Workshop on Pilgrimage: The Kumbha Mela

Session 4 Notes

October 1, 2012
Summary of Today's Session:

Today's workshop welcomed two guest speakers:
1) Nashid Nabian, Lecturer in Urban Planning and Design in the Department of Architecture at the Harvard Graduate School of Design and a post-doctoral fellow at MIT SENSEable City Lab, spoke during the first 90 minutes, presenting some of her work on mapping cell phones. Building on two pre-distributed readings, she outlined the concept of "sensing" the city in real time using cybernetic data that conveys information about spatiality. Such data can show: where people who are using digital technology (cell phones, smart phones) are located, where they go, where they come from, how they get there, and specific communication patterns in real-time mapping that can be linked with other time-space associations (such as concurrent events). She provided a brief history of the use of cybernetics in measuring connectivity, and defined and described three types of sensing: (1) "viral sensing," data that can be shared broadly in an anonymous aggregate manner (so called because it "operates like a benevolent virus"), (2) Sensor networks, which are created by customizing design to follow particular data; one example is a "Trash tracking" project in Seattle, and (3) content-sharing platforms that can supply data on how the city is used; one example was the use of FlickR posting for photos that British tourists took while in Spain. Cybermapping can also be used to help commuters measure their carbon footprint based on travel choices.

Discussion points as it may relate to the Kumbh:

Q: A visiting faculty in the audience noted: It seems important for us to recognize that such cyber mapping does not capture data from population but only from individuals within the population who are using cyber-measurable technologies. In many parts of the world this will miss all those who don't use digital, or communities that do not, for example, have traffic camera installations.

A: This is true. However, it does measure publically shared technologies that are prevalent in many countries, and cell phone use is very widely prevalent. In Iran, for example, each person has an average of 2.6 cell phone numbers!

Q: Doesn't one's cell phone need to be turned on to generate such information?
Q: And how measure location?

A: Yes the phone needs to be on but not necessarily in use. Towers can generate a "ping" to find a phone even if a call is not being made. Each cell tower has a unique ID.

Discussion about open map applications. E.g., technology has potential to measure where Mela crowds are *from*. Cell phone data is based on where a person is registered (billing address), destination of call. Of course many assumptions are being made. Crowd-spotting is possible, for example, in "distance sensing" technologies. A high resolution picture of a crowd where each pixel captures a certain component of the crowd. Movement/change in such photos over time can visually capture and illustrate very specific movements.

Q: How representative will this data be for an event where the central focus is a dip in the river? (What will people do with their cell phones when they are bathing?)

A: We will probably capture everything except the bathing. Think of measuring temporal city in phases: pre-event, during event, after event; we can be sure there will be high communication activities pre- and post-event.

Q: Policy implications of open data and control?
Q: What is the potential for use of social media to show social class-differentiated activities?

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2) Sue J. Goldie, the Roger Irving Lee Professor of Public Health at Harvard School of Public Health, Director of the Harvard Global Health Institute, and Director of the Center for Health Decision Science, addressed the class during the last 30 minutes. Offering what she called a short "Global Health 101" overview, she began by encouraging the class to think into the broad perspective of what we mean by the phrase "global health," and how to ask questions in interdisciplinary spaces. She emphasized that, as we shape research questions about the KM, think first: *Who* are attending? Knowing who they are (gender, age, etc) will help us think about health and disease and risk burdens during the event.

Dr. Goldie's talk is not summarized here, but please see Dr. Goldie's detailed handout, now posted on the course website (under "Public health"), "For students with research interests relevant to global public health." The Harvard Global Health Institute is now preparing a web portal dedicated to research resources relevant to urbanization and the KM (anticipated for mid-October). Watch for more information or contact Amanda Brewster (Amanda_Brewster@harvard.edu) with questions.

Jennifer Leaning will take the lead in talking with students interested in pursuing research topics related to health.

Reminder: Next Monday 10/8 is a holiday; watch the course site and emails for possible optional informal session.
