Hacktivism and Machinic Performance

Jon McKenzie

Early calls for creating electronic forms of social resistance coincidence almost exactly with the emergence of the world wide web. In 1994, Critical Art Ensemble (CAE) published *The Electronic Disturbance*, which began with this urgent call:

> The rules of cultural and political resistance have dramatically changed. The revolution in technology brought about by the rapid development of the computer and video has created a new geography of power relations. […] The new geography is a virtual geography, and the core of political and cultural resistance must assert itself in this electronic space.[1]

That same year, the First International WWW Conference was held in Geneva; Mosaic, precursor of the Netscape Navigator web browser, was only a year old and its usage limited to computer scientists; finally, in 1994 there were scarcely a thousand sites on the web, whereas by 1999, there were over 9 million.[2] Today, the web has become dominated by e-commerce sites, while links to the entirety of CAE's seminal text can be found in the resource section of www.thehacktivist.com, a site dedicated solely to facilitating electronic disturbances.

Over the past several years, I have been studying cases of hacktivism or electronic civil disobedience. 'Hacktivism' refers to the emergence of political activism within digital environments, primarily but not exclusively, the Internet. My goal has been to theorise the performance of hacktivism, thus connecting my study of electronic civil disobedience to my ongoing performance research. This research, however, extends beyond the kind of performance most familiar to artists and cultural theorists. That is, while I'm interested in cultural performances such as performance art and political theatre, I've also focused on the relationships between cultural performance and two other types of performance, such as those found in 'high performance' technologies and 'peak performance' organisations. And beyond these three performances (cultural, organisational, and technological), I'm most interested in performance as the defining modality of power in contemporary society.[3]

I'll speak more about these two areas of research in a moment, but let me begin in the middle, as it were, by discussing 'machinic performance', a concept I will use to connect the two areas. I must ask for the reader's patience here, as I'll be using the terms 'machine' and 'performance' in fairly unusual ways.

What is machinic performance? In a short text called 'Balance-Sheet Program for Desiring-Machines', Gilles Deleuze and Félix Guattari give an account of something they call the 'machinic'. Deleuze and Guattari write that the

> object is no longer to compare humans and machines in order to evaluate the

correspondences, the extensions, the possible or impossible substitutions of the one for the other, but to bring them into communication in order to show how humans *are a component part* of the machine, or combine with something else to constitute a machine. The other thing can be a tool, or even an animal, or other humans.[4]

Because the machinic cuts across people and mechanisms, the authors distinguish it from the mechanical and the technological per se. A horse, a rider, and a stirrup formed a powerful machine in the age of Gengis Khan; in the modern era, a machine made of iron ore, workers and factories defined the industrial age. In both cases, specific machines came to co-ordinate a wide range of existence. Today, the machinic can perhaps best be seen in interface design and the study of socio-technical systems. In both these areas, the stress lies not so much in adapting technologies to humans or humans to technologies, but rather in creating performances that stretch across different systems.

I will define machinic performances as arising whenever different processes 'recur' or communicate across diverse systems, thereby creating performances that escape subjective control and even objective analysis. Machinic performances do not occur at discrete performative sites; instead, their occurrence is distributed. They happen at multiple sites through multiple agents, both human and technological. Machinic performances pose a real challenge to study, for to research a machinic performance is perhaps to become part of it. However, there are several paradigms of performance research we can draw upon to help us.

Here I must try to condense my research into the relation of cultural, organisational, and technological performance. Let me begin with cultural performance, which has been studied for decades by Performance Studies scholars. Forms of cultural performance include theatre, ritual, performance art, popular entertainment and folklore, all of which centre around human performance. Cultural performances actualise or embody larger symbolic systems at particular times and places. Though cultural performances can support or maintain such symbolic systems, Performance Studies scholars tend to emphasise their transgressive or subversive potential, their ability to seize symbolic elements from their normative systems, critique and rearrange them, and then reinsert them back into society. Now, it was with some surprise, and then growing amazement, that I discovered another paradigm of human performance. I refer here to organisational performance, which includes the work performed by individual labourers, small work teams, and even entire institutions. On an intimate level, employees are routinely subjected to annual performance reviews of their work. On a larger scale, the Clinton administration in 1993 established the National Performance Review, a government-wide evaluation of organisational efficiency and waste. Elsewhere, I've shown that 'Performance Management' represents a paradigm away from Taylorism or Scientific Management; while the former stressed rationality and corporate mono-culturalism, the latter stresses creativity and cultural diversity. [5] Nonetheless, in contrast to the transgressivity of cultural performances, organisational performances obviously tend to be highly normative.

