REETI MATHUR

SOCIAL MEDIA AND ACCESSIBILITY RESEARCHER AND DESIGNER

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Summary

A Social Media and Accessibility Researcher and Designer, and a second-year master's graduate, I am passionate about the scope and challenges the field of Social Computing and Accessibility in Human Computer Interaction has to offer. I specialize in streamlining complicated processes by researching and incorporating minimalist design principles into the user experience. Currently, I am performing research on how people with visual impairments collaborate online with their sighted peers on social platforms and how web inaccessibility of social sites could be a major concern for them.

Research and Work Experience

Research Assistant, IUPUI

Study 1: Mixed-Ability Collaboration for Accessible Photo Sharing – The BALM Lab, IUPUI. **August 2017 – Current**

- The motive of this study is to learn how the blind and visually impaired people (BVIP) post accessible photos on social media sites and how challenging it is for them to interact with public inaccessible photos.
- It is focused on collaborative interventions with their sighted friends and family online to review their photos for context and clarity or rely on crowd workers such as the Transcribers of Reddit or Mechanical Turk.
- I also found that most photos posted on social platforms lack alternative text descriptions which make them inaccessible. The BVIP hesitate to comment on these posts considering self-presentation. This collaboration eliminates that doubt.
- I am currently running a follow-up study activity studying the collaboration on Facebook closed groups.
- This study will help create an accessible solution on social media sites for the visually impaired people to access photos on major social platforms like Facebook and Twitter.
- Publication: https://dl.acm.org/citation.cfm?id=3240994

Study 2: Mixed-Ability Collaboration for Accessible Photo Sharing – The BALM Lab, IUPUI **August 2017 – Current**

- Through this Position Paper published at CHI 2018, I evaluated the accessibility on social e-learning platforms like scratch.org and code.org by running the sites manually through a screen reader and automatically through WAVE – an online web accessibility evaluation tool.
- I realized that these platforms are heavily visually based and have visual drag-and-drop functionalities, often inaccessible due to missing alternative text for projects uploaded by other students.
- I proposed collaborative, individual and community access solutions for these social educative platforms.
- Publication: http://www.inclusiveeducation.tech/wp-content/uploads/2018/03/8_E-learning.pdf

Study 3: Screenless Typing – User Simulation and Experience Research (USER) Lab, IUPUI **May 2018 – Current**

- As part of the research team with Dr. Davide Bolchini, I contributed towards finishing the script for the structured interview sessions to carry out the usability tests for the Screenless typing concept.
- This project focuses on an auditory keyflow which recites letters on a loop for the BVIP to frame words by performing simple hand gestures without touching a mobile screen.
- Conducted 20 interview sessions with participants to test the concept of the keyflow.
- Designed and created animated videos using Adobe After Effects to describe the process of the keyflow in order to type simple words.
- Currently working on analyzing this quantitative and qualitative data collected from the interview sessions.
- Wrote the first draft of the Related Work section for this study.

Digital Intern – Cook Medical, Bloomington, IN   **May 2018 – August 2018**

- Research the company's online brand guide requirements on a global scale by communicating and collaborating with the research and design teams at Cook Ireland and Australia.
- Performed qualitative and quantitative analysis of the data collected to understand requirements and proposing accessible solutions to the online brand guide.
- Created hi-fidelity interactive prototypes of the online brand guide using Sketch.

Teaching Assistant, IUPUI   **August 2017 – May 2018**

- Assisted the professor in his lab course titled *Digital Media Imagery* by teaching a few concepts to undergraduate students on Adobe platforms like Photoshop and Illustrator.

UI/UX Designer – Independent Consultant – Entire Marketing Group LLC   **February 2017 – June 2017**

- Designed hi-fidelity dynamic prototypes for the city-guide project using Sketch along with designing UI elements.
- Wrote content for the web applications and designed the brand's style guide.

Business Analyst – Global Mind Technologies   **August 2016 - June 2017**

- Gathered and analyzed requirements. Researched on use case scenarios. Transformed complex processes into structured prototypes, performed statistical, qualitative and quantitative analysis.

UX Design & Research Intern - WEB & Interactive Communications, Illinois State University   **May 2015 – August 2016**

- Created wireframes, hi-fidelity prototypes of the university's microsites ([University Galleries website redesign project)](#) and coded the front-end applications.
- Worked with WEB's design and development teams to research UX solutions, demonstrate best practices, build information architecture, draft use cases and present the findings. Crafted and tested training and style guides.

