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BY PIERRE BERTHON, LEYLAND F. PITT, AND RICHARD T. WATSON

From Genesis to Revelations: The Technology Diaspora

THERE ARE TWO WAYS OF THINKING ABOUT TECHNOLOGY. The popular instrumental view positions technology as a means to an end. Alternatively, technology is also a mode of revelation: a revealing of hitherto latent potentialities in nature and society. It offers insights about the direction of society, business, and science, and those who are quick to act on a revelation often create the next generation of technology and forge pioneering business ventures. This article reveals a framework for understanding and anticipating the dispersion of information systems technology.

Organizations don't only use information systems to implement strategies; in many instances information systems create new emergent strategies. Similarly, while information systems may be used to satisfy the needs and wants of organizational customers,

just as (if not more) frequently they create new needs and wants, indeed, they can be said to create new customers. This creative, emergent nature of IS has been highlighted in the organizational arena,⁹ but neglected in the consumer IS market. For those who deal frequently with technology, frameworks that explain its dispersion and adoption are useful navigation aids for mapping future directions and understanding detours.

IS research on emergent phenomena has been almost exclusively confined to the hierarchical environment of the organization. Yet the hierarchy is only one of four domains of economic activity. Transaction cost economics original identification of firms and markets as two approaches to organizing economic activity¹ was extended to embrace networks.¹⁰ More recently, as a result of the emergence of open source, a fourth sector has been identified, which is variously labeled bazaar, peer production, or community.¹¹ The three other domains (for example, markets, networks, and communities) are not subject to the same intensity of control that exists within the bureaucratic confines of a hierarchy. The greater freedom means that they are potentially much richer environs for reinvention and studying the technology diaspora from genesis to revelations.

In order to better understand the trajectories that an IS might assume in and beyond the confines of the organization, we propose the model shown in Figure 1. The possible categories of how technology relates to the developer's original intentions are: extension, conversion, subversion, diversion, emersion, and aspersion (see Figure 1).² Our choice to focus on intentions is indeed deliberate, because actions in a social setting are guided by individual intention. Designers have intentions and those who repurpose a technology also have intentions, even if they are at variance with those of the original designer.

Genesis

From a genesis perspective, technology is created, in direct response to an expressed or perceived consumer need. It is