

Send Letters to the Editor to:

Editor, MRS Bulletin, Materials Research Society, 506 Keystone Drive, Warrendale, PA 15086-7573 USA Fax: 724-779-8313; E-mail: Bulletin@mrs.org

Letters must include your full name, institution, address, phone number, and e-mail if available.

POSTERMINARIES

Millennial Meanderings: The Past's Future is Past Due

Scientists, engineers, and mathematicians share a fascination with numbers; but somehow this spreads to the whole population when a year is represented by a seemingly special number. A decade, a century, a millennium all come to a close some time this year, and we may only be in a lull between two bouts of millennial mania: You have already argued among yourselves whether we have already advanced to the new millennium or have yet to do so. I shall not enter that debate. I'm merely taking advantage of the midyear lull in millennialism. My thesis, this month, is that for the purposes of objective reality, we are finally getting close to the year that was arbitrarily picked and forever made infamous by George Orwell in his 1949 novel 1984.

The book that gave rise to the adjective "Orwellian" and the chilling phrases "Big Brother is watching you" and "unperson" presents a little bit of a challenge. Some of you will have read it in high-school literature classes prior to the year in question, but the younger readers will have read it after the portentous date of the title. As a member of the older group, it is a little difficult for me to come to terms with the reading that the younger readers will have obtained. However, all of us (so far) have read it before its dire predictions have come to pass. A new group of readers is on the cusp of emergence, now, in the year 2000—unless this is all getting too complicated for the high-school curriculum.

As he wrote, using a pen or a type-writer in 1948 (transposing the last two digits to create his title), Orwell would have seen the first glimmerings of the television age in Britain. TV sets were small, monochromatic, and expensive, and broadcasting was a government monopoly. From this small beginning, he extrapolated to the universal presence of wall-hung flat-screen TVs with a two-way communication capability that would be used exclusively by the government mainly for controlling the populace. By 1984, Orwell's predictions had

not come to pass, but many of the readers of this publication can take some pride in helping to bring about at least the technological aspects of the vision, only 16 years or so behind schedule. Here I sit, writing on a laptop computer equipped with a flat screen and multiple means of two-way communication. It does not have a TV camera, but that is my choice. Has the technology enabled a stifling control of public thought as envisioned by Orwell?

On the face of it, we are pretty far from the squalor and drabness of life that Orwell described. We are certainly more wealthy than he envisioned (at least at the time of this writing, when the stock markets of the world are undergoing collective Brownian motion). And the state of geopolitics is hardly describable in the terms that Orwell used—with the real superpowers focused more upon sustaining their own empires than making alliances and wars among themselves, as did the Oceania, Eurasia, and Eastasia of the book.

Orwell's hero, Winston Smith, was starved for personal contact and worked at a government office where he was anonymously assigned his work at a small carrel-like cubicle. Suddenly things start to seem a little more familiar. How many of you work in Dilbertville? My son (who was born in 1984) conducts most of his social life through a computer, with the help of e-mail, instant-messenger systems, MP3, etc., etc. It is even possible for an enterprising teenager to obtain liquor over the Internet. All of the illicit thrills that I had to obtain through raw-nerved face-to-face contact are now available with the cover of internetic anonymity. Well, nearly all of them. Well, nearly anonymously.

Nobody is forced to have one of Orwell's "telescreens" in their homes, but most of us (at least among the technocrats who make up the readership of this magazine) seem to have volunteered for the intrusion that Orwell saw as so insidious, by way of the computer technologies that members of the Materials Research Society have helped to create. Perhaps the number of web-cams that you own is relatively small, and the surveillance is not constant enough to figure out whether today's Winston Smiths are doing their calisthenics properly, but Big Brother is certainly watching you. He just isn't the government. Many of the commercial Web sites that my son uses to pursue his virtual social life track just about everything he does on the Web. This information is used to identify his particular interests and tailor the advertising that is funneled to him when he is online, to the best interests of the advertisers and those who are paid for the delivery. This is even better than Orwell envisaged. Monitoring and mind control have been integrated seamlessly in a single system, by BigBrother.com.

So the dot-com domain has supplanted Orwell's nightmare government. Perhaps we should not be too surprised. Who remembers the post-Orwellian phrase "military industrial complex?"

One thing is new, however. Contrary to Orwell's vision of government control of the medium and the message, the medium in our new version is much more open to use and even subversion by third parties. Hackers and data thieves are high-tech piggybackers on the new surveillance system, but even though I can write a little code (when pressed), I will confess that I am a Web interloper of a much lower-tech form. I can obtain a highly refined and well-condensed summary report on my son's Web activities just by logging on with his user name (OK, "borrowing his identity") and checking out the advertising that is directed his way. Not only is Big Brother watching him, but Daddy is peering over his shoulder, too. It's amazing what technology can do.

ALEX KING

80 MRS BULLETIN/JULY 2000