For a long time I called this paradigm of organisational performance 'high performance'.[6] But gradually I came to realise that the term 'high performance' actually originated in yet

another paradigm of research, that of technological performance. In the 1950s, 'high performance' became a common criteria used to evaluate materials and systems in the military and aerospace industries. In short, research of technological performance took off during the Cold War; its launch pad was America's military-industrial-academic complex, the triangle of military agencies, industry contractors, and research universities.[7] Today, you don't have to be a rocket scientist to know about high performance: there are high performance cars, computers, and stereo systems. Indeed, most consumer appliances come with brochures detailing the devices' 'performance specifications'.

By combining the often divergent perspectives of cultural, organisational and technological performance, we can get other angles on this thing I'm calling 'machinic performance'. Divergent perspectives are needed because machinic performances involve conflicting grids of power. From my research, I've identified three distinct challenges of performative power:

> 1.   the challenge of *efficacy*, the ability of cultural performances to maintain or transform social structures;
> 2.   the challenge of *efficiency*, the 'minimaxing' of organisational inputs and outputs; and finally
> 3.   the challenge of *effectiveness*, the optimising of technological functionalities (such as speed, accuracy, weight etc.)

With machinic performances, these demands for efficacy, efficiency and effectiveness can and regularly do come into conflict. I realised this when I discovered *The Challenger Launch Decision*, a landmark study of the 1986 shuttle disaster, written by sociologist Diane Vaughan.

What's striking about Vaughan's study is that it focuses on three different types of imperatives that influenced the fateful decision to launch the shuttle. Significantly, Vaughan calls these imperatives 'performance pressures'. These performance pressures are:

> 1.   the political pressures of maintaining NASA's image in Congress, in the country, and around the entire world;
> 2.   the organisational pressures exerted by the NASA hierarchy; and
> 3.   the technical pressures presented by the O-rings themselves. [8]

We can easily recognise the imperatives of efficacy, efficiency and effectiveness within the three pressures described by Vaughan. Organisationally, technologically and culturally, the entire *Challenger* mission was characterised by multiple and conflicting demands to perform—or else.

Challenger constitutes a machinic performance. Again, machinic performances involve multiple agents and multiple performative sites. They set up recurrent communication between diverse systems, and they unfold under multiple performance pressures. Now that we have some insight into machinic performances, let me turn to the other term in my title, 'hacktivism', and do so by looking at a high-stakes case of machinic performance.

In late November, 1999, an online theatre of war was gearing up. I refer here to TOYWAR, an incident of electronic civil disobedience that pitted an online European art group called 'etoy' against an online American toy company called 'eToys'. The background is this: the art group etoy had been around since 1994; its website etoy.com since 1995. The art group is known for its performance and digital projects, having won a prestigious Ars Electronica prize in 1996. On the other side, the toy company started in 1996 and launched its site, etoys.com, in 1997. It went public in 1999, and by November of that year its stock sold around $60/share, giving it a total market capitalisation worth about $6 billion. Though they shared very similar names and website addresses, etoy and eToys lived in peaceful co-existence until the summer of 1999, when a young boy visited the art site thinking it was the e-commerce site. Trying to open an animation file, he got a message that said: 'get the fucking Flash plug-in'. He asked his family what this meant. Soon after, his irate grandfather contacted the toy company demanding an explanation. The toy company in turn contacted the art group and tried unsuccessfully to purchase the domain name. A legal battle ensued, with the toy company suing etoy for trademark violations in September. At the end of November, the art group also received a court injunction from the Los Angeles Superior Court, fining it $10,000 a day as long as etoy.com remained up. The artists immediately closed down the url and moved the site to another address.

This was the beginning of TOYWAR. Fighting back against the strong-arm practices of the toy company, etoy was joined by RTMark and the Electronic Disturbance Theatre. RTMark is an online clearinghouse for anti-corporate activism, while the Electronic Disturbance Theatre or EDT has created software for conducting 'virtual sit-ins' using common web-browsers. It's important to note here that while common 'hackers' (or 'crackers', as programming hackers like to call them) take aim at technical systems, the hacktivist's primary goal is to hack the social groups attached to specific systems.

