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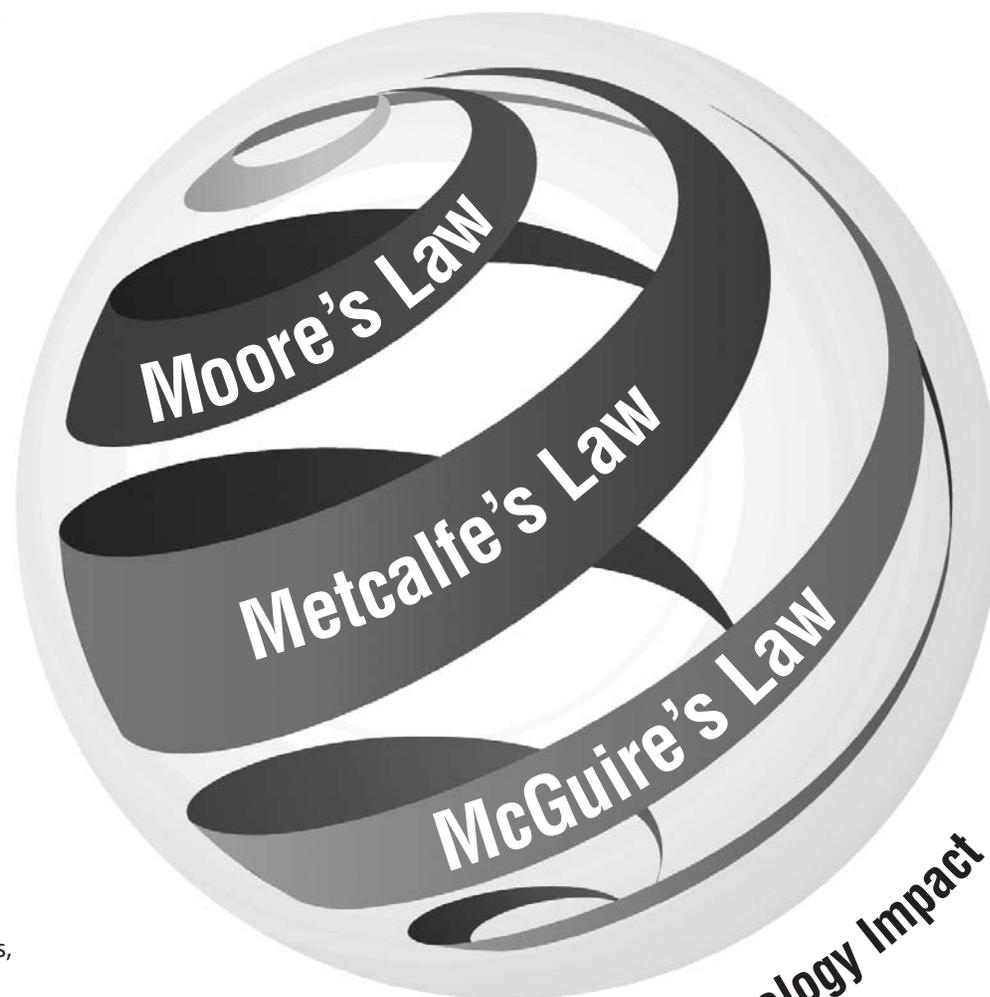


# Outpacing Moore's Law: Information Technology's Role as an Enabler

By: Kevin P. Duffy, ISOM Department, Raj Soin College of Business, Wright State University

Technology is widely recognized as an enabler of business models. When the Web appeared in the 1990s, businesses redesigned the ways in which they interacted with their customers. They became global, rather than local, and the world represented an expanded customer base. While the Web has become a fact of life since the 1990s, technology has not lost its ability to introduce new ways of enabling organizations to provide and create value for their customers, as new and inventive ways of interacting with customers continue to appear.

Much of IT's ongoing ability to enable and transform is due to the union of three technology-impacts: that of Moore's Law, Metcalfe's Law, and what's come to be known as McGuire's Law. Moore's Law is the prediction that technological processing power will double every 18 months, while costs decrease. Metcalfe's Law posits that the utility, or value, of a network is equal to the number of users squared. McGuire's Law adds mobility to this mix. Because of the scalability of these three laws, computers and hand-held devices have more power and features than ever before. Metcalfe's Law accounts for the popularity and visibility of networks, in particular the Web, and the prevalence of social media. McGuire's Law adds to this by noting that since technology costs are decreasing and that since network effects make a compelling argument for building network enabled devices, adding mobility capabilities to devices is an inexpensive means of adding even more value for consumers.



