

The convergence of the Business and Technology Domains in the Digital World

By Luis G Anderson

Summary

The motivation for this article came from the topic discussed during the ITSM CROWD hangout of Jan 30, 2019 ("Trends for 2019"). Andrea Kis (@AndieKis) linked the *"definition of a trend to the concept of mindset"*. And Simone Jo Moore (@simonejomoore) made comments about *"content, pattern and behaviours linked to role-focus in organizations, how mind-sets are applied, BRM, innovation, VeriSMTM as a bridge to other practices."*

The explosion of practices is creating a confusion to most of organizations, becoming barriers between IT and the rest of the organization; that could cause isolation, each one in its own Domain, and distancing themselves more and more and with less possibilities of finding a "common ground" that unites them. On the other hand, *everything will be "connected", and everyone will demand connection between the physical world and the digital world [1]*; a fact that depending upon how the organization responds in the present will determine the fate of its business: success or failure.

The viewpoint of a *mindset*, capable of reversing the advancement of divergent paths between the Business Domain and the Technology Domain, was explored. And an attempt to respond to the question How VeriSMTM and the CANVAS models complement each other and can help find a common ground between them? was explored, too.

It was used the metaphor of the "hemispheres of the brain" to describe how the Domains converge thru a "mesh of nerves" where information and knowledge are exchanged. The intersection point of both domains has been the object of my professional career in different capacities: Manager, Facilitator, Consultant, and Mentor.

Convergence is an area of compatibility and synchronicity between various domains, for example the space where business and technology, as a holistic and structured management system, connects.

To operate in a digital world is to unlock the organization from old paradigms and to discover models of operation that allow it to grow. Success in the digital world [2]

- requires being open to revisiting your entire way of doing business and reconsidering the meaning of value from the consumer's perspective.
- means being in close harmony to the customer to understand his/her decision process in the widest sense.
- means rethinking how to use existing or new capabilities to improve how customers are served

If an organization wants to stay competitive in the future, it must embrace "the digital world".

In the "digital world" the relationships between business, technology and information whilst engaging with customers must be revisited and reassessed; in particular, the nature and scope of the links between these domains, and the ways in which they influence each other. It is no longer possible to consider business, technology, and information without thinking simultaneously about any of the others. For example, they are all necessary for an organization to focus on what matters most—core value propositions, competitive advantages, human and organizational needs, and the data and technologies to tie them together. [3]

Business models cannot exist without enabling technologies and information which support business models and processes that serve the interests of consumers.

Whilst the digital world contributes to the disappearance of the borders between domains, there is still an area of synergy between technology and business in which the information flows and the exchange of knowledge happens. For example, business strategies and corporate decisions may be influenced by technology advancements and changes, and operational business models enabled by technology are derived from business strategies.[4] (fig.1)

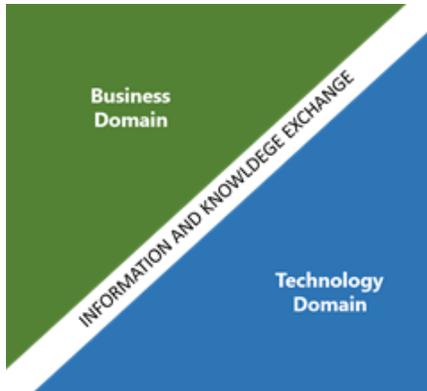


Fig.1 Business and Technology Domains

Think about the business and technology domains as the two hemispheres (left and right) that are part of a single complex system (the brain). No part alone would achieve much; the power of the system rests on how these two work together. Both halves play important roles in logical and intuitive thinking, in analytical and creative thinking that triggers actions. This is accomplished by multiple processes—some of which may operate better in the left hemisphere and some of which may operate better in the right hemisphere—but the overall functions cannot be said to be entirely the domain of one or the other hemisphere. [5]

The business and technology sides in many organizations still behave like two separate hemispheres of the same brain. The business side processes information and determines action in terms of revenue targets, products, customers, suppliers, organizational capabilities, and the like. The technology side processes information and determines action in terms such as applications, systems, data, and throughput. There has been a traditional bias exhibited by the “dollars and cents” half against the “engineering” half. The business doesn’t always understand its other half and typically expects the technology side to behave and act exactly like itself. [6]

And far from having separate “lives”, the two halves are not isolated systems that compete, they are designed to work together. Both hemispheres are connected by the *corpus callosum* (‘a broad band of nerve fibers joining the two hemispheres of the brain’) to serve the body (the whole organization) in different ways. [5]

The brain is a single, marvellously complicated, and deeply integrated system. Likewise, the entire organization; hence the Business Domain and Technology Domain are not isolated systems and should be designed to work together based on the exchange of information and knowledge sharing.

