

# 10 DESIGN THINKING TOOLS: TURN CREATIVITY INTO GROWTH

FACULTY RESEARCH FROM THE UNIVERSITY OF VIRGINIA  
DARDEN SCHOOL OF BUSINESS

DARDEN IDEAS TO ACTION



## OVERVIEW

This action brief from design thinking expert, Professor Jeanne Liedtka, profiles ten design tools managers can use to identify and execute opportunities for growth and innovation.

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### VISUALIZATION

Visualization is about using images.

It's not about drawing; it's about visual thinking. It pushes us beyond using words or language alone. It is a way of unlocking a different part of our brains that allows us to think nonverbally and that managers might not normally use.

When you explain an idea using words, the rest of us will form our own mental pictures, usually informed by our training. When you say, "We need a new growth platform," the IT specialist sees servers and code and the marketing guru sees an advertising campaign. If instead you present your idea to us by drawing a picture of it, you reduce the possibility of unmatched mental models.

2

### JOURNEY MAPPING

Journey mapping (or experience mapping) is an ethnographic research method that focuses on tracing the customer's "journey" as he or she interacts with an organization while in the process of receiving a service, with special attention to emotional highs and lows. Experience mapping is used with the objective of identifying needs that customers are often unable to articulate.

It's done by laying out a hypothetical view of what a certain customer group's journey looks like, even the part that doesn't include your firm. Then conduct pilot interviews with a small number of customers to be sure you're accurately capturing the steps. Finally, identify essential moments of truth and themes from the interviews and identify a number of dimensions that you believe to be useful in understanding the differences in the data you have gathered. The purpose is to produce a set of hypotheses for testing.

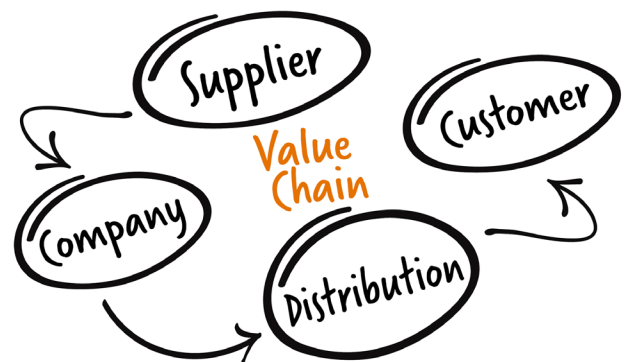
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### VALUE CHAIN ANALYSIS

Value chain analysis examines how an organization interacts with value

chain partners to produce, market and distribute new offerings. Analysis of the value chain offers ways to create better value for customers along the chain and uncovers important clues about partners' capabilities and intentions.

Value chain analysis is the business-side equivalent of customer journey mapping. It begins by working backward from value creation for the ultimate end customer and then adding the capabilities and bargaining power of other key suppliers.



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### MIND MAPPING

Mind mapping is used to represent how ideas or other items are linked to

a central idea and to each other. Mind maps are used to generate, visualize, structure and classify ideas to look for patterns and insights that provide key design criteria. We do this by displaying the data and asking people to cluster them in ways that allow themes and patterns to emerge. To succeed, mind mapping must be a team sport.

Tap into the power of visualization to communicate the key components of what we have learned and display them as clearly and simply as possible. Create posters that capture key themes and trends in the data, then invite a group of thoughtful people to tour the visual data and note any learnings that they believe should inform new ideas, then cluster those learnings into themes. Look for connections between clusters and insights. Pose the question, “Based on what we have learned, if anything were possible, what attributes would our design have?”

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## RAPID CONCEPT DEVELOPMENT

Rapid concept development assists us in generating hypotheses about potential new business opportunities.

In the first stage, we take the design criteria, the customer personas and their pain points and the value chain insights we have unearthed in our research and

use all of it to generate new ideas — lots of them.

In the second stage, we assemble the ideas into a manageable number of interesting concepts. Finally, in stage three, we elaborate on the business design behind that handful of concepts. We want to generate ideas quickly and get them out to customers to have a look at them as soon as possible.

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## ASSUMPTION TESTING

Assumption testing focuses on identifying assumptions underlying the attractiveness of a new business idea and using available data to assess the likelihood that these assumptions will turn out to be true. These assumptions are then tested through thought experiments, followed by field experiments.

Once you have determined which assumptions are most critical to the potential attractiveness of your new concept, identify the data that allows you to conclusively test key assumptions. Here, we are identifying the information we need and then figuring out how to get it.

