

DISCOURSE PAPERS

ICT: THE CORE BUSINESS OF INDUSTRY

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ABSTRACT

I argue that information, communication, and technology (ICT) are *the* business of modern industry. These elements must be mastered to succeed in the global marketplace.

ICT: The core business of industry

All modern industries use and are impacted by technology. Businesses rely on communication for survival. Information is something all organizations possess. These three statements taken as a whole comprise a fact that often goes unrecognized. No matter a business's industry, competitive market, or products and services provided, information, communication, and technology (ICT) are at the center of most business. Therefore, I argue that ICT is the business of most industries. The understanding of a business as an "Information Age Organization" (IOA) also has social implications.

Information is the most valuable property of an organization. Information is any symbol(s) that conveys meaning; it is a *form* of meaning. Without information a business is meaningless, hence valueless. Imagine a company with no *meaning symbols* (e.g., product images, service descriptions). Also, there is a thin line between data and information, the later being relative based on various factors including understanding and need (Debons, 2008, p. 9). An organization's information is of value, primarily because it has meaning for someone (or something). No matter the business, there are similar types of information in all of them. Examples are employee information, customer information, product/service information, financial information, organizational information and so on. Whether for good or bad, information is used internally by managers and employees to make informed and relevant decisions. Information is also shared, sold, and used externally between businesses for various purposes. In a global market and economy this trade is necessary. Again, a modern business will not exist or have economic value without information.

This usage or conveying of information (meaning symbols) between organization-customer, manager-subordinate, organization-employee, organization-organization, implies communication. Communication is a form of transmission that takes place between a sender and a receiver. Claude Shannon (1948) suggested that communication must also include an transmitter (encoder), receiver (decoder), channel, and a message. Using such a model to frame business communication is tricky because there are many different "things" playing the role of encoder and decoder depending on the message (information) being transmitted. Still, communication is a process of meaning being conveyed between two entities. We should also note that communication is not merely a telling of information

via a code, but communication is a sharing in a communal sense emphasizing the relationship between the sender and receiver (Barney, 2000, p. 29). This becomes more clear when considering communication as it relates to organizational culture and frames such as *power distance* as disclosed by Hofstede (2010). A business is valueless with no information and by the same logic is valueless if it is unable to communicate information (based on a relationship). Thus, I argue that communication is just as essential to an organization's survival.

If information is essentially a form of meaning and communication is a theoretical process for transmitting meaning, there must be a physical *means* for communicating information. This is a necessity and technology provides the solution (whether this is good or not is another discussion). In this essay, I define technology as modern information, communication, and media technologies that provide the architecture for business functionality (e.g., the Internet, hardware, software, cabling, protocols). Carr (2003) has argued that infrastructural technology is a necessity, as opposed to an advantage, for doing business in the modern world. A company does not have a choice about using certain technologies to communicate information with its customers. For example, a bank would not survive in the marketplace if it did not have technology in place to facilitate the information communication that is online banking. Few companies could communicate service, contact information, and provide customer *feedback* (another component of the Shannon-Weaver model) without servers, applications and connections in place to serve a website, email, and customer tracking. At this point in history, technology has become the paradigm upon which all business models build and will remain as such until a revolution, fueled by social concern, occurs (Kuhn, 1996). Thus, technology is the essential means of communicating information making it as necessary as its counterparts.

A business must have information to be of value. A business must communicate information to be of value. A business must use technology as a means of communicating information to be of value. Due to these factors, ICT is the core of business. The result is that businesses, as entities, must become *professionals* at information, communication, and technology. Professionals, meaning, the "Information Age Organization" must master the creation and management of information and its communication via technology internally

and externally. In reality, the primary business of the IAO is ICT, not the physical manifestations of business information known as products and services. This is evidenced by the growth in business investment in information and communication technologies in the past several decades (Carr, 2003). Not only that, but an entire science and accompanying library of literature have evolved around the convergence of these terms. Dozens of theoretical models have been developed in an effort to better understand the ICT world ("Theories used in IS research," n.d.). And though products and services could be considered forms of information, along with the other information types previously discussed, a business without ICT is out of business or will be soon. This stresses the point that ICT is the primary business in most industries.

Information, communication, and technology are objects and means wielded within an organization to create and maintain itself. This means ICT is inherently social and political. For example, using the Bolman-Deal (2008) *political frame*, if a leader within an organization is going to manage and maintain control internally and externally s/he must understand ICT as objects and means of political motivation and power. Also, ICT will inherit the attributes and contribute to the construction of its frame, be it political, structural, human capital, or social. One of the IS theories that has been introduced, but received little attention in the U.S., is the *social shaping of technology* (SST), which attempts to investigate the ways social, economic, and institutional factors shape the direction of innovation, forms of technology, and practices and outcomes for different groups, be they societies or organizations (Williams & Edge, 1996). For this discussion, we could apply the SST theory to businesses. In what ways have businesses, as social, economic, and institutional actors, shaped technology and practices for other businesses? Business is shaping ICT and vice versa. And social and economic ICT effects are not only local in the information age, but global. This is largely due to businesses either communicating information via technology or encountering "noise" (Shannon-Weaver), again thanks to ICT. It would seem that ICT is *hermeneutical* (Heidegger, 1962).

There is no doubt that information, communication, and technology are all equally essential to the value and survival of the information age organization. ICT is not only essential, but as a whole it is at the core of business. The modern organization must master

these elements in order to succeed in a global economy and marketplace. Concurrently, industries must understand the social, economic, and institutional aspects and effects of ICT.

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