Without good synergy, the most likely outcome is “too much, too little, wrong, expensive, resources wasted and unreliable technology and information” supporting business models that may or may not meet the expectations of the consumers they serve or exceed the potential of the business.

Indeed, organization should strive for a more “whole-brained” set of behaviors, norms, and practices. The business and technology halves need a unifying management system that can connect them and facilitate their coordination as a whole. [6]

True business-technology convergence assumes that the existing or new business model will occur with immediate reference to the technology and the information that enables them, along with management practices necessary to integrate them [9]. Knowing that business models are built, not in a vacuum, the convergence also considers the environment in which they operate and compete with others.

When developing a new business model (or improving the existing one), ask (from the perspective of the business-technology-information relationship): If the model is capable or not (sub-optimized either over- or under-spend) to properly respond to the requirements of the consumers, when considering the technology used to support the operation or the information on which the design was based?

If an enterprise does not understand its competitive advantages and its current and future business model, not only will fail in the market place, it may also be tangled in a web of data of no real value and potentially waste important financial resources on unnecessary or irrelevant technology along the way.

Information is the greatest asset; the key to success is discovering, accessing and managing valuable sources of (existing) information related to the consumer, the business and the technology though. The real, fundamental question of our digital age is: What else can be information-enabled?

A successful “digital journey” is dependent on an effective convergence of business, technology and information. It is through this convergence that an organization can evolve from being technology-supported to being technology- and information-enabled businesses [7]. But in general, organizations are struggling with such transition: **from** technology-supported **to** technology- and then information-enabled business models.

What facilitates the convergence of Domains?

Transitioning from IT Service Management (ITSM) to Enterprise Service Management (ESM) is also an evolutionary step that aims to facilitate the convergence of Domains.

It is a fact that the management of services has gained more and more importance in multiple industries and companies.

The concept of service management has expanded_beyond IT into other areas of any organization, making almost all business functions dependent on IT.

The growing dependence on IT causes the Business Domain to trust IT_TEAMs as the ‘experts’ implementing technologies to support business models and processes. Therefore, the perception is that *‘everything is about IT’*; a common saying that has led in some instances to ‘value traps’ [8] (“practices and behaviours that at the time may seem correct, but that actually lead to trouble”) because there are cases where an IT_TEAM has not been able to completely fulfill its promise.

Value traps creates barriers between IT and the rest of the organization, that put at risk the transition to technology-enabled and information-based business models.

Escaping the value traps requires breaking old paradigms and developing new ones to produce real and perceived value which makes possible a successful transition. For example, accepting that *everything is NOT about IT*.

The transition should be thought of as an inclusive development that blends individual departmental approaches into common and shared processes, systems and technology across the organization. It requires organizational change just as much as a technological change. It requires strong leadership, clearly articulated vision and business goals, and clear communication and collaboration between departments. [11]

The concept of service management has evolved

FROM

"the management of services delivered to the business by IT teams"

TO

"the management of solutions (products & services) delivered to the consumers in order to satisfy their expected outcomes by Business teams (organizational capabilities)".

The implications are noteworthy: all parts of the organization are contributing and collaborating to deliver value in the most effective and efficient way. [11]

Coincidentally or not, this is the foundational concept of VeriSM™ [4]:

- Everyone works together and contributes to the creation of solutions.
- It is not only for one area of the organization.
- It is part of the role played by people in the organization, regardless of the level in the hierarchy.
- It is an organizational (essential) capability, and
- technology is enabler of the business model and its processes, products and services.

Something that has not changed in the progression of Service Management and still is a need to be fulfilled: improving operational efficiency while driving service excellence.

Also, there is a new fundamental requirement: The need of *consistency across* the entire organization due to the increased compartmentalization of specialized knowledge, know how, practices, tools, etc. and the existence of multiple layers of comparable functionalities (duplication of efforts) that are present in some organizations, which adds a higher level of complexity.

If consistency is not attained, the proliferation of *islands of excellence* (silos) becomes difficult to support and a distraction from the main 'object of affection' of the business: The Consumer.

Modeling the Business Domain through CANVAS

Osterwalder's work proposes a *single reference model*, based on common elements that are present on a wide range of business.

The **Business Model Canvas** (Fig. 2) [12] ("a Business Model on one page") is a visual chart with elements describing an organization's customers, business value proposition, supporting infrastructure, and finances. It helps create value for your business.

