

approaching. In this way, the main theme of ICCE 2014 is focused on the applications that will change the smartphone and tablet markets during the next few years. A revolution in this exciting market is arriving, and ICCE 2014 will be a good opportunity to become familiar with the research carried out by some of the most important groups around the world. It is great occasion that you cannot miss.

During the conference, presentation topics around the major theme will be the content of keynotes, special sessions, and tutorials. Moreover, the Technical Program Committee invites all authors of applications and services related to



The computational capabilities of mobile devices and the development of new operating systems have allowed the creation of previously unimaginable applications.

the consumer electronics industry to present the results of their research.

If you attend ICCE, you will be able to follow the state of the art of numerous

topics related to consumer electronics, talk with colleagues about the results of their research, listen to the top experts in the world giving keynotes, and nourish the relationship between academia and industry. Finally, attending ICCE will give you the chance to visit the CES, the biggest electronics show in the world, where companies present their newest products. This show overlaps with ICCE, presenting a great opportunity to attend both events.

—Fernando Pescador
Technical Program Chair, ICCE 2014

Evolving Social Networks in Consumer Electronics

The fusion of social networks (SNs) with consumer sentiments is being made accessible via consumer products for everyday purposes.

Current SNs, which empower ordinary people to have their voices and opinions heard, have become an inseparable part of everyday life for many people. Recent newsworthy events that are at least partly attributable to SNs, such as mass demonstrations and uprisings, underline the very significant impact SNs can have on society. Opinions of public figures, consumer products, etc., are formed and shared among acquaintances in the network. In many cases, opinions, along with human emotions, behaviors, and sentiments, are also propagated as influences across SNs, which are ad hoc and dynamic in nature. Such messages are often subject to interpretation by different people, and their transmission therefore introduces biases and distortions. Adding to the complexity, in a connected Web society, messages are transmitted in both the virtual and physical worlds. The paths of transmission of any given

message in the virtual and physical worlds can be very different, leading to a phenomenon not unlike multipath in wireless communications.

Understanding the dynamics of current SNs has emerged as an interesting research topic in human emotions, behaviors, and diffusion of sentiments, as well as ways to harness such knowledge for marketing or the formation of public opinions on issues, products, and services. For instance, it has been found (on small data sets) that within an SN, happiness and loneliness spreads among people up to three degrees of separation. Other research found the emotional state of a prospective purchaser to be a crucial factor in his or her buying decision. Apart from human emotions, quantitative analysis has also been applied to understand the dynamics of human behavior in SNs.

What does this have to do with CE? In this increasingly connected world, consumer devices are collectively becoming huge producers and consumers of big multimedia data. One of the fundamental problems to consider is, how can we evolve the current SNs to effectively and efficiently connect

people (individuals or groups) with resources (escape routes, vehicles, etc.) in response to changing situations (traffic jams, social unrest, impending storms, flash floods, etc.)? Consumer devices that form part of this emerging network will need to be capable of actively participating in the process. One possible scenario is consumer personalization (e.g., for health care or hazard avoidance). For example, each camera-equipped mobile phone can serve as a node in this vast and ad hoc network. At the other end of the process, the same device serves to provide consumers with useful and timely information that has been gathered, aggregated, and composed from multiple data sources. The emphasis here is that, for all this to work, consumer devices (e.g., smartphones, in-vehicle systems, and home appliances) must be active participants in the process.

This and other themes related to mobile computing devices will be addressed during ICCE 2014, and a follow-up article will summarize the major findings reported by relevant conference presenters.

—A.C.M. Fong and J. Tang