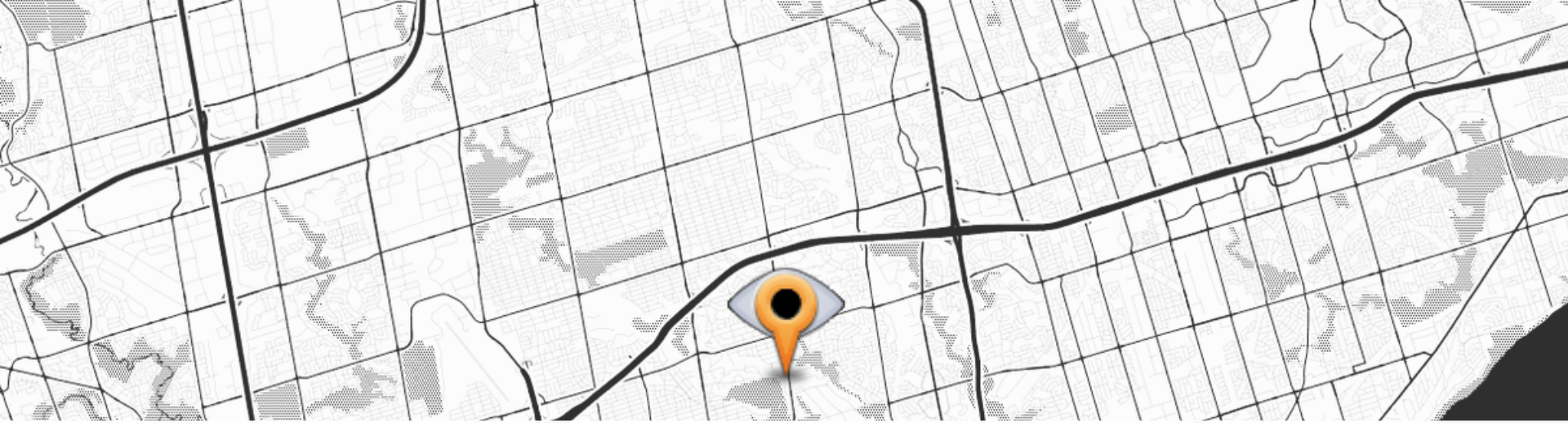


UrbanEyes

Sheraz Khan, Miro Cupák, Ravi Kalyani

Researchers of cities use maps to communicate important data

Sadly - mappable data is often unavailable

Sadder - few tools exist to collect that data

Saddest - tools are labourious to use

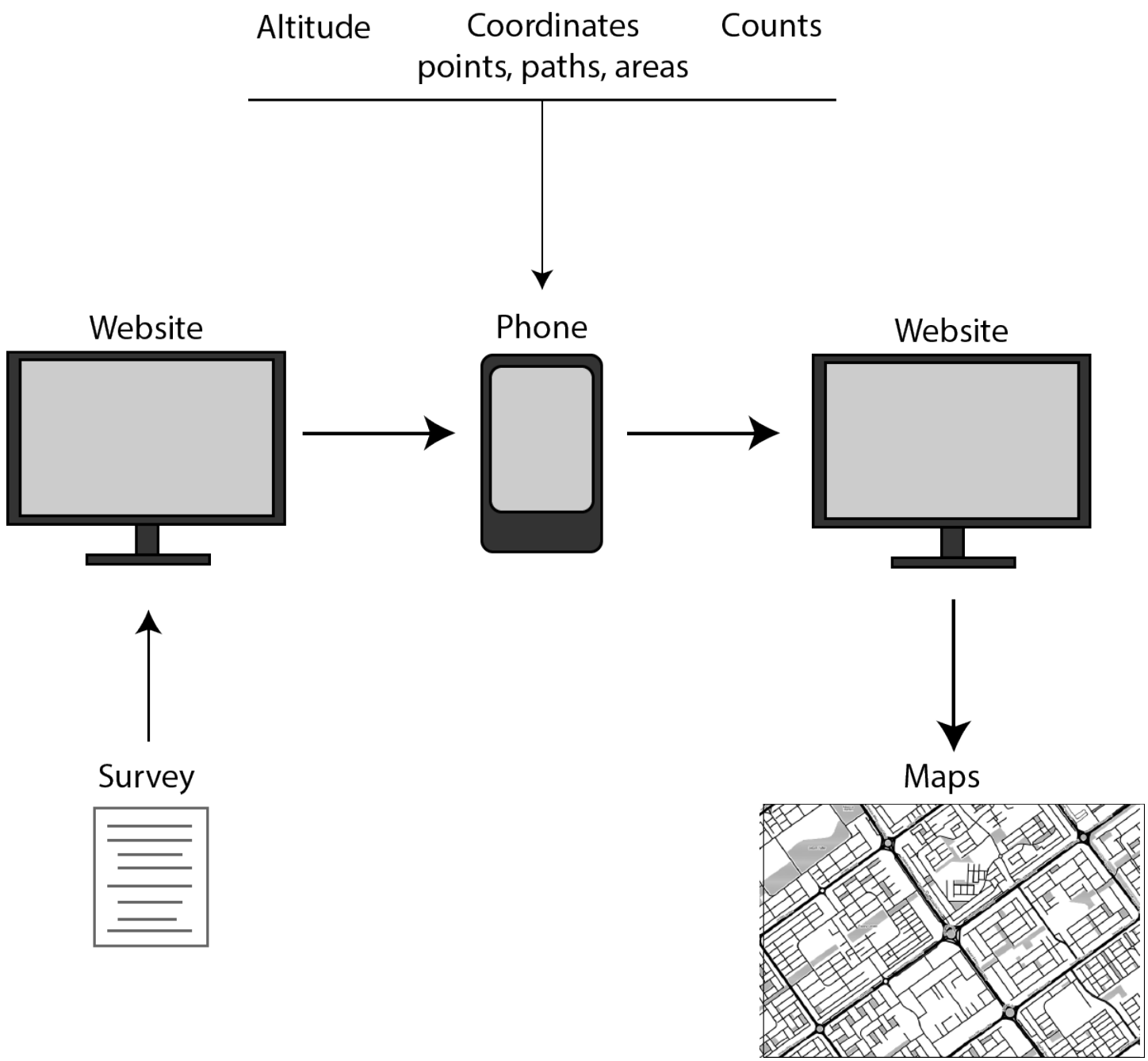
Enter: UrbanEyes

