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Hacking the World

An anthropologist in the midst of a geek insurgency

By Nathan Schneider

Roger Lemoyne, Redux, for The Chronicle Review
Gabriella Coleman

To hold an event in the Great Hall at Cooper Union in New York City is to lay claim on history. The typical invocation at the start of an evening there, whatever the occasion, includes recounting that Abraham Lincoln once made an important speech in the same room. And such was the opening ritual on January 19.

Hundreds of eminent geeks, start-up-ers, reporters, radicals, and admirers gathered that evening among the stone arches and white columns to remember the life of Aaron Swartz. At the age of 26, after living under the threats of federal prosecutors trying to pressure him into a plea bargain, he had hanged himself. Several times in January, his name was on the front page of *The New York Times*. His former girlfriend, the *Wired* writer Quinn Norton, observed in her remarks that "Aaron has left us and entered the realm of mythmaking." David Segal, who with Swartz founded the organization Demand Progress, said from the stage of the Great Hall, "He wanted to hack the whole world, in the best way."

The forces that seem to have hastened Swartz's death were very much haunting the room. In the audience was a mischievous, greasy-haired hacker known as "weev," who faces as much as a decade in prison for embarrassing AT&T by publicizing a flaw in its system that compromised users' privacy. A member of Occupy Wall Street's press team handed out slips of paper about the case of Jeremy Hammond, an anarchist and Anonymous member who was in prison awaiting trial for breaking into the servers of the security company Stratfor. There was Stanley Cohen, a civil-rights lawyer representing some of Hammond's fellow Anons, and there was a T-shirt with the face of Bradley Manning, the soldier charged with passing classified material to WikiLeaks.

Just behind weev sat Gabriella Coleman, an anthropologist, occasionally jotting notes in a notepad. She teaches at McGill University. Coleman first met Aaron Swartz when he was just 14, and over the years she had come to know many others in the room as well. Even more of them were among her 17,500-strong Twitter following or had seen her TED talk about Anonymous. Part participant and part observer, she began fieldwork on a curious computer subculture while still in graduate school. Now, more than a decade later, her work has made her the leading interpreter of a digital insurgency.

Don Emmert, AFP, Getty Images
A protester wore an Anonymous mask at the Occupy Wall Street camp in New York City.

Onstage, speakers recounted Swartz's exploits in acronyms: As a teenager, he co-created the RSS specification and Reddit and Creative Commons, and in 2012 he helped organize the widespread and successful opposition to the Congressional intellectual-property bills SOPA and PIPA. His conviction that information wants to be free was what led him to liberate scholarly articles from behind JSTOR's paywall en masse. That brought on the prosecutors determined to make an example of him, whose reaction in turn

reveals just how dangerous the geek crusaders' cry of freedom has come to seem.

Swartz's crusade has been much celebrated since his death, if not very well understood by those not also taking part. It's a peculiar kind of politics. Why would someone care so much, and take such risks, to set information free? That question, in certain respects, is what Gabriella Coleman has spent her career studying.

Coleman started to care about open-source software because she cared about something else. At Columbia University in the early 90s, a friend of hers wouldn't stop talking about a CD-ROM he'd brought home of Slackware, an early Linux-based operating system. She didn't see what the big deal was, so the friend explained it to her this way: He knew she was interested in drug patents—in particular, how intellectual-property laws prevent medicine from being available to people who need it but can't pay inflated prices. This kind of software was the opposite. Not only was it free of cost, but the license ensured that the source code behind it was freely available for people to copy, modify, and share. Computer companies were making billions by controlling proprietary operating systems, yet here was one anyone could use for nothing—anyone, at least, willing to put in the effort to make it work.

"I was just floored," Coleman recalls. "It wasn't a pipe dream. It was a reality, and that was exciting to me: an actually existing alternative in place."

She went on to study anthropology at the University of Chicago. Her goal was to write a dissertation on spiritual healing in Guyana. But the notion of free software was still on her mind, and the community that produced it started to interest her more and more. What just about settled it, though, was an illness during graduate school that kept her homebound for a year. She couldn't take classes or go on trips to Guyana, but she could get on the Internet. Through chat rooms and online bulletin boards, she learned a lot about free software. Soon after, and despite her advisers' hesitation, she was ready to put aside her plan for more-traditional fieldwork and take up this one.

