Chan Wiu &Yunyin Rising-Star Workshop for Early Career Professionals
entitled
The Analytical Relationship between Mobility and Communication

Scope of Work

Background

Transportation and telecommunication technologies historically have served some similar purposes. Transportation provides mobility while telecommunication is one way to facilitate communication. Together, they lay the groundwork for information sharing, commerce, and education, among other cornerstones of human endeavors. In the past, communication methods such as wired telephones and the postal service had clear advantages for some purposes, while physically moving people or goods had clear advantages for others. Increasingly, the boundaries between mobility and communication are being blurred. Cell phones, the internet, real time driving directions, social media, car sharing services and other features of modern life have increasingly combined mobility and communication in ways that are having a profound impact on travel and information-sharing, and on society in general. Instead of traveling to a meeting, virtual presence can often replace a physical presence. Today's telecommunication and information technologies have enabled intelligent transportation systems and driverless vehicles.

These new communication technologies are changing the ways people work, shop, and play. Those changes are having a major impact on land development, commerce, educational institutions, workplace environments, and the resulting travel and information-sharing associated with these activities and settings. Transportation and telecommunication innovations, traffic congestion on transportation and telecommunication networks, lagging public spending on infrastructure, and concerns about sustainability are changing the way many think about transportation and telecommunication. Policy makers, business leaders, and others need to understand how these changes in transportation and telecommunication will impact society in the future. The network analysis, travel forecasting and travel behavior modeling researchers, among other related information-technology research communities, are beginning to develop new analysis techniques to explore these changes, collect new data flowing from new technologies, and use the voluminous amount of data in unprecedented ways. These new avenues of research all seek to understand, quantify, and predict travel and communication responses to these changes. They are ripe for investigation by the future leaders of the mobility and communication communities.

Project Description

Focusing on the above theme, the Chan Wiu & Yunyin Rising-Star Workshop will bring together early career researchers and a selected number of senior researchers to explore the nexus of mobility and communications. While the general goal is to promote careers in transportation-related research, we are primarily focused upon the researchers in the academic setting, which often represents the cutting edge of innovation. The participants will be: 1) early career researchers in transportation and/or telecommunication (henceforth referred to as Fellows) and 2) experienced researchers in the same fields (henceforth referred to as Senior Fellows). There are two main goals of the workshop. The first is to provide an opportunity to hold in-depth discussions on the critical research questions resulting from changes in transportation and telecommunications and areas where these issues intersect. In particular, we strive to unveil analytical relationships between mobility and communication that have not been explored before. The second goal is for the Senior Fellows to offer guidance on personal and communication skills critical to career success. This second goal is a unique contribution of this workshop, as many young researchers struggle to launch their careers. The workshop will take place in

a setting that will facilitate this professional capacity building via focused, in-depth discussions among the participants.

Prospective participants from around the globe will be welcome to apply for participation and must submit a formal application to be considered. A Selection Committee will determine the selection criteria for the Fellows and Senior Fellows, which will include considerations such as experience in the topic being considered and diversity across many factors including geographic location, approach to the research topic, and demographics. Based on these criteria, the Selection Committee will select outstanding professionals to participate in the workshop.

The workshop will provide an opportunity for selected Fellows and Senior Fellows to hold in-depth discussions on the relationships between mobility and communication. This workshop will serve as a pilot for potential future workshops in the same, broad topical area. It strives to distinguish itself by its holistic approach to nurture future generations of cutting-edge researchers. Specifically, it will identify related research, frame the policy issues, assess the quantitative relationships that need to be explored, locate new data that can be used, and propose new analysis techniques.

To achieve its holistic goal, the workshop will also go beyond research discussions by providing career counselling for the participating Fellows. The traditional format for technical conferences and workshops affords many opportunities for new academics to present new research but often allows only limited time for immersive discussions. Early-career professionals typically only engage in more extensive discussions of their research with their peers, and such discussions are often conducted on a self-initiated basis. However, it is well recognized that building a career is a multidimensional effort that requires more than technical expertise. A few newcomers may be fortunate enough to find mentors who not only take the time to discuss technical issues but also to discuss career planning. Many others struggle to find trusted advisors and find that their careers are limited by the lack of timely advice. The workshop will focus on the technical, personal, and communication skills that will help advance the prospects of the early career participants. In doing so, the goal is to provide valuable guidance from a diverse set of mentors at the peak of their careers. Purposefully set in a relaxed setting, the workshop will encourage the detailed technical discussions and philosophical discussions that so rarely happen at other technical conferences or workshops.

Workshop participants will be outstanding researchers from around the world. Subject to budgetary constraints, up to eight of the participants will be in the early stages of their careers (with one to three years of post-doctoral experience) and up to four will be experienced researchers (mentors with over 30 years of academic-related experience). The program will facilitate the sharing of knowledge and expertise, the development of contacts and peer networks, and will present an opportunity for early career professionals to learn about the personal and communication skills necessary to thrive in an academic community.