Event Summary

This event brought together a panel of people working on ICTs and social change, together with the Science and Justice Working Group at UCSC. The aim of the meeting was to generate discussion about the relationship between ICTs and social and political change, and to think comparatively about the case of genomics. The objective was to use this discussion to help identify an agenda for further inquiry for the Science and Justice Working Group.

Panelists were asked to speak for about 10 minutes each on this broader topic and the following core questions were circulated before the event:

How if at all does digital utopianism relate to biotechnological utopianism? How are they the same/different?

Do you see any ways in which either forms of utopianism relate to social justice?

By now we know something about how information and communication technologies become domesticated and lose their aura as technologies. Can we learn from them about how this might happen with biotechnology? Or does biotechnology present us with a wholly different case?

Core themes: technology and social change, social justice, utopian impulses, connections between ICTs and biotechnology, domestication, personalization, participation

Challenges: ecological disaster, massive global inequality, economic recession

Summary of Speaker’s Comments

Fred Turner (Stanford University, Communications Department)

Fred Turner started his reflections with a question: How did computers go from being an elite component of the Cold War apparatus with a bad public image (evidenced by students at Berkeley wearing computer cards as a protest against “the machine”; also think Ken Kesey’s One Flew Over the Cuckoo’s Nest) to a vehicle of digital utopianism carrying the hopes of the counterculture?

His answer: it takes a network entrepreneur such as Steward Brand. By network entrepreneur Turner means someone who gathers together disparate types of people (like activists, artists, people in business, graphic designers, journalists, engineers and
technicians) to creates contact zones where people can talk to each other across difference. These are zones where the cultural capital and legitimacy are exchanged that facilitate the linking of a technology that has some capital associated with it (like the internet) with a social vision that has some capital (like the counterculture). It is this articulation of a technology with a social vision facilitated by a contact zone (for example, Wired magazine) that enables the change in meaning of a technology (Turner’s non-computer example: Barnum had no circus skills, but was able to bring together the right people to get people excited about his circus.) In other words, Turner argued that if you are able to claim this is my vision of society and it is manifest in the technology of the internet, network entrepreneurs, with help from contact zones, had a powerful affect on how the internet was framed.

Turner’s question: Does this model apply to biotechnology? Certainly a question similar to the one that Turner asks about computers could be asked of genetics/genomics: How did the study of human genes move from a eugenic totalitarian activity in the mid-20th century to the liberatory utopic project of the 21st century? Futher, can we find network entrepreneurs and possibly new contact zones in this domain? 23andMe would be appear to be a good candidate.

Questions

Genomics has emerged from a science with a bad name [20th century eugenics] to become the champion of 21st century biomedicine. Are there parallels with computing in this shift?

In the 1990s we had digital utopianism with all is associated claims. This clearly helped domesticate the technology [creating markets], and the take up of computing at the personal level. Did any of the utopianism actually lead to any good results in terms of social justice? Did the dream of the common language and the global village contribute to greater inequality, ecological disaster and economic recession? Is there a link between techno-utopianism and inequality?

In terms of social justice is the move to personal genomics and the biotechnogical utopianism of the 21st century more than the domestication of a biotechnology or the creation of markets for genomics?

Caroline Basset (University of Sussex, Film and Digital Media Department

Caroline Bassett opened her comments by suggesting that we need to think about what kind of social justice we are interested in. The conception of social justice encoded in the fist on the S&J poster for this event evokes particular visions of social justice. The UK inaugural issue of Wired, which featured Thomas Paine on its cover, presents another: here computers are presented as a liberatory force which, like the United States in its infancy, can “make the world anew.” Such claims to, and about, social justice made by early computer entrepreneurs (who wrote articles for Wired), Bassett contended, are too abstract and disembodied to bring us to concrete questions about
lives enabled and not enabled by computers, questions that should be at the center of any discussion about technoscience and social justice. To think about connections between information communication technologies, biotechnologies and social justice, ideological hype must be replaced by understanding of specific material forms.

