

TECHNOLOGY

Data meets design

Jennifer Golbeck enjoys a manifesto on the beauty of well-designed virtual interfaces

Judith Donath's new book, *The Social Machine*, sets out to inspire a change in the way we create online social networking platforms. In her own words, "This book ... is a guide to understanding how existing systems influence behavior and a manifesto for designing radically new environments for social interaction."

The book's emphasis on style and presentation begins immediately, opening with an anecdote about a program Donath developed while in graduate school that allowed her to visualize the community of users who were logged in to a central computer in the MIT media lab. She considers and immediately rejects the idea of listing names in alphabetical order because it is "too reminiscent of the list of names on a committee program or memorial." Donath is clearly someone who carefully considers the importance of presentation on every level.

In many ways, this is a book about art before it is a book about technology or social systems. Data visualizations created as works of art appear alongside those created to support decision-making. The chapter on "Data Portraits"—depictions of people made from data by and about them—highlights the value Donath places on aesthetics. She calls these "portraits" rather than visualizations because, as she says, "a portrait is an artistic production."

That is not to say that *The Social Machine* fails in its role as a technology book; quite the contrary. It offers a sweeping literature review of design research related to social interaction. For anyone with interest in this field, either as a technology designer or just as someone who loves beautiful technology, this is destined to become the definitive text. It is eloquent, well organized, and thorough.

A long-standing tension in the space of data visualization exists between making attractive, engaging designs and making useful ones. I confess that in the past, I have used some of the images that Donath highlights in my own classes as examples of "pretty but not very helpful." Randal Munroe's well-known *Map of Online Communities* is one such example (1). These can be fun to look

at, amusing, and witty. But if you're trying to analyze the data, it quickly becomes clear that they are much less effective than a simple, properly organized Excel spreadsheet. Readers interested in decision support, measurable impacts, and quantified results will not find their perspective here. Donath advocates strongly for beauty.

Still, there are many parts that will be of interest to anyone who is concerned with designing social technology. For example, Chapter 3, "Interfaces Make Meaning," is an

The Social Machine
Designs for Living Online
Judith Donath
MIT Press, 2014. 432 pp.



will open up new ways of thinking about social systems, especially for readers with a technology background.

One critique of the book is that, in some places, Donath's arguments feel a bit naive or simplistic. For example, the opening chapter suggests that the problem of trolling—the act of posting deliberately inflammatory or off-topic messages on online forums with the intent to anger other users or disrupt normal discussion—might be solved by creating interfaces that "en-



Anthropomorphic "data portraits" can help humanize the online experience, says author Judith Donath.

excellent introduction to communication and the social meaning of design choices. Donath discusses fonts, color theory, and metaphor and provides lengthy descriptions of how social interpretation of these elements can affect what people see. Her discussion of what motivated physicists at CERN (European Organization for Nuclear Research) to choose the Comic Sans font for their presentation announcing the discovery of the Higgs boson is one of many interesting, thought-provoking examples. Not every designer is familiar with these lessons, but they all should be.

Aside from its focus on innovative, beautiful design, the book also seeks to explain the social impact that technologies have on the people who use them. Donath highlights theories and examples from psychology and the social sciences throughout the book to do this. This component of the book is interesting and often well reasoned. These ideas

courage people to take responsibility for their words and to engage with each other more cooperatively." That may be true in some cases, but as they say on the Internet: "trolls gonna troll" no matter how strongly they are encouraged to play nice.

Those who share the author's principles of valuing beautiful and thought-provoking designs for their own sake will fall in love with this book. Those who are motivated to design platforms to generate profits or support analysis and decision-making will find value here, too, although they are unlikely to be completely won over by all of Donath's opinions on radical, creative design. Then again, this is a common characteristic of manifestoes. I don't expect Karl Marx planned to win over everyone with his manifesto, either.

REFERENCES AND NOTES

1. R. Munroe. <http://xkcd.com/256>.

10.1126/science.aaa0421

The reviewer is at University of Maryland, College Park, College Park, MD 20742, USA. E-mail: jgolbeck@umd.edu