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Historical Reflections

Seven Lessons from Bad History

Journalists, historians, and the invention of email.

SINCE MY LAST column (January 2012) a storm has raged within the quiet tea cup that is the history of computing world: A certain V.A. Shiva Ayyadurai proclaimed himself the “inventor of email.” He created an “infographic” outlining his view of history, assembled some supporting documents and images, and registered a number of Web domains including <http://inventorofemail.com>, <http://historyofemail.com>, and <http://themaillab.com> to present this material. A public relations firm set about promoting the story, winning some positive press coverage including a print story in the *Washington Post*, but eventually provoking an angry backlash.

The problem is that Ayyadurai did not invent electronic mail, though he was perhaps the first to adopt the contraction “email,” already used by others in print in 1979, as the executable program name for his “Electronic Mail System.” According to his slick infographic, he “designed and deployed” the “first version of the electronic [mail] system” in 1980, “for use at the University of Medicine and Dentistry of New

Jersey.” At that point electronic mail had been in use at MIT for 15 years, Xerox had built a modern, mouse-driven graphical email system for office communication, CompuServe was selling email access to the public, and email had for many years been the most popular application on what was soon to become the Internet. None of the material Ayyadurai has gathered on these Web sites demonstrates his system had any important unique features or

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exerted any influence on subsequent developments.

Ayyadurai is perhaps unique in computer history. I am not aware of anyone else going to such lengths to claim to have invented a technology that was widely used before the putative invention date. There is no need to rehash his claims in detail here, but for those interested I have a fuller discussion at <http://www.sigcis.org/Ayyadurai>. In this column, I am focusing instead on lessons learned from this bizarre episode about public attitudes toward computer history, the current state of technology journalism in the U.S., and the pitfalls facing historians trying to take a more active role in public discussion.

1. Blog Coverage Is Easy to Get, But People Still Notice Print

Last year a press release from Ayyadurai promoting August 30, 1982 as the birthday of email was picked up by a number of Web sites. There are a lot of blogs and online news sites competing for readers. Most have little money to pay contributors or check facts, but all need a constant flow of new material.

For many, press releases are an essential source of free content.

What surprised me was the ease with which the story crept from low-end blogs and content farms into name-brand publications. *Time* Techland, a section of the *Time* Web site devoted to “News and reviews about gadgets, gear, apps, and the Web” ran a lengthy interview with “The man who invented email.” Doug Aamoth credited Ayyadarai with the invention of “email—as we currently know it” and as the holder of “copyright for the term EMAIL.” The 17 comments posted in response were overwhelmingly critical, but as an online-only article it attracted little further attention. (As of this writing it remains, uncorrected, on the *Time* Web site).

In February Emi Kolawole, a staff blogger for the *Washington Post*, interviewed Ayyadarai to produce an article and several videos. The online version of the February 18 story, “Inventor of e-mail honored by Smithsonian,” lauded Ayyadarai as the 14-year-old inventor of email and creator of “the first ‘bcc,’ ‘cc,’ ‘to,’ and ‘from’ fields.” It claimed the Smithsonian was readying a special online exhibit site to document his accomplishment.

The big difference this time was that the blog story was picked up by the *Post* itself, apparently without any additional fact checking or editorial oversight. An extract published in the paper stated “E-mail was the brainchild in 1978 of V.A. Shiva Ayyadarai, at the time a high school student in New Jersey.” Smithsonian historian of computing Paul Ceruzzi “choked on [his] Cheerios” upon opening his regular morning newspaper. Of all the letters it received in response the paper published only one, calling for a longer follow-up article to properly celebrate Ayyadarai’s accomplishment. The *Post*’s article spread widely online, including a link in ACM’s own TechNews service.

2. Almost Nobody Understands Intellectual Property

Intellectual property issues are of huge importance to modern life, shaping the structure of the technology industry and the development of popular culture. Yet many reporters faced with Ayyadarai’s claims did not understand the three relevant forms of intellectual



V.A. Shiva Ayyadarai

property protection: copyright, patent, and trademark. In interviews and on his Web site Ayyadarai promoted his 1982 certificate of copyright registration for the source code of a program called “EMAIL” as if its issuance meant he had proved the novelty of an invention (as a patent would have done) or gave him rights of some kind over subsequent use of the word email (as a trademark would have done). In fact copyright protection excludes titles and short phrases.

