

naked**innovation**

*uncovering a shared approach
for creating value*

Zachary Jean Paradis

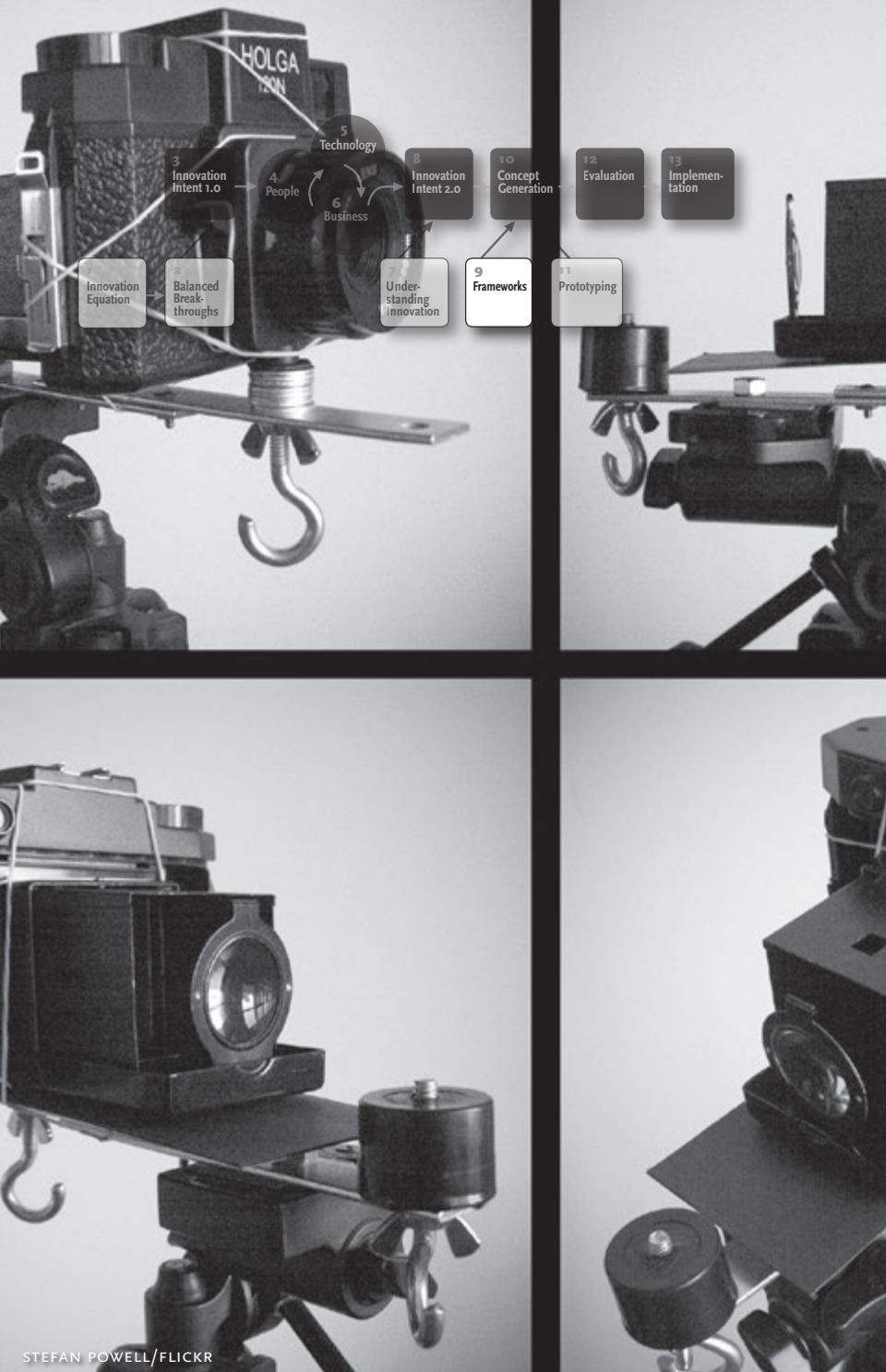
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9 Conceptual Frameworks

Points of View

HOW YOU'RE FEELING about Naked Innovation, with eight chapters under your belt, may depend on your temperament and level of expectation. Some of our friends who read early drafts began asking us at this point, "When do we get to the good stuff—the creative flashes of inspiration and light bulbs going off over your head?" There is a certain Creativity by Checklist feel to all the steps of research and analysis, which might seem a bit tedious, if not tedious. So, let's pause here for a story of real genius at work.

