

DESIGN THINKING AND INNOVATION METRICS



POWERFUL TOOLS TO MANAGE
CREATIVITY, OKRs, PRODUCT,
AND BUSINESS SUCCESS

MICHAEL LEWRICK

ILLUSTRATIONS
RUKAIYA KARIM



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Creative activity... innovation! ... and performance metrics, long considered to be polar opposites, turn out to be essential complimenters. Lewrick's *Design Thinking and Innovation Metrics* is a must-read for anyone needing to add analytical strength to design thinking; it is an excellent treatment of both. Flying blind is no way to go into the future!

— Bill Fischer, Professor Emeritus of Innovation Management, IMD Business School, and Senior Lecturer, Sloan School of Management, MIT

Peter Drucker famously said that if you can't measure it, you can't manage it. This latest book of Lewrick's excellent series on design thinking is a highly practical guide for mastering the complex world of innovation.

— Roland Deiser, Chairman of the Center for the Future of Organization at the Drucker School of Management

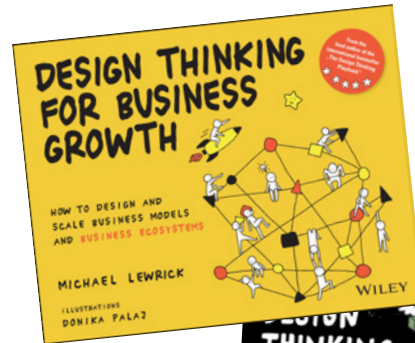
This book is an excellent enhanced toolkit and extremely practical resource for any organization, regardless of size or industry.

— Elvin Turner, Best-selling innovation author, *Be Less Zombie*

This book is a game changer on the corporate world's view. It goes far beyond any approach to innovation accounting I have seen before.

— Jean-Paul Thommen, Professor Business and Management Studies, University of Zurich

More books by Michael Lewrick on the subject of design in the business context as well as for personal life and career planning.

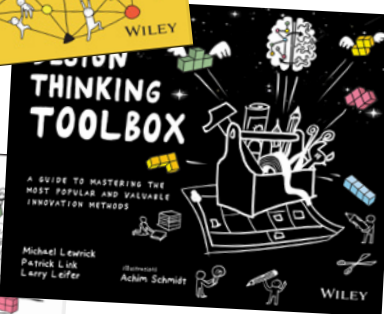


Lewrick

Design Thinking For Business Growth

How to Design and Scale Business Models and Business Ecosystems

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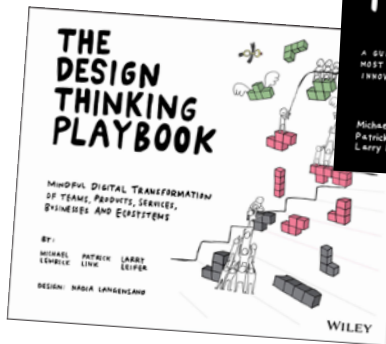


