THE ICT ADVISORY CANVAS: AN HOLISTIC MODEL COVERING IT AND THE ENTERPRISE. (TICTAC)
Who are we?

Trusted by governments, large, complex corporations and disruptive innovators, at ELCA Advisory we are as comfortable in the boardroom as we are in the server room. Driven by a relentless desire to make our clients’ ideas a reality, our approach is highly consultative and spans two key practice areas:

- ICT Advisory (strategic directional consulting for your ICT organization).
- Professional Services (support for business analysis, project management and test management).

In effect, we act as the bridge between Business and IT, actively enabling our clients to develop new products, markets, models and ways of working – now and long into the future.

Why we developed it, and why it’s yours if you want it. No strings.

Thinking digital first and foremost is imperative for all but a few organizations. Use the ICT Advisory Canvas to help you develop a plan to enhance the IT function and manage new challenges at an holistic and high level.
Whitepaper

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Digital transformation is just one disruption.

In the last four years 90% of enterprises faced a disruptive turn [1], and studies suggest up to 55% of leading firms will drop from their industry top 10 due to digital disruption [2].

Apart from world-shaking upheavals such as the Covid pandemic, common disruptions affecting CIOs include organizational transformation, severe pressure on operating costs, shifting customer expectations, new, game-changing technologies, regulatory intervention, competition from new entrants, and many other changes in the business environment.

IT has become part of the backbone of the enterprise, and the complexity of the IT landscape has increased dramatically in almost all dimensions: technologies, vendors, regulations, processes, use cases ... so developing a digital strategy that covers the entire enterprise has become a major challenge. What follows will help you meet and master the challenge.

We created the ICT Advisory Canvas to support clear and pragmatic guidance in a turbulent world. Drawing on 50 years of experience in IT and over 1,000 projects in the Swiss market, the ELCA Advisory team has designed a simple, elegant tool to analyze the Business-IT ecosystem using just a few building blocks.

This straightforward model helps our clients quickly gain insights into where their IT is today, where it needs to go, and how to get there. But it's much more. It's a powerful tool to align Business and IT in organization-wide initiatives such as Digital Transformation and Lean-Agile Adoption.

We've been using the ICT Advisory Canvas successfully for quite some time, and in many situations, and now we're introducing and sharing it publicly.

This whitepaper gives you an overview of our Canvas, and enough explanation so you can start using it for yourself quickly.

Feel free to request assistance from our Advisory team at any time.
Understanding the ICT Advisory Canvas

At its core, the ICT Advisory Canvas is simply an ontology; that is, a way of showing the properties of a subject area (here, IT and the Enterprise) and how these properties are related. We use the following visual to represent the core Canvas:

This background is overlaid with a set of six blocks that represent a model for the enterprise:

- The products and services that the company provides.
- The capabilities and the organizational structures needed to provide these products and services.
- The processes underlying the capabilities, along with the policies that frame them.
- The people performing the actual work, their skills and competencies, as well as the culture and ethics that guide them.
- The data created or used by the people and processes as they carry out their work, together with the applications that process the data, automate the processes, or otherwise support the capabilities.
- The infrastructure and physical resources that power the company.
Each of these blocks spans the IT and the Business sides of the organization, and acts as a bridge between them. Individually, each block represents a specific domain for Business-IT alignment. Together, they form a structure that makes sure we are examining all the relevant aspects of how IT interacts with the whole organization.

At the top of the Canvas is the enterprise’s digital strategy, which sets the vision and the key directions for the organization. In some cases, this digital strategy is split into two distinct parts: the business strategy, and the IT strategy that derives from it.

Finally, in our world of relentless change, all organizations must adapt and evolve continuously. This change is dictated by the enterprise strategy, and achieved by a portfolio of initiatives, programs and projects that make up the last component of the Canvas. Some of these projects are initiated and led by the business; others are IT-led; but the common imperative for digitalization means that most key projects involve Business and IT aspects, and it’s essential they’re harmonized.

