 32).

Having situated himself in this unique methodological arena, Bock analyzes, in subsequent chapters, five different case studies of technologically mediated violence prevention efforts.

"Organizing against Ethnoreligious Violence in Ahmedabad" profiles the humanitarian relief non-governmental organization (NGO) of the Catholic religious order the Society of Jesus called St. Xavier's Social Services Society. Bock describes St. Xavier's "low-tech" approach to violence prevention in the slums of Ahmedabad, India, that from 1992-1994 developed a deliberate community outreach program to other slums in Ahmedabad that advocated communal harmony through art contests, songs, and street plays to confront violence ideologically.

"Interrupting Gang Violence in Chicago" profiles the CeaseFire Project, which mobilizes at the community-level by training former gang members to intervene before violence erupts. The project utilizes a social-media virtual reality videogame called "Second Life" to train "violence interrupters" from a distance.

"Counteracting Ethnoreligious Violence in Sri Lanka" profiles an international non-governmental organization (INGO) that engages local and governmental leaders and utilizes a complex set of data collection strategies that cull information from field officers, newspapers, radio and television

stations, and websites in order to issue reports that are dispersed to trusted officials.

"Crowdsourcing during Post-Election Violence in Kenya" profiles Ushahidi, an open source software program developed by a group of journalists in Nairobi that integrates crowdsourcing through geo-coded maps that aggregate text messages, information sent through social media, or email reports of violence in order to warn people at a local level of impending violence.

Finally, "Circumventing Tribal Violence in East Africa" profiles CEWARN, an inter-governmental organization across seven different regions in East Africa that used text messaging and digital mapping, as well as high-frequency radios (due to lack of cell-phone towers) to track conflict in selected regions.

Throughout the case studies, Bock is careful not to valorize one approach over another, for even the non-technological example in Ahmedabad successfully prevented violence through the promotion of cultural harmony (p. 79). Rather, Bock writes that these case studies represent "a quilt of technologies, sewn together by innovative, passionate people trying to make a difference in their communities" (p. 56). Bock notes that preventing violence is a messy business, and no one approach best guarantees success. In fact, approaches are most successful when they stay attuned to a multitude of contingent factors. Thus, Bock's case studies of how different groups implement technology to prevent violence can help us "learn about the benefits and limits of technology in our attempts to make our troubled world a more peaceful, less violent place" (p. 56). Bock concludes these studies by reflecting that more often than not, politics trumps technology, reminding us, "We must always keep the big-including the politicalpicture in mind." However, the challenge of the work should not detract us from the fact that violence prevention at all levels of leadership, from the local to the global, can and has saved lives: "The question is not so much whether technology can be helpful, but what configuration is best in a given circumstance" (p. 203).

Bock suggests that violence prevention technologies are most effective when they are "combined with building trust networks, community organizing, bounded crowd feeding, and restricted crowd feeding at grassroots, middle-, and top-levels of leadership so that early action can be initiated in locations where tensions are acute" (p. 205). He urges us away from a technologically deterministic approach to violence prevention, calling attention instead to the "limits of trend analysis, pattern recognition, and visualization as compared to human induction" (p. 205). For example, Bock writes, "a person in an area of tension, seeing information from different sources, can infer meaning in ways that computers cannot, but computers

can be helpful in pulling disparate information together, showing trends, identifying patterns, and providing summary pictures of complex situations" (p. 205). In other words, we cannot put all our eggs in one nonviolent basket.

Bock's final recommendation shifts from theoretical and pragmatic advice about effective violence prevention toward a more hopeful plea for more competent leaders. What we need, Bock writes, are all the good things about technology, all the inductive skills of humans, the adequate funding of NGOs and INGOs, and most of all, proper leadership to prevent violence. Competent leaders, Bock writes, have "credibility with those who are threatened. They need to be skilled at negotiation and persuasion. At least some of them need to have forceful personalities or charisma. . .. And the local leaders, as well as those at the middle- and top-levels, must have compassion, a certain amount of moxie, and, not infrequently, considerable courage" (p. 207).

Bock's skillful synthesis of social scientific methods, critical reflection, primary experience, and public policy creates an intricate and hopeful technological web that situates Bock in a unique interdisciplinary space. His work will be of great use to scholars and activists in the field of peacekeeping and violence prevention, New Media scholars looking for practical application, and even scholars in the field of rhetoric who are interested in the interplay between democracy and technology. Ultimately, Bock posits optimism for a peaceful world with a tempered skepticism of technology. Those interested in doing public or community-based scholarship will heed Bock's observation that in order for any large-scale initiative to work, the local and situational contexts must be taken into account. Bock writes, "violence prevention at a local level is essential to the success of strategic nonviolence. . . . [I]t is also critical in overcoming the messy, difficult, overwhelming challenges involved in the transformation from oppressive dictatorship to democratic governance" (p. 205).

Perhaps the only unequivocal valorization Bock provides in this book goes toward the human peacekeepers, who, armed with their negotiation skills, walk into situations "marked with uncertainty, thanklessness, and danger, without the assurance, however false that might be, of a gun in their hands" (p. 207).

REFERENCES

Morozov, E. (2012). *The net delusion: the dark side of internet freedom*. New York, NY: PublicAffairs.