Lewrick, Link, Leifer

The Design Thinking Toolbox

A Guide to Mastering the Most Popular and Valuable Innovation Methods

ISBN: 978-1119629191

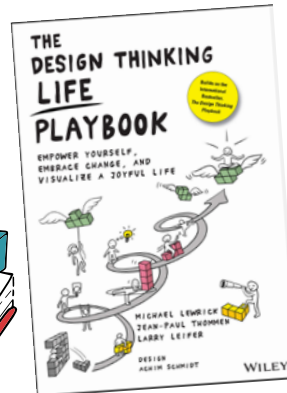


Lewrick, Link, Leifer

The Design Thinking Playbook

Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystems

ISBN: 978-1119467472

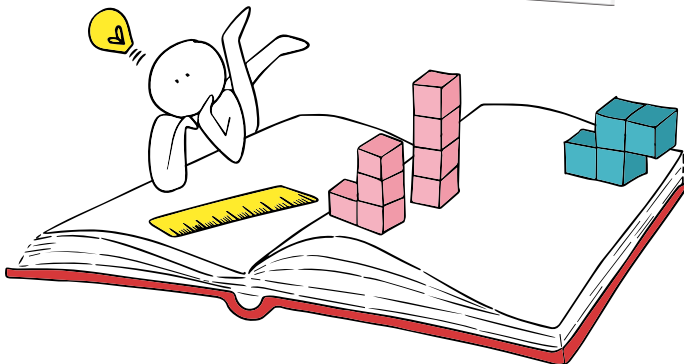


Lewrick, Thommen, Leifer

The Design Thinking Life Playbook

Empower Yourself, Embrace Change, and Visualize a Joyful Life

ISBN: 978-1119682240



DESIGN THINKING AND INNOVATION METRICS

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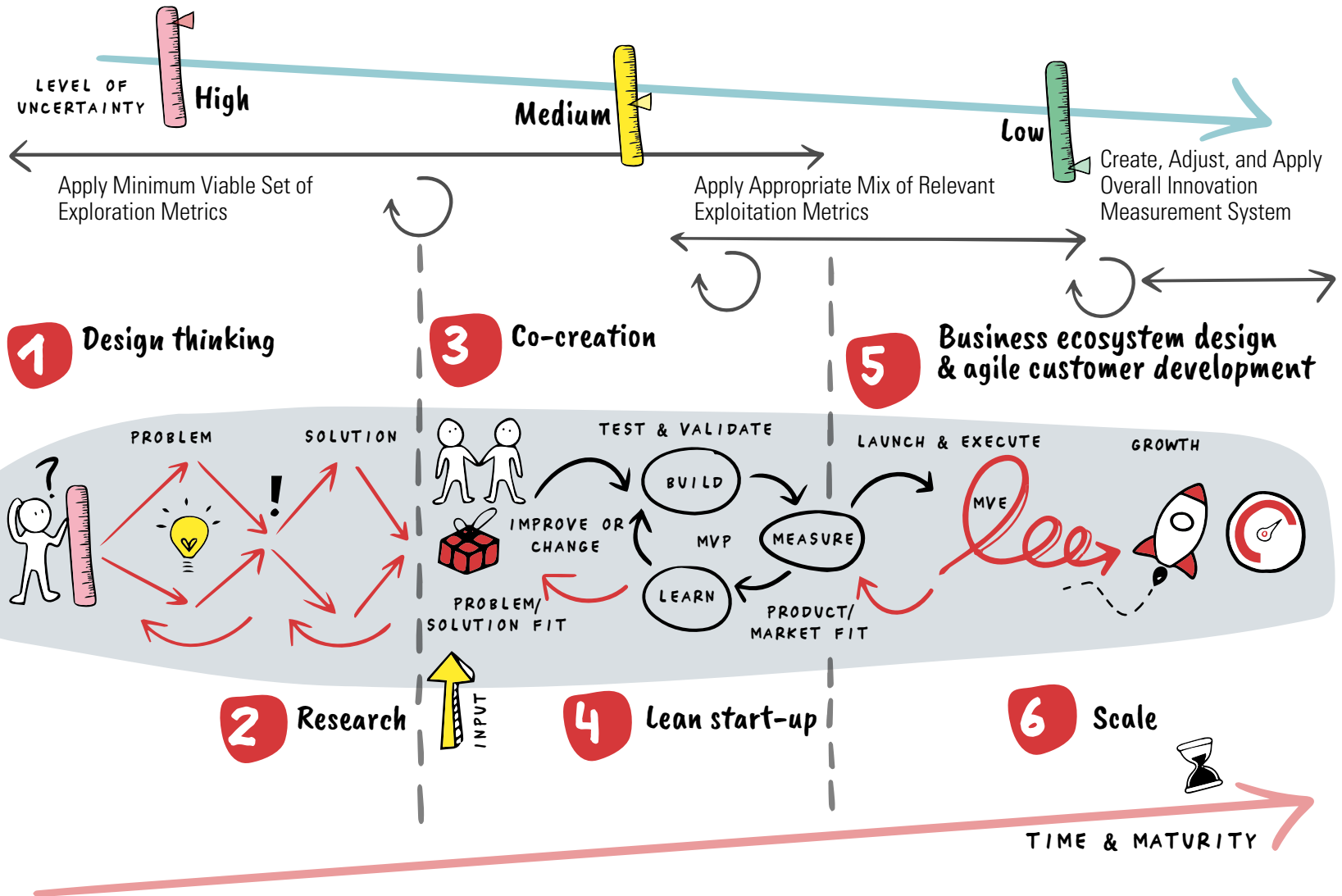
POWERFUL TOOLS TO MANAGE
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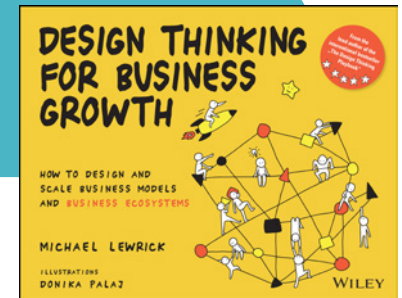
THE PROBLEM TO GROWTH AND SCALE FRAMEWORK