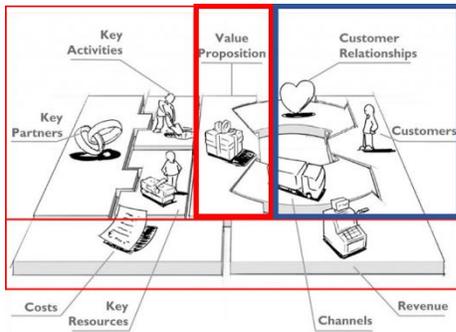


Fig. 2 adaptation of Business Model Generation, Osterwalder and Pigneur, 2010

The **value proposition Canvas** (Fig.3) [13] condenses and collects the essential value of product or service to be delivered by service provider. It helps create value for your customer. The Value Proposition Canvas has two sides. With the customer profile (right side) you clarify your customer understanding. With the value map (left side), you describe how you intend to create value for that customer. You achieve FIT between the two, when one meets the other.

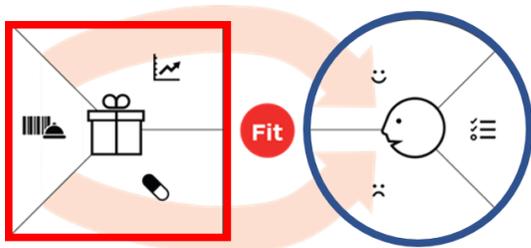


Fig. 3 adaptation of Value Proposition Design, Osterwalder et al., 2014

Both templates help when documenting new or existing business models, customer segments, and delivery of value. Both models are built based on answers given to a series of questions related to a specific area. Both are good enough to accurately document the Business Domain (Fig. 4)

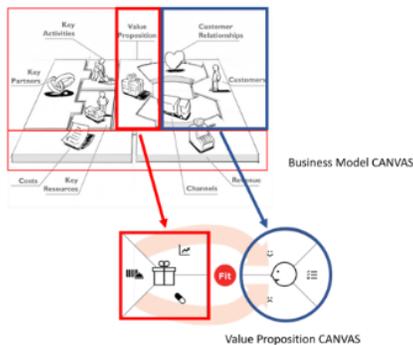


Fig. 4 Business Domain CANVAS

How the Management Mesh facilitates the exchange of information between the Business and Technology Domains

As was mentioned earlier through the metaphor of the brain, the *connective tissue* of both Domains ('hemispheres') from the viewpoint of VeriSM™ happens via the Management Mesh ('*corpus callosum*' of the service provider) (Fig. 2) by means of the exchanging information and transferring knowledge.

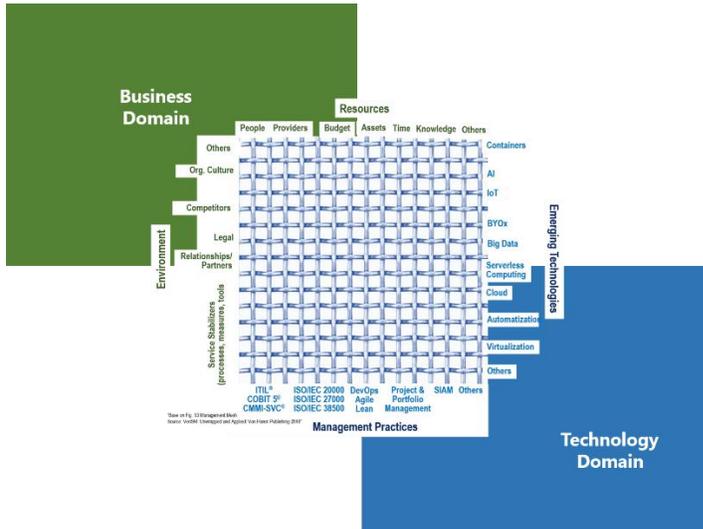


Fig. 2 Management Mesh connects the Domains

The management mesh [14] provides an enterprise view of the service provider and captures organizational-wide **resources** (people, budget, skills, knowledge...) and **environmental** operating factors (legal and regulatory requirements, competition, current operational practices...). The resources and the environment 'sides' (**Business Domain**) are a direct outcome of the guardrails defined within the Service Management Principles. These two sides will influence the management practices as well as the technologies used (**Technology Domain**) to meet the requirements.

The Management Mesh also represents how resources, environment, management practices and emerging technologies will integrate and operate together to deliver service value. This is where the 'synapses' occur between the 'dendrites and axons' (artifacts of the mesh mentioned) to exchange 'impulses' (information and knowledge) between them.

The mesh provides the flexibility to use and exploit the multitude of management practices available today as well as emerging technologies, (Technology Domain) while maintaining a close tie to the organizational environment and resources (Business Domain).

