Preface

It has been 15 months since I submitted the proposal for the *Encyclopedia of Mobile Phone Behavior* to the Publisher IGI Global in July 2013. After going through major stages of submitting the encyclopedia proposal, negotiating the contract, selecting authors, soliciting manuscripts, reviewing and revising submitted works, and finalizing all of the materials, I am completing the entire editing process and would like to share four thoughts in the preface with the readers of this encyclopedia.

1. The Timing Is Just Right

Mobile phone behavior generally refers to any physical, cognitive, social, or emotional activity that humans engage in while using mobile phones. Three grand statements can be used to outline the major motivations for editing this *Encyclopedia of Mobile Phone Behavior*.

The first is about mobile phones. For the first time in history, different from telephones, televisions, computers, or the Internet, it is the mobile phone that almost each and every individual, ranging from young children to elderly seniors, will play, use, have, or own one or more of in their daily lives. Thus, we can state that mobile phones are becoming the most ubiquitous technology in human history.

The second is about mobile phone use. From 1990 to 2013, within just 13 years, worldwide mobile phone subscriptions have grown from 12 million to 7 billion, which is nearly 99% of the global population (ITU, 1999 & 2014). Thus, we can state that mobile phone use is having unprecedentedly exponential growth across the world.

The third is about mobile phone behavior research. For 25 years, researchers in ergonomics, medicine, sociology, education, psychology, and various other disciplines have been extensively examining how people use mobile phones and how mobile phone use influences human lives. As a result, the science of mobile phone behavior has produced broad and profound social impacts and implications for a wide variety of areas, such as mobile phone use and brain tumors, phoning during driving, mobile phone distraction, mobile phone addiction, m-health, m-business, and m-learning. Thus, we can state that mobile phone behavior research is an emerged field of study rather than an emerging one, and it is completing its energetic, intellectual adolescence and starting its even more prosperous adulthood.

During an interview, conducted by the National Museum of American History in 1993, Bill Gates responded to a question about the significant impacts of Microsoft and stressed how important the right timing was then for the computer industry people involved. Based on these three facts about mobile phones, mobile phone use, and mobile phone behavior research, timing is just right for the field of mobile phone research to have an encyclopedia in order to celebrate the end of its intellectual adolescence and to inspire the beginning of its intellectual adulthood.
2. One is Well Established at Thirty

When Confucius told his students what his achievements were at different milestones in life, he proudly said that he was well established at 30. The science of mobile phone behavior is an established rather than emerging field of research. It has a history of nearly 25 years since Karel Brookhuis and his collaborators published their article entitled “The Effects of Mobile Telephoning on Driving Performance” in the journal of Accident Analysis and Prevention in 1991.

Since 1991, the science of mobile phone behaviors has been growing exponentially. It is estimated that approximately 4000-5000 journal articles have been published that explicitly examine the use of mobile phones across various disciplines in behavioral sciences, such as medicine, education, psychology, sociology, political science, and business. Specifically, the number of journal article publications gradually accumulated from 1991-2004, but started a particularly rapid growth in 2005. It is foreseen that the field will continue an exponential growth in the next decade due to both further fast development of mobile phone technologies and unprecedentedly ubiquitous and profound influence of the mobile phone use on human beings. Thus, the 25-year-long history, current high productivity, and particularly promising future in the field of mobile phone behavior research justify a multi-volume encyclopedia project that will make significant contributions to the mobile phone research in particular and to behavioral sciences in general.

3. Opening a Book Is Always Beneficial

This encyclopedia is intended to offer the first, definitive, and most comprehensive presentation of human behaviors while using mobile phones. It is hoped that a librarian, a student, a researcher, a clinician, a teacher, a manager, a parent, a journalist, or a policymaker would first think of this encyclopedia if they have a question regarding mobile phone behaviors. The study of mobile phone behaviors is essentially a multi-domain, multi-disciplinary field of research examining various human behaviors such as m-learning, m-banking, and m-therapy in a wide variety of domains. However, the existing knowledge has been scattered around a wide variety of disciplines such as psychology, sociology, communication, health, law, business, economics, and political science. Thus, this encyclopedia can synthesize the existing knowledge concerning a wide variety of mobile phone behaviors across a wide variety of disciplines into one single platform.