Faye Ginsburg, an anthropologist and director of New York University's Center for Media, Culture and History, where Coleman taught in the late 2000s, says, "I think she was a bit ahead of the curve, in terms of the field recognizing the significance of media generally and digital media in particular."

For dissertation research, as others in her cohort shipped off for more-exotic, farther-flung places, Coleman moved to the San Francisco Bay Area with Linux running on her computer. "It was painful at first," she says, remembering the buggy early versions of the operating system. "It was the equivalent of having to live with

the snakes." She took classes in copyright law and system administration while making her way into communities of geeks and hackers, as she refers to them, and as they refer to themselves. She volunteered at the Electronic Frontier Foundation and infiltrated the ranks of those creating the Linux-based operating system Debian. In that male-dominated world, she suspects that her gender helped: "This little, tiny woman shows up, and they're just in awe that someone cares."

At the time, in the early 2000s, Silicon Valley was infatuated with the idea of free and open-source software; futurists promised an overnight revolution, and venture capitalists schemed about how to turn the wisdom of crowds into profits. Coleman's scholarship on the phenomenon, newly compiled in her Princeton University Press book *Coding Freedom: The Ethics and Aesthetics of Hacking,* stands well beyond either brand of enthusiasm. Her tone is mostly sober, even as she pays close attention to her subjects' jokes—about the cluelessness of "(l)users, or a program called Mutt that has fleas instead of bugs." What impresses her most, however, is what she learned from the geeks about doing politics.

The first chapter of *Coding Freedom* opens with a gloss on the prototypical autobiography of a free-software hacker. (It always bears repeating that "hacker" does not necessarily mean someone who hacks illegally or nefariously.) That story begins with tinkering, with taking apart household appliances as a child and quickly graduating to whatever primitive computing machines become available. At last the hacker—usually a he—comes across the world of free software, which is actually just a name for what he'd been pining after all along: infinite tinkering with like-minded people and no external constraints. Through chat rooms and e-mail lists and conferences, he finds a community of others like him, and, even as they find lucrative jobs in the tech sector, their real passion is collaborating on projects that are free and open from the ground up. The programs really work, too. Over the years, they wind up running a good chunk of the Internet's back end.

Then, one day, some company or some law comes around and tries to stop the whole show in order to protect an antiquated business model. That makes our hacker angry. In defense of his work flow and his tinkering, he finds himself in a political movement.

Coleman herself has activist instincts, and she expected to find them among the free-software hackers. (While doing her fieldwork, she participated in Indymedia, disseminating news about the counter-globalization protests of the period.) What she found instead was a group of people who were engaged in the grueling legal battles and organizational infighting that would be familiar to any activist, but were here put to the service of mainly technical ends.

The community as a whole, she says, "was having this political impact, but individuals weren't necessarily politically motivated."

The Debian Project is among the more ideological of open-source organizations, yet its several thousand volunteer "maintainers" are held together not so much by revolutionary spirit as by a carefully constructed, overlapping consensus about how to create "the universal operating system." Debian has its own "Social Contract," "Constitution," and "Free Software Guidelines," which serve to coordinate a vast spread of subprojects. Officers are elected according to criteria posited by an 18th-century French mathematician. *Coding Freedom* chronicles the intensive training process that Debian maintainers must undergo to enter the community. Their programming chops are evaluated, of course, but so is their fluency in the legal and ethical jargon of free software.

This legal curriculum is something that geeks and hackers had to learn themselves, and in many cases invent, just to keep doing what they wanted to do. Over time, scholars like Lawrence Lessig realized that they had a point and helped develop legal tools to protect "free culture"—tools that cover everything from the Firefox browser's source code to the Creative Commons license on Coleman's book. (It was downloaded around 20,000 times in its first week of being freely available online.) For a hacker, she points out, law is code; legal reform is just another hack.