In 1924, George Gershwin was asked to compose a piece to be performed at a prominent New York event. It was supposed to be a fusion of serious and vernacular music—a new kind of piano concerto that combined both classical and jazz styles. As word spread that Gershwin, already famous for Broadway tunes, was working on the piece, anticipation built for what was being hailed as a landmark moment in American culture. But he had just over a month to do it, start to finish. Luckily for all concerned, inspiration struck while Gershwin was on the train: an image of a "musical kaleidoscope of America" suddenly came to mind, along with the whole structure of the piece.

He wrote feverishly for a few weeks, turned the manuscript over to a colleague for orchestration, who then sent the scores to the orchestra a mere eight days before the performance. The critical solo piano parts, to be performed by Gershwin himself, were left blank. There had been neither a full and leisurely development process, nor sufficient rehearsal time, but on the afternoon of February 12, 1924, the audience that first heard *Rhapsody in Blue* was thrilled and responded enthusiastically, as have audiences worldwide ever since.

So, is this an example of innovation, fueled by creative inspiration? *Innovation*, yes: there's distinctive value, something new that provided lasting benefit. But *creative inspiration*? Only partly. Gershwin was able to deliver a musical masterpiece at the last minute because of a lifetime of experience in music—particularly with jazz and ways of improvising melodies and themes. He was also working with an orchestra of trained musicians, who were professional enough to interpret and powerfully express the musical ideas set down in hasty scrawlings on pages they had little familiarity with. The stage was set for inspiration by the decades of collective experience, wisdom, and training of these talented musicians—and, by their familiarity with the capabilities of their instruments (technology), the interests of the audience (people), and the cultural context in which they were offering this entirely new kind of music (business strategy). Which fits nicely with the Balanced Breakthroughs model we've been talking about.

Breakthrough innovations sometimes appear suddenly, fully formed as from the mind of Zeus, but more often they emerge as the confluence of multiple strands of input. Structured innovation leverages preparation, the experiences of an entire team, and deliberate processes so that you don't have to wait and hope for some sort of magic moment. Processes don't automatically generate answers, but they set the context, lining

up well-considered ideas in a way that significantly increases your chances of making a brilliant and value-adding leap of insight. While some of what you have read so far could feel mechanical, the phase we now enter is where creative energies start crackling and sparking like never before. Everything that we'll discuss in the next three chapters sort of happens all at once, and how much time you spend at each step depends to a degree on what results you're trying to achieve, and where your team's strengths and weaknesses come into play. You are on a journey now from an idea to a final product:



Although creativity and brilliance are important skills to have represented on your team, we also don't spend the whole effort trying to leap "out of the box." Rather, you are finding the space for innovation, and building a box around it, and then focusing on creating ideas there, where they are much more likely to be successful. That way you know those ideas fit and will likely be rewarded by the market.

In Chapter 8, revising your Innovation Intent carried you a step further. We can refine the focus still more by clarifying the definition of success for this project.¹ Analytical frameworks will help you take what you already know about the innovation space, and create clear Design Principles, so that you'll know just how we need to apply creativity and design methods to generate new ideas.

How Frameworks Help

Back when we were taking introductory graphic design classes, we were introduced to two valuable creative approaches for problem solving in design. The first one is sketching: an assignment would often begin with a requirement to draw rapidly, at about a two-inch square size, a possible design idea. Then draw another, and another, and another. Filling up two or three pieces of paper with tiny sketches was considered an essential first step. The approach encourages **Breadth**. Looking at a lot of potential solutions helps you avoid becoming complacent and too easily satisfied with your first idea.