According to Kolawole’s original feature, “rather than patents, Ayyadarai prefers copyright, which allows oth-

ers to innovate using the technology. By pursuing a copyright on his email work, Ayyadarai opened it up for use, but with credit. Had he pursued a patent, it could have significantly stunted the technology’s growth even as it had the potential to make him incredibly wealthy.” One might expect that the editor of *Ideas@Innovation* for a major newspaper might have a basic understanding of copyright and patents—they are fundamental to both ideas and innovation. However, looking at the content of this department suggests the *Post* sees information technology

purely as a source of gadgets and topics within popular culture. Its articles focus on science fiction memes, geeks, and cellphones. Aamouth's *Time* blog covers a similar beat.

Science journalism has always been challenging, but at least newspapers traditionally tried to give some sense of the content of the discoveries and inventions they covered. Computing, in contrast, is often viewed as a domain of lifestyle trivia.

3. Sometimes Less Would Be More

Newspapers claim the professionalism and training of their journalists and their systems of editorial control protect readers against the kind of misinformation that can thrive in the blogosphere. In fact, the desperate struggle of newspapers to survive against online competition seems to have destroyed these safeguards. Six days after the original story ran the *Post's* ombudsman sprang to the defense of the paper's reporting as the best we could hope for in the Internet age: "Could you, as Ms. Kolawole did, do all this in one day? Write a story, edit seven videos, and write up a transcript of her Q&A session with Ayyadurai? Kolawole knew there was controversy about Ayyadurai before she interviewed him and wrote the story, but in her reporting she became convinced that his copyright on the words and some of the basics about modern e-mail were unchallenged."

When he eventually admitted in a mea culpa follow-up that his dismissal of the critics was "dismissive, snarky and wrongheaded, and had factual errors too" he similarly blamed his own error on pressures to overproduce. "I was sloppy and trying to write it up hurriedly on a Friday afternoon with too little attention to detail. And I did it after spending six hours writing my Sunday ombudsman column."

4. Information Illiteracy Is Not Just an Academic Problem

Few people know or care about the history of computing. We cannot expect journalists to be well informed on every topic, but we should expect them to have what might, somewhat euphemistically, be termed a well-developed implausibility detector.

With the rise of the Web, "informa-

tion literacy" has become a buzzword at many universities. Students are taught to use online sources with care, as the work of cranks, extremists, or conspiracy theorists can be presented on Web pages with apparent authority. They learn to verify claims against other sources and to seek out articles published in recognized venues or written by experts without direct personal interest in the matter.

Ayyadurai has established an exceptionally extensive network of Web sites. These give his claims a veneer of verisimilitude, as did his MIT Ph.D., his work as a temporary member of the MIT teaching staff, and his use of the titles Founder & Director of the MIT Email Lab and Director of MIT's Media and Organizational Biomimetics Initiative. Three domains he owned showed up in the top 10 Google results for email inventor, reflecting the expertise he used to write the *The Internet Publicity Guide: How To Maximize Your Marketing And Promotion In Cyberspace*. Yet anyone with basic information literacy skills should have been able to see that these domains all included the same content, that it was written by Ayyadurai himself, and no neutral expert had endorsed any of his claims.

Here is how easy it would be: Google "email," click on the Wikipedia page. Then read that the "first true email system" dated to 1965 and that email had been sent over the ARPANET back in 1971. A student hoping to earn a better grade on an information literacy assignment might have explored some of the many online resources devoted

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to Internet history, or even made a trip to the library to read a book like Janet Abbate's *Inventing the Internet* or Katie Hafner's *Where Wizards Stay Up Late*.

This is not to say that all online reporting is inaccurate. Bloggers, readers, and Wikipedia volunteers did a better job of separating truth from fiction than their counterparts working for large media companies. Ayyadurai's initial attempt to update the Wikipedia "Email" entry to feature himself as its inventor, which would have provided powerful support to his case, was reversed within hours. After he repeated the edits his account was suspended. Whenever his claims were published in articles they were usually disputed forcefully in reader comments. After the *Post* brought his claims to the attention of a broad audience the technology blogs Gizmodo and Techdirt both ran forceful rebuttals at a time when the paper was still defending the accuracy of its reporting.

5. Pioneers and Historians Can Work Together

Kolawole's story soon accumulated dozens of outraged comments and was quickly spread through technical communities concerned with email and the Internet via—of all things—email lists. After learning of it from a post to one list I composed my own brief rebuttal and forwarded to the email list of SIGCIS, an international group for historians of computing. It was forwarded to the legendary "Interesting People" list operated by Internet pioneer Dave Farber, reaching several bloggers who quoted from it in widely read posts debunking Ayyadurai's claims. Of hundreds of email messages I have sent to SIGCIS members over the years this was the only one to spread far beyond the group itself.

As chair of SIGCIS, when faced with what seemed a well-organized misinformation campaign I felt a responsibility to bring historical scholarship to a broader audience. But technology historians have little influence in public debate. Only the sustained outrage of actual email pioneers and early users forced an apology from the *Washington Post*.

