Diversity Initiative in Computer Science Project Proposal

Chapman University
CPSC-298-06: Minorities in Computer Science

Project Title: pantHERCodes

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Problem/Opportunity:

- Many students use Youtube when researching possible career paths and may use videos as supplemental learning material. Our group noticed that a vast majority of computer science-related content on YouTube is produced by men, and the lack of women on the site may discourage young women from pursuing a computer science education. To remedy this, we propose creating our own collaborative Youtube channel which will help female computer scientists share their experiences with a broader audience.

Identify the statistics supporting your problem claim

- *Women are more likely to be influenced by media that reinforce gender stereotypes. A study shows that when women read an article that disproved computer scientist stereotypes (such as no longer being very nerdy, computer obsessed and lacking interpersonal skills), they are more likely to express interest in learning to code (Cheryan et al., 2013).*
- Roughly 13% of the study's total number of YouTube STEM channels are female hosted and have a female voice-over, while ~50% are male hosted and have a male voice-over *(Amarasekara et al., 2018)*.
- The more a person sees/feels that they are similar to another person, the more likely he/she will interact with that person (Ladhari, et al., 2020).
- In the United States, over the last few decades girls participating in CS in secondary and college CS courses have been around 20% (College Board, 2016; Taubee, 2017).
- Girls that have taken a CS class often report a "chilly climate" and curriculum and pedagogy that fails to build on their knowledge or capture their interests (Goode, Estrella, & Margolis, 2006).
- YouTube videos have been a useful source of educational content, it is a free web-based tool, and the impact has been important based on our study on students' performance (Chtouki et al. 2012).

Project Type

- A YouTube channel that teaches computer science topics that will be run by female computer scientists.

Main Goal Statement

- Encourage women that have a passion in computer science to pursue it by being able to look up to and learn from other females in the CS to shorten the gender gaps in the CS field.

Objective(s)

Objectives are specific, measurable, and timed outcomes of the project that are stated in terms of the problem solutions or opportunities users will experience. You won't be implementing these but plan as if you were.

- We plan to post two videos a week until the end of the 2021 calendar year
- We plan on conducting at least five interview videos by the end of the 2021 calendar year.
- We plan on collaborating with another coding/tech channel by the end of 2021.

Project Leadership

- Kaylee Chan worked on part of identifying statistics, objectives, and including some sources.
- Olivia Chilvers worked on part of identifying statistics, project type, main goal statement, objectives, and dependencies/risks
- Viola Kalinin worked on project steps and functional team/resources, and a part of identifying statistics.
- Yuna Kim worked on part of identifying statistics, project steps, dependencies and risks, and source citation.

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Project Steps

1) Recruit a panel of women who are current students or recent graduates with computer science degrees who are willing to participate on the youtube channel.

2) Identify topics of interest among the panel and brainstorm video ideas with them or survey a topic of interest from people around social media.

3) Acquire filming equipment and record videos/ interviews.

4) Either learn video editing or recruit video editors from Dodge College.

5) Promote the videos on social media and across campus.

Functional Team and Other Resources

- *Video recording equipment: camera, lights, possible studio*
- *Video and photo editing software*
- *Guest speakers ex. Leanna Izen to speak on job-opportunities*
- *Possible connections to existing female computer science content creators, such as Kierra Page or Mayuko*

Dependencies and Risks:

- The project is dependent on achieving an audience and a following
- The project requires quality video filming and editing skills
- The project may be affected by Covid pandemic when filming and may need to film virtually.

Please feel free to add any other information or attach documents that will be helpful in understanding the project.

Sources:

Make sure you are including API format citations, including In-Text Citation!

Resource for help: https://www.mendeley.com/guides/apa-citation-guide

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