**Three Technology Impact**



While looking into technology's role in enabling business, a few noteworthy results emerged. The first of these discoveries is that successful organizations are not content to stand still once they have achieved success with their information technology operations. Hilton, for example, continued to upgrade its infrastructure. The hotel chain reasoned that many of its guests would request wireless connectivity while staying at one of their venues. Once this upgrade had been accom-

plished, Hilton sought advice and support from its vendors, passing some of the responsibility for IT product suggestions on to them. The hotel chain no longer speaks of alignment, but, instead, of collaboration with IT.

Another well-known company worthy of discussion is Netflix. Netflix began competing with other video rental operations by allowing its members to select titles online, and to create a wish-list of rentals. When a particular title is available, Netflix would mail this to the customer. The rental came without due dates and/or late fees. Once a video was returned to Netflix, the next title on

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the member's wish-list would be mailed out. Netflix, too, was not sitting still on top of a successful model, as the company is encouraging its members to stream videos directly into their home. A goal of the company (for some future, far-off date) is to discontinue mailings and move to streaming and downloads only.



One surprise is the exciting and innovative ways in which companies are incorporating apps and mobility into their customer communications. Hilton, for example, has the ability to ping a customer's phone. When they determine that a customer is in the area, the staff can prepare to greet the customer by name upon their entry into a hotel.

One start-up company revolves around the love of amateur basketball. Sportaneous, currently operating in New York, provides an app which allows

one to identify a current location, in order to determine if there are any "pick-up" games needing players. Alternately, a potential player might specify a location in order to invite nearby players who might wish to join in the fun! ebookfling.com has built a business around allowing customers to lend and borrow electronic books. This is possible because of the lending feature found on Nooks and Kindles. For a small fee, one can arrange to borrow a book for a 14-day period (when the period expires, the book



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“disappears”). In turn, lending a book is rewarded with a credit which can then be used to allow the lender to borrow from another reader. BestParking.com allows drivers in Manhattan and Brooklyn to determine the availability (and rate) of nearby parking. StoreFlix is using an app which incorporates the adage of “a picture is worth a thousand words” into assisting corporations in managing their inventory and stock levels.

Truly exciting and innovative ways of utilizing information technology are helping firms to better interact with their customers, and to find new ways of offering their products and services! In the hands of innovative organizations, technology is once again proving itself capable of enabling and facilitating today’s businesses.

*Kevin P. Duffy is an Associate Professor in the ISOM Department, Raj Soin College of Business, Wright State University. Kevin teaches at both the graduate and undergraduate levels, in courses such as IT and Business Transformation, Technology-Enabled Business, Business Process Management, and Systems Analysis and Design. He joined the faculty of Wright State in 2004. He can be contacted via email at kevin.duffy@wright.edu.*

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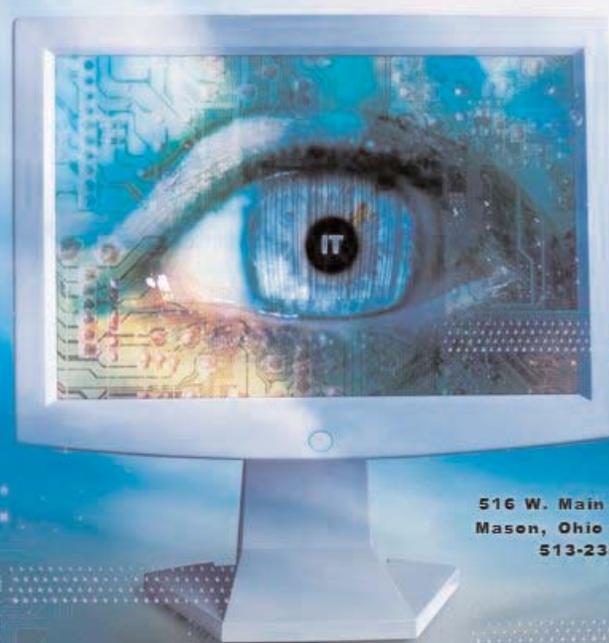


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