The second idea involved squinting: holding a design mock-up at arm's length and squinting to blur the page so only the basics of the visual structure were apparent. (You could also put your design on the floor and stand on a chair and look down at it, to get a greater distance.) Squinting is about **Focus**—helping you filter out extraneous information to concentrate on a particular aspect of the project (in this case, visual structure).

Graphic design relies heavily on sketching; in the realm of innovation, we use tools called Frameworks to help us explore both contexts and potential solutions with breadth and focus.

A Framework is a set of assumptions, concepts, values, and practices that constitutes a way of viewing reality.

Frameworks are simplified models that provide a way to view your project—they act as conceptual prototypes, in a way. They serve as a lens that helps you zoom out to see the whole picture, and zoom in to examine one part in isolation.

Frameworks take a lot of different forms. You've already been introduced to several in this book: the Innovation Equation, Balanced Breakthroughs, POEMS user observations, Porter's Five Forces, and the Ten Types of Innovation are all frameworks that help you ensure breadth of analysis and depth of focus.

A framework unique to your project is the Innovation Intent. Each of the questions posed in developing the Innovation Intent is designed to ensure that you cover key areas (Breadth), so that you haven't left anything out, and have examined the important once in sufficient detail (Focus), so that you don't gloss over problems that will weaken your solution. Any interesting or potentially tricky areas that are uncovered in the research and discussions that led to your Innovation Intent 2.0 can spur further research and discussion.

We will introduce you next to three new frameworks that can help in the context contextualization phase, but we recommend exploration of other frameworks—or the creation of your own frameworks—throughout the innovation process.

Position Map

A Position Map is a simple way of visually arranging two sets of information, revealing relationships on familiar x and y coordinates. Clusters of data points can reveal groupings; the absence of data points can reveal opportunities for new solutions (or areas where innovation has historically been unsuccessful). Of course, the first step is to pick which two attributes you will compare against each other. You want to find things that are based on what the market values, and that are not correlated already. (If you map two correlated values against each other, you'll get a fairly predictable line.) As you may imagine, it may take several tries to find the pair that are sufficiently distinct and also reveal something interesting.

On a project about a mobile phone service for senior citizens, a student team considered the following range of attributes:

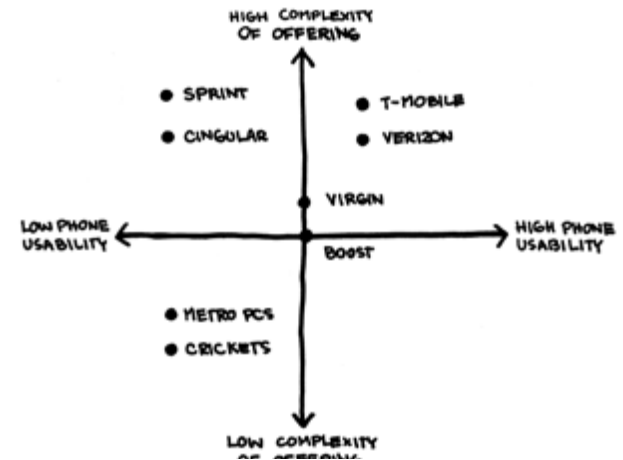
Characteristics of mobile phones

- › Ease of use
- › Cost of phone
- › Number of phone choices

Characteristics of mobile phone carriers

- › Cost per month
- › Number of minutes.
- › Length of contract required
- › Complexity of choosing a plan

The team wanted to develop a position map to show what kinds of mobile phone offerings were already on the market. For each offering from a mobile phone company (Verizon, Cingular, T-Mobile, etc.) we could place it on an x/y plot to help compare them not only to each other, but to the whole possible space described by those attributes. But if we picked Number of Minutes vs. Cost per month, we would likely find that there is already a strong correlation—these two attributes are already mutually dependent. A more interesting comparison is between the Complexity of Choosing a Plan and the Ease of Use of the phone itself. The map (above, right) reveals that the “big four” mobile phone companies have a rather complicated plan selection process, and phones of varying degrees of ease of use. Some smaller carriers, Metro PCS and Cricket, have an easier plan selection process. But nobody has yet combined an easy plan selection process with an easy-to-use phone.



