Mobile commerce has exploded in the last five years. In fact, Bank of America predicts US$67.1 billion in purchases will be made from mobile devices by European and US shoppers in 2015.1 Several factors are driving this rapid growth of m-commerce.

Growth Factors
First of all, the increasing popularity of using smart mobile devices has helped advance wireless technology and computing power. For example, modern smartphones now have four-core CPUs and 2 Gbytes of memory and are communicating through 4G LTE wireless networks.

Another driving factor is consumer demand for applications for buying and selling goods and services, as well as for online banking and bill payment. Nowadays, most banks and brokerage firms provide mobile apps for their customers to support online banking and trading.

The final factor is the rapid adoption of online commerce due to stronger security practices. For example, authentication techniques that use multiple factors or out-of-band verification are common practice now.

A variety of m-commerce products and services have thus emerged. These include mobile money transfer, mobile ATM, mobile ticketing, content (video and audio) purchase and delivery, and location-based services (local discount offers). New applications are also developing quickly. Mobile payments can be made directly inside of a mobile app running on a smartphone. Such in-app purchases can be a recurring revenue stream for developers.

In this Issue
The articles in this special issue focus on mobile commerce in the area of mobile money transfer, banking, trading, and payments.

“Mobile-Money Benefits and Usage: The Case of M-PESA,” by Allan Mugambi, Christopher Njunge, and Samuel C. Yang explores a popular mobile money service in Kenya called M-PESA. M-PESA lets people deposit, send, and withdraw funds on their mobile phones, and now it has evolved into an important payment platform that lets business send and receive payments.

The authors illustrate the business model and benefits of M-PESA using cases in person-to-person money transfer, person-to-business payment, and business-to-business payment. The authors studied the three factors that contributed to the growth of M-PESA at individual, organizational, and societal levels. The case study of M-PESA calls for a better understanding of mobile money services in a global context and for providing an effective business model to serve and advance development agencies and organizations.

“Mobile Banking and Payment in China,” by Wai-Ming To and Linda S.L. Lai, studies the development of mobile banking and payment systems in China. The authors demonstrate that the number of mobile banking and payment users is growing significantly. Furthermore, they point out that online retailing has increased 48-fold from 2006 to 2012, from 2.6 billion RMB to 1.26 trillion RMB. The authors investigate user perspectives and government regulation of mobile payment services. They also explore opportunities for growth and barriers of acceptance, including legal and trust issues for mobile banking and payment services in China.

The third article is “Barter: A Technology Strategy for Local Wealth Generation,” by Bran Knowles, Mark Lochrie, Paul Coulton, and Jon Whittle. It presents the design of a system called Barter for mobile social networking that supports local ethical trading. This system can track the money flow into businesses from the local community. The article suggests that Barter can provide more information about the flow time and location of money. Such socially relevant information might promote alternate spending behaviors.

The final article is “Secure Mobile Payment Systems,” by Jesus Isaac and Sherali Zeadally. It starts out by classifying mobile payments and then presents related security issues in designing and
deploying secure mobile payments systems. The authors discuss threats, vulnerabilities, and mechanisms for mitigating these risks. It also addresses integration issues for future mobile networks and cloud computing.

This issue also features two related departments. The IT Trends department, “Bitcoin: Benefit or Curse?” considers the pros and cons of the bitcoin crypto-currency model, while the Spotlight department, “Mobile Commerce: A Broader Perspective,” notes that ecommerce and transaction statistics are only one part of the picture when it comes to leveraging mobile commerce.

We hope you enjoy this special issue and the snapshot it provides of recent developments in mobile commerce—an area that should present significant opportunities for IT professionals in the next five years.

Reference

J. Morris Chang is an associate professor of electrical and computer engineering at Iowa State University. Contact him at morris@iastate.edu.

Joseph Williams is the Dean of the School of Business and Economics at Seattle Pacific University. Contact him at josephwilliams@spu.edu.

George Hurlburt is the chief scientist at STEMCorp, a non-profit corporation that works in the public sector to further economic development via adoption of network science to advance autonomous technologies as useful tools for human use. Contact him at ghurlburt@change-index.com.

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