MVP – minimum viable product
MVE – minimum viable ecosystem

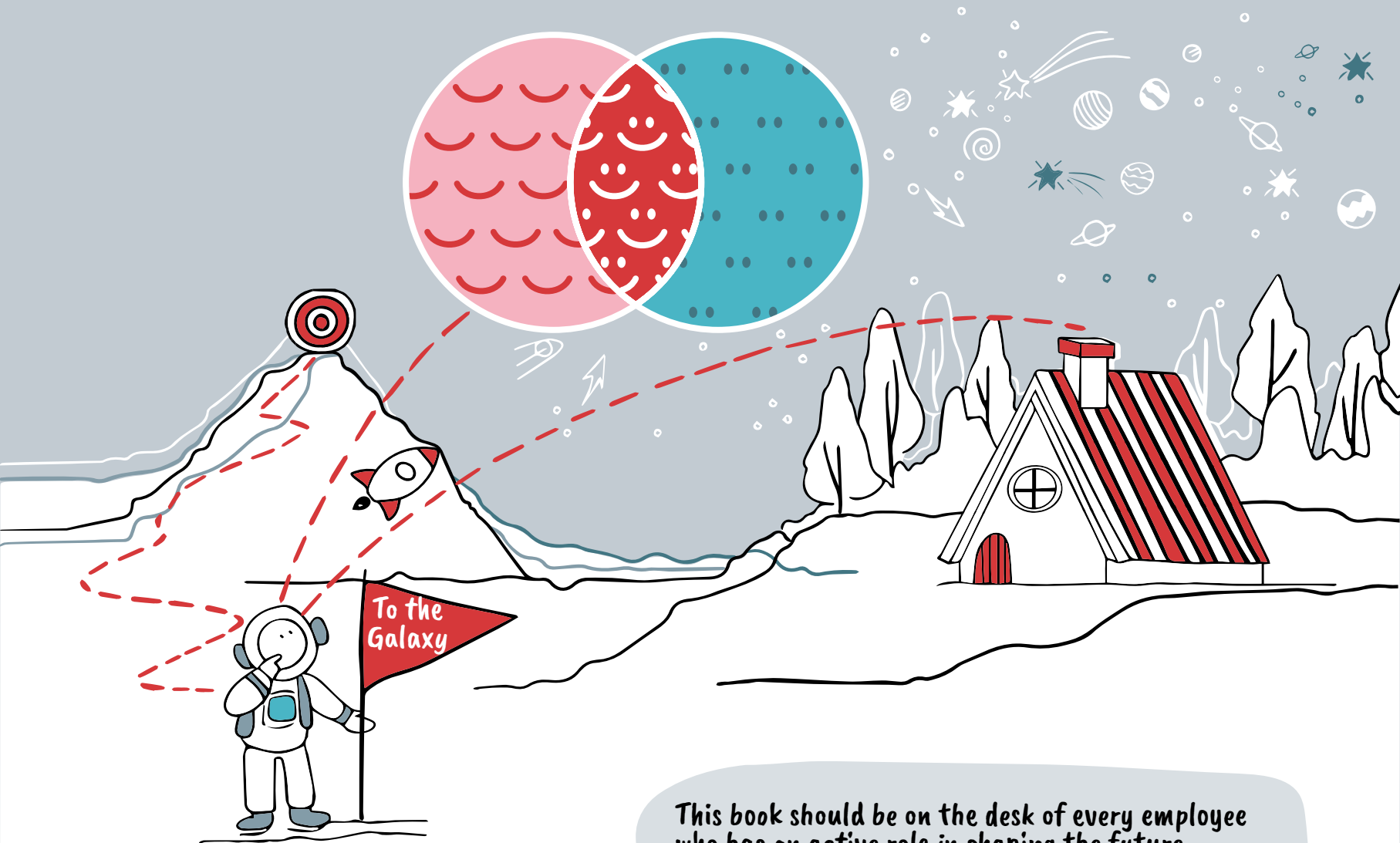
Metrics and meaningful measurements along the problem to growth and scale framework.