Over the next two months, etoy, RTMark, and EDT used the Internet to protest the actions of the eToys corporation. They employed tactics drawn from traditional civil disobedience, converting them into the 1s and 0s of digital technologies. RTMark created an etoy,FUND, allowing online users to 'invest' or donate money to assist the artists. Email campaigns were launched to eToys' investors and officials, as well as the online and print press. Small traditional protests took place outside offices and courthouses, but the most effective tactic was the virtual sit that took place from 15-25 December. At the height of the holiday season, people around the world could log on to EDT's site at specified times to participate in a 'denial of service' attack on eToys' web site. The attack consisted of repeating requesting non-existent files from the eToys' server. As a 'pure' e-commerce company, the site was the toy firm's only store, so tying up its web traffic effectively shut down the business for hours every day for ten consecutive days.

The toy company countered by persuading service providers to cut off etoy's email and to shut down the Electronic Disturbance Theatre's website. However, EDT had set up mirror sites around the world, keeping the virtual sit-in going. In the end, the art group prevailed. Their site is back up, the lawsuit was dropped, and the injunction lifted. The toy company even agreed to pay the legal fees of the artists. In this hacktivist battle between a small art

group and a big e-commerce company, the little guy won and big business lost. From late November to late December of 1999, eToys lost around $4 billion in market capitalisation. Whether all or even most of this loss was due to TOYWAR is debatable, but there's little doubt it had some effect. (Amidst the subsequent crash of the dot.com economy, eToys laid off its entire workforce, and in February 2001, the toy company declared it would officially close down that April.)

I'd like to look at both eToys and etoy as machinic performances, starting with the toy company. E-commerce sites have been called 'selling systems', and etoys.com was a prime example.[9] Using digital technologies, it brought together buyers and sellers and sought to create unique 'user experiences'. It allowed users to browse through products, learn about the organisation, and make purchases—all online. If someone wanted to, they could even invest in eToys stock. Though we might think the art site is totally different, there are some striking similarities. The etoy.com site also uses digital technologies to design unique online experiences between buyers and sellers. It allows users to browse through etoy.PRODUCTS, learn about the etoy.BUSINESSPLAN, and make purchases online. If someone wants to, they can even invest in etoy.SHARES.

One thing that has struck me in my research of machinic performance is how technological, organisational, and cultural performances can embed themselves within one another, how the values of efficacy, efficiency, and effectiveness can enter into different arrangements. This is precisely where the machinic performances of etoy and eToys differ. With eToys, organisational goals of efficiency/profitability guide the underlying business plan, the co-ordination of capital, labour and resources necessary for conducting toy sales over the web. Values of technological effectiveness guide the building of back-end servers and databases. On the front end, cultural values of creativity and expression are mobilised through marketing, branding and interface design techniques that create 'significant user experiences' between customers and toy company.

A very different arrangement is at work with the art group etoy. Here cultural values of creativity and expression are embodied in music files and graphical artwork, as well as documents of performance events. Values of technical effectiveness and organisational efficiency are certainly parodied and mocked; but at the same time they are effectively and efficiently deployed through these very parodies. That etoy has a website at all attests the group's investment in technological effectiveness, and despite their parodying of bureaucracy's more sinister effects, the success of etoy in mounting a worldwide act of hacktivism shows their organisational savvy. The art group creates 'significant user experiences', though the users, the experiences and the significance vary radically from those of eToys.

We often hear of the recombinant use of image and text in both modern and postmodern art; what we have here are recombinant performances produced by artists and business people alike. In the information/service economy, companies are increasingly turning to cultural performance for models of collaboration and for building and maintaining their customer bases. At the same time, artist and activist groups have known for a long time that small and large scale collaborations can benefit from organisational theory. We can

think here of Meyerhold's use of Scientific Management to invent a revolutionary theatre of 'biomechanics' in the early twentieth century.[10] Likewise, in such hacktivist groups as RTMark and EDT, organizational processes are utilized even as they are parodied and critiqued. Etoy and eToys can thus be understood as two machinic performances. Both extend across social and technical spheres, but each consists of radically different arrangements of performative values. With eToys, cultural and technological concerns serve organisational goals. Artists and writers, programmers and engineers work almost exclusively for the goal of making profits. With etoy, organisational and technological concerns serve broader cultural goals: to make art that challenges the world of business and technology by retooling the very practices of business and technology. These two machines collided, however, when their performances were short-circuited by a youngster surfing the web. The result was identity crisis, brand confusion, experience overload. The two performances merged, and for a time, formed an even greater machine: TOYWAR.[11]