POSITION MAP FOR A SENIOR-TARGETED MOBILE PHONE

As it turns out, AARP had done their own research which had remarkably similar conclusions. This framework, then, points to a potential offering that a major mobile phone carrier (such as Cingular) could offer in partnership with a senior-focused organization, such as AARP.

The Position Map exercise doesn't take very long, though it can require several iterations to find an interesting mash-up of data. Once you find the right combination of attributes to map, you can make effective sense of pages and pages of data in a single graph.

Leveraging Customer Experience

Another powerful framework is the *Compelling Experiences* model, which was developed by Doblin Inc. after looking at hundreds of successful interactions people have: a visit to a

¹ More information can be found on Doblin's website: <http://www.doblin.com/what/CompellingExperiencesCond.pdf>

sporting event, a trip to the mall, a family dinner.¹ Every experience can be thought of as having five modes:

- › **Attraction** What happens before you get involved; what draws you in
- › **Entry** The transition from Attraction into the experience
- › **Engagement** Participating in the experience: being there
- › **Exit** The transition out of Engagement—leaving the experience for something else
- › **Extension** What happens after you’ve left—what do you remember? What do you pass on to others?

The Dublin team found that six qualities distinguish *compelling* experiences from the everyday. Each one of these qualities might be experienced more, or less, or not at all, in each of the five stages:

- › **Defined** You can describe specifically what’s going on
- › **Fresh** The experience feels new and interesting
- › **Immersive** You are fully involved in the experience
- › **Accessible** Nothing prevents you from taking part
- › **Significant** The experience is meaningful, not everyday
- › **Transformative** The experience makes a difference in your life

Putting the five stages and the six qualities in a grid gives you a broad space to consider—a good way to enforce breadth in your consideration either of your own innovation project, or of other comparable projects you are using as a model. How does the current situation leverage one or more of the qualities in each phase? How could it be improved by adding more “qualities”?

	Attraction	Entry	Engagement	Exit	Extension
Defined					
Fresh					
Immersive					
Accessible					
Significant					
Transformative					

A team of graduate students at IIT Institute of Design used the Compelling Experiences framework on a project for Chicago’s Museum of Science and Industry. Insights drawn from watching museum visitors were being sorted out, when the team realized that many of the activities of Attraction and Extension were similar—often involving questions of transportation, and using brochures and other information tools to discover alternatives. They also found that the physical environment at the Museum constrained both Entry and Exit stages to happen in the same place, which was an insight that led to suggesting careful use of the space to distinguish between these different modes.¹

Exploring Exchanges of Value

Value Webs, are similar to the Value Chains model that Michael Porter introduced in his 1985 best-seller, *Competitive Advantage: Creating and Sustaining Superior Performance*. Porter wrote, “The value chain disaggregates a firm into its strategically relevant activities in order to understand the behavior of costs and the existing and potential sources of differentiation.”² Value Chains provide a useful model of activities within a firm, but less often address outside relationships. Furthermore, value exchanges are usually described in purely monetary terms.

¹ This project was completed by Nathaniel Block, Kimberly Dziedzic, Taylor Lies, and Laate Olukotun, as part of the Research & Demonstration Class at IIT Institute of Design, Fall 2005.

² Michael E. Porter, *Creating and Sustaining Superior Performance* (New York: Free Press, 1985), p. 33.

Questions to Ask When Creating a Value Web

Vijay Kumar suggests a series of questions to ask when creating Value Webs to use descriptively or prescriptively:

When descriptively representing the current state:

- › Where is the value created?
- › Is the Value Web balanced?
- › Who has leverage?
- › Who controls the customer interface?
- › Who controls the dominant platform?
- › Who has control over intellectual property?
- › Does the shape of the web mean something?
- › What is the effect of time on the Value Web?
- › Where are the inefficiencies?