When the *Post* asked me to provide an article putting Ayyadurai's system into historical context I reached out

to historians and pioneers for assistance, sending and receiving hundreds of messages, as volunteers tracked down items such as user manuals for the late-1970s Xerox Alto email software, and a video including members of Jimmy Carter's 1976 campaign team discussing their use of a commercial email service for internal communication. Never before had I produced an article so quickly, or with so much help from so many experts.

The process has galvanized efforts to preserve email history, and exposed some serious gaps in our knowledge. The history of Internet email is relatively well documented, but we know very little about commercial online email systems of the 1970s, internal corporate networks, or the products offered in the late 1970s by office automation vendors. Internet email pioneer Dave Crocker has established a new collaborative working group to document email history, with the aim of producing a comprehensive timeline at <http://www.EmailHistory.org>.

6. On the Side of Truth and Accuracy, But Only Up to a Point

In my native England the popular press is unashamedly sensationalistic and not always concerned with factual accuracy or the separation of editorial agendas from reporting. Leading U.S. publications, in contrast, are renowned for their commitment to the correction of mistakes. Would this editorial machinery restore the *Post's* credibility? Well, to borrow a phrase from *Scoop*, a widely loved novel about journalism, "up to a point." ("Up to a point, Lord Cooper" was the closest one could wisely come to contradicting the much feared proprietor of the *Daily Beast*.)

Kolawole remained in editorial control of the corrective process even after the ombudsman eventually conceded that the core premise of her story was mistaken. Rather than retract the entire story Kolawole attempted to correct it online, an incremental process that eventually eliminated its original news content without fixing all the errors. The heavily edited article still does not include a link to the ombudsman's mea culpa.

She came to think of the planned result as a "roundtable." Ayyadurai's reply to his critics would be balanced with

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my article and a personal account of Internet email work in the 1970s from Dave Crocker. The ombudsman called this a process that "sets the record straight and gets the *Post* back to where it needs to be, on the side of truth and accuracy." Legendary MIT professor and activist Noam Chomsky eventually wrote a fourth article. A public live chat between participants was planned.

Kolawole accepted my article with a few suggested revisions, but the next few days brought a stream of perplexing developments, based on some kind of internal process within the *Post* to which I was not privy. One edit I received replaced all references to Ayyadurai replaced with cumbersome but transparent circumlocutions. For example, the words "Ayyadurai's system" became "the 'EMAIL' program developed in 1978 [*sic*] by a teenager who has since been called the 'inventor' of e-mail." Eventually the news came that my article, Chomsky's, and Ayyadurai's would not be published at all.

7. People Love Technology Legends

Most journalists are interested in stories about people, not stories about technologies. Tragedy, thwarted genius, and obsession are conspicuous by their absence in the actual history of email. The outsized public appeal of Babbage, Turing, and Jobs suggests that it is difficult to build a truly popular history of computing story without these elements, particularly if nobody involved becomes a billionaire. Modern email evolved gradually from systems in use by the mid-1960s within research centers such as MIT. Progress was rapid, but no single step looms as a moment of inspired brilliance. The key early work was government funded. Nobody

involved got enormously rich, no crucial patents triggered epic lawsuits, and most of the people involved are more concerned with recognition from their peers than from the public. There are lots of acronyms and protocol names. The invention of email was a kind of foggy blur in public awareness, waiting to be filled by a face and a name.

Ayyadurai's publicist offered a simple human interest story with undeniable appeal: a hard-working 14-year-old boy triumphs over the challenges of an immigrant childhood to invent a crucial technology. This harkened back to American love for stories of brilliant young inventors triumphing over established elites. Thomas Edison's formidable talent for public relations turned this story into an American fable a century ago, echoed more recently in the determination of giant corporations such as Apple and Hewlett-Packard to celebrate the humble garages in which they began. Gizmodo's report, subtitled "The Crazy Story of the Man Who Pretended to Invent Email," attracted a broad audience with a similarly bold human-interest hook. The actual history of email remains less captivating.

Somehow, we historians need to find a way to make our patient accumulation of facts and our nuanced arguments about the social contexts of innovation convincing to a broader audience. The myths people believe about the past will shape our future. As the saying goes, "when the legend becomes fact, print the legend." We can attribute email, the Internet, and many of the other technologies of modern computing to the U.S. government's support from the 1950s to the 1970s of computer systems that pushed far beyond the commercial capabilities of the day. As a time when government spending of all kinds is under sustained attack it would be comforting to pretend that brilliant schoolboys and an ample supply of garages are all the U.S. needs to ensure its future technological leadership. It would also be dangerous. ■

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