Presumptive Design

Design Provocations for Innovation

Leo **Frishberg**
Charles **Lambdin**

MK
MORGAN KAUFMANN

Presumptive Design

Design Provocations for Innovation

Leo **Frishberg**
Charles **Lambdin**

Working together
to grow libraries in
developing countries

ELSEVIER   Book Aid International

www.elsevier.com • www.bookaid.org

Presumptive Design

To my parents, Mort and Sue,
who would have been proud beyond words.

—Leo

To Candace, Tatum, Henry, and Jack.
I love you guys.

—Charles

Foreword

What a joyful cornucopia of a book! What a delight to find a fresh and practical approach to involving stakeholders in rethinking the design of "products." The practical usefulness is broad, going beyond products *per se* to an expansive range of designed experiences. It is full of refreshing ideas and real-world examples, rich with images, visuals, and charts, all very helpful in articulating the practicality of the Presumptive Design (PrD) approach. This book offers a much needed balance to the well-documented and oversubscribed traditional usability and user-centered approaches. Historically, user experience design (UXD) professionals have focused on refining details of an artifact instead of considering what the product space *might* be. Frequently, too little is known about the problem space and domain, which can hinder more open-ended meaningful and participatory conversations. In this book, we learn how eliciting such conversations can ultimately lead to better product design solutions.

For example, during years of experience in teaching students, urging them to take a user-centered approach to product design, I'm used to their reluctance to start with rough prototypes. Rather, they push back, suggesting they cannot build artifacts unless they have access to specialized tooling. I asked one student to find something he could use to make a physical artifact. He struggled and eventually said he liked baking bread. So I said he should bake a bread artifact, which he did as his first handheld artifact. What a difference this book would have made (and will make going forward) in helping teach! Now, with PrD in hand, students can increase their understanding of how best and effectively to achieve a successful design; the approach legitimizes being rough, fast, and iterative. Thankfully this book will help focus students' time and attention on a critical part of the product design process: the very early ideation design stages— when they are just starting to grapple with the problem.

Presumptive Design
DESIGN PROVOCATIONS FOR INNOVATION

This book explains clearly how to use open-ended, almost humorous artifacts as key tools to begin conversations with stakeholders. The many examples in this book highlight the ease with which team members can participate in creating such working "tools." More than just a cookbook on rapidly producing rough prototypes, this book offers details on how to help when things go wrong. Our authors offer detailed examples of "engagements gone wrong," suggesting clear ways to change the discourse and improve the outcomes of stakeholder conversations. These insights and examples are realistic and immensely helpful; they effectively let us learn from these two masters.

I could have used this book so many years ago! In 1999 while designing a portable audio device for a music museum, my team "accidentally" designed a feature-rich device. We started to develop the prototype way too late into the product development cycle, believing we understood what was needed based on our (misguided) ideas of who was the typical visitor. We started our process by refining those perceived needs. But as this book clearly states, we should have started our thought process by ideating early and often with very rough notions of what visitors might want from the experience, *and then try those assumptions out with real users*. PrD would have also given us the tools to illustratively support and defend the process of how we got to where we landed, how we derived our solutions, and how our interdisciplinary team pruned our thought processes. Sadly our resulting product suited few visitors, functionally doing way too much! PrD would have been very helpful at defending a much simpler, useful product following a team-based, fast, and defensible process.

PrD requires the designer to take on unusual practices such as failing fast, throwing away ideas, and feeling safe about feeling foolish! It is often hard to "design rough," or to "design for failure," to "actively listen" to receive truly

open input about "any" loosely defined artifact. But as these authors successfully defend, it is far better to try "something" out than wait and refine later "draft" product artifacts. This book makes a compelling case that throwing away these artifacts is far less costly than merely refining something already in place—less costly, as long as the designers offer the artifacts directly to end-users and are prepared to throw them away. And, if they are willing to quickly go through many iterations to get closer to what is really needed. The whole approach sounds so much like common sense I'm surprised it has taken so long for it to be legitimized! I wonder why we have not had such a book before; it makes so much sense—really!