The Design Thinking Playbook introduces the overall context of design thinking, from problem definition to scalable solutions. It is complemented by the methods discussed in *The Design Thinking Toolbox*. *Design Thinking for Business Growth* presents a paradigm shift that many companies will face in the upcoming years in terms of business model innovation, value stream definition, and business growth. This book, *Design Thinking and Innovation Metrics*, complements the other books of the Wiley design thinking series and focuses on specific approaches for measuring, selecting, and predicting the respective activities from problem definition to scaling solutions.



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This book should be on the desk of every employee who has an active role in shaping the future.

Preface



Happy customers get you paid, and doing this repeatedly and efficiently is the goal of every business.

ASH MAURYA

Best-selling Author & Creator of *Lean Canvas*

Design thinking has become one of the most promising mindsets to address wicked problems in different contexts and from various disciplinary standpoints. However, the measurement of creativity, innovation, and business success is still challenging—from identifying the right problems worth solving to driving ideas to product/market fit.

My approach for addressing these challenges is embracing a continuous innovation framework that marries concepts from innovation accounting, running lean, agile, and customer development. The conceptual models and descriptions in this book perfectly fit this approach.

Michael Lewrick has done a great job of providing an entire toolkit of measurement techniques that can be used depending on the organization's objectives, culture, and maturity level.

In my view, this book has four crucial characteristics that make it an indispensable companion, especially for business practitioners:

1. Making decisions over the entire design cycle and at different points of EXPLORE and EXPLOIT
2. Tracking and measuring the success of design challenges, innovation projects, and cultural and organization change
3. Assessing the impact that innovation has on the business, employees, and the strategy level
4. Hands-on tools and governance models for implementing innovation measurement systems as well as objectives and key results

The ability to measure our innovation activities, mitigate risks, and create real value are key skills of start-up, design thinking, and innovation teams.

I wish you much success in applying design thinking and innovation metrics throughout the entire design cycle and beyond.

