Design Teams as Change Agents:
Diplomatic Design in the Open Data Movement

Misa Maruyama
University of Hawaii at Manoa
misattm@hawaii.edu

Sara Douglas
University of Hawaii at Manoa
sarad@hawaii.edu

Scott Robertson
University of Hawaii at Manoa
scottpr@hawaii.edu

Abstract
Designers and developers who want to participate in the open data movement should be more than technical experts; they should also be change agents. Realizing open data’s promise of innovation and entrepreneurialism requires the support of diverse stakeholders. Government agencies must release accessible and useful data; developers must use the data to build tools; and citizens must adopt the technology.

The interests of one group may come at the expense of another. For this reason, we examine the usefulness of a diplomatic design approach, which focuses on the art and practice of conducting negotiations using specialized techniques. We conducted an exploratory case study on a national nonprofit fellowship program as it worked to design not only technology but also organizational and social change in the context of a digital government engagement.

1. Introduction
A growing number of governments have joined the “open data” movement, which refers to the publication of “raw, authoritative, or unprocessed information that allows individuals to reach their own conclusions” [31]. Information communication technologies have increased governments’ ability to disseminate vast amounts of data, allowing developers to build public-facing applications [5, 25]. But this young movement faces the special challenge of harnessing the collective participation of city agencies, third-party developers, and end users.

A new breed of professionals who understand diplomatic design is needed. They should not only have “hard skills” such as programming or design expertise, but also “soft skills” such as communication, negotiation, persuasion and change management. These change agents must be willing to transcend typical project development processes to explore how government operates, what stakeholders may gain from participating and what they stand to lose.

This exploratory case study examines how a design team used one such approach in one of eight U.S. cities selected to participate in the Code for America (CfA) program in 2012. CfA is a national, nonprofit fellowship program. The fellowship matches civic-minded technologists with cities for one year to build technological solutions from government data.

This paper begins with a review of existing literature on open data and change agency. Scant research exists on change agency in the open data movement, a gap this study aims to help address. We then describe the research site and method used for data collection and analysis. We review the process undertaken by the Code for America team during a five-week visit and discuss the challenges they encountered. We conclude with implications for practice.

2. Literature review
The open data movement began in the 1990s, with projects such as Census.gov in 1996 [31]. President Obama thrust the initiative into the national limelight when he signed the “Open Government Directive” in 2009, requiring federal agencies to publish “high-value datasets” in an “open format.” According to the Data.gov website, its primary purpose is to “improve access to Federal data and expand creative use of those data beyond the walls of government by encouraging innovative ideas (e.g., web applications).” This reflects an increased emphasis on liberating data not only for transparency’s sake but also for use by third-party developers [5, 25].

Book publisher and technology blogger Tim O’Reilly [23] uses the term “government as a platform” to describe how governments can harness the power of open data via the Internet. According to O’Reilly [23], governments should build a public infrastructure for data, allowing developers with diverse skills, resources and motivations to build myriad tools – just as Apple provided a framework upon which programmers could build more than...