On a personal note I know how much more I've learned from my failures as opposed to successes. The authors embrace notions of failure as an alternate way to move designs forward, to view failure as a positive opportunity to experiment and explore new territory. When we are pursuing disruptive innovation, the authors suggest that the fastest way to reduce wasted effort is to rapidly and iteratively fail. "Management is rewarded for efficiency not effectiveness," so they quote. The authors challenge the tenets of industry by their celebration of failure; they triumph lack of success in multiple small ways as the least expensive way to ultimately succeed big. This book shows ways we can legitimize the need for failure to make the resultant designs more effective. This book begins to challenge the *status quo* within our corporations, which is always a valued provocation.

The authors liberally sprinkle memorable phrases and images throughout this book to help readers easily remember the PrD approach. "Roughly right is better than precisely wrong" (from Keynes), "Messy artifacts are ambiguous to encourage engagement," and SMART: specific, measurable, achievable, relevant, and time-bound (from Doran's seminal paper). The photos of real people practicing PrD techniques alongside

Presumptive Design
DESIGN PROVOCATIONS FOR INNOVATION

humorous vintage touches are lovely and enjoyable.

This book is carefully crafted and an easy read. I hope it becomes required reading for design and business students; most critically it is a must-read for business and UXD *professionals*. With its quick lists, reminders, easy recipes, and tips, it can be used "just-in-time" as a go-to reference, even as it makes compelling arguments for improving UXD's impact on the bottom line.

This book offers UXD professionals a palette of work products to accelerate return on investment (ROI) when exploring new product territories. By incorporating PrD into their work processes, companies will reduce the risks of innovation. The authors position PrD within agile product/engineering management: Managers and business leaders will learn how best to fit PrD into their current business operations to improve their innovation processes and team productivity.

Thank you for putting the time in to create this fun and excellent resource for us all. I believe this book will have a place in our vocabulary for a long time.

Joy Mountford
Senior Director, Akamai Technologies

Preface

Extraordinary begins with discomfort.
—Sally Hogshead

This book is fundamentally about being wrong.

That isn't what I (Leo) thought this book was going to be about when we set out to write it. What better example could I wish for of how easily we get things wrong?

In fact, everything we know is wrong.

Humor me for a moment and reflect on that sentence. Even after re-reading it hundreds of times, I still feel a twinge of ... anger? Self-righteousness? I hear a little voice saying: "Well that may be true for *you* buddy, but not for *me*." And I wrote the sentence!

According to the research, that's a completely normal reaction; it has its roots so deeply buried in our evolution that there is nothing we can do about it. Every day we operate in the world based on a set of well-worn beliefs, and mostly we are successful, or so it would seem. So, surely my statement that "*everything* we know is wrong" is hyperbole. Or not, if you look at the world through Plato's eyes. In brief, all we know about the world comes in through our senses and is processed by our brains before being committed to memory. The whole system is fraught with potential error. In short, how well can we trust our senses, cognition, and memory?

Still, I'm more interested in the emotion around the reaction to the statement than engaging in a philosophical argument. My point is, when we read the statement "*everything* we know is wrong," we resist agreeing with it. And, now, humor me one more time for a moment: Read the statement again and let yourself accept it as true. It might take a few tries and a couple of deep breaths, but give it a shot.

