

Ubiquitous and Mobile Computing

CS 403x: *Urbanopoly - A Social Crowdsourcing Game*

Eric Faust, Jordan Feeley, Tyler Nickerson

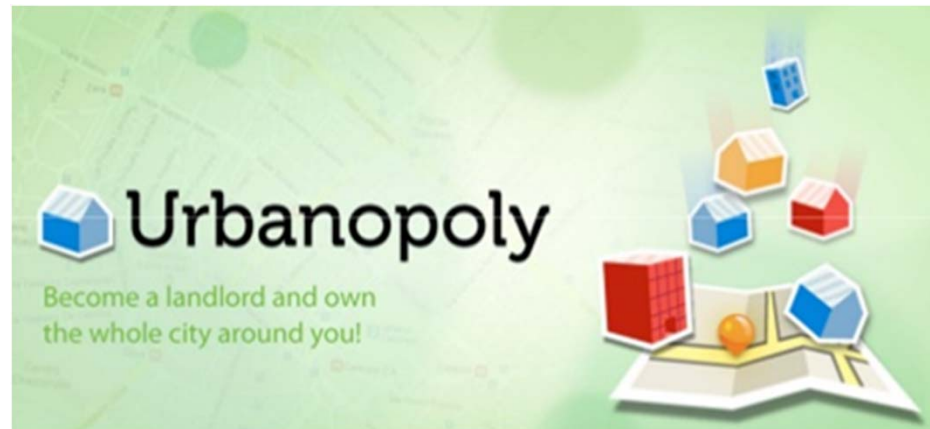
*Computer Science Dept.
Worcester Polytechnic Institute (WPI)*





What is Urbanopoly?

- A Game with a Purpose (GWP) designed to conduct quality assurance on urban data (e.g. restaurant information) using the user's current location and social graph



What is Urbanopoly?



- Ultimately intended to use Human Computation (crowdsourcing) to create a high quality dataset of urban data
 - **Problem:** Curated datasets are expensive, plus faulty information can hamper the usefulness of datasets
 - **Solution:** crowdsource data using an interactive, social monopoly-like mobile game

Methodology










- Uses OpenStreetMap for map data
- Uses Facebook API for social sharing
- Achieves QA using:
 - Data collection
 - Data validation
 - Data ranking

Gameplay



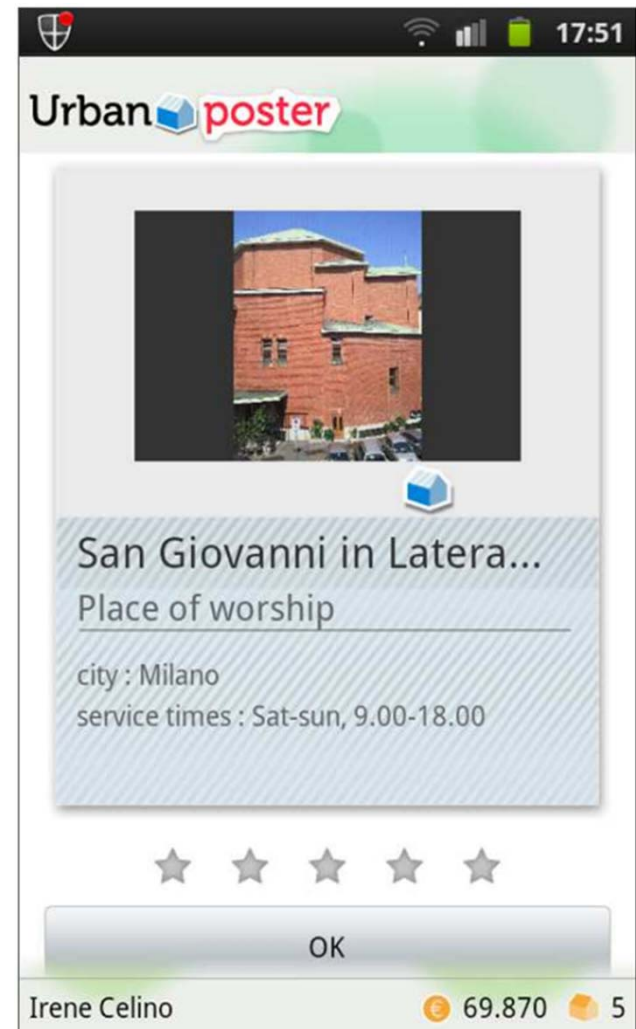
- User is a landlord, whose aim is to create a "rich portfolio of venues"
 - Venues
 - Real places surrounding the user
 - Orange ones belong to the user, blue ones do not
 - All have monetary values
 - Budget
 - User uses money to buy venues

Urban my venues		
	Brico Center Do-it-yourself store	125.250 €
	Posta Post Office	112.500 €
	Punto Simply Supermarket	107.500 €
	San Giovanni in Laterano Place of worship	203.500 € Poster!
	Simply Supermarket	175.000 €

