Capstone Project Proposal

Project description

I would like to advocate for a universal healthcare system.

My intention for my capstone is to make a game which acts as a cross between the choose-your-own adventure, simulation, and strategy genres. Players will be able to step into the role of a character with a realistic overview of their medical and life circumstances, then make decisions based on the character's needs and goals. Both the current and universal systems will be represented, establishing the need for change and demonstrating the potential benefits.

I will create branching storylines for multiple characters with multiple possible endings for each character. I will use UX principles and methods during the design process so that I may make a more effective interface.

Project goals and objectives

Provide three main goals of the project, typically focused on user/viewer outcomes. Underneath each goal, create at least one objective that you will complete to support the identified goal. Consider using SMART Objectives.

1. Increased empathy/understanding
   a. Realistic representations of Americans' healthcare scenarios
   b. Storyline options which can all be seen as responsible actions of self-reliant, capable adults
2. Completion of game in multiple scenarios
   a. Compelling storylines
   b. Multiple endings that encourage replay
3. Positive User Experience
   a. Intuitive UI and Interactions
   b. Clear representations of player resources

Project relevance

This section explores the reasons why your project is of importance. In here, explicitly answer the question of "so what?" I would recommend writing this *last* but please place it second in your document.

In the field:
- How does your project fit into the larger profession and field of interactive media?

- Games and/or apps are what most people would think of when thinking of what "interactive media" is. Designing and implementing the project will touch on every aspect of a creative product production workflow.
- How will the completion of this project contribute to advancing knowledge in interactive media? (i.e. how will you share your knowledge?)
    - The development method I intend on using should be easily made for all web and app platforms.

As a professional:
- How does this project achieve the goals you have for your own personal growth in the field of interactive media?
    - It will allow for me to show off my programming abilities and utilize some of the UX processes I've learned to inform my design decisions.
- How does it fit with your future career goals?
    - It will give me a strong portfolio piece and experience using workflows common in professional environments.

Summary of Relevant Research

My topic will revolve around the United States' healthcare system, the burden that it puts on its citizens, and the benefits of a universal/single-payer healthcare system. The United States' healthcare system has been a hotly debated subject in recent political discussions.

The majority of my research has gone to the benefits of a single-payer healthcare system in the United States. This will serve as a general introduction to the topic for me, and it will help to inform how I present my project's content. In a guest commentary column of the Aspen Times, Dr. George Bohmfalk explains: "Many people fear that moving abruptly to a single-payer system, as in expanding and improving Medicare to cover everyone, would be disruptive and might wreck the economy. I believe that the only areas that may face any disruption would be the insurance and pharmaceutical industries."

In an opinion article from Stanford University, Fuchs has some doubts about the implementation of a single-payer healthcare system, citing higher costs. "The analogy is not perfect, but the biggest difference between health care in the United States and other high-income countries is similar to that between food expenditures at Whole Foods and at Wal-Mart. In the United States, medical care takes the form of greater use of specialists … , greater use of technology … , and a more expensive mix of drugs (Whole Foods)" Gross and Laugesen, however, debunk this argument in The Price of Health Care: Why is the United States an Outlier? "The root of the American health care problem does not lie in the quantity of health care consumed, but rather in its price. The biggest problem with the US fee-for-service system … is "the specific fees per service." And as one team of researchers argued, "It's the prices, stupid."

In a study on medical bankruptcies, Dobkin et. al. "found compelling evidence of the existence

of medical bankruptcies but discovered that medical expenses cause many fewer bankruptcies than has been claimed." While only 4% of bankruptcies were caused by medically-related financial problems, there was a clear spike in bankruptcies in the span of 1 to 4 years after hospitalization.

In the journal article Is Cancer History Associated With Assets, Debt, and Net Worth in the United States?, Doroudi et. al. concluded that "Cancer history is associated with lower asset ownership, more debt, and lower net worth, especially in survivors age 45–54 years."

In the Annual Review of Sociology from The Ohio State University, Rachel E. Dwyer found that "Debt from any source may also reduce the resources available to maintain health … individuals with high levels of consumer and medical debt after the Great Recession avoided visiting the doctor or dentist. Health problems also increase the chance of home mortgage default and foreclosures, as well as credit card default."

Target audience

The primary intended audience for my project will be for American people of voting age. The secondary audience will be advocates for universal healthcare, who may be able to use my game as a tool to enable them to spread their message and spark productive conversations. Politicians will be the tertiary intended audience, as these people are the most direct possible advocates and opponents of a single-payer healthcare system. The group of politicians which could give the largest backlash but also gain the most benefit from the insight my project may provide is Conservatives. My project will need to be incredibly user-friendly to accommodate the vast primary audience, as well as the possibly less tech savvy tertiary audience.

User Stories

"As a vocal supporter of universal healthcare, I would like to make healthcare-based political discussions more approachable so that I may alleviate some of the tension that can lead to pointless arguing."

"As a politician, I would like to find interesting ways of engaging the public so that I may avoid being ignored based on the fatigue that comes with constant election-time political advertising."

