Encouraging Offline Networking through UI Design
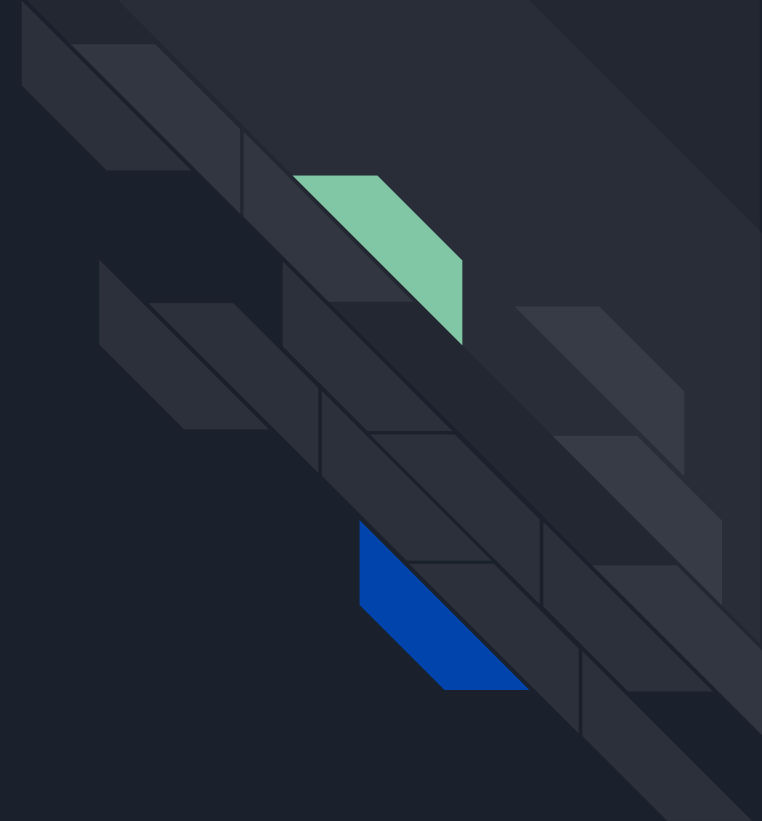
Addeline Mitchell
30 October 2018
First Talk

Committee:
Dr Jonathan Metzgar (Chair)
Dr Orion Lawlor
Dr Glenn Chappell

Overview

Plan Summary

To design and implement a user interface (UI) for a specialized, locally hosted anti-social media site with the interest of encouraging offline networking in small, concentrated communities — as applied to a movie database (DB).

❖ For very small communities (e.g. a household)

❖ Not for the open internet

Background

❖ Social media
  ➢ Facebook friends across the world?
  ➢ What about the people right next to us?

❖ UI design
  ➢ Can be used to influence users
  ➢ How can offline communication be encouraged?

Prior Work

- ❖ Usability
  - ➢ Steve Krug, "Don't Make Me Think"[1]
  - ➢ ISO standards[2][3]

- ❖ Small group communication[6][7]

- ❖ UI design
  - ➢ Dark patterns[8]
  - ➢ Harry Brignull[9]

Approach — Implementation

❖ Movie DB
- ➢ MySQL
- ➢ Anyone can browse

❖ User DB
- ➢ MySQL
- ➢ Require authentication to comment/rate

❖ Server
- ➢ Node.js
- ➢ Other?

Approach — UI Design

- ❖ 3 layouts
  - ➢ Admin
  - ➢ User
  - ➢ Non-user

- ❖ Foundation by Zurb

- ❖ CSS Grid

- ❖ Font Awesome

Approach — User Testing

❖ Testing user layout

❖ In-person

❖ At least 2 sessions

❖ Target group (~ 3-5 people)

❖ Record screens and audio

Experimental Evaluation

❖ Data
  ➢ Pre-survey
  ➢ Screen recordings
  ➢ Audio recordings
  ➢ Post-survey

❖ ISO 9241-11[2][4]
  ➢ Effectiveness
  ➢ Efficiency
  ➢ Satisfaction

❖ ISO/IEC 25022 (SQuaRE)[3][5]
  ➢ Metrics

Timeline

30 Oct 2018 ➜ 1st Talk

Dec 2018 ➜ Advancement to Candidacy

Jan 2019 ➜ 2nd Talk

Feb 2019 ➜ Early Draft of Project Report

22 Mar 2019 ➜ Project Report Submission Deadline

April 2019 ➜ 3rd Talk

April 2019 ➜ Comps

May 2019 ➜ Graduation

References

[1] Steve Krug. 2014. Don'T Make Me Think, Revisited: A Common Sense Approach to Web Usability (3rd ed.). New Riders Publishing, Thousand Oaks, CA, USA.

[2] ISO 9241-11: Ergonomics of human-system interaction — Part 11: Usability: Definitions and concepts. 2018. International Organization for Standardization, Geneva, Switzerland. https://www.iso.org/obp/ui/#iso:std:iso:9241:-11:ed-2:v1:en

[3] ISO 25022: Systems and software engineering — Systems and software quality requirements and evaluation (SQuaRE) — Measurement of quality in use. 2018. International Organization for Standardization, Geneva, Switzerland. https://www.iso.org/obp/ui/#iso:std:iso-iec:25022:ed-1:v1:en

[4] Erik Frøkjær, Morten Hertzum, and Kasper Hornbæk. 2000. Measuring usability: are effectiveness, efficiency, and satisfaction really correlated?. In Proceedings of the SIGCHI conference on Human Factors in Computing Systems (CHI '00). ACM, New York, NY, USA, 345-352. DOI=http://dx.doi.org/10.1145/332040.332455

[5] Justin Mifsud. 2018. Usability Metrics - A Guide To Quantify The Usability Of Any System. (June 2018). Retrieved October 29, 2018 from https://usabilitygeek.com/usability-metrics-a-guide-to-quantify-system-usability/

[6] Mary Corcoran. 2012. The Impact of New Media Technologies on Social Interaction in the Household. https://iterate.web.nuim.ie/sites/default/files/assets/document/SiobhanMcGrath.pdf

[7] Emily Drago. 2015. The effect of technology on face-to-face communication. Elon Journal of Undergraduate Research in Communications, 6(1). https://www.elon.edu/docs/e-web/academics/communications/research/vol6no1/02DragoEJSpring15.pdf

[8] Colin M. Gray, Yubo Kou, Bryan Battles, Joseph Hoggatt, and Austin L. Toombs. 2018. The Dark (Patterns) Side of UX Design. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18). ACM, New York, NY, USA, Paper 534, 14 pages. DOI: https://doi.org/10.1145/3173574.3174108

[9] Harry Brignull. 2018. Harry Brignull: User Experience Designer & Consultant. (January 2018). Retrieved October 29, 2018 from https://www.90percentofeverything.com/about/