

While We Weren't Paying Attention

From stone spearheads to nanotubes, our artifacts can change how we live and, ultimately, who we are. The social significance of technological change requires us to take responsibility for the design, implementation, and deployment of the things we make. Especially to readers of *IEEE Technology and Society Magazine (T&S)*, it is clear that technology can change society. But sometimes we lose sight of the idea that society can change technology.

As technological changes come at us thick and fast, we can be overwhelmed. Either consciously or unconsciously, we may start to accept some degree of technological determinism or Chandler's inevitability thesis. The idea that technology is going to happen no matter what we do is both tempting and highly dangerous, as many have pointed out [1]. We have to keep reminding ourselves that we not only *can* steer technology, but that we *should*. Engineers especially must remember that part of our professional responsibility is to shape technology for the benefit of the public at large.

The topic of technological determinism came to mind for me while editing this issue's Special Section on Lethal Robots organized by Ronald Arkin, one of the contributors. The military use of autonomous technologies is a prime example of a morally significant use of technology that has not yet been given the public attention it needs and deserves.

Fictional accounts of lethal robots are plentiful. *The Terminator* series of films and a subsequent television series *Terminator: The Sarah Connor Chronicles* are two recent examples of stories that feature humanoid robots running amok. But the idea of a mechanical human-

looking mechanical device killing people goes back at least as far as ancient Sparta. King Nabis was said to have built a mechanical device in the image of his wife Apega; the device embraced its victim and squeezed until a ransom was extracted or death occurred.

Despite the popularity of killer robots in fiction (including Richard Epstein's famous computer ethics case study: <http://www.cs.wcupa.edu/epstein/the.htm>), the issue of robots in warfare has not created the kind of public discussion we might expect or hope. The topic is covered in the public press, but not often. Compared to your favorite (or least favorite) celebrity, robots in war don't get much face time on the news or in the newspapers. It seems strange to me that such a dramatic, explicitly life and death matter is handled so routinely.

The articles in our special section are varied in their approach and their tone. I expect that many readers will find them provocative, perhaps even disturbing. Our hope is that the special section will alert our *T&S* leaders to the importance of this timely issue,

and to some of the subtleties of how this particular set of technologies does and will affect our society.

In addition to the special section on lethal robots, this issue features articles on commercialized public sector information, the intelligence community and the Internet, and the effect of gender on communications among ICT workers.

SSIT President Janet Rochester invites us to "stand and stare" at significant technological changes. Thanks to all of our authors for helping us to do just that.

Reference

[1] C.J. Andrews, "Avoiding deterministic thinking [urban planning]," in *Proc. 2003 ISTAS/CPTED Int. Symp. Crime Prevention, Security, and Design*, Sept. 2003, pp. 39-40, 26-28.



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