Why "Hacking"?

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Why “Hacking”?  
Tad Suiter

As a fan of Oulipo and Oubapo, the notion of trying to crowdsource the meat of an edited volume in a single week is particularly exciting to me. I think that imposing constraints, even arbitrary ones, can be a very effective technique that can foster creative thought, new ideas, and force one to reassess convention. Which, of course, is all in keeping with the very spirit of this book.

However, as I began to explain the project to friends outside the digital humanities, my academic friends who are not plugged into the world of computer-based methodologies in humanistic research and pedagogy, I got a lot of confused looks and cocked heads when I mentioned the title. “What does that mean, exactly?” was a common reply.

The metaphor of hacking is central to this project. And I think it is extremely apt. But the term is a subtle one, and frequently misused in public discourse. To avoid preaching to the choir—to make this project more comprehensible and useful to readers who may be coming from a less technical background—I think it is important to talk, briefly, about what “hacking” means, and what it might mean to “hack the academy.”

Popular Images of Hackers

From news accounts, film, and television, most people have a certain concept of what the term “hacker” means. And it is not a term with many positive associations. News accounts over the last quarter century have constructed a notion of hackers as a dangerous element—young men in basements, ruthlessly attempting to subvert any sense of security in the age of networked computers. Hackers endanger national security by cracking into national security networks. (Which, after all, is how the Net was born—out of DARPA’s ARPANET.) Hackers are trying to steal your
personal data. They want to steal your passwords, and empty your bank account. They are malevolent, egotistical, and avaricious.

Movies like WarGames and Hackers brought a more human face to hackers, portraying them as young men (they are almost always portrayed as men) who are driven by youthful exuberance, curiosity, and misled idealism who nevertheless get involved in a very dangerous game of violating security. From sources like these we get the imagery that dominates the public imagination about hackers: dark rooms, incessant typing into UNIX terminals, sometimes strange three-dimensional graphical user interfaces with which the hacker virtually flies through towers of pure information. However, all of this focuses simply on crackers—a specific subgroup of hackers who “crack” security systems. “Hacking” itself has a far more expansive, impressionistic meaning.

The Meaning of “Hack”

There are many definitions of “hack,” some of them seemingly deeply contradictory. Yet there is, in the final analysis, a unity to the term. Originally, the term was used to describe computer code. There were two opposing meanings to calling a piece of code a “hack.” One: it is expertly written, efficient, and does precisely what it is intended to do, with eloquence. The other was that the code was hastily written, sloppy, and essentially only just good enough. It was a workaround—the software equivalent of a hardware kludge.

As mutually exclusive as these two connotations of the term may seem, however, both the polished, impressive hack and the quick-and-dirty hack have a fundamental similarity. They are both born of a certain relationship to a certain type of knowledge.

Hackers are autodidacts. From the earliest hackers working at large research universities on the first networks to anyone who deserves the term today, a hacker is a person who looks at systemic knowledge structures and learns about them from making or doing. They teach themselves and one another because they are at the bleeding edge of knowledge about that system.

Through that type of knowledge seeking and knowledge creation, you may approach a fork in the road with a particular problem you are working on, and you have to decide to either go for an ugly hack or an eloquent hack. Either way, the product is functional, it does something, and it is
innovative; also, it is a product of your relationship to that systemic knowledge structure—to the computer languages, networking protocols, etc.

The culture of the first people to use the term “hack” produced a second-order meaning, as well. A hack is a practical joke, a playful subversion or gaming of a system. The online MIT Gallery of Hacks presents a fascinating history of such hacks on MIT’s campus, from Caltech’s cannon mysteriously disappearing and reappearing at MIT, to a campus police car appearing on the roof of the MIT dome. These “hacks” are not really so different, however, from the software hacks discussed earlier. There is a sense of play in coding, too—it is not apparent to everyone, but it is there. The fundamental action here is the same: it is the clever gaming of complex systems to produce an unprecedented result.