When prescriptively representing new strategies, partnerships, or business models:

- › How can more value be created?
- › What are the ways to own the customer interface?
- › What are the ways to own the platform?
- › What are the ways to leverage the IP?
- › What are the ways to control time to extract more value?
- › How can the Value Web be restructured for advantage?
- › How can the inefficiencies be removed?

Value Webs take the chain and expand it in two directions. As outlined by Vijay Kumar and Jeremy Alexis, Value Web diagrams illustrates the exchange of multiple kinds of value, both tangible and intangible, as they flow among participants of a system or market. Common values we consider include money,

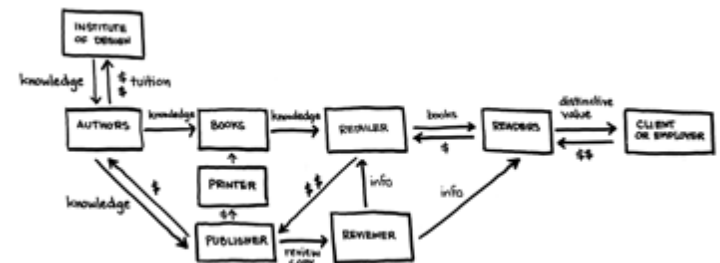
information, materials, services, brand recognition, pride of ownership, knowledge, and so on. Links are represented directionally to show exactly who is giving and who is receiving, and whenever possible, use quantifiable terms to describe the actual amount exchanged.

Just for fun, we did a quick Value Web of our Naked Innovation book project. When we were first writing the book, it was just a student project, with the possibility for printing up a few extra copies (funded by our advisor—thanks, Jeremy!) to pass on to colleagues, potential employers, and old girlfriends who never

NAKED INNOVATION VALUE WEB, SELF-PUBLISHED



NAKED INNOVATION VALUE WEB, WITH A REAL PUBLISHER



thought we'd amount to anything. So, our Value Web looked like the upper diagram on the previous page.

Then we started to get positive reactions, and were encouraged to pursue getting the book published, for real. This dramatically changed the Value Web, shown at the bottom of the previous page—adding new players (a publisher, retailers, reviewers), and also adding new streams of value (royalties, reputation, and sales revenue).

Used descriptively, Value Webs are fantastic tools to understand the dynamics of the current situation. Used prescriptively, they outline opportunities, strategies, new partnerships, new business models, and ultimately, ways of delivering distinctive value to customers. They are remarkable tools to uncover relationships and rethink the dynamics of your business.

Other Frameworks ... and Making Your Own

While there is a host of innovation frameworks to choose from—many based on considerable scholarly expertise and/or analysis of successful innovation projects—you can always create your own. The essence of a framework is that it reduces the complexity of a situation to reveal internal patterns and structures that are useful to you. Draw on the research you've done, and the questions in the Innovation Intent to illumine your topic better. Remember, your goal is to frame the space where useful ideas can be created.

All the information discovered as you use frameworks can find a home on the (increasingly full!) project board. Here again, working through these analysis stages provides an opportunity for fruitful conversation with your team. Having conceptual models like frameworks helps take a whirl of thoughts out from the ether and externalize them on paper, where everybody

can see them—and offer alternative viewpoints, or add on additional insights.

Design Principles

So, now you've got more pieces of paper, more diagrams, and more ideas floating around. It *could* seem chaotic, except for the fact that in generating all these conceptual models and contextual analyses almost always results in those *aha!* moments, where a tangible, specific Insight pops up. Use a highlighter, use Post-Its, use sticker dots or whatever works to call out those insights with particular resonance for your project. In fact, go back and review everything you've done so far—the research you did into People, Technology, and Business, your Innovation Intents, the Ten Types lens, and all the frameworks. Sometimes it's helpful to work through a 3 × 3 grid like this to make sure you've gleaned the whole project for potential insights:

		From the Balanced Breakthroughs		
		People	Technology	Business
From the Innovation Intent	Opportunities			
	Risks			
	Distinctives			

Add anything you discover to your list. Collect all the insights by writing them (or shuffling Post-Its) on a single piece of paper. You may discover related insights that can be clustered together, or conflicting insights that prompt further discussion. Insights lead to Design Principles, which are critical for keeping concept development focused on the kinds of innovation that will deliver distinctive value.

