Mapping EDEN Proposal

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Overview

Description

Mapping EDEN is an experiment in wedding sociological critique with a craft-tradition of Computer Science seeking artifacts and ways of making and doing that suggest fresh approaches to multiple disciplines.

Background

Ideally, the goal of Science, Technology and Society is to do work that is fully engaged with the practical details of human experience and effort and uses that engagement to develop theoretical understandings that reveal new points of contact and analyses. Sismondo (2008) describes this ideal as an "engaged program" that seeks to use pertinent topics in theoretically interesting ways. This project attempts to realize these qualities by simultaneously applying theoretical critiques to a situated and particular software tool and modifying that tool in conversation with those critiques. The end goal is a process-object that exists both as a fully functional piece of software and a record of the progress towards analyzing and creating that software from an existing base. I chose this particular form because it draws from both the traditions of software development and Science, Technology and Society scholarship but sets neither above the other. An engaged product must strive to be fully available to more than just the scholars of the social sciences.

Merits

Primarily, this project grew out of a sense of the disconnect between the making and doing of Science, Technology and Society and the making and doing of engineering. I was inspired by the worlk of feminist scientists (primaraly but not exclusively Roy (2018) and Subramaniam (2014)) in working to learn more through their combination of the scientific method with feminist critique. My project is not one centered on feminist critique, but within my professional background of craft Computer Science (see

Ensmenger, 2012). In D. J. Haraway (2016, p. 63) Haraway says "a model is worked, and it does work." I want to work the models of critical analsis and software development and see what work I can do through working them. Another focus of this project will EDEN's view of the world. In Modest_Witness@Second_Millennium.FemaleMan©_Meets_OncoMouse™Haraway works to describe the world as seen through the advertisements of genetic technologies companies. In the same tradition Subramaniam (2014) shows how the eugenic roots of biometric tools influence the kinds of results they can discover. EDEN did not spring from nowhere and the traditions it draws on will bias the views it renders of the world. I will search for the standpoint D. Haraway (1993) EDEN views the world from within.

Background

Sociology, Media Studies and Science, Technology and Society have a long history of critiquing the arifacts and processes produced by technology companies (Cheney-Lippold, 2018; Dean, 2010; Harraway, 1997).

Intellectual Heritage

Software Studies

Software Studies is, broadly, attempting to connect the abstract virtual constructs that exist in code to experiences of humans in the actual world. Works in the field have focused on a wide range of modes of engagement. Some describe the types of social spaces that grow up around communities whose focus is code (Kelty, 2008). Others work to describe how software creates new types of physical places whose qualities emerge out of the interaction between software and the physical demands of the actual world (Bridle, 2018; Kitchin & Dodge, 2011). The field is broad enough to also include scholars approaching the question from a Media Studies background and describing how code fits into the history of personal expression and speech and whether its differences are real or only superficial (Cox & McLean, 2013).

Situated Knowledges

Design

Methods

The aim of this project is to put academic work in conversation with practical tools as well as put academic criticism in conversation with work to transform the same tools. This will draw on Science, Technology and Society's tradition of Making and Doing as well as traditional methods for analysis and critique. A PDF of this document can be found at `https://github.com/aeturnum/masters_project/blob/master/full_proposal.pdf`.

The LaTeXsource file can be found at `https://github.com/aeturnum/masters_project/blob/master/full_proposal.tex`.

Fieldsites

The EDEN software package, developed by the Sahana Foundation (a non-profit) and deployed to manage disaster response, appears to be an excellent fit for this project. It is designed with a purpose and with the intent to save lives. It has good reason to simplify and focus perspectives of those using the tool and to problematize particular aspects of the situation while allowing others to remain innocuous. Its lack of commercial motivation will also likely simply the process of decomposing whom its perspectives benefit.

The software's homepage can be found here: `https://sahanafoundation.org/`. A demo version of it running on the Sahana foundation can be found here: `http://demo.sahanafoundation.org/eden/`. Its source code can be found here: `https://github.com/sahana/eden`

Research Questions

What ways of knowing and doing are assisted by the design of EDEN?

What epistemological traditions are centered in EDEN's methods for storing data? Whose needs are attended to first in this particular product?

Schedule

Quarter	Quality	Time Allocation	Goal
Fall	Reading	80%	800 pages read with notes
	Writing	10%	Notes and planning documents
	Coding	10%	Notes on project structure
Winter	Reading	40%	Final selection of bibliography with additions based on notes and readings.
	Writing	30%	Outline for final paper with 20% of content finished
	Coding	30%	Rough modifications completed, but in need of polish
Fall	Reading	10%	Unexpected additions to literature and gathering specific quotes from previously completed elements.
	Writing	40%	Final paper
	Coding	40%	Full branch of EDEN project with documentation and demonstration server.

Impacts

Artifacts

The project will produce three artifacts: a paper, a piece of software and a git source-tracking repository. The paper will provide formal analysis of the original form of the software being considered. It will engage with social science literatures from traditions such as feminist critiques of technologies, critiques of algorithmic technologies, critiques of (often but not exclusively scientific) epistemelogical processes and software studies. Its discussion and conclusion will describe the particular view the software renders of the world and also argue how alterations to that piece of software might change its purpose, its views or its impact. The software artifact will be a modified version of the selected software whose modifications will be driven by the suggested alterations in the paper. These two software products (modified and

unmodified) can serve to contextualize the paper and bound its theoretical claims to what is pragmatically possible for a software developer. Finally, all of these things and all other project artifacts (including this proposal) will be archived in a git repository and hosted online. Git will allow the process to be recorded and observed both in real time and in hindsight, giving the project a shape and an arc and a character outside of its final results.

Goals

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