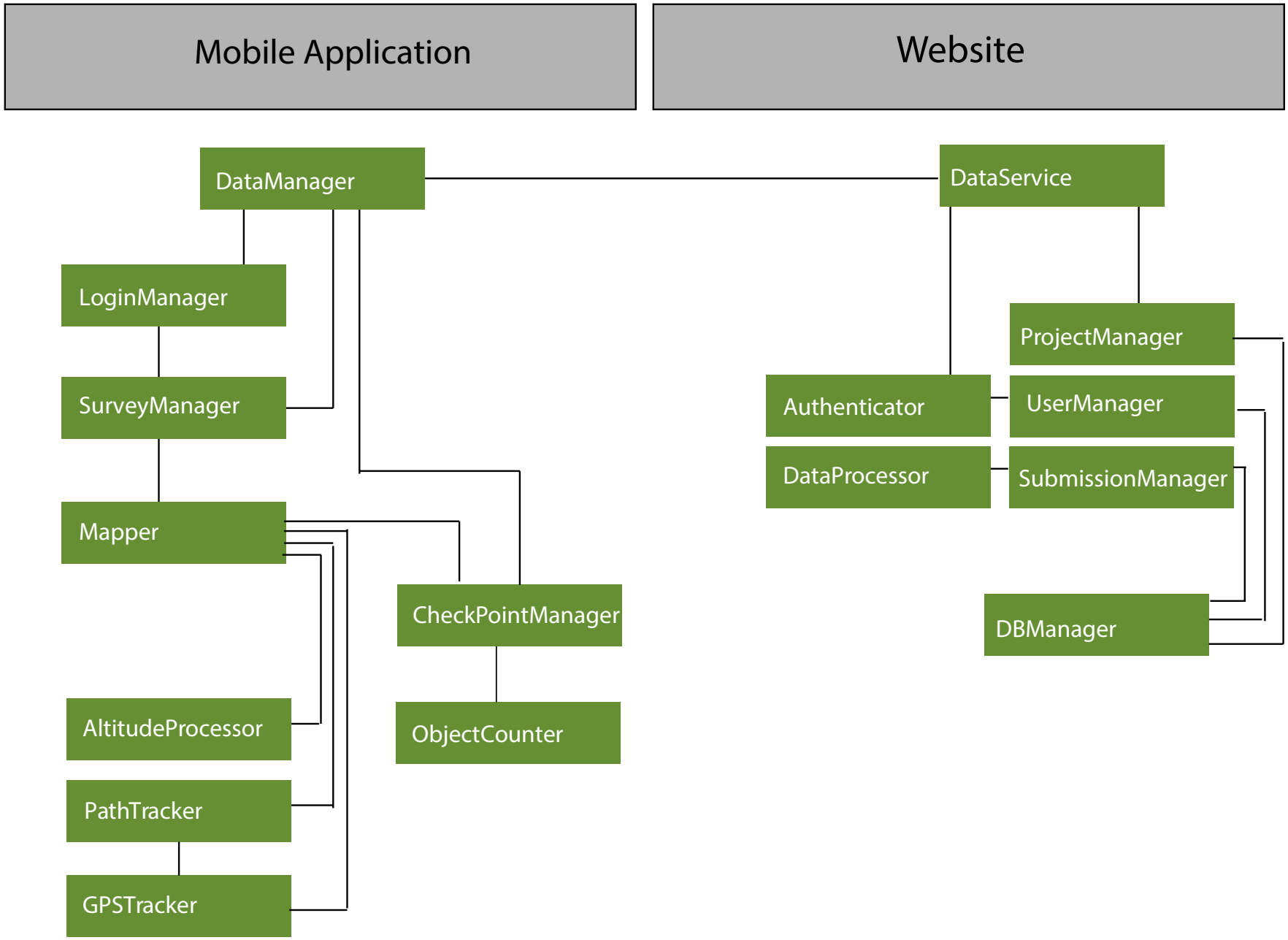
A tool for researchers of cities to collect the data they need for maps

Uses convenient technology of the smartphone

Shares data through the web, ready to import

http://maps.stamen.com/m2i/image/toner-background_OCqcAf0pNDM


Altitude
Coordinates
points, paths, areas
Counts
Website
Phone
Website
Survey
Maps


Mobile Application
Website
DataManager
DataService
LoginManager
ProjectManager
SurveyManager
Authenticator
UserManager
DataProcessor
SubmissionManager
Mapper
CheckPointManager
DBManager
AltitudeProcessor
ObjectCounter
PathTracker
GPSTracker

We could use UrbanEyes to...

...survey abandonned housing

...collect the locations and types of fruit trees in a city.

