CTO Insights: Building a Process for Trendspotting and Innovation

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Nick Jones

Initiatives: Enterprise Architecture and Technology Innovation Leaders

Analyzing future trends across technical and nontechnical domains in the context of the business provides a foundation to generate, evaluate and deliver innovation. Enterprise architecture and technology innovation leaders need to establish and manage processes to facilitate these elements.

With the business context established as a foundation, EA and technology innovation leaders need to examine trends that impact the business and design innovation processes that can move ideas from inception to demonstrable business value. Defining these processes ensures the organization is not missing critical stages and can avoid common pitfalls that derail innovation (for example, the inability to move beyond proof of concept).

Continuous Foresight is a framework for evaluating trends as well as their potential future impact on business operations. Trendspotting is an important element that begins with identifying and analyzing potential disruptions and trends and their potential impact on the enterprise. CTOs must consider not only the short, intermediate and long-term implications of the trends, but they should also emphasize the degree of uncertainty associated with the trend. Existing known trends happening today with a clear path forward will have an immediate impact on current operations, while evolving, emerging and exploratory trends with increasing levels of uncertainty hold the potential for driving significant shifts in the business.

Transformative and disruptive innovations often come from these volatile and uncertain trends that may have an impact now or in the future. The ability to acquire, synthesize and contextualize these trends and their potential business impact, communicate this impact to key decision makers, and then advocate and prepare for actions based on these trends accelerates and focuses innovation efforts.

EA and technology innovation leaders need to look beyond technology when assessing trends. The Gartner Tapestry (TPESTRE) model is one approach to organizing this broader set of trends:

- **Technological** trends examine the future evolution and impact of existing and emerging technologies.
- **Political** trends explore the evolution of political attitudes, institutions and legislation as well as the shifting political environment locally, nationally or internationally.
- **Economic** trends factor in the economic environment locally and globally that influences businesses and governments.
- **Social** and cultural trends consider the changing attitudes, behaviors, and lifestyles of individuals and groups in a society.
- **Trust** and ethics trends explore the expectations, behaviors, duties, and biases of people and companies toward one another and society.
- **Regulatory** and legal trends identify changes in laws and governmental policies and regulations that reward or punish particular behavior.
- **Environmental** trends are the technical, political, economic, cultural, ethical and legal changes supporting environmental protection and sustainability.

Establishing an innovation process is needed to move from random and accidental innovation to purposeful and optimized innovation. Trendspotting feeds directly into the process to generate innovation ideas. For example, targeted workshops that bring business and technical people together to consider business challenges in the context of the business and trend analysis can be used to discover impactful innovation ideas supported by both technologists and the business. Both formal/structured and informal/unstructured approaches should be implemented to drive ideas.

A simplified three-stage process is often a good starting point to bring more structure to innovation. This consists of:

- Ideation — Designing and running activities to generate ideas and then evaluate, prioritize and select the ideas for further examination based on the anticipated business value and potential risks.
- Evaluation — Analyzing and evaluating ideas and related technologies to prove or disprove the risk and value hypothesis defined at the ideation stage.

- Realization — Moving the idea from the innovation process into the production and operations process. Successful innovations become future operational systems that transfer responsibility to the appropriate core technology and business teams.

As ideas move through the innovation process teams of business and IT, people should come together to evaluate and test the idea. Where the initiative shows value and meets risk thresholds and other criteria, they work to operationalize and scale up the innovation initiative to realize value. Supporting this process should be an executive leadership team that is engaged early in the process and updated periodically on the progression of innovation initiatives.

Various models and methodologies can be used to bring greater structure and formality to the innovation process. For example, jobs to be done (JTBD) is an approach that was popularized by Clayton Christensen and has been built into formalized methodologies and tools by a variety of vendors. It is a highly prescriptive approach that starts with an understanding of the job the customer is trying to get done and the metrics the customer uses to evaluate products that deliver a solution to this job (see Quick Answer: How Can Jobs-to-Be-Done Methods Improve EA Business Value?). Design thinking, lean startup, and agile are methodologies that span the ideation, evaluation and realization phases of the innovation process but have strengths and weaknesses at various stages of the process and can be used independently or blended. As the enterprise considers these more detailed methodologies, it is useful to keep a few things in mind.

Do not fixate on a tool or methodology first. All have various strengths and weaknesses and should be considered in the context of an organization's "innovation pattern," defined as part of the application of the Gartner innovation framework (see Jump-Start Your Innovation Journey With a Customizable Innovation Framework). Aspects of various methodologies can be combined into your own optimized approach as outlined in (see Enterprise Architects Combine Design Thinking, Lean Startup and Agile to Drive Digital Innovation). It is often useful to create multiple innovation paths that are used for different innovation initiatives based on the clarity, complexity and goals of a particular innovation idea. Crowdsourcing or Hackathons to flesh out a rough idea and bring it to a POC state and highly structured processes like JTBD may be the best approaches for product development targeting customers. Let the methodology and the tool fit the innovation problem you are trying to solve.

For more detail on building a successful process for trendspotting and ideation, download the attached presentation, which outlines practical actions that enterprises can take to apply the concepts in this overview. Detailed information is provided in the notes section of each slide.

This presentation is useful in a number of scenarios, including:

- The content in the presentation explores key elements of a successful trendspotting and innovation process. Selected elements can be extracted and used by individuals responsible for technology innovation to guide development of customized processes.
    - Slides six to 11 in particular examine a variety of techniques to analyze, evaluate, prioritize and communicate trends as well as establish a process to take innovation ideas and turn them into finished offerings that drive business value.

- The presentation as a whole can be delivered in whole or in part to interested parties outside of the technology innovation group to promote the importance of trendspotting as an input into the innovation cycle and the need to establish a more structured approach to innovation.
    - Slide 12, entitled “Examining Your Innovation Portfolio,” is particularly useful in discussing innovation with senior executives. It can serve to gauge the appetite for more aggressive transformational and disruptive innovation as well as the balance between this focus and less risky innovations optimizing or extending current systems.

- The trendspotting section of the presentation can be used to evangelize the need to look at future trends in a more broad and formalized manner. They provide guidance on looking beyond simply technology trends and the need to understand the levels of uncertainty associated with trends and contextualize trends based on their business impact.
    - Slide 5, entitled “A Tapestry (TPESTRE) of Trends,” is an effective stand-alone slide that can be used to ignite discussions surrounding nontechnology trends with business leaders outside of IT.

This presentation includes excerpts from our CTO Insight Series, “How to make innovation work in the organization,” which was held on 19 February 2021.

Recommended by the Authors

Inventing the Future With Continuous Foresight

Tool: Template for Developing Impactful Trend Cards

Toolkit: How to Build an Emerging Technology Radar

Toolkit: How to Create an Emerging Technology Wheel

Jump-Start Your Innovation Journey With a Customizable Innovation Framework

Executing on Innovation: Design the Process From Idea to Value

Enterprise Architects Combine Design Thinking, Lean Startup and Agile to Drive Digital Innovation

Quick Answer: An Executive View of the Innovation Portfolio

Getting Started With Trendspotting

A Tapestry (TPESTRE) of Trends for Strategic Planning