The Hacker Ethos

Learning about and improving highly complex systems by playful innovation is at the core of what I call the “hacker ethos.” The fact that this is about a relationship to knowledge systems means that the term has, over the last thirty years or so, come to be applied to an ever-growing assortment of activities: life hacking, game modding, phone phreaking, iPhone jailbreaking, and IKEA hacking, among others.

In each of these activities, you can see the kernel of the same hacker ethos. Each of these activities is based on the use of playful creation to enrich knowledge of complex systems, whether you are making furniture from the complex system that is the IKEA catalog, or learning how to game Ma Bell for free calls to Bangalore.

This sort of playful creation should not be unfamiliar to academics. It is not dissimilar to the Situationist International’s concept of detournement, or Dick Hebdidge’s notion of subcultural style systems. It is Levi-Strauss’s bricolage reimagined for a time when computers have replaced magic.

A different approach to this hacker ethos can be found in what Eric Steven Raymond has described as “The Hacker Attitude.” Raymond discusses five elements that he feels are central to this attitude, which is born of what I would describe as its general ethos:

1. The world is full of fascinating problems waiting to be solved.
2. No problem should ever have to be solved twice.
3. Boredom and drudgery are evil.
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4. Freedom is good.
5. Attitude is no substitute for competence.

I would argue that a great number of academics would agree with most, if not all, of those statements, though they might not want to admit to it.

Why Hack the Academy?

Many of the entries in this project offer answers to this question. The academy is approaching a new integration with revolutionary new technology. We have quickly gone from computers in the classroom to classrooms inside computers, and to the integration of new media into the very fabric of classroom interaction. Computer-based research in the age of ubiquitous, fast, and cheap computing is changing very fundamentally our approaches to research, collegiality, and collaboration. Pure information is getting cheaper and more easily accessible, while the mental and coding chops to process the glut of information are becoming more and more valuable in the new knowledge economy.

We can see two highly complex systems—computer technology and the academy, one complex by nature, and one deeply complex by force of history—colliding and hybridizing. As this happens, we are faced with a situation where even the very clever people on the cutting edge who have working knowledge of both systems cannot fully synthesize them and predict outcomes. We do not know what this hybridization will amount to. So all we can do is steer it by getting out there and learning more by creative experimentation. You have to make the tools that steer the future of academia, or that future will be steered by whomever has the best sales pitch to the administrators. We have to create tools and efficiencies that improve the way we do things, because only by so doing can we fully understand the new world we inhabit.

In other words, we have to embrace the hacker ethos.

There is a lot to be bleak about when you look to the future of higher education. The academic job market is grim. The publishing system seems on the verge of economic collapse. Universities are quickly becoming prohibitively expensive for the vast majority of students, who are in turn forced into an exploitative system of student loans. The system, to some of us, appears to be broken.

But when a system fails, you hack around it. Some hacks may be elo-
quent and subtle; they may be almost poetic. Others are nasty hacks that only really serve in a single work case—but in either case, you’ve routed around the problem. You’ve fixed something. You’ve improved functionality. And likely, you’ve learned a little something yourself about the functioning of the system you’re working with, and will be better prepared next time you find a bug.

The hacker ethos, in the end, might save us—or at least prolong the life of the academy as we know it.

Finally, there is that sense of play. It’s something that “serious” academics do not get to explore as often as they should. Play is good for the soul—it reinvigorates, brings joy, renews commitments. It makes things fun. And it is also good for the intellect. Play leads to types of problem solving and synthesis that would otherwise be impossible. There’s a reason that “clever” means both funny and smart. Reading through the submissions to this project, I think that is one theme that comes through again and again.

The academy, ultimately, can only be invigorated and improved by an infusion of the hacker ethos that goes beyond the computer science departments and infects all the disciplines. It has the potential to help fix problems in the system, deepen our understanding, and make our lives a little more fun.

Notes