Can Higher Education Save the Web?

As an author, I can't be sure whether you are reading this article online or in print. But if you are reading it online, something depressingly familiar is about to happen.

If I'm lucky, maybe you'll enjoy the article. Perhaps I'll make a point that you think you agree with, then another. And if you're like most Internet users—addicted to Facebook or Twitter—it'll be around the third "mmm-hmmm" that you will begin to struggle with the overwhelming question: should I tweet out a link to this? Should I share this article on Facebook? You will read the article, but only half read it, with one-half of your brain evaluating the Facebook-ability of your post and the other half attending to my words.

This is by design, of course. As many commentators have noted, the recent technologies we use for the web bear more in common with slot machines than books.[1] They are primed to keep us clicking, watching, and pulling-to-refresh, ever desirous to find the next new thing that everyone will be posting and tweeting.

We're not distracted only when reading, of course. Consider that 59 percent of links shared on social media have never been clicked; this means that the majority of users are sharing articles they have never actually read. Algorithms that decide what we see produce "filter bubbles" that trap us in cocoons of homogeneous opinion. Facebook's algorithms for selecting trending stories routinely surface fake news stories, encouraging users to spread them further.[2]

Just yesterday, a good friend of mine shared a story on Facebook from an anti-Semitic conspiracy site. My friend is neither anti-Semitic nor a conspiracist. But over the course of the 2016 U.S. Democratic primary, he had signed up for certain Facebook pages associated with supporting Bernie Sanders. Since content that induces anger is among the most viral content,[3] pages and clickbait websites competing for clicks over a too-long primary season were pushed further and further into promoting conspiracies. Eventually my friend was sharing anti–Hillary Clinton material, including some from a pro-Putin site—a site whose other articles were outlining the vast machinations of the Rothschild family and the Illuminati to take over the world.

Welcome to the World Wide Web, circa 2017.

I know I'm not the only person noticing this. If you're online,

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you have seen this as well: formerly mild-mannered people engaging in mob behavior on Twitter; previously quiet and thoughtful people spreading conspiracy theories; originally tolerant people moving into ever smaller cocoons of thought. And at the center of this decline is the web as it has come to be.

Saving the Web

For as long as I have been in the educational technology field, pundits have asked whether the web can save higher education. There have been many waves of this discussion, from the early techno-utopianism of the 1990s to the recent fascination with MOOCs. In this line of thought, education is calcified, creaky, rusted. The web, on the other hand, is vibrant and agile, fueled by innovation and creative destruction. The idea is that if we could tap into the web's vitality and innovation, we could "fix" education. We could make education work. Revitalize it. Optimize it. Disrupt it.

But what if the pundits have this backward? What if it's actually the web that needs saving? And what if it's higher education that is best suited to save it?

This is not as bizarre as it sounds. Vannevar Bush, whom most consider the grandfather of hypertext, drew his inspiration from academic culture, with its dense interweaving of cross-references and annotations. Ted Nelson, the person who first applied that vision to the digital computer, saw hypermedia as a method for modeling networks of agreement and disagreement in a way conversation could not, attempting to realize a design that modeled the understanding of experts. And the earliest users of both the Internet and the web were academics, who built a sharing and cooperative culture founded on the best traditions of a community of scholars.

As development of web technology moved from universities and research centers to Silicon Valley in the mid-1990s, progress and innovation accelerated. But as the financial model of the web formed around the twin pillars of advertising and monetization of personal data, things went awry. The social layer of the web provided by Web 2.0 products was a welcome addition to our shared networks, but the set of economic incentives underlying those products led us to the web we have today, with its pull-to-refresh addictions, clickbait conspiracy sites, and mob-like behavior.

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Toward a Reflective Networked Future

With today's web careening, Hindenberg-like, to the ground below, maybe, just maybe, it's possible that our higher education institutions can save the web from its current trajectory. What would that look like? How could we do it?

First, we must put digital literacy at the core of the curriculum. We spend countless hours teaching our students to navigate the world of research and published books. And yet we graduate them into a world where the vast majority of the information they consume professionally and personally will come through the Internet. The literate culture of books and published articles is one of the great achievements of our culture; it is necessary to lifelong learning and must remain central to the education of our students. But it must be placed side-by-side with instruction on how to best use and critique the information environments that students inhabit on a daily basis.

Second, we need to provide the general population with access to better-quality information and just-in-time education. Initiatives around open access and open educational materials are important not only for reducing cost to students and researchers but for furthering public education as well. I have no illusions that these resources will be spread as widely as conspiracy clickbait, but for people trying to inject some sense into a conversation, they may provide a start.

These two elements—emphasizing digital literacy curriculum and providing citizen access to high-quality information—provide a start at stemming the damage in our current media environments. But it is the final element that is most crucial: we—the researchers, faculty, students, and staff of higher education—must design and model new ways of working on the web. I am not talking about a small set of bolt-on activities. I am not talking about adding one or two courses that use blogging or Facebook comments. I am talking about making, designing, and modeling the information environment of the future as our core educational mission, in ways that will radically transform what education looks like and will create a networked future capable of serving the common good.

What are some examples of this new way of working on the web? I do not have enough space here to outline such an agenda. Luckily, I have been given a chance to use the New Horizons column to show what that agenda looks like by inviting folks engaged with these issues to detail what their institutions and classes are actually doing to save the web. Over the next year, we will share that vision in this space. We hope you will follow along with us.

And if you're reading this article online, it's OK: you can share it now. ∎

Notes
1. Ted Greenwald, "How Facebook and *Candy Crush* Got You Hooked," *Wired,* December 23, 2014.
2. Maksym Gabielkov, Arthi Ramachandran, Augustin Chaintreau, and Arnaud Legout, "Social Clicks: What and Who Gets Read on Twitter?" *ACM SIGMETRICS Performance Evaluation Review* 44, no. 1 (June 2016), 179–192; Eli Pariser, *The Filter Bubble: What the Internet Is Hiding from You* (New York: Penguin Press, 2011); Caitlin Dewey, "Facebook Has Repeatedly Trended Fake News Since Firing Its Human Editors," *Washington Post,* October 12, 2016.
3. Matthew Shaer, "What Emotion Goes Viral the Fastest?" *Smithsonian Magazine,* April 2014.

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