Sort the data you need into one of the following three categories: what you know, what you don’t know and can’t know, and what you don’t know but could. The third category is pay dirt for the creation of thought experiments. Identify what it would take to get the data quickly, then design your thought experiment, paying special attention to the data that could prove you wrong.

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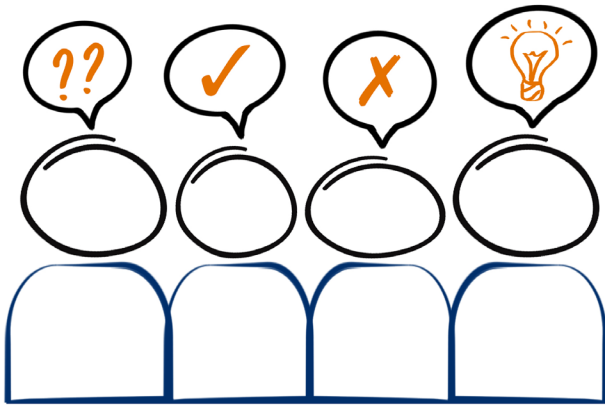
## RAPID PROTOTYPING

Rapid prototyping techniques allow us to make abstract new ideas tangible to potential partners and customers. These include storyboarding, user scenarios, experience journeys and business concept illustrations — all of which encourage deep involvement by important stakeholders to provide feedback.

*“We tend to get anxious about showing customers unfinished, unpolished “stuff.” Get over it. Innovation is about the learning, and customers have the most to teach us.*

”

Prototyping is all about minimizing the “I” in ROI. The cost of a simple 2-D prototype could be as low as a pen and some paper. Business concept prototypes generally take visual and narrative forms: images and stories. They can even include role-playing and skits. Play with your prototype; don’t defend it. Let others validate it — not the people who created it.



## 8 CUSTOMER CO-CREATION

Customer co-creation incorporates techniques that allow managers to engage a customer while in the process of generating and developing new business ideas of mutual interest. They are among the most value-enhancing, risk-reducing approaches to growth and innovation.

In our Six Sigma world, which values perfection and polish, we tend to get anxious about showing customers unfinished, unpolished “stuff.” Get over it. Innovation is about the learning, and customers have the most to teach us. The sooner we get something in front of them that they can react to, the faster we will get to a differentiated value-added solution.

Engage a diverse and candid group of customers one at a time. Provide them with visual stimulus, but nothing fancy at this stage. Leaving parts of the concept incomplete is a great way to elicit the customers’ creativity and competence. Offer two or three options and begin exploring one they are drawn to.

## 9

### LEARNING LAUNCHES

Learning launches are designed to test the key underlying value-generating assumptions of a potential new-growth initiative in the marketplace. In contrast to a full new-product rollout, a learning launch is a learning experiment conducted quickly and inexpensively to gather market-driven data.

We call them launches, rather than experiments, because they are meant to feel real to both launchers and customers. Only then can they yield reliable data. They are an extension of the co-creation process, but at this stage, we are asking customers to put their money where their mouths are. People who say they will buy remain only potential customers. The only true test of the value of an idea for customers is their willingness to part with cold hard cash. (For more on learning launches, please see “The Learning Launch: How to Grow Your Business With the Scientific Method.”)

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### STORYTELLING

Storytelling is exactly how it sounds: weaving together a story rather than just making a series of points. It is a close relative of visualization — another way to make new ideas feel real and compelling. Visual storytelling is actually the most compelling type of story. All good presentations — whether analytical or design-oriented — tell a persuasive story.

Like images, stories allow us to access emotions and emphasize experiences. They add the richness of context and allow us to “sell” a problem as well as its solution. With any luck, they keep their audiences awake.



Good stories follow some basic principles: Be sure to identify your audience. It is critical to create a storyboard; it allows us to pay careful attention to flow and logic. Set the scene to sell the problem, make your cast of characters feel real and work the plot; all good stories unfold with some tension, and maybe some surprises develop — here is where you think about how to combine data and pictures to drive home your points. For the climax, unveil your resolution to the problem. Make it compelling. And don't forget the use of metaphors and analogies to bring your story to life!

## AUTHOR BIO



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Jeanne Liedtka is an expert on design thinking and how it can be used to fuel innovation and organic growth. Her current book, *Design Thinking for the Greater Good*, studies design-led innovation projects in government and social sectors.

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