"As an advocate, I would like to provide compelling and convincing content supporting my cause so that I may convince people to also support my cause."

"As a moderate voter, I would like to have more balanced, factual information on universal healthcare so that I may decide my stance on the issue."

"As a <u>skeptical conservative</u>*, I would like to* <u>find flaws in this game</u> *so that I may* <u>rationalize my view that people struggling with financing their healthcare are just doing something wrong on a personal level</u>*."*

Competitor Analysis

Review, briefly, three other projects in the topical or technological spaces you have identified. For each review, provide a link to the original project, a written description of the project (one to two paragraphs), and an analysis of what works well, what could be improved, and how you plan to do things differently.

Why Can't America Have a Grown-Up Healthcare Conversation? From the Vlog Brothers
https://www.youtube.com/watch?v=09RvU9_m30Q

"In which John discusses the tradeoffs involved in health care reform, and why the 70% of Americans who are happy with their personal health care make it difficult to achieve more than incremental changes in the very expensive, very inefficient health care system in the United States." This video is a good overview of the topic of the healthcare conversation. "All healthcare reform boils down to three factors: quality, cost, and access."

While this video does a great job of providing a balanced view and putting things into perspective, the dump of information can be overwhelming and impersonal. By going down to a more personal level, my project should more effectively evoke empathy.

Depression Quest
http://www.depressionquest.com/dqfinal.html
"Depression Quest is a game that deals with living with depression in a very literal way. This game is not meant to be a fun or lighthearted experience. The goal of this game is twofold: firstly, we want to illustrate as clearly as possible what depression is like, so that it may be better understood by people without depression. Hopefully this can be something to spread awareness and fight against the social stigma and misunderstandings that depression sufferers face. Secondly, our hope is that in presenting as real a simulation of depression as possible, other sufferers will come to know that they aren't alone, and hopefully derive some measure of comfort from that."

Depression Quest is a similar game in concept to my own. It's a choose-your-own adventure style game, which limits or provides the player's options based on their circumstances and prior decisions. One major area where the game needs improving is that it's very wordy and long-winded. It's easy to get mentally fatigued and ready to stop playing just from the first page. One area where the game succeeds is that it constantly displays the player's status: "You are very depressed." "You are not currently seeing a therapist." "You are not currently taking medication for depression." Another thing it does well is displaying the desirable option(s) in a scenario, but not allowing the player to choose it. At some point it even displays multiple other

options and only allows the user to choose one. This, in my opinion, drives home the player's lack of control over their own emotions and motivations very effectively.

This War of Mine
www.thiswarofmine.com
https://www.youtube.com/watch?v=pH_tYB_Ntlg Trailer for the base game by the publisher
https://www.youtube.com/watch?v=YNNAdTAM5os Totalbiscuit's "WTF is…" video featuring the game

This War of Mine doesn't necessarily cross over with my game concept in terms of topic or genre, but it does a fantastic job of building empathy and a sense of attachment to the characters therein. In the words of Totalbiscuit: "If you compare it to any other form of media, war in games is often glorified or at least just kind of turned into an action movie, it's used as a set piece. ...But there aren't all that many games that deal with the horrors of war and really commit to it." Users play as normal people thrown into their current circumstance and forced to deal with it or die, which does parallel the idea for my game. Some elements of this game which I believe I could implement in my game are the status cards for each of the characters, featuring brief information about sickness, injuries, mental state, and hunger.

Needs assessment

While considering this, address these three aspects of your project:
- How is your project **desirable**?
    - My project will serve as an engaging and interesting way of considering factors in our current political healthcare discussions without the associated fatigue and automatic bias that comes with any political advertisement, speech, or debate. Games are also among the most -- if not **the** most -- effective way of evoking empathy in its users.
- How is your project **feasible**?
    - My project could be implemented as a website, which can be implemented as a progressive web app.
- How is your project **viable**?
    - I have the coding chops to make most front-end based web projects happen.

Skills
I will need to learn some of the methods or technologies behind caching to save game data locally, or other save methods if local storage doesn't work out.
It would be desirable to collect data on the outcomes of players' sessions and display how a player's choices and results compare to the rest of the playerbase at the end of the sessions, but this is beyond my current skill set and would be more of a time sink to implement than is practical within this timeframe.

Research
- What types of subject matter research needs will you conduct?
- What types of academic or trade research will you conduct?
- What types of design and visual communication research will you conduct?

(omit for now) Project Production Backlog (attach as Appendix)

- Develop a detailed list of anything you can identify that needs to be done for this project. Ideally, you will list these items in a Google Sheet and share them with me in your folder

Project Schedule

Sprint 0: Feb. 28th - March 5th

Research and Pre-Production Sprint

By the end of the sprint:
- (At least) Three storylines written in Twine
  - Character profiles made to inform choices
- All necessary information gathered
  - All necessary interviews conducted
- Visual style decisions made
- Assets to be displayed chosen
  - i.e. Available funds, health bar, status of family members, etc.

