The art of public design

Phil Agre
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I used to be a technical person -- I have a PhD in computer science and all that -- but I stopped building things a long time ago. I still know a lot of my friends from my computer science days, but others have fallen a way. In one of my last conversations with him, one of these friends from a previous reality informed me I was wasting my life. This is the sort of thing that computer people say to one another. He meant it ruefully, of course, but he also meant it as a simple statement of fact. The world for him is divided into two basic activities: building things and idle talk. Technology drives history, and everything else is a waste. Having moved myself out of the "building things" category, he concluded quite logically that I had decided to waste my life.

Nowadays my old friend is working in a famous media lab designing inconsequential gadgets. And me? Am I wasting my life? I don't think so. In fact I think he's wasting his. He fritters his days away on gadget-focused projects without an interesting vision of how these gadgets might fit into people's lives. The fallacy in his reasoning is a narrow understanding of what it means to build things -- or where things come from, their social construction. Thomas Disch wrote a book about science fiction whose title captures the point: "The Dreams Our Stuff Is Made Of". It's not a great book, but it's a great title. It points to an important fact: things congeal from clouds of language -- from ideas about people and their lives. Those ideas are part of the design process just as much as the modularity of the Java code. If your ideas are bad then your systems will be bad. If your ideas are shallow then your systems will be shallow. If your ideas are oblivious to the context of system use then your systems won't be useable in context. And that's what I do: I make ideas that might congeal into systems. It's public design, and it's a good use of time.

What are the tenets of good public design? I don't know that anybody has written them down before. Here is a first stab:

(1) Start with institutions: forces and structures in the social world as it exists. Your envisioned technology will change the world by letting people do more of what they already want to do, in other words by amplifying one or more of the existing forces. So explain which forces you have in mind, and what it would be like to amplify them. Shop around for institutional ideas that are useful for this purpose.

(2) Show how the technology you envision intertwines with other things. Free yourself from the assumption that technology is a separate sphere unto itself. Technology can't be your whole story; if it's 5% of your story then you have the proportions right. This will bother people who need technology to be the bottom line. Set those people straight.

(3) Don't try to read your story about the future off of the workings of the technology. Decentralized networks, for example, do not create decentralized societies. The opposite is more nearly the case: people create technology according to an image they have in their heads. If people have crummy images in their heads, help them get better ones.

(4) Don't try to characterize the world system, or the current epoch of history, or the five factors that define How We Live Now. That's a valid thing to do, but it's not public design. Instead, gather fragments of theory that seem to pro

vide leverage in articulating the dynamics of real cases, without the slightest attempt to put them together into a grand architecture.

(5) Join the debate. The goal of public design is not to get the right answer in your head, or in some journal that 200 people might ever read. The goal is to change reality. So get out there and publicize the ideas. Write magazine articles. Start a big mailing list. Return reporters' phone calls. Write in accessible language. You're trying to have a material impact on the world by changing the culture. Not the mass culture, perhaps, but the culture of the wired people who shape technological agendas in research and industry.

(6) Learn about standards dynamics. It will only become real in people's lives if it becomes a standard, and standards come about in strange ways. Get in the habit of thinking "we need a standard for that" and then imagining what the missing standard might be like, both technically and politically. Is it a standard that requires a critical mass of adoptees before anyone will find it worth the trouble of adopting? If so then you'll have to design the social process by which that critical mass will come about.

(7) Put information technology in the context of intellectual history. Computers are nothing but ideas made into machinery, and so you can't understand where the computers are coming from unless you know about the history of ideas. Yesterday's ideas run our lives until we become aware of them.

(8) Transcend the fight between the enthusiasts and the skeptics, between the people who predict radical discontinuities and the people who say that there's nothing new in the world. They're both wrong.

(9) Liberate yourself from this historical myth: that technology is at war with institutions, that technology drives history, that institutions hold this technologically driven future back, that institutions should therefore be destroyed, and that technology is the best instrument for doing so. This myth grips libertarians and Marxists equally, and every element of it is a dangerous half- truth. Your public design work will be bad until you get past it.

(10) Let go of wanting someone to implement your ideas exactly as you've envisioned them unless you plan to raise the money yourself. Recognize that public design -- like any gadget demo -- is part of a process of public discussion. Your ideas go into the mix, and the people who build new machines will grab bits and pieces of ideas from different sources.

To illustrate what I mean by public design, let me use the example of my paper about the nature of intellectual life and its consequences for digital libraries. I have a formula for writing these papers. I go shopping for ideas that feel like levers. These turn out largely to be ideas about institutions. Then I ask myself, what would happen if we used information technology to amplify particular features of these institutions?

In the case of the paper on intellectual life, I asked (among other things) what would happen if we took the institutions of peer review and generalized them to apply to everyone -- how it would work and what kinds of technical and social innovations it would take. I don't claim to know the answer to this question. I just think it's a great question.

And it's a question that leads directly to fantasies about gear. One could imagine building peer-review systems for contexts other than academia, for example the people who maintain a certain kind of equipment. Questions immediately arise: what if those people don't want to write papers? Well, then maybe they make informal videos, or maybe someone interviews them remotely, or maybe they give a presentation remotely to their peers, which then gets captured. In fact experimen

ts like this have been done at Xerox and elsewhere. But their design has a long way to go. I want to help by explaining more fully what these sorts of systems might accomplish, and what their social prerequisites are. I want to stir up imagination about the matter, for example by describing the phenomena in ways that people can understand from their own experience. This is the cloud of language from which things congeal.

The problem with gadgets is that they congeal from very small clouds that are disconnected from broader and more useful ways of talking about people and their lives. The stories that their inventors tell about them are usually impoverished. They usually don't have interesting things to say about people and their lives. They tend to make very flat, very broad generalizations about people. By telling better stories about people -- stories that are grounded in serious ideas -- I hope to encourage the gadgeteers to iterate their designs. Design works best when it gets robust feedback. Critics provide one kind of feedback, but public design is more positive. Criticism by definition is reactive, but positive design can articulate entirely new areas of life that design might address.