I want to conclude by looking at hacktivism and machinic performance from yet another angle. I began by suggesting that two areas where the machinic was most visible are interface design and the study of socio-technical systems. In new media, interface design primarily concerns discrete human-computer interactions, such as occurs in front of an ATM machine or on a web page. In my interface design courses, we focus on how the user experience is shaped by the design and architecture of information. The machinic performance is precisely the interaction between an individual and a PC or other device, each providing the other with information, inputs, and outputs. From another perspective, however, we can say that all human-computer interactions are actually close-ups of larger socio-technical systems. It's not simply one person standing at an ATM machine: it's a customer base interacting with a financial institution, or even a whole client sector interacting with a multinational banking industry. The study of socio-technical systems can be found in the field of science studies or the sociology of technologies. Vaughan's *Challenger Launch Decision* is one such study, as is Bruno Latour's *ARAMIS or the Love of Technology* and Donald MacKenzie's *Inventing Accuracy*. The former is a study of a defunct transporation system; the latter a sociology of guided nuclear missiles.[12] Socio-technical systems perform machinically: they entail communication across diverse structures and processes, and their 'events' are not confined to discrete times and places, but are instead distributed across many performative sites.

But Deleuze and Guattari, to return to the text I cited earlier, also distinguish 'social technical machines' from 'desiring-machines'. For them, the difference between the two is not one of scale. Socio-technical machines can't be reduced to large machines or machines used by large number of people. Nor can desiring-machines be reduced to gadgets or machines used only by small groups. Furthermore, socio-technical machines cannot be characterised as 'practical' and desiring-machines as 'impractical' or simply whimsical. Why not? Because socio-technical and desiring machines *are the same machines*—or rather, they are the same machines performing under different conditions. Deleuze and Guattari write:

> Desiring-machines are not in our heads, in our imagination, they are *inside the social and technical machines themselves*. Our relationship with machines is not a

relationship of invention or of imitation; we are not the cerebral fathers, nor the disciplined sons of the machine. It is a relationship of peopling: we populate the social technical machines with desiring-machines, and we have no alternative. We are obliged to say at the same time: social technical machines are only conglomerates of desiring-machines under molar conditions that are historically determined; desiring-machines are social and technical machines restored to their determinant molecular conditions.[13]

By molar conditions, Deleuze and Guattari mean that socio-technical machines tend to be rigid, centralised, and governed by binary oppositions, whereas molecular desiring-machines are supple, decentralised, and attuned to much more subtle differences. Now, before we quickly condemn socio-technical machines as machinic performances of power and jump to champion desiring-machines as performances of resistance and liberation, we should realise that the difference between socio-technical and desiring machines points to the difference between two types of power. It's the difference, say, between the official power structure of an organisation and the informal power alliances found within that very same institution. It's the difference between what an organisational chart shows and what goes on in the hallways and backrooms. In *A Thousand Plateaus*, Deleuze and Guattari thus distinguish between macropolitics and micropolitics, just as they distinguish between State fascism and microfascisms.[14] Macropolitics are found in socio-technical machines, micropolitics in desiring-machines.

What about hacktivism? What is its relationship to socio-technical and desiring machines? Again, it would be all too easy, indeed, all too human, to see hacktivist groups as small desiring-machines battling against large socio-technical systems. There's little doubt that hacktivism is most often aimed at socio-technical systems, but normative desiring-machines pose just as serious a risk. Not only are the normative desiring machines within socio-technical systems very hard to identify without extensive fieldwork, but they can also spring up within hacktivist groups themselves.

I've just introduced the concept of 'normative desiring-machines' because I think the machinic performance of hacktivism strive to be *mutant* desiring-machines, machines that connect different spheres of knowledge and practice. Critical Art Ensemble writes that in an activist cell,

> the schism between knowledge and technical ability […] must be closed. A shared political perspective should be the glue that binds the parts […]. Avoid consensus through similarity of skills, since in order to be useful, different skills must be represented. Activist, theorist, artist, hacker, and even a lawyer, would be a good combination of talents—knowledge and practice should mix. And one shouldn't dismiss the bureaucrat either, for 'the authoritarian fetish for efficiency is an ally that cannot be underestimated.[15]

From this perspective, the machinic performance of hacktivist groups involves creating mutant desiring machines that cut across different technological and social systems. The challenge lies in forging alliances, not so much *against* socio-technical machines, but *within*

them, seeking out and making connections with mutant elements already at work within them, while at the same time guarding against the microfacsisms that inhabit activist groups of the Right and even, at times, the Left.

Endnotes

(Note: a version of this text was delivered at the colloquium *Performative Sites: Intersecting Art, Technology and the Body*, held at Penn State University, USA in October 2000. It is published for the first time here.)