Presumptive Design
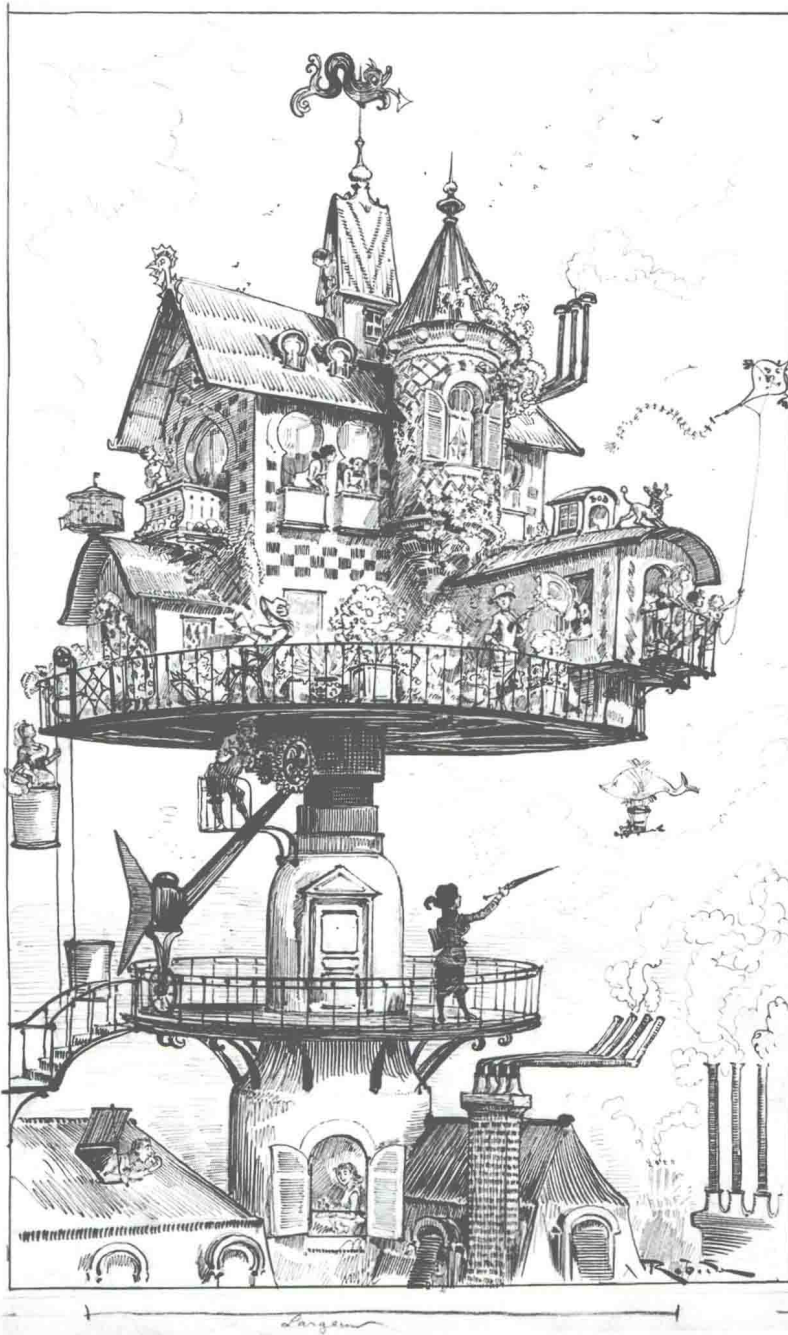## DESIGN PROVOCATIONS FOR INNOVATION

Figure Pr.1 "Maison tournante aérienne" by Albert Robida, a nineteenth-century conception of life in the twentieth century

How does *that* feel? If you're really engaging here, it should feel uncomfortable. Disorienting. Rudderless. (Of course, if the statement were really true, you wouldn't be able to read these sentences because you're wrong about your ability to read along with everything else. But stick with me for a second.)

To summarize: We don't like to think we're wrong, and we feel uncomfortable when we learn we're wrong.

Irrespective of how frequently we think we are wrong (maybe not about everything, but at least once in our lives—and let's hope *you* weren't wrong about picking up this book), the real question for us is, "What are we going to do about it?" Our focus is on applying our errors to our best advantage, use them to positive effect, and ultimately make our teams and organizations successful, not in spite of our errors, but because of them.

Let's restate the hyperbole: Everything you know *about the future* is wrong. That feels a little easier to admit, right? This book is written for people who are "inventing" the future: building products,

services, companies, strategies, policies, or whatever, in service of a future state.

Presumptive Design (PrD) begins with the following operating assumptions:

- We are wrong (at least about the future).

- We are in denial of being wrong (except perhaps about the future).

- We generally don't like learning that we are wrong. (Where are those flying cars, or aerial houses (Figure Pr.1)?)

After reading this book, you will see how PrD eliminates the third assumption. (You'll look forward to learning from your errors and experience the surprise and joy of your discoveries.) The process helps you accept the second assumption. (Face it, we can't eliminate our denial—it really is baked into our brains—but we can at least recognize our denial.) And with respect to the first assumption, it's irrelevant. PrD works whether you believe you are wrong (about the future) or not. The process asks only one small thing of you: that you at least *pretend to believe you are wrong* (about the future).

Why We're Excited About Presumptive Design

Let's just put it out there: PrD is the fastest way to converge on a future state your stakeholders really "want." The approach isn't all that novel, and it's not really all that different from a bunch of other techniques user experience researchers and designers already use. Parts of it have been around for well over 30 years while other parts have been around for thousands.