The mesh provides the 'plasticity' to 'mold' itself to requirements while staying true to the enterprise governance, principles and organizational portfolio (Business Domain). It allows the organization to continually evolve and transform by providing options for the design, development and operation of products and services, rather than being 'stuck' in one way of working.

Also, VeriSM™'s organizational portfolio illustrates how capabilities and associated resources (Business Domain) enable specific value streams that deliver ('fit') customer needs ('expected outcomes').

How might the CANVAS Model and VeriSM™ collaborate to facilitate the convergence of the Business and Technology Domain?

The CANVAS Models (Business Model and Business Value Proposition) provide a singular visual map of a business model's environment with markets, trends, customer needs and, competitors. This makes the operating model more tangible and will allow the organization to uncover new associations, discover new patterns, and ultimately lead to new business model ideas.

The CANVAS contributes with templates that are appropriate to define multiple value propositions (like a portfolio of value propositions or the *organizational portfolio* in VeriSM™ terms) and corresponding models, based on customer segments and profiles.

VeriSM™ 's organizational portfolio [14] illustrates how capabilities and associated resources (Business Domain) enable specific value streams. The value streams depicted within the organizational portfolio represent a high-level view of how products and services meet consumer needs within a market space. The CANVAS could be used to validate whether products and services delivered through the VeriSM™ model met customer expectations.

Through this type of visualization, the adoption and deployment of VeriSM™ and use of the CANVAS (Fig. 3) in organizations looking to strengthen their value driven Service Operational Model, would consolidate in one view the interaction between the said Domains for the benefit of the consumer.

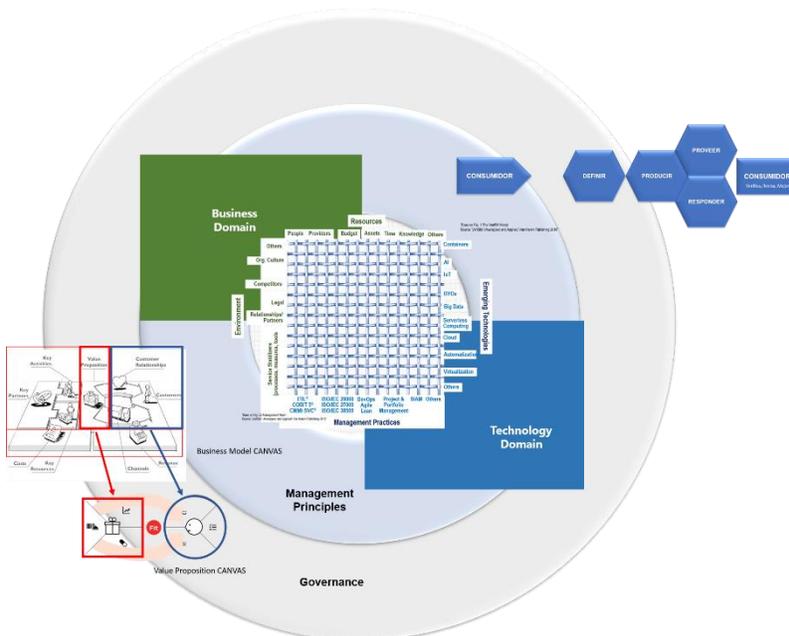


Fig. 3 Convergence of Domains via CANVAS and VeriSM™

Both the CANVAS and VeriSM are reinforced by **Governance** - the supporting systems of directing and controlling the activities of the organization [4] and **Service Management principles** – based on governance, they are guidelines for the decisions and actions; the essential, underlying factors that form the foundations of successful service management.[4]

Table 1 shows at high level the correspondence and complementarity that exists between the VeriSM™ Model and Business Model CANVAS.

VERISM™	CANVAS	
Governance, Service Management principles, Strategic Plans, tactical and operational plans	Customer Segments Defines the different groups of people or organizations an enterprise aims to reach and serve	CUSTOMERS
Start and end with the consumer	Channels Describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition.	
Emerging Technologies (product/service enabler or digital channel)	Customer Relationships Describes the types of relationships a company establishes with specific Customer Segments.	
Service Management Principles	Value Propositions The value proposition condenses and collects the essential value of products and services for the Customer Segment.	VALUE PROPOSITION
DEFINE activities	Key Resources Describes the most important assets required to make a business model work	SUPPORTING INFRASTRUCTURE
Organizational Portfolio and Value streams	Key Activities Describes the most important things a company must do to make its business model work.	
Management Mesh	Key Partnerships Describes the network of suppliers and partners that make the business model work.	
DEFINE, PRODUCE, PROVIDE, RESPOND	Cost Structure Describes all costs incurred to operate a business model	FINANCE
Service Management Principles and DEFINE activities	Revenue Streams Represents the cash a company generates from each Customer	

Table 1 VeriSM™ and Business Model CANVAS

To learn more about the CANVAS and what it is, and how to create and use a Business Model and Business Value Proposition CANVAS please see references to [12] and [13].

