Memorable
Personalized entertainment for people with dementia
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Our Proposal

The Project
Problem
There are two parts to our problem:
- Lack of personalized entertainment for people with dementia in care facilities
- Lack of focus on patient-family-caretaker data exchange about patient's daily activities

Existing Understanding
We are building off of an existing idea for an entertainment application for people with dementia based on the work provided by a CSE 440 group (Memorable Entertainment) and a HCDE 455 Capstone project (Memortainment). We plan to implement a web application with the features they have proposed: a puzzle game using personal images and a music player. These features build on the understanding that reminiscence and music therapy is beneficial. Allowing people with dementia to spend time reflecting on old pictures and listening to music helps spark past memories and improve their mood.

Design & Exploration
Even though we are using an existing idea, there are still gaps in our understanding of the problem space.
- What information would be incorporated into patient profiles?
- What information is relevant to relay to family members?
- Where and how will personal images be added to the application?
- Who adds these images and who selects the songs the user listens to?
Our project will further investigate this problem space in hopes of finding a minimal and simple solution.

Deliverables
- Contextual inquiries with caregivers and researchers
- Paper prototypes of application design compatible with public API's
- New prototypes of data exchange process
- Working web application (for Nexus 7)

Milestones
1) Research data exchange and patient profile content
    a) Contact & meet with caregivers/professionals
    b) Develop more understanding around topic of technology in care home environments and technology for people with dementia
    c) Set up web application
        - Find and learn to use API's for puzzle game and music player
    d) Paper prototype
2) Begin building interactive prototype
    a) Implement puzzle game and music player
    b) Prototype and iterate on data exchange process
3) Complete basic implementation of all application features
    a) Implement data exchange and patient profiles
    b) Conduct usability testing and iterate based on design feedback

Success Criteria
We will measure success based on:
1) Positive feedback from caretakers and family members
        We want to know that the application is as easy to use as possible so caretakers or family members will be able to use it without training.
2) Creating a functional web application with:
        - patient profiles
        - image uploader
        - simple puzzle game using uploaded images
        - music player

Risks
1) Complex design
        We will conduct usability testing to make sure that our application is easy and simple enough for dementia patients to use
2) Lack of participatory design
        We will keep in touch with everyone we interview in hopes of involving end users throughout the implementation of our application