Irene Celino  86.785  5

Venues

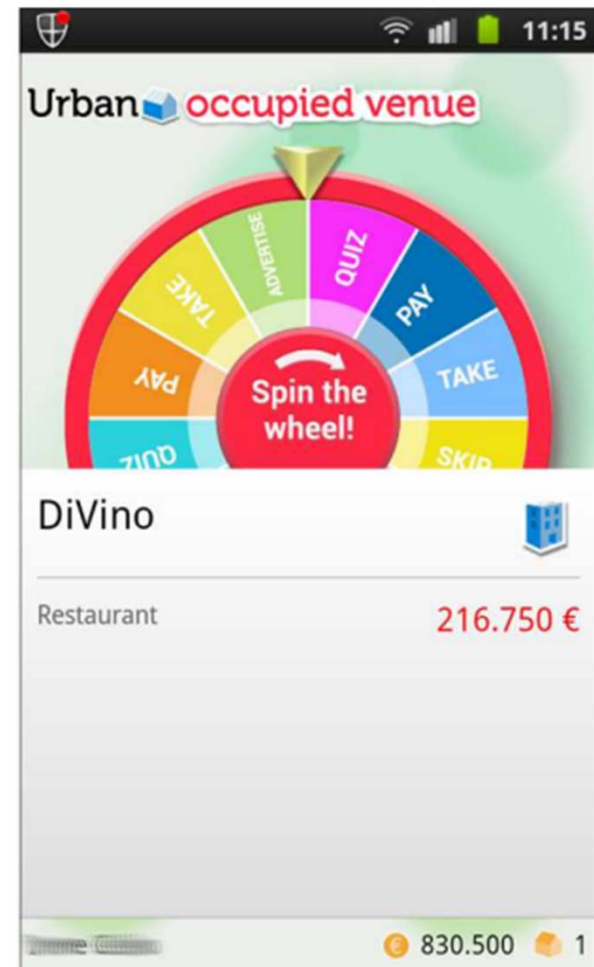
- Location
 - Type
 - Hours
 - Rating
 - Extra info (food served, smoking rules)



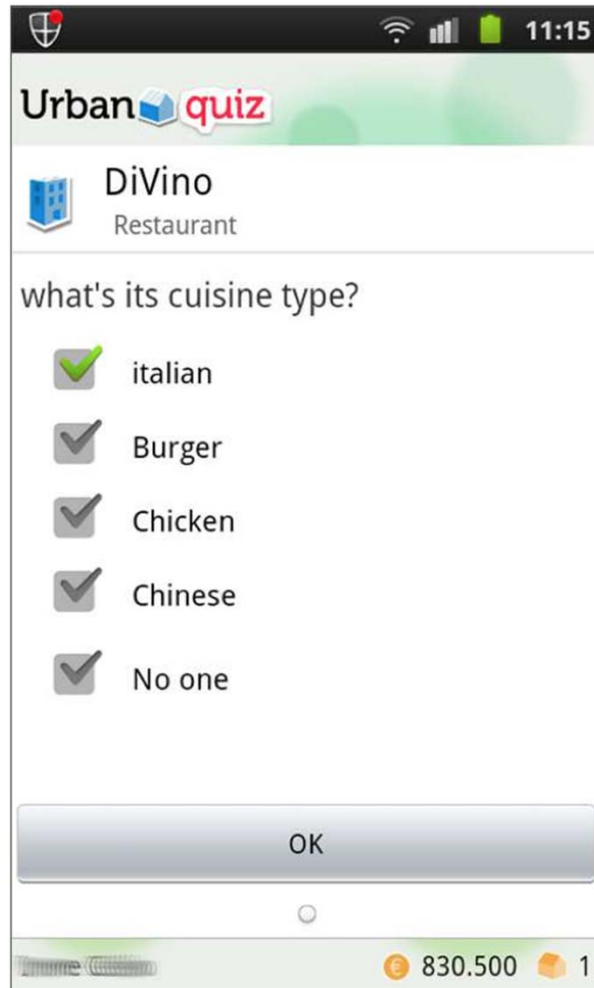
Gameplay

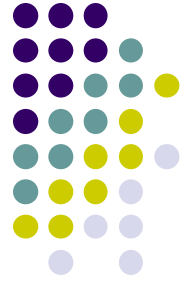


- Data Collection
 - Venue purchase
 - Users required to name venue and specify its type
 - Venue advertisement
 - Store owners can rank ads
 - Quizzes
 - Ask general questions about venue






Example Quizzes





Similar Work

- While not specifically mentioned, similar apps exist:
 - Foursquare 
 - Yelp 
 - Google Maps 
- Urbanopoly differs by gathering data through a gaming platform
 - Other apps usually use surveys
 - Gathers more data types

Observations



- Likes
 - Social aspect makes it more appealing
 - Gaming aspect makes it very engaging for users; more "fun" than just surveys (e.g. Google Rewards)
 - Leaderboard to compete against friends
- Dislikes
 - Paper is not very in-depth
 - Only available in certain locations
 - Possibly slow to start

Conclusions

- Available in the Milan and Lombardy
- Users spend an average 11 minutes ALP
- Potentially more accurate
- Focus on keeping players invested
- More useful data than competition





References

- Paper <http://planet-data.org/sites/default/files/publications/Celino-et-al_Paper_Urbanopoly-a-Social-and-Location-based-Game-with-a-Purpose-to-Crowdsource-your-Urban-Data.pdf>
- Urbanopoly Screenshots <http://planet-data.org/sites/default/files/publications/Celino-et-al_Paper_Urbanopoly-a-Social-and-Location-based-Game-with-a-Purpose-to-Crowdsource-your-Urban-Data.pdf>
- Yelp Logo <http://s3-media2.fl.yelpcdn.com/assets/srv0/www_pages/95212d4fe621/assets/img/brand_guidelines/yelp-2c.png>
- Foursquare Logo <<http://www.websitemagazine.com/images/blog/foursquarenew.png>>
- Google Maps Logo <<https://www.seeklogo.net/wp-content/uploads/2015/09/new-google-maps-logo-vector-download.jpg>>