

one place in an otherwise transparent book where I couldn't find a clear answer. Nordhaus says we need more research and that the value should not be zero. But he doesn't explain how he chose his values. I was left with the impression that those polar bears don't get a fair hearing.

And I was surprised that Nordhaus doesn't discuss the approach to valuing the environment long used in electric utility regulation. In assessing generation options, utility economists and planners show a representative sample of customers the increases in their

electricity bills resulting from energy supply choices that reduce certain environmental harms. If people accept such increases, we can calculate a minimum willingness to pay for protecting these environmental amenities. Extending this "abatement cost" approach to climate change is not easy, but scientists and many others would certainly prefer doing so to knowingly undervaluing the environment.

As Nordhaus knows, those wealthier people in 2050 and 2100 will have different preferences. The desire to preserve as much as possible of the natural world is a luxury

good (which increases with income). Thus, we might assume that future generations will wish we had allowed a slightly slower economic growth (losing a few years of conventional growth according to Nordhaus) in order to preserve at least some of the ecosystems now threatened by global warming.

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## COMPUTERS AND SOCIETY

# Bordering Fiction

Albert-László Barabási

What is absorbing about Dave Eggers's latest novel is not the dystopic world it depicts but the way that arose: Everyone at The Circle, a Google-Amazon-Facebook-Twitter mash-up, is eager to make the world a better place. Engineers at heart, they relentlessly innovate to reduce crime, to organize and store all information, and to leave no one behind. While their motivations are pure, each of their products is a subtle slide toward the 21st century's version of Orwell's *1984*—not a world in which a selected few control many but one where everyone monitors everybody. As the company helps us become "all-seeing, all knowing," privacy becomes a crime, and the upbeat culture of The Circle morphs into an organization whose core values are lifted from the playbook of the U.S. National Security Agency (NSA): "Privacy is theft." "Secrets are lies."

A few days into her dream job at The Circle, Mae Holland learns that pleasing consumers forms only a tiny part of her responsibilities. The company demands never-ceasing engagement—an expectation that she fully immerse herself in the wondrous activities the organization offers its employees. She must mingle with politicians, applaud singers, and praise the cooking of celebrity chefs. Most important,

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she must share all her experiences online. Absenteeism is a sign of detachment. Not sharing is a crime.

Early in the novel, a potential love interest uses Mae's profile to demonstrate an application that packages all online data about her to provide the lowdown for a first date. Mae is outraged as she watches her food allergies and favorite dishes paraded on the big screen. Seemingly, a relationship turned sour before it could really begin. In reality, an episode that defines Mae's trajectory, allowing

us to witness her profound transformation over the next 300 pages. Responding to the culture of her new workplace, Mae gives up a little more of her privacy each day. Eventually she becomes the powerful official poster girl of The Circle's open-book philosophy. Her life, with minute resolution, is on display for everyone to witness.

Eggers in *The Circle* rides a wave that has been brewing for years now. I have argued that given the high predictability of human activity (1, 2), services like the novel's fictitious SeaChange (a vast array of cameras that monitors everyone everywhere) make not only our present but also our future increasingly transparent to the highest bidder (3). Fiction beats nonfiction, however, in its ability to portray the individual motivations—or the lack of them—of the devel-

opers that nudge us toward an increasingly transparent society. Eggers's page turner works because it requires no implausible breakthroughs. Its familiarity gets under our skin, as Eggers offers a chilling image not of a distant world but rather of one that feels eerily everyday.

To be sure, some of the plot elements border on incredibility. The United States would never hand over voting and social security to a private company like The Circle. Law-

makers would never agree to the lack of privacy The Circle's technologies perpetuate. These are alarmist twists that work only in fiction. But are they? For years, I was told that U.S. laws forbid federal access to my mobile phone records. Then Edward Snowden revealed that NSA did in fact strong-arm that

data away from the carriers, jolting me into abandoning my research on anonymized phone records altogether. I also argued that the U.S. government lacks the personnel and know-how to build the sophisticated tools it dreams of using (3). Indeed, some of our best students and colleagues flocked to Facebook, Google, Twitter, and Amazon; I know of no one who chose NSA. Then Snowden revealed that NSA simply purchased the know-how from the Valley. I have thus stopped believing that there is a wall between reality and fairy tales. So I read *The Circle* not as science fiction but as a case study of a world in which we currently live: a stress test that reboots *1984* for the digital age.

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### The Circle

A Novel

by Dave Eggers

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**Bordering Fiction**

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Editor's Summary

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