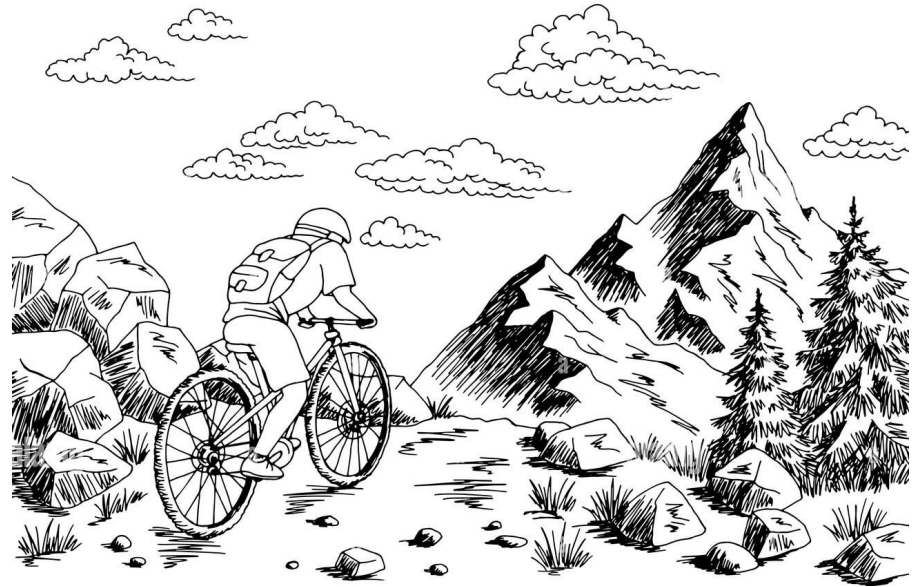

Iowa Adventure Cyclist Course Creator

Lightning Talk 2:
Problem and Users

Project Overview

The creation of a mapping application for cyclists that can:

- Use mapping utility to create routes that can be exported to GPS devices or other applications
- Identify different types of road surfaces of intended route
- Identify average traffic flow of intended route





Users

Arnold

Adventure Cyclist

Arnold is an adventure biking young adventure biking enthusiast. He loves the thrills of biking on rough and unexplored routes. He is willing to go down road that others would be afraid of but he likes to be aware of what he's getting into ahead of time.

Julie

Social Cyclist

Julie is a Cyber Security Professor at Iowa State University, she actively uses bicycling in her free time with friends and often finds herself creating a new routes to satisfy her exploratory personality. Julie's main concern with our application is making sure she can share her exciting new routes safely with her friends.



Users

Perry

Casual Cyclist

Perry is a casual biker from Okoboji, Iowa. He enjoys calm and easy bike rides through town on the weekends. He does not enjoy intense rides in rough terrain. He is interested in finding new routes to explore though.

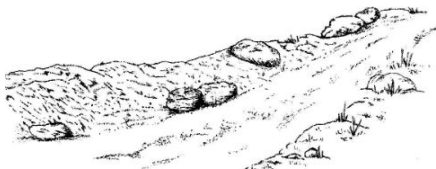
The Johnsons

Family Cyclist

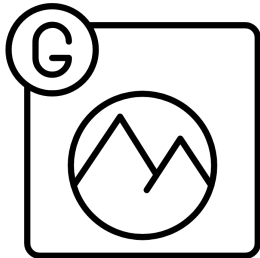
The Johnsons, comprised of 37 year old John, 35 year old Jane, and their 7 year old daughter Madeline are a middle class suburban family living in the midwest. John works as a construction worker and Jane works in business analytics. The Johnsons are often busy during the week with work, school, and other related activities, but on the weekends they like to relax by hitting the trails, but are mainly concerned with routes that are safe for their daughter



Problems / Needs



- Hard to find accurate trails for different road types
 - Need a way to create routes to go on hardware devices (Garmin)
 - Traffic data is not accessible online
 - Cannot add stops to bike routes
 - Created routes cannot be shared with other users
 - Device incompatibility with GPX data type
 - Bike trails may be too close to heavily trafficked routes
-



Conclusion

The Iowa Adventure Cyclist Course Creator aims to design and implement an application that creates shareable accurate bike routes, based on trail type, and stops included. These routes then should be exported to a Garmin for cyclists.