A Chinese proverb says that opening a book is always beneficial. Readers of this encyclopedia will particularly benefit in four special ways while gaining an understanding of the science of mobile phone behavior.

First, readers will be able to easily navigate the encyclopedia via its category labels. The 120 articles included in the encyclopedia are arranged alphabetically with 12 major category sections, with the most pertinent key words presented at the beginning of the category labels. These 12 category sections are:

1. **Activities and Processes:** It has 11 chapters presenting various types of activities and processes where mobile phones are used (e.g., game-based learning, cognitive multitasking, social relationship interactions, emotional communicating, and moral development).
2. **Business and Commerce:** It has seven chapters presenting various m-business activities and strategies (e.g., value-based marketing, advertising with branded mobile apps, recruiting and selection, and consumer adoption and satisfaction).
Preface

3. Communication and Daily Life: It has 12 chapters presenting various aspects of m-life (e.g., mobile phone etiquette, communication ethics, news consumption and creation, co-parenting of divorced couples, romantic relationships, religious use, and recycling of end-of-life mobile phones).

4. Discipline and Methodology: It has seven chapters presenting various topics about the science of mobile phone behavior (e.g., an overview of the science of mobile phone behavior, leading experts such as James Katz and Rich Ling, new research methods such as mobile diary methods in studying daily family life, and mobile phone sensing for research).

5. Education and Pedagogy: It has 12 chapters presenting various m-education activities and strategies (e.g., mobile learning models, literacy learning, science learning, K-12 education, college classroom, teacher education, and student assessment).

6. Effects and Impacts: It has 14 chapters presenting various effects of mobile phone use (e.g., positive effects such as facilitating students’ learning and improving people’s daily lives, negative effects such as brain tumors and mobile phone addiction, social effects such as shaping social identity and enhancing social connectedness, and cognitive effects such as developing children’s language and learning scientific concepts).

7. Healthcare and Medicine: It has 11 chapters presenting various m-health activities and strategies (e.g., mobile healthcare applications for emergency care, plastic surgery and burns, mental health and wellbeing, psychosocial interventions, child maltreatment prevention, and maternal, newborn, and child health).

8. Politics and Policy: It has 10 chapters presenting various m-politics activities and strategies (e.g., privacy management, homophily and online politics, cyberbullying as a mobile phone behavior, text messaging in social protests, and the mobile presidential election).

9. Regions and Countries: It has seven chapters presenting activities and issues of mobile phone behavior in different regions and countries such as China, Indian, French, and Mexico.

10. Technologies and Apps: It has 10 chapters presenting various hardware features (e.g., MMS picture messaging, cognitive phone, mobile games, geo-sensors, texting) and software features (e.g., 3D talking-head mobile apps, business mobile apps, and healthcare apps)

11. Traffic and Transport: It has eight chapters presenting various issues of using mobile phone when driving (e.g., conversation and relative crash risk, assessing the risk of phoning while driving).

12. Users and Special Populations: It has 11 chapters presenting various groups of mobile phone users (e.g., individuals with disabilities, autism spectrum disorders, and audio and visual impairments).

Second, readers will be able to see an overall picture of the science of mobile phone behavior. The science of mobile behavior is an emerged field of research that has examined mobile phone behavior for over 20 years. The encyclopedia is intended to produce a multi-volume authoritative reference to synthesize the accumulated knowledge of mobile phone behavior research. Specifically, it consists of four major parts: (1) an introduction of the science of mobile phone behavior (under the category of Discipline and Methodology), (2) four major sections (under the categories of Activities and Processes, Effects and Impacts, Technologies and Apps, and Users and Special Population) that focus on four fundamental elements involving mobile phone use (i.e., mobile technologies, mobile users, mobile processes, mobile effects), (3) six major sections (under the categories of Business and Commerce, Communication and Daily Life, Education and Pedagogy, Healthcare and Medicine, Politics and Policy, Traffic and Transport) that focus on six domains of mobile phone behavior (i.e., mobile business, mobile communication, mobile education, mobile health, mobile policy, and mobile safety), and (4) a conclusion presenting
mobile phone behaviors across different countries in the mobile world (under the categories of Regions and Countries). With this overall content structure, I hope the encyclopedia will provide a fundamental presentation of the past, present, and future of the science of mobile phone behaviors.