Ash Maurya

Focus on the current and future customers' needs

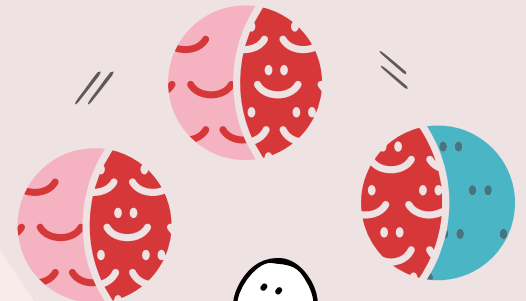
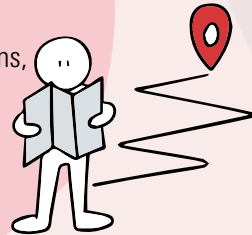
- Place the customer/user at the center of all activities, break internal silos, and remove barriers to external partners so you can create winning value propositions.
- Apply and use design thinking tools in solving customer, strategic and business problems, and designing physical, digital, and virtual customer experiences, products, and services.



THE DESIGN THINKING AND MEASURING MINDSET

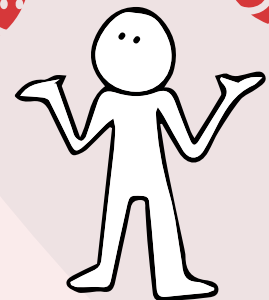
Define a minimum viable set of exploration metrics

- Introduce the measurements for EXPLORE step by step and in iterations, but with the same professionalism as the measurements for EXPLOIT.
- De-risk development by continually employing evidence across desirability, viability, and feasibility dimensions to evaluate highly uncertain, transformative innovation initiatives.



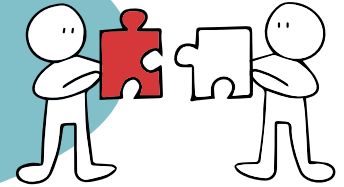
Grow with the team beyond the problem and solution space

- Build capabilities in design thinking and hold all relevant teams accountable for defining their objectives and key results.
- Establish interdisciplinary design thinking and innovation teams that follow the North Star of exploratory innovation initiatives.



Transform traditional metrics into meaningful measurement systems

- Promote the right behavior and appropriate mindset in order to foster both radical and incremental innovation.
- Provide strategic direction by indicating shifts in priorities.
- Direct the (re)allocation of resources and assess the effectiveness of innovation spending
- Analyze and enhance innovation performance and culture.

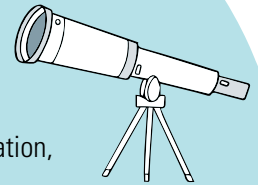


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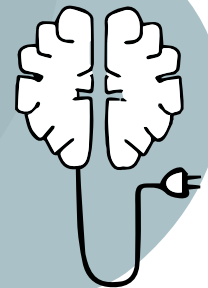
Apply Moonshot and Everest thinking for innovation teams

- Start to link objectives to real-world projects and initiatives.
- Align the teams based on impact and not on activities.
- Define audacious and inspirational objectives and measurable key results within a pre-defined scoring system.
- Turn it into culture where failure is a part of success, in exploration, if the team strives to achieve remarkable results.



Create impact with the interplay of big data analytics, artificial intelligence (AI), and neurodesign across the entire design cycle

- Leverage the potential of data and AI automation to extend data insights and deliver “unknown unknowns” based on the ability to explore millions of hypotheses in a very short time.
- Reveal the truth of design thinking with neurodesign or the simple satisfaction of formal expectations about human behavior that are still not completely understood.



How to Get the Most out of the Book

The following elements make it easier to find your way in the book:

Example



Examples of applying design thinking or the use of specific metrics will be described and presented.

Toolkit



Various known and new methods, tools, and procedural models will be presented. You'll find an overview of the most frequently applied tools and methods on the first page of this book. Each logical section has a toolkit with selected tools.

To the Point



At the end of each logical section, the content is reflected upon and summarized.