...find all accessible entrances to buildings along a street

Demonstration

Data from UrbanEyes

```
ID,DATE,SURVEY_ID,LAT,LON,ALT,QUESTION_45,QUESTION_46,QUESTION_44,USER
52,31/03/2013 18:10,47,43.66460557,-79.3976876,0,2,cancel,yes,foo@example.com
57,31/03/2013 18:33,47,43.66490611,-79.3979235,0,2,rotman,yes,foo@example.com
62,31/03/2013 18:34,47,43.66474962,-79.39854387,0,2,rotman,yes,foo@example.com
67,31/03/2013 18:35,47,43.66515173,-79.39872341,0,2,rotman,no,foo@example.com
72,31/03/2013 18:36,47,43.66546754,-79.39884899,0,5,rotman,no,foo@example.com
77,31/03/2013 18:36,47,43.66558682,-79.39893776,0,2,innis store,no,foo@example.com
82,31/03/2013 18:37,47,43.66586614,-79.39903558,0,2,innis res,yes,foo@example.com
87,31/03/2013 18:38,47,43.66625359,-79.39919601,0,1,woodsworth ,yes,foo@example.com
92,31/03/2013 18:39,47,43.66644841,-79.39925516,0,2,woodsworth ,no,foo@example.com
97,31/03/2013 18:39,47,43.66672205,-79.3993091,0,2,centre for industry,no,foo@example.com
102,31/03/2013 18:40,47,43.66693568,-79.39949819,0,1,rotman office,no,foo@example.com
