Digitization, Digitalization, And Digital Transformation: Confuse Them At Your Peril

As the hype around digital transformation continues to persist, the terms ‘digitization’ and ‘digitalization’ join the fray, increasing the level of hype while adding confusion.

In reality, these three terms have distinct meanings – or at least, we can make them distinct depending on which authority we’re listening to.

This question is more than a semantic exercise, however. In reality, people are confusing them in ways that shortchange the power and importance of digital transformation, thus putting the very survival of their organizations in peril.
Digitization: The Straightforward Term

Digitization essentially refers to taking analog information and encoding it into zeroes and ones so that computers can store, process, and transmit such information.

According to Gartner’s IT Glossary, “Digitization is the process of changing from analog to digital form” – a definition few would disagree with.

There are many examples of digitization in enterprises today, as there have been for many decades. Converting handwritten or typewritten text into digital form is an example of digitization, as is converting the music from an LP or video off of a VHS tape.

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In the enterprise context, digitization is important both for dealing with analog information as well as ‘paper-based’ processes – where ‘paper-based’ is nothing more than a metaphor for analog.

It’s important to remember, however, that it’s the information you’re digitizing, not the processes – that’s where digitalization comes in.

**Digitalization: Fraught with Ambiguity and Confusion**

Unlike digitization, digitalization doesn’t have a single, clear definition. “‘Digitization’ and ‘digitalization’ are two conceptual terms that are closely associated and often used interchangeably in a broad range of literature,” explain J. Scott Brennen, Doctoral Candidate in Communication, and Daniel Kreiss, Associate Professor, both at the University of North Carolina School of Media and Journalism. “We refer to digitalization as the way in which many domains of social life are restructured around digital communication and media infrastructures.”

Brennen and Kreiss thus base their definition of digitalization on social life – in other words, how people interact. As such interactions move away from analog technologies (snail mail, telephone calls) to digital ones (email, chat, social media), both work and leisure domains become digitalized.

Gartner also weighs in on this term. “Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities,” according to Gartner’s glossary. “It is the process of moving to a digital business.”

Gartner’s definition is thus quite different from the academics’, focusing on changing business models rather than social interactions.

The Gartner definition, however, does bring up another question – just what is a ‘digital business.’ “Digital business is the creation of new business designs by blurring the digital and physical worlds,” Gartner’s glossary espouses.
Unfortunately, this latter definition is hopelessly vague. What is the digital world? What does it mean to ‘blur’ worlds? And for that matter, what is a ‘business design’?

In fact, it appears that Gartner is not of one mind on its definition of digitalization, as a recent Brookings Institute report quotes an entirely different one. “Digitalization, according to Gartner, Inc., is the process of employing digital technologies and information to transform business operations,” according to the report Digitalization and the American Workforce by Mark Muro, senior fellow; Sifan Liu, data analyst; Jacob Whiton, research assistant; and Siddharth Kulkarni, former research analyst; all from the Brookings Institution. Kulkarni is now data science manager at Adobe.

According to this definition, digitalization is more about business operations than either social interactions or business models – although clearly all of these notions are interrelated.

The Brookings report, in fact, focuses on how digitalization impacts people. “Digitalization is transforming the world of work,” according to the report. “The acquisition of digital skills has now become a prerequisite for individual, industry, and regional success.”

As organizations implement ‘digital technologies’ – which in this context really means computers and other information technology – people’s jobs change. Imagine factory workers putting down their hammers and lathes and instead using computer-controlled equipment, for example. According to the Brookings report, such change is at the heart of digitalization.

Automation is a major part of the digitalization story, whether it be shifting work roles or transforming business processes generally. In fact, for many people, digitalization applies primarily to such processes. “Digitalization ... increases process efficiency and improves data transparency, and of course, it should help boost your top line,” explain Georg Tacke, CEO, and Annette Ehrhardt, Global Head of Communications & Marketing Senior Director, Simon-Kucher & Partners. “If you operate an online platform, then your company may already be 80
percent digitalized, and you can gain more efficiency or create more customer value by going the remaining 20 percent of the way.”

In this example, implementing the technology behind such an online platform isn’t the digitalization step per se – it’s shifting the business process to such a platform. It seems, therefore, that Gartner’s definition that ties digitalization to business operations is on point, as such operations consist of business processes that digital technologies can transform.

**Digital Transformation: Beyond Digitalization**

Digitalization, however, is quite distinct from digital transformation.

An organization might undertake a series of digitalization projects, ranging from automating processes to retraining workers to use computers. Digital transformation, in contrast, is not something that enterprises can implement as projects.

Instead, this broader term refers to the customer-driven strategic business transformation that requires cross-cutting organizational change as well as the implementation of digital technologies.

Digital transformation initiatives will typically include several digitalization projects, but executives that believe that there is nothing more to digital transformation than digitalization are making a profound strategic mistake.

In reality, digital transformation requires the organization to deal better with change overall, essentially making change a core competency as the enterprise becomes customer-driven end-to-end. Such agility will facilitate ongoing digitalization initiatives but should not be confused with them.

In the final analysis, therefore, we digitize information, we digitalize processes and roles that make up the operations of a business, and we digitally transform the business and its strategy. Each one is necessary but not sufficient for the next, and most importantly, digitization and digitalization are essentially about
technology, but digital transformation is not. Digital transformation is about the customer.

Intellyx publishes the Agile Digital Transformation Roadmap poster, advises companies on their digital transformation initiatives, and helps vendors communicate their agility stories. As of the time of writing, none of the organizations mentioned in this article are Intellyx customers. Image credit: leighklotz.

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