Like any countervailing subculture, the hacker community also depends on fostering environments where, as Coleman puts it, "a different set of lived ethics can incarnate into practice." In the solitary ecstasy of coding they remind her of the 19th-century Romantics. No less ecstatic are the hacker conferences, where online collaborators get to meet, drink excessively, and write software together in the same room. Just as vital are the rules that pervade such spaces, both formal and informal, which seek a balance of individual autonomy and group consensus-seeking. And the impact of these communities has been felt far beyond their geeky membership.

That impact was especially visible on January 18, 2012, when signs of protest appeared across large swaths of the Internet, including Google, Wikipedia, and Twitter, to protest the proposed bills then in Congress that stood to radically bolster copyright law, mainly on behalf of the entertainment industry. Aaron Swartz and the many thousands of other hackers who rallied against the bills were acting on behalf of ideals that they had learned to cherish in practice, through their means of collective production.

Some hackers, it's true, happen to be anticorporate activists. And the open-source pioneer Eric S. Raymond—"the hacker culture's resident ethnographer since around 1990," as he puts it—takes Coleman to task for not saying more about the libertarian rationale often held among those of his ilk, which would object to copyright

law as an affront to the free market. In the end, though, hackers' varying justifications matter less than what they actually do together. They became a force in mainstream politics through the back door because there was no choice; to the extent that file sharing, copying, and remixing aren't allowed, free software cannot operate.

This is the insight that Coleman wants to bring to her fellow anthropologists in *Coding Freedom:* While liberal values like transparency, autonomy, and free inquiry may be cherished by many people in the abstract, the geeks who have fought for those values most assiduously on our behalf learned to care so much about them through practice, by what those values enabled them to produce. And when hackers are able solve technical problems by setting information free, they start to imagine what other kinds of problems they might be able to fix.

By the fall of 2011, while Coleman was knee-deep in her work on Anonymous and other political outgrowths of geek culture, a student of hers named Leah Feder was about to encounter open-source ideals in the streets.

Occupy Wall Street began in the last weeks of September, and Feder started going down to occupied Zuccotti Park, in Manhattan, soon afterward. She was excited by it but at first didn't know how to plug in. That's where she met Devin Balkind, also in his mid-20s. Before the movement started, he had incorporated an organization called Sarapis to help nonprofits benefit from open-source software and other peer-to-peer methodologies. Balkind is a wild-eyed true believer who talks about a "sea change" and a "knowledge revolution" to come—soon, like in six months.

Feder dropped out of NYU, and together they devoted themselves to introducing the movement not just to open-source software but also to other forms of free culture, like collaborative permaculture farming and digital currencies. They were less interested in how Occupy could protest than in what alternatives it could produce.

The Occupy movement's affinity with free culture expressed itself right from the start; Occupy Wall Street's initial "Principles of Solidarity" statement called for "wide application of open source." Open-source organizing models also fit well with the movement's nonhierarchical and directly democratic proclivities. People with backgrounds in free software tended to have had more experience working in structures like that, and they became involved in Occupy encampments across the country. They also went to work building a digital infrastructure to unite the disparate movement.

This infrastructure, much of it assembled in the months after the media had deemed Occupy over and done, was tested when Hurricane Sandy struck the Eastern Seaboard last October. Within days, a band of Occupy Wall Street veterans and their allies had

mounted a relief effort that mobilized thousands of volunteers to help in communities where the government response was far from adequate. The effort started with an online platform that could direct people and supplies to sites where they were needed. Soon, Feder and Balkind helped set up a largely open-source system for managing resources and volunteers. "With Sandy we already did it," Balkind says. "We had a better system up within a month."

As Occupy's most devoted participants have always believed, it is just one part of a network of interrelated movements. Much is made of the role of corporate social media like Facebook and Twitter on the recent protest scene, including Cairo's Tahrir Square and Canada's #IdleNoMore indigenous uprising, but less noticed is the commitment to free and open information underlying so many of these movements. The narrow frame of geek politics has found itself in much more mixed company.

"There is a meta-relationship," says Coleman. "These movements enacted a shared set of values in their organizing."

Some quarters of the encampment movement in Spain, for instance, have embraced talk of "the commons," and a "European Charter of the Commons" has been drafted in Italy. Harking back to the pre-industrial arrangement of villagers' holding farmland in common, and inspired by the free-software phenomenon, these people envision freeing more of society's vital resources from private control to be shared among those who depend on them.