107,31/03/2013 18:41,47,43.66702278,-79.39957634,0,2,woodsworth res,yes,foo@example.com
112,31/03/2013 18:42,47,43.66734347,-79.39960353,0,2,woodsworth res,yes,foo@example.com
117,31/03/2013 18:43,47,43.66752975,-79.39930983,0,2,woodsworth res,yes,foo@example.com
122,31/03/2013 18:43,47,43.66760581,-79.39889944,0,2,lespresso,no,foo@example.com
127,31/03/2013 18:45,47,43.66712556,-79.39976026,0,2,school of cont studies,no,foo@example.com
132,31/03/2013 18:46,47,43.66685231,-79.3996423,0,1,KA frat,no,foo@example.com
137,31/03/2013 18:47,47,43.66669511,-79.39968765,0,2,school of cont studies 2,yes,foo@example.c
142,31/03/2013 18:47,47,43.66646564,-79.39965344,0,2,ernescliff college,no,foo@example.com
147,31/03/2013 18:48,47,43.66641406,-79.3995367,0,1,lambda chi alpha,no,foo@example.com
152,31/03/2013 18:49,47,43.66610442,-79.39949135,0,1,max gluskin,yes,foo@example.com
157,31/03/2013 18:50,47,43.66601901,-79.39985407,0,1,max gluskin,no,foo@example.com
162,31/03/2013 18:52,47,43.66571674,-79.39982803,0,2,innis,no,foo@example.com