41% of executives acknowledge that their organizations will be forced to reinvent themselves every 1-3 years due to competitive pressures.

23% are prepared to do it every year.

*Global Center for Digital Business Transformation / IMD / Cisco, Digital Vortex 2019*
Systems Thinking and the six alignment domains

Enterprises are complex systems, and the ICT Advisory Canvas relies on the Systems Thinking body of knowledge to analyze the organization or the company as a whole.

According to Wikipedia [4], “a system is a cohesive conglomeration of interrelated and interdependent parts which can be natural or human-made; every system is bounded by space and time, influenced by its environment, defined by its structure and purpose, and expressed through its functioning”. As such, a system exhibits some interesting properties that are relevant to the Canvas [4][5]:

• A system is more than the sum of its parts (provided that it expresses synergies or emergent behavior).
• For a system to behave well, a high-level understanding of its structure and behavior is needed.
• The value of a system flows through the interconnections of its components.

• A system can evolve no faster than its slowest interconnection point.
• Optimizing just one component does not optimize the system — you have to optimize the whole.

Using the Canvas you can explore the connections between the components of the enterprise as a system, and understand how a change in one of the component triggers changes in the other components. For example, let’s imagine the business strategy mandates the creation of a new product line; this will cause a cascade of consequences: new capabilities will need to be created to enable the product line, new processes will emerge to support the new capabilities, new staff or new skills will operate these processes, new applications and infrastructure will support them, etc.

Looking more closely at the Canvas’ components from a Systems Thinking perspective, you’ll understand why they were chosen, and their roles.

«Using the Canvas, we can explore the connections between the components of the enterprise as a system, and understand how a change in one of the component triggers changes in the other components.»
Every enterprise, including non-profit organizations, exists for a reason: to provide some kind of goods and/or services. It’s therefore important to start by understanding what the outputs of the organization are to know which products and services from the IT function will best support the business. Tools such as Value Network Analysis can help with insights into how value is created and circulates inside the enterprise, as well as through its external network of customers and suppliers.

In order to be able to deliver goods and services, an enterprise needs to have a broad set of capabilities across its whole value chain. For example, a power utility would need core business capabilities such as power generation, energy management, systems supervision, energy trading, and many more. And every enterprise has supporting capabilities such as financial management, HR management, or risk and compliance management.

Often (but not always) these capabilities are reflected in the organizational structures of the enterprise, which is why we need to look at these two aspects together.

By engaging with the stakeholders, and the leaders of the capabilities and organizational units, we can understand their priorities, challenges, and the outcomes they pursue. In turn, we use this knowledge to design the IT capabilities needed to address the business units’ pain points and targets.

In most cases, processes are often the result (or at least the reflection) of the policies in place in the enterprise, which is why it’s useful to consider both dimensions at the same time.

Note that, in the context of the Canvas, the notion of “process” must be interpreted loosely. A process can be manual or automated; it can be formal, semi-formal, or ad hoc. We don’t even have to aim to be exhaustive when analyzing the processes (unless that is the point of our mission): processes are a good way to probe for the interactions between the components of the organization, and how information, assets and, ultimately, value flows through them.
In Lean Management, respect for people and culture is one the pillars of the “House of Lean” [6]. It is therefore no surprise this component plays an important role in the ICT Advisory Canvas.

Some important things we evaluate when exploring this domain include: does the IT function have enough capacity to effectively support the business? Do the people have the right skills and competencies? How are skill gaps (both current and projected) identified and corrected? What resources are allocated for people development? What leadership structures and practices are in place?

The way people behave in the organization is strongly influenced by its culture, values and ethics. Any action resulting from an ICT Advisory engagement must either fit the existing culture, or contribute to changing it in a clear, planned direction.

The Applications and Data domain is not going to be “pure IT stuff” because we’re striving to align IT and Business by analyzing the domain from both perspectives.