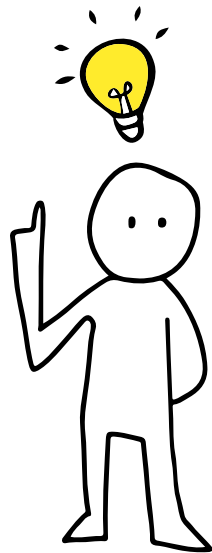
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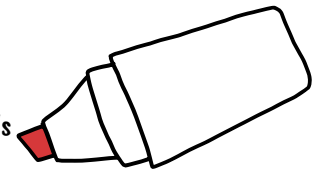
The traditionally rigid management framework has been obsolete at least since the turn of the millennium. So please adapt the procedural models in this book to your specific situation.

Each enterprise, organization, or team has a different purpose. Besides financial indicators, even the way a defined success is achieved might also be different. The primary goal of this book is to inspire you to adapt the current innovation measurement system and understand how it can be set up for innovation and design thinking teams.

When defining and applying performance measurement systems for innovation teams, it is especially important to establish a system that fits the organization, the current transformation, and the desired ambition.

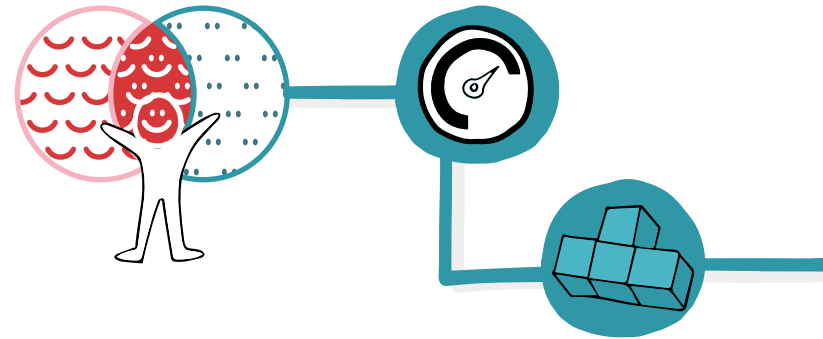
In addition, the snippets on data analytics, AI, and neuroscience in combination with design thinking provide insights into how future data and measurement points can enrich your work on the upcoming market opportunities. However, the approaches presented are also adaptable to the situation at hand.

It cannot be stressed enough that the tools, methods, and procedural models presented in this book must always be adapted to your specific situation.



Contents

For an easy entry into the world of design thinking and measurements, the essentials are provided in two comprehensive 101s. This is complemented by the definition of performance measurement systems for innovation teams (201). Data analytics, artificial intelligence, and neurodesign provide insights for applying data-driven innovation (301). Discussions are complemented by hands-on tools, methods, and suggestions for current and future metrics and measurements.



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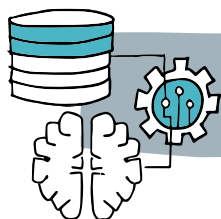
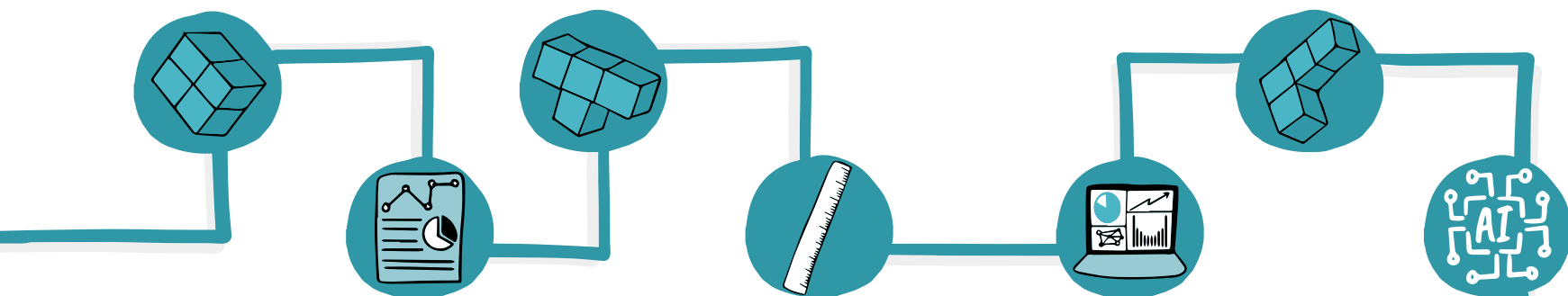