Bassett found this specificity lacking in the versions of digital utopianism espoused by early internet entrepreneurs (and, one might add, by contemporary biotechnology entrepreneurs). Such entrepreneurs promoted visions of computer-enabled transcendence of the body and global consciousness. This, however, Bassett contended, never was possible or desirable. People did not become part of a common humanity through entering the ether; rather, people engaged with computers as another form of a technology of the self that enabled them to forge new ways of narrating (and thus, forming) themselves. As Bassett explained, the take-up of “the web produced a huge explosion in narration: of the self, of life stories, events … where action and narration were embroiled together in exciting new ways.” Far from databases ending narrative, narrative became transformed and, in the process, re-invigorated. People tapped into this new source of possibility, finding new forms of expression and social organization through web-based communication.

Yet at the same as this type of bottom-up ability to engage in narration took off, government agencies and corporations of all kinds began to use internet technologies to create new forms of narrative about people (i.e., through collecting data of all forms, and using this data to create accounts of people). This ability to narrate oneself via a technological form that also subjected oneself to narration by others (what Foucault described as the central phenomenon of “technologies of the self”) raises concrete questions of justice: when there is a discrepancy between one’s narration of self and one’s ‘data self,’ how is this difference reconciled? Who decides? These are the questions of power, justice and ethics that matter.

As our ‘data selves’ becomes more embodied through biotechnological databases like DNA databases (today constructed by a wide range of entities—from the National Institutes of Health to the Wellcome Trust to 23andMe), such questions become more urgent. More is at stake in how and for what ends data selves get reconciled with our how we narrate ourselves. As this happens, the relevant questions of justice become less about who can connect (questions that have been operative in ‘the digital divide’ discussions, and that have found new form in contemporary efforts to ‘democratize’ access to genomic information) and more about the terms of connection. These questions are not merely technical; they are also political questions. Thus, Bassett argued (invoking the ideas of Hannah Arendt) they must be public questions—discussed, debated and decided within public spheres.

Bassett concluded by reflecting on some of the challenges entailed in constructing these public spheres. Today we are witnessing more and more delegation to networks, more automation of our lives. In such an automated world, critical questions arise about where to find spaces of discernment, decision and judgment—that is, the space of the public sphere (our science and justice working group?!?!?). Bassett ended by
suggesting that this space might be partially constituted in the web itself through the creation of a web that makes its decisions processes more visible. In her words:

The point is a new negotiation. And one that is constructed partly in code, using new tools to make new tools visible. For instance, would it be possible to design something that signals, even as it is used absent mindedly, what it is that is being given and gained, what it is that is being taken and used (which bits of earth, whose labour – yours and other peoples?)

In these terms, an ethical internet would articulate, as a dimension of its intelligent operation, the relations of production and consumption each operation it computed contained … To build this kind of awareness of these kinds of multi-accented footprints - the carbon cost, the labour relations, the long shadow of our own intersections, actions and reactions - would be to develop an ethical internet. This would operate beyond privacy but with a responsible sense of the visual. It would perhaps constitute a Smart form of Fair Trade…

Questions

As genomics joins the machines that narrate us, in what ways do we gain or lose control of our ability to narrate ourselves? Are the issues the same or different as informatics becomes bioinformatics?

Warren Sacks (Film and Digital Media, UCSC)

Warren Sacks argued that the kind of change involved with computers and ICTs are important in thinking about social change because the development of computers does not just entail a technological change, but a medium change. By medium Sacks means something that plays a “mediating role between many people," something that “connect[s] and separate[s] friends, families, neighbors and nations.” He used the example of newspapers. Newspapers, Sacks argued (drawing upon the work of Benedict Anderson), made it possible for an unprecedented number of people to “literally ‘stay on the same page’ with respect to current events and the priorities of their national governments,” making it possible for them to connect as part of a nation.

Specifically, the medium change we are in the midst of is a shift from connecting via print forms (such as letters and books and newspapers) to connecting via computational forms (such as email and social networking technologies and databases). This shift matters for questions of social justice because any shift in a medium entails a shift in power. That is to say that a medium shift also changes who has access to using or designing the medium of social connection. For example, poets were powerful in an oral culture. As Sacks explains:
In his book A Preface to Plato, Eric Havelock points out that – about at the time of Plato – ancient Greece was undergoing a transformation from an oral-based society to a literate one. Prior to this moment the social memory for everything – from laws, politics, history, and technical know-how – was preserved in poems. It was preserved in poems because no one could remember large numbers of facts and phrases if they were not rendered into a form with rhyme and meter. Until that point the powerful people were poets because if you wanted others to remember what you said, you had to be able to say it in poetry. This is, according to Havelock, the source of Plato animosities against poets: in The Republic and elsewhere he was not writing against a small, artistic minority, he was stating his case against the people in power, the poets.