For example, the quality and fitness-for-purpose of enterprise data is primarily a Business concern. But it is also an IT concern, because the means of improving these things are shared: the tools and technology for ensuring data quality, and timeliness may be provided by the IT function, but the knowledge of what is “good” data can only come from the Business.

When we evaluate an enterprise’s data assets and application portfolio, we consider how well these fit business needs, and how sound they are from a technology perspective. In parallel, we look for gaps: new data or application assets that will be needed to enable the business outcomes the enterprise is pursuing.

The results of the data and application portfolio analysis usually feed directly into the organization’s IT strategy, with each gap or “unfit” asset potentially generating the need for action. For example, application improvement or replacement, the deployment of a data management tool, or the introduction of better technical governance practices.

On the IT side, the infrastructure and resources domain comprises laptops, workstations, servers, data storage units, network and other devices, and, in some cases, even data centers and the equipment needed to power and cool them.

On the business side, things can be a lot more varied, since any and all of the physical assets of the enterprise can be considered: facilities, manufacturing equipment, logistics network, distribution outlets, and even the raw materials consumed by the production chain. It’s interesting to note that, until recently, in practice we rarely had to go beyond a cursory overview of all these elements. But trends like IoT and edge computing are changing all that, and this last layer of our model is becoming ever more important.
Using the Canvas

The name "ICT Advisory Canvas" was not chosen at random. Inspired by the Business Model Canvas pioneered by Osterwalder and Pigneur [3] it’s meant to be used in much the same way: as a visual tool to guide any kind of thought process about IT in the context of the enterprise.

In our work, we use the Canvas in many different ways. For example:

- On its own, as a high-level template for conducting 360° assessments of the IT function, analyzing the baseline situation of a client organization, or for designing the desired target state in an IT strategy.

- As a complement to other consulting tools. For instance, if we are doing a SWOT analysis, we can use the Canvas to classify our findings in a systematic way.

- In combination with other, finer-grained models that support deeper analysis. Some example uses: applying COBIT to drill down into IT processes; using DMBOK for a close look at the Data domain; or using the TIME model to assess the application landscape.

“All the classical models for Enterprise Architecture or IT Management are either too big, too detailed, or have a too narrow focus — we wanted something elegant and simple, yet complete.”
Customizing the Canvas

Like all good models, the advisory Canvas lends itself to modifications, extensions, or remixes. It is meant to be tailored to each situation.

The following diagram gives an example of customization by extension. In this instance, the enterprise is placed in the broader context of its business, in order to explore the connections with customers, competitors, partners, and so on:

Many other customizations are possible, which we will explore in another publication.
Conclusion:
and an historical perspective

In 2003 Nicholas Carr, an influential writer, wrote an article [7] in the Harvard Business Review that sparked a heated debate in the IT industry, and caused countless bad decisions at many companies. This article was titled “IT Doesn’t Matter”, in it, Carr argued IT had become commoditized and had therefore lost its strategic importance in business.

Nowadays, anyone can see how wrong this assertion was: in our world of digital transformation, IT is literally the engine that powers most successful companies.

Carr’s reasoning was logically sound but, unfortunately, it was based on a narrow economic view. He equated IT with “servers and network”, completely missing the point of having this infrastructure, which is to create new digital products and services that deliver tangible value. Fundamentally, Carr’s mistake was to reduce a complex problem to a single aspect, when he should have taken a systemic and holistic view instead.

This is precisely what we do when we advise our clients: we analyze not only the IT function but look at the whole organization and its environment. And the IT Advisory Canvas is a very valuable instrument to make sure we keep our mind as wide as possible.

John P. Kotter
Accelerate: Building Strategic Agility for a Faster-Moving World

“The world is now changing at a rate at which the basic systems, structures, and cultures built over the past century cannot keep up with the demands being placed on them.”
Whitepaper
References


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