CMC ASSIGNMENT 1 (SAMPLE 1)

Primary research question: **What are the informational needs of individuals before, during and after extreme events?**

Sub-question: How have individuals used socio-technical systems to get the information they require when dealing with extreme events? What is the value of addressing extreme events from an "informational" perspective? There are many issues of definition here, especially:

- who are the *people involved* in extreme events?
- what are *extreme events*? Can *extreme events* be generalized in light of this question?
- what are *informational needs*?
- what is the character of current *socio-technical systems* currently being used to meet information needs?
- what is the *informational perspective* and what is its value?

I propose to do a literature review to answer the definitional questions, by reviewing literature about extreme events from an "informational" perspective, so that I might be able to address the primary research questions. This proposal is about defining the above italicized terms in order to usefully frame the primary research questions.

Although there have always been extreme events, they occur somewhat rarely. Hurricane Katrina is the most notable extreme event in recent history because of Katrina's level of devastation. Katrina is considered to be the most destructive disaster in modern American history on many levels: the number of deaths, the number of homes lost and the overall cost of the damage (see the White House's report on the "Lessons Learned" from Hurricane Katrina: http://www.whitehouse.gov/reports/katrina-lessons-learned.pdf). According to many reports, much of the physical and human damage from Katrina was avoidable. Examples of poor decisions abound. However, the question that we are probing here is not necessarily what the poor decisions were in a

specific extreme event, or to assess social and physical damage, but to ask more generally what are extreme events, and furthermore what is the role of information is in extreme events.

Given some of the new developments in information and communication technology, it seems that there is much that can be done to help people involved in extreme events from the perspective of providing information to people. Naturally there is a question of whether focusing on information during an event such as Katrina is a valid perspective, and part of this project would be to assess the viability of this perspective. There is some evidence of the important of communication of information and information systems post-Katrina (for example, message boards such as http://familymessages.org/ and http://www.nola.com/forums/ have been used by Katrina victims).

I would like to attack this problem in the following order:

1. **Literature review:** Review of literature on disaster and extreme events, paying close attention to literature that focuses on the use of information and communication technology (ICTs) before, during and after extreme events. I would focus on literature that helps answer some of the definitional questions set forth above.
2. **Real world case study:** Ideally, I would like to look at computer mediated communication during extreme events. It seems that post-Katrina there was a lot of activity on message boards. I would ideally like to code the communication on message boards along the lines of what type of communication people were taking part in, and what their apparent informational needs were.

It is not clear to me that one plan of attack necessarily has to come before the other because it seems that both could inform the other. However, at least part of the literature review would have to be done first.

I see the end consumer of this research project as myself and others who are interested in extreme events from an informational perspective and issues of how to frame problems in this area. Additionally ICT designers might particularly benefit from the second part of this project. Technologists are faced with several challenges in designing ICTs for extreme events: they don't know

who is going to be using their systems or in what circumstances, on what devices and the systems have to be quickly deployed. I hope that this paper can help designers at least understand broadly what the informational goals of the users might be during an extreme event.