[1]	Critical Art Ensemble. *The Electronic Disturbance* (Brooklyn: Autonomedia, 1994), 3. Though this small manifesto, known as *TED* to many of its readers, was published a decade ago, it seems a century has past—and indeed one has. Since *TED*'s publication, the World Wide Web has emerged; the dot.com and IT boom came and then really went boom; the Enron and Arthur Andersen scandals were exposed; al Qaeda attacked the US, which in turn invaded Afghanistan and Iraq; the US Congress passed the USA PATRIOT Act and, though Act II has stalled, its component parts are entering into effect through non-legislative means; George W. Bush has been re-elected; the Asian tsunami has taken the lives of hundreds of thousands. The work of CAE has evolved, shifting to another area of critical concern, bio-engineering. Here the group has recently run headlong into what one might call 'hysterrorism', a certain US hysteria over terrorism. The details of this storyread like a Kafka parable. One day, CAE co-founder Steve Kurtz awakes to find that his wife Hope has passed away in their Buffalo, New York, home. He calls for an ambulance, and upon arrival, the EMS personnel notice lab equipment, equipment used by CAE in its bio-art installations. It is quickly determined that Hope has died from cardiac arrest, but authorities call in the FBI and a HAZMAT (hazardous material) team, while the local news media spin stories of chemical agents, secret labs and bioterrorism. The house is quarantined, the streets blocked off, and Steve K. is detained by the FBI, who seize his computer, manuscripts and art materials. The HAZMAT team finds a strain of the bacteria *Serratia marcescens*, commonly used in high school chemistry classes—and used precisely because it is non-lethal and poses no biological threat. The authorities having no legal basis to hold him, Steve K. walks out of detention. Nonetheless, they keep his possessions, convene a grand jury, subpoena witnesses, and eventually bring charges—only not for bio-terrorism or biological weapons, but for mail fraud, the government charging that Steve Kurtz had illegally used the postal system to obtain the bacteria. Paradoxically, this charge of mail fraud, though much less serious, may be much easier to convict on, and the maximum prison sentence is twenty years. At the time of writing—1 February 2005—he is scheduled for a March 2 hearing. For additional information and ways to support Steve Kurtz and CAE, visit the CAE Defense Fund site at <http://www.caedefensefund.org>.
[2]	Sources: 'A Little History of the World Wide Web', World Wide Web Consortium (<www.w3.org/History.html>) and 'Internet Usage and Growth Statistics', S.E.O. Technologies (<www.jhemans.powerup.com.au/internet_statistics/Internet_usage.htm>).
[3]	The framework of this research can be found in my *Perform or Else: From Discipline to Performance* (London: Routledge, 2001).
[4]	Gilles Deleuze and Félix Guattari. 'Balance-Sheet Program for Desiring Machines', trans. Robert Hurley, in Félix Guattari, *Chaosophy* ed. Sylvère Lotringer (New York: Semiotext(e), 1995), 120-1.

[5]   See McKenzie, *Perform or Else*, Chapter 2.

[6]   See McKenzie, 'Virtual Reality: Performance, Immersion, and the Thaw', *The Drama Review* 38:4 (Winter 1994), 83-106.

[7]   See William J. Fulbright. 'The War and Its Effects: The Military-Industrial-Academic Complex', *Super-State: Readings in the Military-Industrial Complex,* ed. Herbert I. Schiller. (Urbana: University of Illinois, 1970).

[8]   Diane Vaughan. *The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA* (Chicago: University of Chicago Press, 1996), 220.

[9]   See Steve Bodow. 'Attention Internet Shoppers: E-Commerce and the Structure of the Store in Cyberspace', in *Websights: The Future of Business and Design on the Internet* ed. Katherine Nelson (New York: RC Publications, 2000), 134-51.

[10]   See Joseph Roach. 'The Future That Worked', *Theatre* 28, no. 2 (1998),19-26.

[11]   For additional insight into TOYWAR, see Electronic Disturbance Theatre *Hacktivism: Network_Art_Activism* ed. Ricardo Dominguez (Brooklyn, NY: Autonomedia, forthcoming).

[12]   See Bruno Latour, *ARAMIS or the Love of Technology*, trans. Catherine Porter (Cambridge, Mass.: Harvard University Press, 1996) and Donald MacKenzie, *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance* (Cambridge, Mass.: MIT Press, 1990).

[13]   Deleuze and Guattari. 'Balance-Sheet Program', 137-8.

[14]   Deleuze and Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*, vol. II trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 214-15.

[15]   Critical Art Ensemble. *Electronic Civil Disobedience and Other Unpopular Ideas* (Brooklyn, NY: Autonomedia, 1996), 23, 25.