167,31/03/2013 18:53,47,43.66563267,-79.39930516,0,2,innis,yes,foo@example.com
172,31/03/2013 18:54,47,43.66548983,-79.39941407,0,2,innis,yes,foo@example.com
177,31/03/2013 18:54,47,43.66543704,-79.39955862,0,2,innis,no,foo@example.com
182,31/03/2013 18:57,47,43.66485419,-79.39924312,0,2,robarts,yes,foo@example.com
187,31/03/2013 18:57,47,43.66477526,-79.39932329,0,5,robarts,no,foo@example.com
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237,31/03/2013 19:09,47,43.66263309,-79.39916185,0,8,sidney smith,yes,foo@example.com
242,31/03/2013 19:10,47,43.66214181,-79.39882996,0,4,sidney smith,no,foo@example.com
247,31/03/2013 19:12,47,43.66206823,-79.398922,0,2,sids cafe,no,foo@example.com
252,31/03/2013 19:13,47,43.66152419,-79.39909161,0,2,lash miller,yes,foo@example.com
257,31/03/2013 19:15,47,43.66195217,-79.39805096,0,3,lash miller,no,foo@example.com
262,31/03/2013 19:15,47,43.66208427,-79.39854044,0,2,sids cafe,yes,foo@example.com
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297,31/03/2013 19:25,47,43.6607174,-79.39828627,0,4,mclennan,yes,foo@example.com
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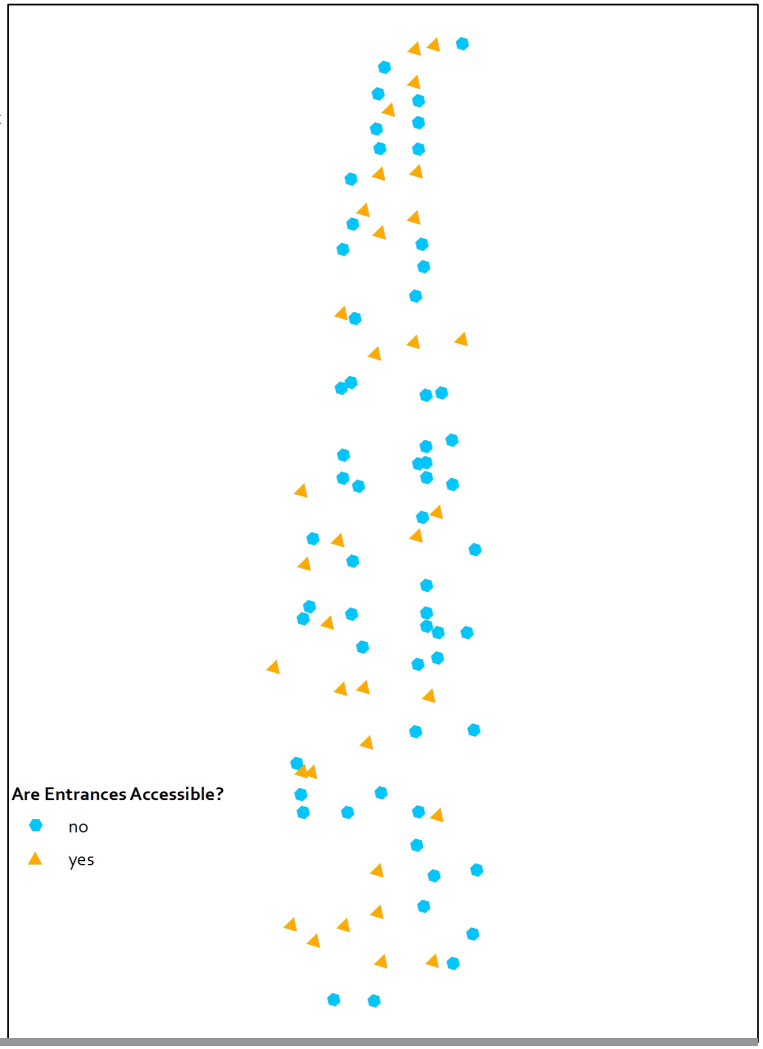
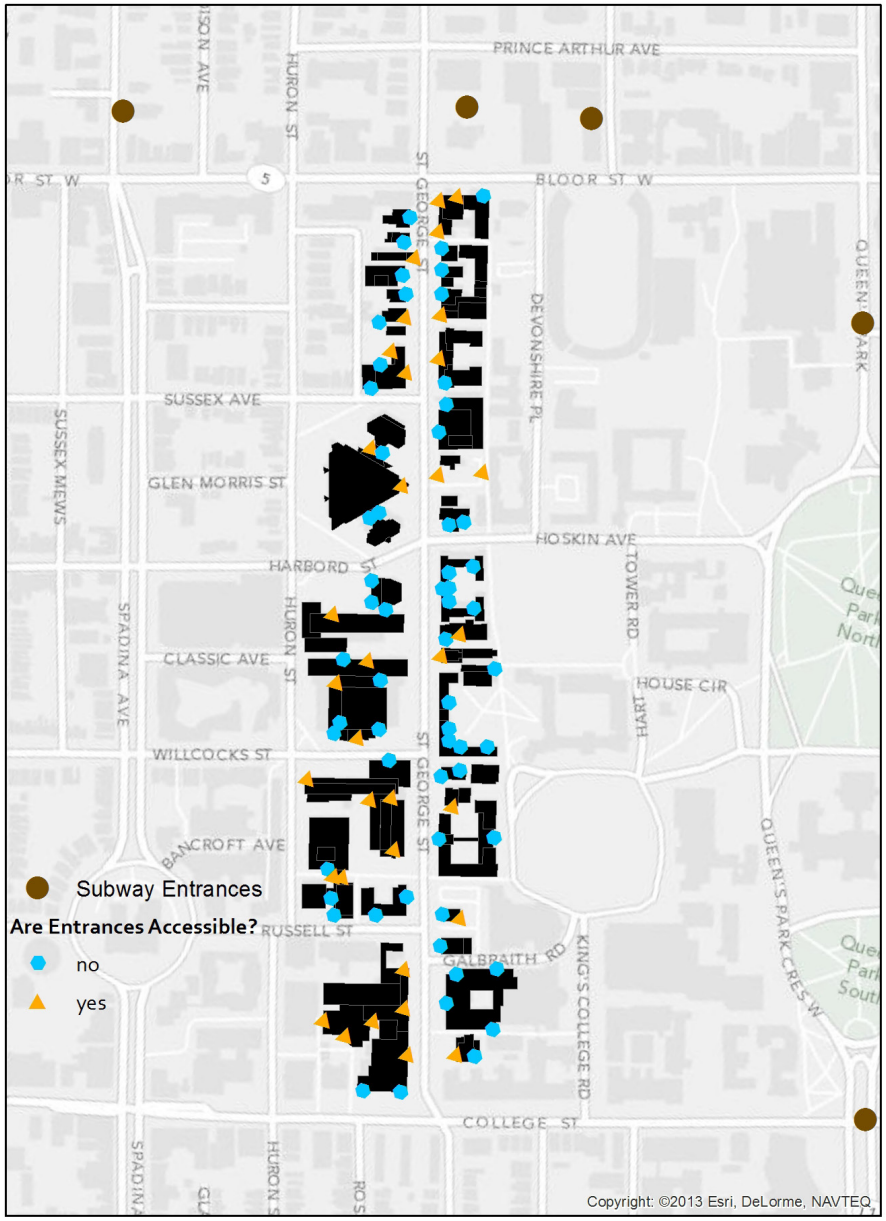


Map of this data



Distance Statistics to Closest Subway (m):

	all entrances	accessible entrances
Max	863	968
Min	93	237
Median	556	611

What would be done differently?

Having clear example projects

Scraping the image counter from the beginning

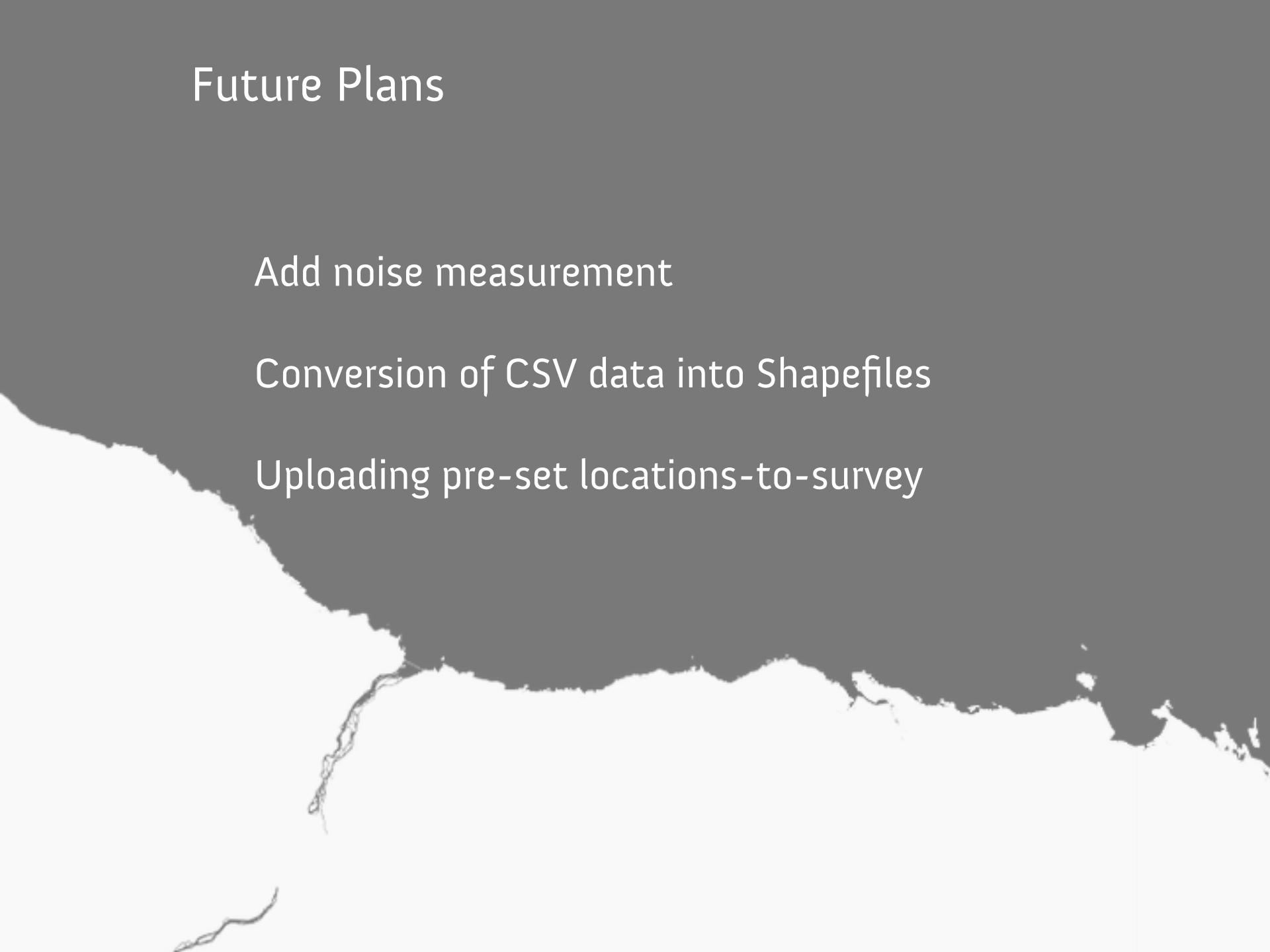
Starting the web application earlier

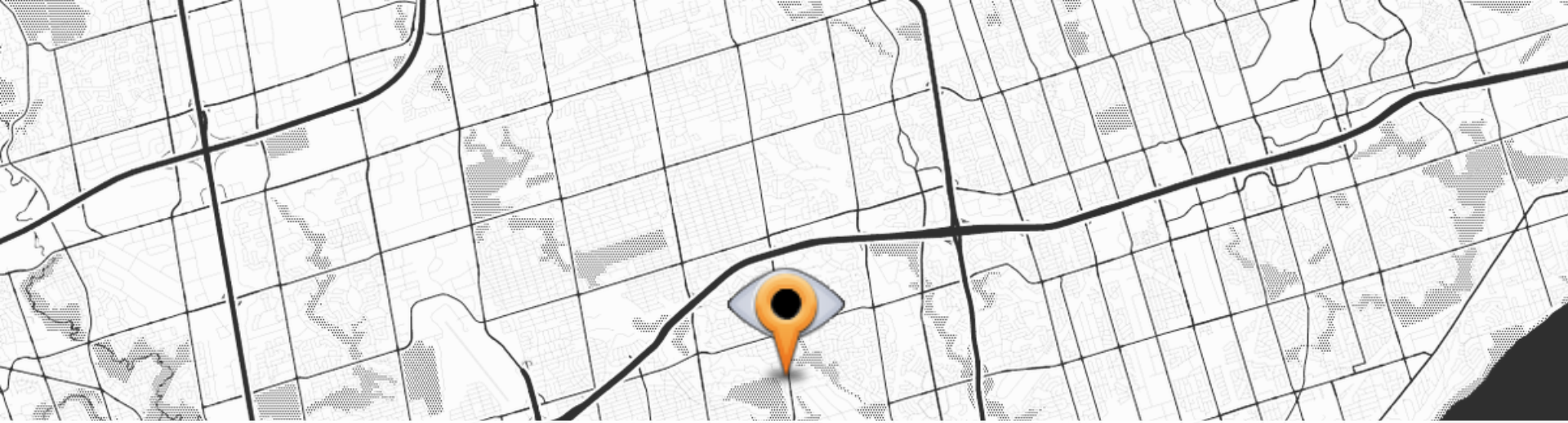
Future Plans

Add noise measurement

Conversion of CSV data into Shapefiles

Uploading pre-set locations-to-survey





Questions?

Inaccessible Buildings

Whitney Hall
Galbraith (connected)
Knox College
Astronomy
Frat Buildings
School of Continuing Studies
Rotman (connected)
Office of Industrial Relations
Rotman Office
SGS Dean's Office
Physical Geography Building
Sir Daniel's Residence Hall

Number of Entrances:

Inaccessible: 59
Accessible: 35