UX Designer - Independent Client   **December 2015 – May 2016**

- Designed the website's wireframes and prototypes using Axure RP Pro, customized images and icon font using Adobe Illustrator and Icon Moon.
- Crafted and coded the front-end web application. Tested and verified the application for its accessibility.

Gallery Associate – University Galleries, Illinois State University   **August 2014 – May 2016**

- Developed promotional videos and documentaries for the successive shows using Adobe Premiere Pro, iMovie and Adobe After Effects. Worked on the Web Archiving.
- Responsible for organizing administrative work under the supervision of the Director of the Galleries

Education

Indiana University Purdue University (IUPUI), Indianapolis, IN, USA   **Current**
Master of Science (MS) in Human Computer Interaction (HCI)   GPA – 3.943

Illinois State University (ISU), Normal, IL, USA   **May 2016**
Master of Science (MS) in Arts Technology – Web Design & Research Core   GPA – 4.0
(Member of the Golden Key International Honors Society)

Jawaharlal Nehru Technological University (JNTU), Hyderabad, India   **May 2014**
Bachelor of Technology (B. Tech) in Information Technology (IT)   Cumulative Percentage – 78.63%

Skills

Research Skills: Surveys, Interviews, Diary Study, Contextual Inquiry, Task Analysis, Qualitative and Quantitative Analysis, Statistical Analysis, Sentiment Analysis, Cognitive Walkthrough, Heuristic Evaluation, Think Aloud Tests, Usability Tests and Evaluations

Design Tools: Balsamiq, Axure RP Pro, Sketch, InVision, Marvel, Photoshop, Illustrator, InDesign, Dreamweaver, After Effects, MS Office

Web Design Tools: HTML5, CSS3, JavaScript, WordPress

Design Skills: Wireframing, High-Fidelity Prototyping, Sketching, Storyboarding, Persona Creation, Scenarios, User Flows, UI Design

Interpersonal Skills: Ability to meet deadlines, Articulate communication skills, Team leader and player, Critical thinker, Problem solver

Additional Skills: Project Management Systems, Requirements Gathering, Risks Analysis

Related Coursework

Social Media and Accessibility Research, IUPUI

Course 1: Collaborative/Social Computing   **Fall 2017**
- This course gave me the exposure to study various social media sites, identify certain issues related to usability and accessibility, and finally propose solutions for the core problem.
- I also researched on how people with visual impairments navigate the web – primarily social media sites and how inaccessibility contributes to their frustrations.

Course 2: Experience Design and Evaluation of Access Technologies   **Spring 2018**
- This course laid the foundation of researching on various access technologies pertaining to people who are blind or visually impaired. I evaluated accessibility on websites and sketched prospective audio-based prototypes.

Course 3: Informatics Research Design   **Fall 2018**
- This course taught me the technical style of designing a study and writing a research proposal. I also performed in-depth literature reviews as part of this course.

Course 4: Thesis   **Fall 2018 – Spring 2019**
- As part of my thesis work, I am conducting follow-up research by holding a study activity on Facebook to study online collaboration between people with visual impairments and their sighted peers to achieve photo accessibility.

User Experience (UX) Design, IUPUI

Course 1: Interaction Design Methods   **Fall 2017**
- While studying the usability of a client's website, this course gave me the foundation of usability methods such as Cognitive Walkthroughs, Heuristic Evaluation, Think Aloud Tests, A/B Tests. It also taught me concepts like the System Usability Scale (SUS), Likert Scale while creating a Usability Report for the client.

Course 2: Interaction Design Practice   **Fall 2017**
- This course tested me on my UX design abilities by enabling me to work on designing two high-fidelity interactive prototypes. I conducted observations and interviews to gather requirements.
- I was also exposed to paper prototyping, physical and hybrid prototyping.

Workshops and Conference Publications
- Published a Position Paper at CHI 2018, Montreal, Canada http://www.inclusiveeducation.tech/wp-content/uploads/2018/03/8_E-learning.pdf - April 2018
- Published a Poster Paper at Assets 2018, Galway, Ireland https://dl.acm.org/citation.cfm?id=3240994 – October 2018
- Indiana Conference on Disability, Indianapolis, IN – December 2017
- World Usability Day Conference, Fishers, IN – October 2017