

Don Blair
Research Affiliate Appointment
MIT Center for Civic Media
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Statement of Work

As a Research Affiliate of the Center for Civic Media, I would hope to contribute to an array of existing and emerging projects and themes (detailed below) at the Center, and in several modes: through the writing of blog posts, working papers, and book chapters; by assisting others in their projects (through technical development and strategizing); by engaging in and facilitating dialogue among members of the Civic community and the other communities I have worked with in recent years. Below is an initial project list (surely to undergo revision over time):

Support structures for community science. In this area, my aim would be to connect the citizen monitoring initiatives already underway in the Civic community - in the US, Brasil, Kenya, China, and elsewhere - to complementary projects in the [Public Lab](#) and [FarmHack](#) communities. Public Lab's *Open Water* initiative has already emerged as a collaborative project within the Civic Media community; and FarmHack's *Growing Clean Water* program, with its focus on environmental monitoring and remediation in the context of agriculture and land management, represents a promising potential focus for Civic's research efforts: as the world's population grows, the environmental impacts of food production will become tightly coupled with the daily concerns of civic life, even in highly urban areas.¹ My hope would be to leverage the expertise and talent within the Civic community in an exploration of improved and more accessible civic technology designs and novel community education practices - on project ranging from accessible sensor hardware designs, to finding better structures and formats for civic monitoring workshops.

The role of institutions, hierarchy, and authority in cooperative communities. As communities gain access to more powerful tools for decentralized monitoring, manufacturing, energy production, and remediation, and as existing institutions seek to accommodate these new sources of data and material output, important issues of regulation, certification, calibration, data veracity, and safety are increasingly coming to the fore. Are informal, decentralized, collaborative communities adequately prepared to deal with the questions of power, hierarchy, and authority that arise in the face of such transformations? I would like to explore these issues 'in situ' as they emerge within a set of ongoing, concrete projects in the areas of:

- environmental monitoring ([Public Lab](#));
- remediation, sanitation, and food production ([Farm Hack](#)); and
- human health (the MIT [Breast Pump Hackathon](#); other civic health technologies)

Such projects might serve as important 'laboratories' within which to explore novel frameworks and analyses (via the production of essays and working papers) and around which to generate and facilitate ongoing dialogues (via meet-ups and colloquia); examples of questions that have already emerged include:

- Which DIY technologies ought to be regulated or prohibited? Through what mechanisms?
- Are decentralized certification schemes effective? What precedents and current practices might inform such schemes?
- What balance ought to be struck between openness and privacy in projects that promote civic environmental and health data reporting?

Being able to rely on the gathered expertise and infrastructure at the Center would be a great boon in carrying out these and related projects.

¹FAO Spotlight, 2005: "Water use in agriculture."

Civic engagement through narrative. Community science projects, like those within Public Lab and FarmHack, as well as many of the projects currently underway at Civic, require careful consideration of 'narrative', and 'narrative technique': how is the story of a project – its goals, rationale, and history – going to be conveyed to participants? How will its outcomes be communicated to the various intended audiences of the project? For these important questions, the traditional methods of the professional and academic fields whose focus is on narrative, rhetoric, and interpretation - journalism, communications, literature, design, and the humanities - contain many useful insights. Recently, Catherine D'Ignazio of Emerson College, in collaboration with the Center for Civic Media, Public Lab, and other institutional partners, has been building out a vision for an *Environmental Storytelling Institute* whose aim is to create mutual learning opportunities among scientists, journalists, and local residents impacted by environmental issues. The *ESI* would include a series of workshops and meet-ups in which the participants would share communication techniques while working on output in various media (articles, blog posts, artworks) and learning about the relevant science. I would hope to use my appointment as an Affiliate as an opportunity to work with the *ESI* initiative and to connect it to ongoing projects and discussions at Civic, including the Civic- and Berkman-based 'Networks Story' group.

Other research areas. Finally, I hope with this appointment to have the opportunity to co-write several extended essays whose content will stem from ongoing conversations that have begun with researchers at Civic. Recent topics (among the many possible) include:

“Hidden Needs.” With Catherine D'Ignazio, Tal Achituv, Alexis Hope, and others. One of the important outcomes of the Breast Pump Hackathon was the recognition that an important and ubiquitous health care need has been insufficiently addressed by designers and technologists for decades. How had this oversight persisted for so long, and how was it eventually exposed? Are there ways of facilitating - through the use of the tools and techniques of civic engagement - the exposure of the 'hidden needs' among marginalized groups? How do we design tools for groups whose marginalization, and associated group identity, is episodic and temporary - as is the case with nursing mothers and infants, students, prisoners, tourists, hospital visitors, and others?

“Dangerous Toys.” The widespread adoption of novel and potentially useful civic technologies - ranging from drones, to DIY medical devices - has in many cases been slowed or prevented by concerns over their misapplication; often, regulations and precedents that address adjacent, but substantially different, technologies often seem to be cited from a perspective that is overly conservative, or inconsistent, when attempting to strike a useful balance between the risk and benefit to their users. How well-grounded in empirical reality are these 'arguments from harm' for various civic technologies? This project would examine the various degrees of regulation (extent and scope of the relevant legal corpus) of civic technologies across different legal spheres and/or across cultures, relating this to statistics on the risks to users (accident statistics), with the goal of illuminating cultural assumptions about the proper use of civic technologies.

I very much look forward to the prospect of engaging in these and other projects at the Center for Civic Media.