MI 488 & IAH 205

Spring semester 2024

Design Project: Identifying a Design Problem/Conducting Background Research

Assignment #1 (25 points)

Due March 8, 2024

The purpose of your design project is to identify a problem in <u>Kenya</u> (a "developing country"), and to design a possible technical solution to this problem. For this assignment you will conduct background research and use your findings to identify the problem that you will address. **Make sure you select a problem that will: sustain your interest for the rest of the semester and that might be able to be solved using ICTs.**

In this assignment you will read and synthesize (at 4-5) research papers/reports that answer these questions. In fact, you might want to use these questions to structure your assignment.

- What is the problem you are addressing? *Clearly and concisely explain your problem. Generally, the more focused you can be, the better.*
- Whom is this problem affecting? Explain who the problem most affects (e.g., women, smallholder farmers, or informal settlement residents).
- Where is this problem? Explain where the problem exists (e.g., region within Kenya, rural or urban area).
- How important is the problem? *Consider providing statistics and/or compelling examples to illustrate why your problem is important.*
- What—if any—prior technologies have been developed to address this problem? Were these efforts successful or unsuccessful? Demonstrate that you have read articles (Or watched videos) about prior efforts to address your problem. Detail why these efforts did or did not work.

You must provide justification for your answers to these questions. This will require that you conduct background research. You must include at least four to five references in your assignment (you may include relevant articles read in this course). Please correctly reference these sources/articles, e.g., it is wrong to just add a weblink to an article. Try to find a variety of sources. Information should come from reliable sources as much as possible. Wikipedia or website links should not be used as a primary source of information.

Many students start with a Google Scholar search, but you can also access relevant databases using MSU Libraries' website (https://lib.msu.edu/). In particular, you might consider accessing articles on the "ACM Digital Library", especially those from conferences proceedings:

- ICTD: International Conference on Information and Communication technologies and Development
- AfriCHI: THE African Conference for Human Computer Interaction
- Talk to Dr. Wyche and/or Dr. Choti if you are having trouble finding references.

Upload your assignment to D2L before class on 4/8. Late assignments will not be accepted.

- A report that carefully and thoughtfully answers the aforementioned questions. Answers to these questions will likely be at least a paragraph long. Your final report should be $\sim 1,500$ words (note this word count does not include references).
- A Works Cited page that includes at least four to five references to the prior research.

How will it be graded?

- **25-18 Points** –The assignment is complete and thoughtful. The references are properly formatted. They include a variety of sources (online reports, conference proceedings, journal articles, etc.). The write-up demonstrates an understanding of the articles, and clearly explains why they support and are relevant to your problem. The report is well-written and demonstrates a high level of independent work without reliance on generative AI tools like ChatGPT.
- 17-10 Points The assignment is complete but is not as high quality as it could be. The student incorrectly formatted references and does not appear to have read the articles. The write-up has typos and awkward sentences.
- **0-9 Points** The assignment is incomplete or done incorrectly. The assignment lacks thought and is poorly presented.