Idea Notes from Class 17, Nov 4, 2013

Note #01.

It's interesting to relate big data to urban planning. I just know big data can use in consumer products, that merchants can use data to know what consumers want and how they shop, and it even allows them to customize their price models based on who's shopping and when they want to buy. Also, cell phones can track where we are at any given moment. Big data changes people's lives a lot, and it will change the relationship between government, people and enterprises as well in the future. However, like what Shan said today, smart city is still a concept and no one knows how to built it so far, because no company or organization or a single person can built a smart city alone, all communities must involve each of their most important stakeholders.

Note #02.

I like the way of rephrase "urban planning" into "urban management" in big data analysis. The two examples raised actually support the cases of better manage cities in terms of air quality and public transit.

However, when raising the issue of data from three actors - government, enterprise, and users, I tend to think of their complementary. Are they able to compensate the possible bias or discrepancy of each other? How could the traditional statistics be able to fill the gaps? I will be interested in these topics and want to know more cases.

Note #03.

I like the topic connecting technology with urban planning. We talk about the public voice of urban planners everyday. For me, this is an opportunity to make urban planner's voice have more power and impacts.

I'm wandering the marketing methods to introduce those new technologies to Chinese local urban planning department. In my mind, the most updating technologies they have used are GIS and transportation estimating model. The government should publish policies to promoting urban planning departments

to use new technologies.

Note #04.

Very insightful and interesting discussion on big data
It sure has large potential for planners to try and design the future of the nations using smart data.
However, I also feel that there could be limitations in some of the areas like in predicting the demand/trend as the people's behaviors could vary from location to location, country to country, undermining the success of the huge resources spent.

Note #05.

One of the two most interesting classes so far. Technology has given planners and entrepreneurs a whole new universe of possibilities to plan better and like the presenters mentioned we are not taking full advantage of this. Land, information and ??? are the most important resources governments serve to have and we are wasting a lot of information.

Note #06.

Given low labor costs in China, is it economically efficient to digitize cities?

What are the demographics of having low bike sharing revenue? (what are the transit rates?)

Are there comparable issues (in the past or future) about which the public care enough to explicate the PM2.5 scenario? Or was such public involvement ??? ?

Note #07.

The most interesting thing l learned from class is the bottom-up users contributed way to collect data. Top-down statistic data could not always work especially when you want to do some researches about rural areas. It would be

interesting if there would be some applicable apps with easily understandable interface about rural energy and water use, transportation, food production etc, which could be able to encourage farmers to share data in their daily life. I suppose this would be very helpful for both planners and policy makers to make better rural planning in the future.

Another thing I would like to learn more after class is the concept “Smart city”. What does it mean specifically? How does it organized and operated? Does traditional cities always “stupid”?

Note #08.

Big Data

Firstly, I was very excited to hear that China has started its own Big Data set and been using and operating for years. Second, I am interested in the case study of bicycle sharing programing system in city of Hangzhou because this is where I come from. I am proud of what my city is doing to improve and upgrade its bicycle sharing system, starting from very beginning to become robust, of course as well as the comments and critiques from the public.

Mostly important, I do agree upon the point made in class that China’s big data set has not been widely used by public and not been used efficiently, and yet is not being formed as a collaborative planning mechanism. Now the major challenge for using big data is that big data sets are only available to some specific small groups of people and being used to serve some kind of purposes. This is not a very good methodology of using data to serve public’s needs at large. However, I don't feel disappointed and despair, but look forward to seeing how this big data work goes in the future controlled and monitored appropriately by the central government.

Note #09.

The point that the presenter began talking about IoT and "smart cities" and the time that planners could or should play was very interesting. I tend to think that smart cities as they are imagined might not be palatable to the average person, or at the last would need serious reconfiguration for different cultures, due to inherent mistrust or perception of privacy. It's one thing to tell you how traffic

will affect your commute while you are brushing your teeth, it's another to tell you to go to your dentist.

Note #10.

Can cities be too smart?

From my general love of social media as well as through some exposure to big data in the urban context, both by virtue of hearing talks like Yi and Shan's and using some big data analytical techniques in my own research, I appreciate the potential for big data applications in urban planning but also feel that there may be something of a "big data bubble" that may be at risk of bursting in the coming years if we are not cautious. Certainly big data offers a lot of potentially valuable insight into issues of interest to planners and policy-makers, but it has significant limitations depending on data source and collection methods, many of which I was glad to see noted in today's presentation.

As long as these approaches are paired with an approach that is both conscious of and capable of accounting for these limitations, big data has the potential to be extremely helpful as one piece of the larger planning puzzle. As was noted in today's class, these ideas have not been demonstrated in a fully-integrated way, though certainly many efforts are underway attempting to do so. Hopefully we will begin to soon see more concrete demonstrations of the potential for the direct application of big data methods as various stakeholders begin to adapt to the evolving, data-driven planning ecosystem. This will certainly require a non-trivial shift in hiring practices as both public and private institutions begin to place a higher value on this type of approach as a complement to traditional planning processes.

Note #11.

The potential benefits of more detailed and complete data ("big data") for the prospects of urban planning in China are huge, but they are also relatively obvious. Being able to quantify arguments and prove (or disprove) theories, being able to rapidly assess the effectiveness of urban planning experiments, and to gauge the feelings of the public about new measures is a crucial point.

In the Chinese context, I think that a few key aspects will need particular

emphasis in order for "big data" to become useful for urban planners both in government and in academia.

First is the format and accessibility of data. My experience with official Chinese statistics is that they are difficult to use because the methodology is usually undisclosed and many categories are not consistent from one reporting period to the next. To the extent that many "big data" statistics will be provided by the public sector, it will be important to develop extremely robust and usable APIs to access and manipulate the data.

Second is the usefulness of the data being generated. Much of social media exchanges, as Yi pointed out, consists of relatively superficial communications without much depth or content to be mined. It is an open question how we can produce good quality and relevant data, and which actors (public sector? entrepreneurs? large companies? crowdsourcing?) will be responsible for producing this data.

Note #12.

Big data, how realistic are the implications?

One point that the Hangzhou bike-sharing program raised for me is the difficulty and great cost it involves to implement any type of city-scale policy in a large Chinese city. The benefit of extracting data from such cities, almost immediate large sample size and granular data, is married to the costs of creating and maintaining a large-scale and responsive program. As we saw from the bike-sharing program, which hardly involves any big data intervention currently, the costs of the program already outweigh the revenue that its generating. Additionally, the operation of the program (which was begun almost 5 years ago by now?) still has major flaws even though it is considered quite a successful program China.

The question that I have then is not whether or how big data can benefit urban planning, but exactly how we can successfully implement the policy ideas related to it and what is a reasonable time-frame to implement these ideas. Maybe it will take Chinese cities 5 years instead of a few months to create a successful data-driven system, but is this something that we can measure and anticipate?

Alternatively, when we consider decentralized urban programs that are driven by big-data, which could be considered as an alternative to a top-down urban planning approach, what happens when these programs grow large and successful enough that they come into conflict with the government's control and

its own policies? I am thinking of the case with Didi Dache (an app that allows people to book cabs more easily, but is viewed by the Beijing government to hurt their own potential reform measures).