Sprint 1: March 7th - March 19th

Prototype/Production Sprint

By the end of the sprint:
- Multiple UI iterations designed/tested
  - Final UI decision made and ready for production
- Mockups made
- Production method decided on
  - Rough method of making programming easier (what variables can be set and reused throughout) thought through
  - Research into local storage/save methods done

Sprint 2: April 2nd - April 11th

Prototype/Production Sprint

By the end of the sprint:
- Functional prototype/framework made
  - Ready to plug in other scenarios

Sprint 3: April 16th - April 25th

Post-Production/High-Fidelity Sprint

By the end of the sprint:

- PROJECT READY

Sprint 4: April 30th - May 9th
Project Completion/Promotion
By the end of the sprint:
- Project uploaded/live/debugged
- Promotional materials made
    - Both for project and myself
- Presentation method designed/chosen
- Reach out to people/organizations who may be interested in the project
    - i.e. http://www.gamesforchange.org/ , Political Figures (like Bernie Sanders?)

Project Budget

Smartphone/iPod Touch
Qty: 3
Purpose: Presentation/Testing
Cost: Approx. $100 each on average, possibly less
Notes: Recent generation preferred. Security measures to keep devices in their designated areas may be needed.

Long Smartphone Charging Cables
Qty: 3
Purpose: Presentation/Testing
Cost: $1-$10 each, depending on source
Notes: 10ft length is common and would be suitable

USB Power Strip
Qty: 1
Purpose: Presentation
Cost: Approx. $20
Notes: Needs at least 3 USB ports for smartphone charging cables

Website Domain/Hosting
Qty: 1
Purpose: Development/Testing/Presentation
Cost: Varies, $100/year
Notes: Actual need TBD. Desired domain name TBD.

Works Cited

Please provide a works cited list using APA style with parenthetical, in-line citations.

Boudreau R (2017) The Plausibility of Universal Health Care in the United States. J Clin Res Bioeth 8:298. doi: 10.4172/2155-9627.1000298
https://www.omicsonline.org/open-access/the-plausibility-of-universal-health-care-in-the-united-states-2155-9627-1000298.php?aid=87185

Carroll, A. E., & Frakt, A. (2018, March 13). The Best Health Care System in the World: Which One Would You Pick? Retrieved February 11, 2019, from https://nyti.ms/2y8MqzM
https://www.nytimes.com/interactive/2017/09/18/upshot/best-health-care-system-country-bracket.html

Naylor CD. Canada as Single-Payer Exemplar for Universal Health Care in the United States A Borderline Option. JAMA. 2018;319(1):17–18. doi:10.1001/jama.2017.19668
https://jamanetwork.com/journals/jama/fullarticle/2666631

Fuchs VR. Is Single Payer the Answer for the US Health Care System?. JAMA. 2018;319(1):15–16. doi:10.1001/jama.2017.18739
https://jamanetwork.com/journals/jama/fullarticle/2666630

Tal Gross, Miriam J. Laugesen; The Price of Health Care: Why Is the United States an Outlier?. J Health Polit Policy Law 1 October 2018; 43 (5): 771–791. doi:
https://doi.org/10.1215/03616878-6951127
https://read.dukeupress.edu/jhppl/article/43/5/771/134936/The-Price-of-Health-Care-Why-Is-the-United-States

Simon, K. , Soni, A. and Cawley, J. (2017), The Impact of Health Insurance on Preventive Care and Health Behaviors: Evidence from the First Two Years of the ACA Medicaid Expansions. J. Pol. Anal. Manage., 36: 390-417. doi:10.1002/pam.21972
https://onlinelibrary.wiley.com/doi/full/10.1002/pam.21972

10.1097/SLA.0000000000002254
https://journals.lww.com/annalsofsurgery/Abstract/2018/06000/Cured_into_Destitution___Catastrophic_Health.18.aspx

Dobkin C, Finkelstein A, Kluender R, Notowidigdo MJ. Myth and Measurement - The Case of Medical Bankruptcies. N Engl J Med. 2018 Mar;378(12) 1076-1078. doi:10.1056/NEJMp1716604. PMID: 29562153; PMCID: PMC5865642.
https://europepmc.org/articles/pmc5865642

Maryam Doroudi, Diarmuid Coughlan, Matthew P Banegas, Xuesong Han, K Robin Yabroff; Is Cancer History Associated With Assets, Debt, and Net Worth in the United States?, JNCI Cancer Spectrum, Volume 2, Issue 2, 1 April 2018, pky004,
https://doi.org/10.1093/jncics/pky004
https://academic.oup.com/jncics/article/2/2/pky004/5026705

Dwyer, R. E. (2018). Credit, debt, and inequality. Annual Review of Sociology, (0). https://doi.org/10.1146/annurev-soc-060116- 053420
https://www.annualreviews.org/doi/pdf/10.1146/annurev-soc-060116-053420

Bohmfalk, G. (2018, October 04). Guest commentary: Single-payer health care likely less disruptive, better for economy. Retrieved November 27, 2018, from
https://www.aspentimes.com/opinion/columns/guest-commentary-single-payer-health-care-likely-less-disruptive-better-for-economy/