Insights are generally *descriptive*—for example, the Museum team might have observed “In families with children of mixed ages, the fatigue level of the youngest determined how long

they could stay at the museum.” Perhaps this observation could be clustered with other observations to form a larger insight like, “The needs of young children can influence an entire family’s visit.” We can turn insights into success criteria by carefully rewording them as active verb phrases—in particular, a verb phrase that would finish the thought that starts, “A successful innovation will” So our insight about kids becomes a Design Principle thus: “Help parents meet the practical needs of young children.”

We should point out that sometimes the transformation of an insight into a success Principle is straightforward and obvious—almost simply a grammatical switcheroo. That doesn’t make it any less powerful. Other insights may require a deeper level of thought and interweaving to become a Principle. It won’t help to observe that kids who come to the Museum don’t seem interested in the displays, and then turn that into a Principle as “Make kids be interested in displays.” You have to ask, *Why aren’t they interested in displays?* Maybe it has something to do with the fact that kids come from homes with video games and computers, and are used to interacting with information in a different way. Maybe it has something to do with what you heard in interviews about displays seeming to be very static. And then you realize that across town, the aquarium is attracting huge crowds with hands-on-experiment areas. Putting all those things together provides a Design Principle that takes things up a level: “Provide multiple avenues of engagement with exhibits, activating multiple senses and personality types.” Design Principles that are specific enough, and address issues you can reasonably influence, are much more likely to lead to success.

But don’t get too extravagant in Principle formation. If you end up with a list of 100 Design Principles, you’ll be quite ready to engineer something like a Space Shuttle, but you will have

a difficult time keeping them all straight. Remember, you’re trying to make some sensible boundaries of the innovation space so that you can effectively develop concepts. We find that about seven (plus or minus two) Design Principles is adequate for most projects. If you find yourself with far too many initial Principles, then do a simple clustering exercise, writing each one on a piece of paper, and moving them around on the table until the most related ones are together. Then, name each clusters appropriately. (By the way, hang on to the list of which individual Principles make up the Meta-Principles—it will help remind you what that principle means.)

For many innovation teams, the set of Design Principles, combined with the Innovation Intent, can strike you as being overly simplistic. “*Is that all this is about?*” you’ll find yourselves asking each other. That’s partly because with all the time you’ve spent engaged in research and thinking about your project, you’ve become somewhat of an expert yourself—a clear sense of the real situation is almost intuitive. Just to be sure, though, you may want to check the validity of your insights by reviewing them with someone outside of your project who also understands the space you’re working in. Design Principles that are in balance with the needs of the market should seem plausible, whether they are what you expected, or something different.

Before You Go On...

Just for review, here’s the top-level view of why we’ve included frameworks at this point in the Naked Innovation process:

- › Frameworks force you to cover your topic space with breadth and depth.
- › The result of a framework is not The Answer, though it should be a deeper level of understanding. It’s about the journey, not the destination.

- › Using multiple frameworks (and using them in quick succession) is perfectly fine. There isn't a single framework to rule them all—rather, it's the effort of trying out many frameworks that helps you iteratively approach solutions. (See number 2, above.)

Armed with your Innovation Intent, and list of Design Principles, you're ready to spend some time developing new concepts! Why not take a break? Maybe listen to some music ... try out that old *Rhapsody in Blue* and appreciate the innovative genius of George Gershwin.

RESOURCES FOR CONCEPTUAL FRAMEWORKS

i2Manage.com. <http://www.i2manage.com>. Includes more than 400 analytical frameworks and business models.

Design Council (UK). "Design Methods." <http://www.design-council.org.uk/en/About-Design/Design-Methods/>