Third, readers will be able to know about both pioneering scholars and leading scholars of the science of mobile phone behavior. In each chapter, authors strived to (1) explicitly tell our readers who the pioneering scholars are and when and what their earliest work was on this topic, rather than a list of citations of recent publications and (2) explicitly tell our readers who the current leading scholars are, rather than provide a list of citations. I hope that our readers will walk away at least with a list of identified key scholars after they read a chapter. It is easy for our readers to find relevant literature but hard to know who the best scholars are without a recommendation by an expert. If our readers know who the best scholars are, they can easily find the best literature because the best scholars normally cite the best literature.

Fourth, readers will be able to read many chapters written by the new generation of promising researchers across the world. The science of mobile phone behavior is still a relatively new field of research with a history of 25 years, and mobile phone use is a truly global phenomenon. Nearly 300 authors from nearly 40 countries across all the five continental regions, including Africa, Americas, Asia, Europe, and Oceania, have contributed to the encyclopedia. Among these authors, besides pioneering and leading experts, the majority of them are active researchers who have published their empirical research in some of the best journals in more than 10 different scientific disciplines, such as psychology, medicine, business, education, communication, sociology, economics, political science, law, and computer science. They were identified and solicited based on at least four key skills needed for a strong encyclopedia entry writer: (1) strong knowledge of their own areas, (2) an ability to synthesize the exiting literature, (3) the skill to be able to write concisely, and (4) a commitment to writing an entry on time. Writers who currently and productively publish rigorous journal articles usually possess all of these four characteristics. Their current journal articles contain the best up-to-date evidence, indicating that these writers can write knowledgeably, clearly, and timely, and can integrate research findings into meaningful publications.

These researchers, including graduate students mentored by them, are the future stars in moving the science of mobile phone behavior to a new level. In fact, many chapters were written by a strong research team consisting of senior scholars, junior researchers, and graduate students, a team that has become or is becoming one of international research centers in mobile phone behaviors. Through this encyclopedia, these researchers disseminated their research work to a worldwide readership and at the same time more readers in the world will really benefit from their wisdom, knowledge, and expertise.

Fifth, readers will be able to take advantage of several specially designed features used in each chapter as learning tools to better understand the science of mobile phone behavior. First, for instance, authors of each chapter strived to define key concepts in a scientific way in the Introduction, as well as in the last section of Key Terms and Definitions in their own words. This should help readers to be familiar with key concepts in each topic. Second, in each chapter, after the References, authors suggested 5-20 readings that are important and fundamental based on their own research experience and expert knowledge. While references are specifically cited in the text, recommended readings are highly recommend for graduate or undergraduate students to further study a research area relevant to the chapter. Third, each chapter normally ends with the section of Future Directions to foresee promising follow-up research programs based on leading researchers’ representative areas of research. This will help new researchers to identify and design new research to advance the current knowledge in the science of mobile phone behavior.
4. It Takes a Village

An African proverb says that it takes a village to raise a child. Likewise, it really takes a dedicated community to complete such a large-scale project in such a short period of time for covering such a new and broad topic. I would like to thank all IGI Global staff members involved in the project, all editorial board members, all reviewers, all my outstanding doctoral students, and especially, all authors across the world. Like my experience in editing the *Encyclopedia of Cyber Behavior*, this has been another humbling and rewarding experience for me to work with about 300 authors across the world. Many of them are eminent professors, established researchers, influential writers, reputable lawyers, reasoned doctors, or senior managers and have multiple responsibilities and extremely tight schedules. But they all have contributed their strong articles within a tight timeline without financial incentives. Some of them submitted their proposals or articles when encountering serious health and family challenges. I have been deeply moved by all of the contributing authors for their high level of professionalism.

The publication of the *Encyclopedia of Mobile Phone Behavior* is a new beginning rather than an end of our intellectual odyssey. Let us continue working together to better understand mobile phone behavior so that human beings will benefit more from using mobile phones in the future.

Zheng Yan  
*University at Albany, State University of New York, USA*  
*October 26, 2014*

**REFERENCES**
