Ped App: the app for pedestrians in São Paulo

PedApp: Report

Topic: Study de opportunity of creating an App that would help pedestrians move around São Paulo – and which would help the city to maintain sidewalks. This all would happen by:

a. Having a system through which people can share info on sidewalk conditions, and City Planning agency can get first-hand updates. This should create a strategy for sidewalks upgrading, by establishing priorities and unveiling places where sidewalks are most used and needed;

b. An interactive map would show best routs based on community input and those which have the largest numbers of 'complaints'. Best routs could be also suggested based on previous 'walkability' studies of the city, which should consider "sidewalks characteristics", such as width, adjacent land use, proximity to transit, presence of street trees and urban furniture.

PedApp should be capable of measuring distances and time, encouraging people to walk instead of taking cars – or even public transport.

What I learned: PedApp could be an important tool to help create strategies on how to 'measure' sidewalks quality in São Paulo, identifying priorities for upgrading these spaces, and explore techniques of public engagement. This tool could be a bottom-up + top-down built map, since it could be updated by both community and the City. It could work as a surveillance, or supervision, tool where all stakeholders could demand and follow-up on city works. It is important to acknowledge that PedApp should also be something more than just an App for smart phones: it could be possibly placed in public spaces such as bus and subways stations and accessible by home computers, so it could be a true inclusive platform.

Where: São Paulo, Brazil

Why São Paulo? Recent survey in São Paulo (Origin-Destination, 2007) shows that 30% of all commutes in the city are done walking – other 30% by public transport and 30% on private vehicles. Detailed data on this shows that most walks are done to school – meaning children have to deal with our sidewalks daily – and also suggests that short trips done by bus or cars could be replaced by foot transit, if sidewalks are attractive.

Sidewalks conditions in São Paulo are really below acceptable and since so many people walk, the city should be investing more on this type of transport (most investments are done on road network and public transport). The current system for placing complaints about sidewalks is done through telephone and doesn't seem to be very effective.

Also, this is a very special moment for bringing this issue up: there's current a debate in the Municipality on who should be taking care of sidewalks, property owners or the City. Considering that 30% trips are done by foot (and thinking about how much investment is done on public transport and roads improvements) I believe the Municipality should be responsible for

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implementing new standards and upgrading existing sidewalks, since it should be a comprehensive effort. Properties' owners could help maintain these places, which would instantly become of their interest: better sidewalks increase property values and enhance business.

StreetSeen Survey: Example of a walkable sidewalk in São Paulo and of two that could be improved by PedApp

Who: For the development of the project I have engaged with local designers, through informal interviews/survey and with the general public that engaged with my StreetSeen survey: http://streetseen. osu.edu/studies/walkability-study-sao-paulo/vote. From these conversations I identified the eminent need of improving sidewalks in the city as well as some common characteristics among successful and not-successful spaces.

I also engaged with the public service for reporting sidewalks conditions, so I could learn about how the system works now. By dialing 156 and after informing my personal information (name, ID number, home address) I finally filled a complaint about a specific sidewalk that does not respect minimum ADA requirements. The City sends the report to the local district authority, which has up to 40 days to give me a position about this issue – although I would have to call back to follow-up. It seems that the system would be more effective if the communication platform was more interactive and attractive, allowing all citizens to follow-up with all filled complaints. Also, 40 days seems like a very long time, and this might discourage people to engage with the system.

How:

Data Analysis: I've collected a series of GIS data that would be useful for building a "base map" used in PedApp. It would be developed through a series of city data related to sidewalks: buildings and land use, transit stops, density, type of road, location of main amenities such as public services, community spaces, parks, etc. This information would be needed for a first assessment of sidewalks conditions and speculation on best routs for walking. This is the departure point for PedApp.

Design: I've speculated on the design and performance of this platform and believe that PedApp should be structured as follows:

a. Base map: Similar to GoogleMap, the PedApp Map would have information on roads, transits, land use, public services, etc, to serve as a base map for walkability suggestions. When asked for a specific rout from A to B, PedApp would consider this information for suggesting a walkable and pleasant path;

b. Interactive App: This map would then be available through a cell phone app (and through totems in public spaces and website, for those who do not have smart

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phones) so users can:

• Take pictures of bad (and, why not, good) sidewalks, which would be placed in the map in the proper location (through phone this could be done automatically through GPS, but if submitted through the website the user would have to locate where the picture was taken). The system would be connected to the city agency responsible for managing sidewalks;

• Reinforce complaints done by others.

• Choose best routs for walking through a combination of walkability map + users input;

• Check how long it would take to walk a certain distance, or see how far they can go in certain amount of time. Also, compare to other modes of transport: fast walk X pleasant walk, public transit and cars;

• Use the app to demand for sidewalks upgrades and follow-up with city work (including timing and quality of the service);

c. Responsive Map: the original map would respond to user's interactions. Routs that where first judged as "appropriate" or "interesting" could be downgraded if a certain number of complaints were placed along them - and vice-versa.

d. Integrated City System: The City Agency responsible for this project would get first-hand information on sidewalks conditions and could create strategies for upgrading these spaces. Once done, the City could also update the map, placing pictures/information on the new sidewalks conditions.

My conclusion is that for PedApp – and the sidewalks upgrade program – to be successful, São Paulo Municipality would have to be engaged in this project, probably through the Planning Department. A PedApp Team would have to be responsible for managing the App input and for responding for sidewalks upgrades. At the same time, the project would only make sense if there's a very strong public engagement, so advertising about this new project in public spaces is crucial. This is why I chose to develop a first draft of an ad campaign/users guide (refer to the final product link).

Challenge: To help me study the opportunity of developing PedApp, I have worked on two Challenge assignments: Hyperlapse (http://www.youtube.com/watch?v=gPXJJt-AiQk&feature=youtu.be) and StreetSeen (http://streetseen.osu.edu/studies/walkability-study-sao-paulo/vote).

I think something similar to Hyperlapse could be

integrated into the application, for better visualization of certain routs suggested by PedApp. From the Streetseen exercise I learned the importance of developing a comprehensive survey with potential stakeholders in order to indentify which are the elements that contribute to a better or worse streetscape. These elements would be useful for developing the PedApp Base Map, which would be the departure point of the application. Here are a few examples of components that could be identified for developing the base map:

"Most favored sidewalks items":

• Greenery, including trees, tree pits, front yards;

• Public program adjacency;

• Retail/Café/Shops adjacency;

• People;

• On-street parking;

"Least favored sidewalks items":

• Lack of proper sidewalk space or inadecuate paving;

• Dark spaces;

• Blank walls;

• Wide roads;

• Parking garages;

• Curbcuts;