As you'll learn, we're not positioning PrD as the magic solution to every problem. It has its place in the toolbox of research techniques. *It is a research technique*, in spite of its name. It is peculiar because it leads with design and with

the crafting of artifacts. It depends on individuals who have mastered facilitation with a modest talent in improvisation. It requires designers as well as other disciplines in your organization.

Although it is easy to describe (in spite of the length of this book, the steps are fairly simple), PrD isn't necessarily easy to apply. It is filled with risks (one of the reasons this book is so long) and is just as likely to generate garbage results as any other research technique if it isn't applied with care.

With all that said, PrD's many proven advantages over other research methods (in the contexts of innovation, agile software development, and business strategy, to name a few) far outstrip the risks and challenges of the process.

Who Is This Book For?

In the early decades of the twenty-first century, businesses are recognizing the competitive advantage of designing user and customer experiences. This book has a distinctly business tone to it: The business value of PrD will be discussed throughout, because it is fundamentally about improving time to market and customer satisfaction and reducing risk. With that said, we offer case studies and stories of applying PrD in a variety of contexts, not just business.

Specifically, with its relationship to Participatory Design, PrD is an equally effective tool for social innovation, for at-risk populations and situations in which you design *with*, not for. Its primary audience is the practitioner "on the ground" trying to build better experiences for her organizations' stakeholders. Properly designed experiences drive better business, so at its heart, this book is written to help practitioners improve the competitive value of experiences they are designing and building. And by "practitioner" we mean any member of the team: business leader, manager, analyst, engineer, designer, and researcher.

If you are a business leader who is trying to position your company for top-line growth, this book offers insights into expanding your current market research efforts. As you'll see in Chapter 3, PrD is about improving *the competitiveness* of the end-user experiences you are bringing to market, specifically by identifying market whitespaces where users are currently underserved. To get a deeper understanding of how to apply PrD, you'll likely want to read Chapters 1–3, as well as skimming Chapters 4–13.

Similarly, if you are team, program, project, or product manager, trying to increase your share of market through relevant features and rapid adoption, PrD is an effective risk reduction tool. It raises confidence in your offering at the very start of the program. Further, if you are trying to maximize the productivity of your staff and/or reduce the cost of development, you will see how PrD reduces development risk by removing waste, increasing opportunities for alignment, and establishing a shared vision. For you, Chapters 1–13 will be paramount. You will also benefit from skimming Chapters 14–16 so that you have a deeper understanding of the skills required of your team.

If you are a designer, interested in expanding your research insights with users, the entire book will be of immediate use to you. And, of course, we expect researchers of all stripes will benefit from reading the entire book.

Most of PrD's principles will be very familiar to designers, because it is based on the way designers approach problem solving. With that said, if you are an experienced designer, aspects of PrD may be challenging to you. PrD uses principles from Participatory Design and rapid prototyping, but it isn't either. If you are a user experience researcher, market researcher, or social scientist, many of PrD's principles will be familiar to you because it identifies underlying needs. It is both a "generative" research tool (in which informants cocreate ideas with you) and an evaluative

research tool (e.g., usability testing). The approach requires subtle facilitation with quick wits and a design partner working with you. PrD is a powerful way to tie research results into actionable designs in a matter of minutes and hours, rather than weeks, months, or not at all.

One final note of caution to designers: If you are an experienced designer, you will both recognize pieces of the process and possibly be flummoxed by them. Over the past several years we have introduced designers of all stripes and background to the process, thinking they would immediately understand it. What we've found is that designers, even those familiar with Participatory Design, have been challenged to use it appropriately. Pay special attention to Chapter 2 and all of Part 3 in which we highlight key differences between PrD and typical design activities.

How to Use This Book

This book is split into three main parts: context, principles/ risks, and a how-to manual with recipes. As mentioned above, based on who you are, you may wish to skip directly to the chapters in the part that best addresses your interests.

Part 1: Context (the Why)

While we would hope everyone reads the three chapters in this part, business leaders and managers unfamiliar with design research and design thinking may find this the most useful material in this book. Further, because software has radically changed the way business is being conducted, in Chapter 3 we shine a light on using PrD in your strategy toolkit.

Part 2: Principles and Risks (the What)

The 10 chapters in this section describe the 5 principles of PrD and its hazards. We expect managers will want to skim these chapters (at a minimum) to get a lay of the land and understand the process and its risks. Practitioners