Key Take away

The path of progress will move from alignment to synchronization to true convergence of business, technology and information. Increasingly, this will be the source of all dramatic competitive successes in today's marketplace. So, it is when they collaborate with each other, in other words: "run together".

To reinforce this thinking, here it is reiterated the importance of *"the management of solutions (products & services) delivered to the consumers in order to satisfy their expected outcomes by Business teams (organizational capabilities)".*

Both VeriSM and CANVAS are an extraordinary ally to make convergence possible. I invite you to discover how they will collaborate in your convergence initiatives.

Acknowledgement

I owe particular thanks to Claire Agutter (Chief Architect of VeriSM™ content) for her review and comments. She is an excellent facilitator for things to materialise as it happened with the creation of VeriSM.

VeriSM™ is a trademark of IFDC

About Luis G Anderson

Venezuelan-Canadian living in Toronto. Grateful for having been a member of the international team that contributed in the creation on VeriSM: Unwrapped and Applied. The intersection point of both domains has been the object of my professional career in different capacities: Manager, Facilitator, Consultant, and Mentor; particularly in the LATAM Region.

About IFDC

IFDC- the International Foundation for Digital Competences - is a non-profit organization, whose aim is to develop and evolve Service Management together with the community. The goal of IFDC is to develop, own, maintain and promote (open) standards for the development of professionals in the digital era. IFDC took the initiative to create VeriSM™ approach and developed in cooperation with an international team of experts lead by Claire Agutter (winner of ITSM UK Thought Leadership Award 2017).

References:

1. "Convergence between the physical world and the digital world"; David Morales (CTO Chapter Lead at Accenture); September 4, 2015; [<https://www.linkedin.com/pulse/convergence-between-physical-world-digital-david-morales>]
2. What 'digital' really means; David Edelman and Karel Dörner; McKinsey Digital; July 2015; [<https://www.mckinsey.com/industries/high-tech/our-insights/what-digital-really-means>]
3. "Competing in a world of sectors without borders"; Venkat Atluri, Miklós Dietz, and Nicolaus Henke; Digital/McKinsey: Insights January 2017; [<https://www.mckinsey.com/business-functions/mckinsey-analytics/our-insights/competing-in-a-world-of-sectors-without-borders>]
4. "VeriSM™ A Service Management Approach in the Digital Age"; C. Agutter, R. England, S. D. Van Hove, R. Steinberg; Van Haren Publishing, 2017
5. "Left Brain, Right Brain: Two Sides, Always Working Together"; Stephen M. Kosslyn, Ph.D. and G. Wayne Miller; May 07, 2014 [<https://www.psychologytoday.com/us/blog/the-theory-cognitive-modes/201405/left-brain-right-brain-two-sides-always-working-together>]
6. "Winning The 3-Legged Race: When Business and Technology Run Together", by Zmud, Trainer, Hoque, Sambamurthy, Wilson; November 2005; ISBN: 0131877267
7. "Business-It convergence:5 transformation challenges every company must tackle to become technology-enabled"; Floris de Bruin and Mirjam Hachem; samhoud-2018; [<https://inspiration.samhoud.com/2018/03/it-business-convergence-five-transformation-challenges-every-company-must-tackle-become-technology-enabled/>]
8. "The real business of IT. How CIOs Create and Communicate Value"; R. Hunter & G. Westerman; HBP 2009
9. "How to Scan Your Business Model Environment for Disruptive Threats and Opportunities?" By Nabila Amarsy; October 15, 2015
10. "The 2nd Digital Revolution: Conversations About Business Technology Convergence"; Steve Andriole, CyberTech Publishing (28 February 2005)/ IGI Publishing Group - ISBN 0330234226
11. How ITIL4 Opens the Door to ESM; Doug Tedder; March 21, 2019 [<https://www.dougtedder.com/2019/03/21/itil4-leads-esm/>]
12. "Business Model Canvas"; <https://www.strategyzer.com/canvas/business-model-canvas>
13. "Value Proposition Canvas"; <https://www.strategyzer.com/canvas/value-proposition-canvas>
14. "VeriSM™: Unwrapped and Applied"; C. Agutter, J. Botha, S. D. Van Hove; Van Haren Publishing 2018