Framing the issue in this way raises the question of whether programmers have power. Sacks argues that in a culture where computers structure knowledge, those who program the computers do have power. Like the priests who could read Latin, and thus could interpret the bible for people and thus shape their worlds, programmers who read and create computing languages may be shaping the worlds of contemporary culture. If you accept this, then the social justice issue is to give more people access to the education need to become programmers (and thus creators of contemporary life).

Questions
Is this the case? Do medium shifts entail a shift in who is in power, or do the same elites rule? Would giving everyone access solve social inequities, or just enact existing social inequalities in new forms? For example, might there be different types of programming, some of which may be exploitative? For example, outsourcing of programming as piece work to cheaper labor sources does bring new people into programming, but does it also play out existing labor relations?

What forms does greater access come in? Does greater access always need to entail the ability to program? For example in genomics, greater access has not come in the form of the ability to program, but in the ability to use software that allow people to “browse” their genomes. This development has been accompanied by claims that these developments are democratizing (23andMe perhaps has been most explicit about this point). In Sack’s vision, is this the kind of greater access that is in the interest of social justice? Why or why not?

Does the elicitation of content in the form of DNA sequences and phenotypic questionnaires have similarities to/or radical differences from the use of software to elicit news content from media consumers? In other words, does blurring the boundary between consumer and producer have the same promise in the context of genomic knowledge production as does in social networking and news production?

Maureen McNeil (Women’s Studies and Cultural Studies, Lancaster University)

McNeil brought the discussion together by raising six points that related to an overarching question about why technology and social change are always linked: does
a frame that links technology and social change buy into a capitalist discourse of innovation?

First, we are mistaken if we think change is always positive. It is not.

Second, utopian longing for a world that does not exist reveals attachments to particular kinds of social worlds. What do forms of digital and biodigital utopianism show us about what worlds “we” are attached to? Who is the “we”?

Third, story-telling [Maureen: Can you explain this point]

Fourth, what Turner argued about the kind of power that can be leveraged by network entrepreneurs working with scientists and engineers has now become an explicit strategy that in the U.K., at least, has had some notable success (e.g., the pairing up of the Dana Center and the Science Media Centre).

Fifth, the corporeality of ICTS and genomics may both act to control life and harness it to the production of new forms of capital.

Sixth, both ICTs and genomics offer “technological fixes.” The question is, what does it mean to offer a “technological fix,” and do these fixes bypass political realities?

Further Discussion with Audience

In discussion, panelists and audiences members raised the following questions and points:

Do technologies displace one another, or do they compete? That they compete is essential. Capitalism is not interested in hegemonic forms but competing forms. Competing forms of information are about making money.

One link between ICTs and biotechnology might not be ‘programming languages’ but ‘protocols’- that is to say that it is the conventions and agreements and standards that move across the two areas more clearly than programming languages. This would imply that it is in infrastructural governance and policy that social justice questions inhere.

Biotechnology forces us to attend to information and materiality together – ICTs might have obscured the body but looking at something like the semiconductor industry shows us that the bodies were always there – people were just looking in the wrong places - indeed ‘Wired’ and the technological sublime was always the wrong place to look.

Utopianism means different things – ‘Wired’ utopianism is different to – for example – cyberfeminism which had its own utopian impulses for radical social change linked to computing – this is different from either extropianism or forms of transhumanism – and this is different again from ‘one lap top per child’ or personal genomes for everyone.
Technologies and bodies come together in different ways – as ICTs become more local and bring you back to the body do bodies become more ‘machine readable’

Surveillance – forms of surveillance are both empowering and constraining and in the convergence of ICTs and biotechnology; it is both to-down control and social form. It is also caught up in the double imperative to know thyself to tell thyself – as blogging and genomic social networking might come together [do come together already].

Context and abstraction: how can this kind of conversation proceed without some concrete attachments, examples, people and causes? Bringing together ICTs and biotechnology [although they meet as a form of biosurveillance apparatus] without a key focus, question, context, example etc can only go so far. Who is living and dying here, and where is here?

Surveillance is about the moments of reconciliation – it is very much a question of who, when and where – when do you match your data self [reconcile] and what happens when you don’t? For example at borders – when can you pass by and when might you be imprisoned or killed?

To what extent are these old questions about how bodies and systems interact?