

Why



One of the many challenges a high-school soccer coach faces is keeping track of player performances over the course of a season.



Coachly puts more power into a coach's hands: by enabling quick and efficient logging of statistics during a soccer game in real time.

Who

TARGET USERS

The target audience of the proposed design would be high-school and college coaches.

Unlike professional coaches, they often operate with tight financial budgets and other resource constraints. They need an inexpensive solution to track player performances.

RESEARCH



"Historical data about players and opponents would help me make

smarter decisions during a game."

Alex G

"There is currently no way for the coaching staff to keep track of the top players in our team. We rely on paper notes."



Erin M

"We use a multitude of apps and paid services to collect and view data about our games and training sessions."

EXEMPLAR



A Player Card in FIFA Ultimate Team

What



THE DESIGN

The proposed design is a touch-screen application that allows the coaching staff to log player events such as passes, shots or goals and team events such as set-pieces and substitutions, with just one touch of a button.

The prototype shown above is designed to replicate the formation being used by the team on the field. This makes it easy for the user to recognize players, which is crucial for efficiency. Each player is represented using a 'player card' which includes basic information like their name, number, position and a photograph. The jersey number is shown prominently for quicker recognition.

On the sides of the cards are buttons that capture specific events. Clicking on the player card reveals more detailed options, which should ideally be used when the game has paused, giving the coach more time to record such events.

This prototype was built using HTML, CSS and jQuery. Behind the scenes, the prototype prints each event to the browser's console so the full log of events can be reviewed after the test.

Evaluation

The interactive prototype was evaluated over the course of two usability tests. The participants, Mikaela & Stephanie, were shown a soccer game on TV and asked to capture the events as they happen in real time. The metrics used while testing were: efficiency, granularity & engagement.



Usability Test #1

Using the first version, Mikaela was able to capture 10 events, mostly related to passing. However, using the iterated version, she was able to capture 19 events, including interceptions and headers. This indicates a 90% increase in efficiency between the original and iterated versions of the prototype.

Usability Test #2

Using the first version, Stephanie was able to capture 25 events. However, using the iterated version, she was able to capture 35 events. This results in a 40% increase in efficiency between the original and iterated versions of the prototype.

Future Improvements



Coachly should be scalable to be compatible with other sports like basketball, football, baseball and tennis.



Future versions could use voice commands instead of touch-based gestures. This would facilitate more efficient logging and further reduce cognitive load.

Credits & Citations

- Soccer field athletes Free Stock Photo StockSnap.io. (n.d.). Retrieved April 26, 2016, from https://stocksnap.io/photo/5FKA3VHPRW
- Men's college soccer (n.d.). Retrieved April 26, 2016, from http://www.downtownsoccermiami. com/images/clubsoccer1.jpg
- Tank, E., & Ginther, A. (2016, April 12). Coachly in the wild [Photograph]. Bloomington.
- Jamie Vardy: FIFA Ultimate Team Card. (n.d.). Retrieved April 26, 2016, from https://i.imgur. com/8J4oMnh.jpg
- Manchester United Roster Photos. (n.d.). Retrieved April 26, 2016, from http://www.futhead. com/16/players/?level=gold&league=13&club=11&bin_platform=ps
- Photos of interview participants were provided by the participants.
- All icons from IconFinder.com

ITERATION

Based on feedback from the participants, the player card was iterated to show the event buttons right on the card, thereby reducing the number of clicks required to capture any event.



Player Card Version 1



Player Card Version 2

100L OF INFORMATICS & COMPUTING N-COMPUTER INTERACTION / DESIGN

Karthik Rao

Advisors of Record

- Instructor of Record
- Jordan Beck, Associate Instructor • Gopinaath Kannabiran, Associate Instructor

Core HCI/d Faculty Advisors

- Eli Blevis, *Professor of Informatics*
- Hamid Ekbia, Professor of Informatics