Luis Moreno-Caballud, who teaches in the Hispanic-studies program at the University of Pennsylvania, was closely involved in the movements in both Madrid and New York. He has been tracing a "return of the commons"—a tendency, he explains, "not to see our dependency on others as a weakness, or a lack, but a potential." This impulse was able to manifest itself especially easily in software over the past few decades; it was a new realm where the rules hadn't been made yet. But in the protest movements, Moreno-Caballud has noticed similar commons emerging as people self-organize to resist their governments' austerity policies.

"The state is abandoning people," he says. "We need to reclaim what is ours."

I n the years since the fieldwork that led to *Coding Freedom,* Gabriella Coleman has found herself playing a new kind of role: that of the world's foremost scholar of Anonymous.

"Studying Debian was a pure joy," she says. "It was a safe playground. And then all of a sudden I went to what felt like a nightmare playground, where there were spikes and booby traps and grenades." While before she had only to be careful to keep her Linux operating system from crashing, now she has to make sure not to collect data that could be used in investigations by law

enforcement—not learning where subjects live, for example, and leaving chat rooms if discussions of illegal activity begin.

"I've definitely had to create boundaries," she says.

Coleman discovered Anonymous while investigating, as a side project, the particular disdain that a number of geeks she'd interviewed over the years had for the Church of Scientology. She started to realize that Scientology is "this perfect inversion" of the hacker ethos. It is secretive, litigious, dogmatic, and freely blends its dogma with technology in ritual gizmos like the "E-meter." This was on her mind when something called "Project Chanology" appeared in early 2008: People in matching masks, calling themselves Anonymous, started protesting at Scientology centers around the world.

Among these crowds, Coleman says, the cause of information liberation took on "a distinct modality." Some Anons were skilled coders from the free-software community, but many didn't have technical backgrounds. They were drawn to the cause by a culture and an aesthetic.
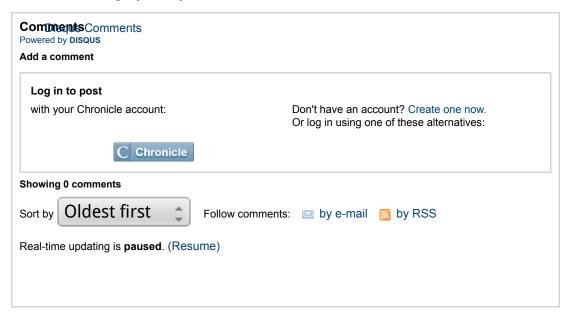
Anonymous is part prank but also part activism; it led to a lot more of both. Within a couple of years, Anonymous was fighting big banks on behalf of WikiLeaks—the information-freedom spree of the hacker Julian Assange—and bringing down dictators' Web sites during the Arab Spring. It played key roles in the Occupy movement. Corporations and governments alike had their security breached by this amorphous and often reckless band of information liberators. All along, Coleman turned her ethnographic attention to online chat channels and Twitter hashtags that Anonymous members frequented, and she met with leading Anons. Outlets including CNN, the *Guardian, Wired,* and Boing Boing use her has a source, and her insights on how Anonymous functions have made the phenomenon a little less mysterious. Anonymous will be the subject of her next book.

The success that Anonymous and WikiLeaks have had in spooking the powerful is surely part of what motivated the scare tactics used against Aaron Swartz. Such tactics won't necessarily work. Over the course of the memorial for Swartz in New York, the remembrances swelled into calls for action, and then standing ovations—against the power of corporations in the legal system, against the *Citizens United* Supreme Court decision, against mass incarceration. One cause led to another. The hackers were connecting the dots.

"If people experience a taste of what political action is," Coleman said afterward, "whether it's the power of consensus, whether it's the power to change something, whether it's the power of getting media attention—they're hooked."

Nathan Schneider is the author of Thank You, Anarchy: Notes

*From the Occupy Apocalypse and God in Proof: The Story of a
Search From the Ancients to the Internet, both forthcoming from
the University of California Press in 2013.*

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