ABSTRACT
The following presents an interdisciplinary collaboration between ethnographers and computer scientists involved in the development of the Platform for Experimental Collaborative Ethnography (PECE). The paper begins with a brief explanation of the motivations and binds faced by each discipline during this collaboration. Specifically, the paper focuses on the complexities of structuring data when conflicting perspectives, epistemologies and methodologies are considered. The concept of “light structure” is introduced as a means of mediating the challenges. The paper concludes with additional thoughts on the value of light structure a way to facilitate new forms of collaboration in a digital space without constraining the traditional practice of qualitative research.

Categories and Subject Descriptors
K.4.3 [Organizational Impacts]

General Terms
Management, Human Factors, Standardization

Keywords
Ethnography, Structure, Collaboration

1.INTRODUCTION
Building digital platforms for qualitative research highlights the schisms between the “hard” and “soft” sciences. Significantly, it requires collaboration amongst ethnographers conceptualizing its necessary affordances and computer scientists bringing the functionality to fruition. Each discipline approaches structure drastically differently - ethnographers perceive structure as constraining, closing out space for new modes of theorizing while computer scientists rely on structure to build web spaces. These challenges manifested as both came together to conceive and build a platform to facilitate experimental collaborative ethnography. In order to make the platform functional, both the ethnographers and computer scientists needed to understand the binds - or the irreconcilable demands - of employing structure for ethnography and reimagine how their practices could change and possibly be enhanced by finding a compromise in the middle. In this paper we outline our work in developing the Platform for Experimental Collaborative Ethnography, where we use what we call “light structure” to bridge the practices of computer science and ethnography.

2.BACKGROUND
The Platform for Experimental Collaborative Ethnography (PECE) was conceived out of an experimental project called The Asthma Files. Led by Rensselaer Polytechnic Institute Professors Kim and Mike Fortun, The Asthma Files project aimed to create a digital platform for supporting collaboration amongst disciplinarily and geographically dispersed ethnographers – primarily anthropologists, sociologists, and historians – each with their own expertise on the asthma epidemic. In order to draw on these researchers’ various perspectives, the site would support the production and organization of diverse content, establishing a repository of user-generated information that would allow the site’s members to view the epidemic from multiple lens.

Kim Fortun has written that an underlying goal of The Asthma Files was to facilitate “chance encounters” amongst peripherally related content and ideas in such a way that could surprise the ethnographer and draw out theory previously hidden to the ethnographer’s consciousness [1]. Much similar to Hendler’s and Hugill’s ‘Syzygy Surfer,’ - a pataphysics-based search engine designed to link users to the search results produced by embracing the ambiguity of search terms - the site was designed to facilitate creativity and serendipitous revelations [2]. In this way, the platform would experiment with moving ethnography beyond critique towards a practice that could generate new and creative ways of viewing and articulating the world, while simultaneously providing space for theorizing about the asthma epidemic across fields, geographies, and events.

To accommodate these goals, the platform, originally built off the Plone content management system, was designed to store documents, images, audio, and videos that could be annotated by the larger community of researchers. Annotations consisted of a series of open-ended questions that were meant to be interpreted divergently amongst those responding – the goal being for each response to offer a different lens to view the content. Researchers could then pull from the diversity of responses to curate collage-like views that represent some aspect of the asthma epidemic. In doing so, the site encouraged the “polyphony” or “perspectival relativity” called for in Writing Culture [3].

Recently, The Asthma Files team has shifted to a new iteration of the project – the development of a packaged platform, PECE, that ethnographers can download and install on their own servers to
initiate an experimental collaborative ethnographic project. The goal is thus to develop an open source platform that can facilitate multi-sited, multi-scale ethnographic research adaptable for any topic. In making this shift, the team has developed instances of the site and made a substantial practical decision to shift to a Drupal platform. One such new iteration – the Disaster STS Research Network – seeks to facilitate collaborative research amongst social scientists reporting on disasters.

3. CHALLENGES TO BUILDING DIGITAL INFRASTRUCTURES TO SUPPORT ETHNOGRAPHY

This move to shift ethnographic research into the digital world is wrought with binds. Web infrastructures are undergirded with structure. Content added to the site needs to go somewhere, and this necessitates that it be classified in some way. Furthermore, to encourage ethnographic collaboration - the development of some form of social system - content must be defined or categorized in such a way as to make relations possible.

However, the type of experimental ethnography that the site seeks to facilitate is constrained by structure. Structure can lock social scientists into habitual modes of thinking, closing out the space for new perspectives and theorizing. As Bowker and Star point out, classification involves “practical politics,” - there is process to both determining which classifications are relevant, and to what extent those practical decisions are rendered visible on the platform [4]. As these determinations are increasingly rendered invisible, users become blind to what is excluded in the process of classifying. New research is then built off of this blind research, further shutting out generative thought - what Bowker and Star refer to as “convergence” [4].

The ethnographers conceptualizing PECE thus needed for spaces to be structured lightly – to prevent the production of blindness from over-classifying and to allow for the emergence of shifts in how spaces were interpreted as more researchers were exposed to them. However, computer scientists that work with such projects tend to add additional layers of structure when attempting to define content that is nuanced and context-dependent. Specifically, they call for additional layers of metadata to outline the particularities of the content.

In order to overcome these interdisciplinary contradictions, we have employed what we define as “light structure”. Light structure refers to the establishment of frames, rather than strictly defined spaces, that can be filled with content according to how the ethnographer working within the frame interprets it. The frame, itself, then serves as the structure for the content - all content can be considered relational in that it was derived in response to the frame. In this sense, the diversity of content generated by researchers on PECE can represent a variety of perspectives, while still being discoverable.

An example of this is seen in what we call “Structured Annotations”. In the platform, any piece of content can be annotated with a predefined series of questions. These groups of questions establish a frame for reading and annotating content. However, each researcher can approach or interpret the questions in a variety ways, opening rather than closing space for competing epistemologies that can lead to new theorizing. At the same time, this structure allows for easier comparison across annotations and content. These groups of questions can also be shared, modified and reused, allowing for much of the invisible work of ethnography to become visible and useable to others.

4. CONCLUSION

Boden, in “The Creative Mind,” argues that constraints help show structural possibilities which can then be explored, and perhaps transformed to open new possibilities [5]. In this sense, some structure and constraint can be a source of creativity and may be needed to bring ideas that are surprising and new. In employing light structure, PECE attempts to establish a digital platform where lightly defined spaces allow for the creation of new ideas and theorizing. While the bind of constructing a platform that can meet the needs of ethnographers becomes transparent as they conceptualize its structure with computer scientists, the concept of light structure actually facilitates new forms of collaboration in a digital space without constraining the traditional practice of qualitative research.

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6. REFERENCES