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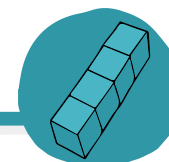
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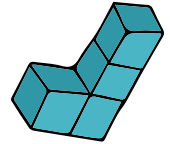
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Motivation for this book

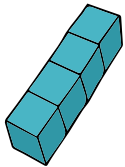


Michael Lewrick, PhD | MBA, has worked very intensively in recent years on the mindset that enables us to solve different types of problems. Michael is a best-selling author, award-winning design thinking and business ecosystem design thought leader, business entrepreneur, and visiting professor at various universities globally. His ideas, books, and company, Lewrick & Company, help mobilize people around the world to better lead innovation, digital transformation, and business growth in an era of increasingly rapid change. He is the author of the international best-sellers *Design Thinking for Business Growth*, *The Design Thinking Toolbox*, and *The Design Thinking Playbook*, in which he describes the mindful transformation of people, teams, ecosystems, and organizations. He works intensively with universities and companies, and places the self-efficacy of people in personal and organizational change projects at the center of his activities. In recent years, he has expanded his toolbox for measuring creativity, innovation, and business success. As an internationally recognized expert in the field of digital transformation and the management of innovation, Michael has helped numerous companies to develop and scale growth strategies.

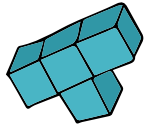


Core statements with regard to managing creativity, OKRs, product and business success

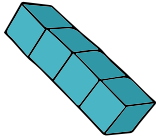
*"A **balanced portfolio of EXPLORE and EXPLOIT** leads to the realization of **new market opportunities** and sustaining the existing business at the same time."*



*"In the **current discussion** and application of **innovation measurement systems**, it is believed that the work of design thinking and innovation teams **is subject to constant change**."*

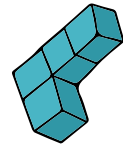


*"**Growth-leading companies** align their metrics and incentives to a minimum viable set of exploration metrics and an appropriate mix of relevant exploitation metrics **while avoiding measurement traps.**"*

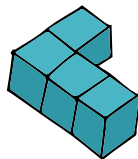
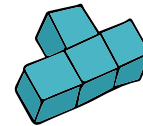


*"A state-of-the-art innovation measurement system should allow **prudent risk taking**, embedded in a **culture and mindset** that is tolerant of **risk and failure.**"*

*"**Advanced AI** will make metrics for innovation and business success **more forward-looking** rather than retrospective."*



*"Understanding **neuroscience** is an integral part of the **future of design thinking and innovation metrics.** It will transform the way how creative teams work and how new product, service, and experiences are designed."*



*"**A modern measurement system** should align the **North Star** with objectives that need to be achieved by **teams and networks of teams.**"*

Why Is Design Thinking & Measurement a Relevant and Central Topic for Me?

The title of this book alone triggers an already controversial discussion. Chief innovation officers, innovation and creative teams, as well as intrapreneurs are fighting every day for more freedom to explore and experiment so they can eventually achieve radical innovations that were previously unknown to customers and to the market.

To justify this important innovation work, nice-sounding key performance indicators (KPIs) often have to be invented to justify the budgets for exploration. On the other hand, in companies, we have a whole faction of executives and decision makers who follow the principle “What you can’t measure, you can’t manage.”

There is a need for a sensible approach toward metrics so that measurements do not take on a life of their own and become instruments of justification, defense, and power, rather than fulfilling their intended value of self-reflective direction setting.

I work with both groups in optimizing the existing business (EXPLOIT), as well as in realizing new market opportunities and disruptive business ecosystems (EXPLORE). Proper measurement ensures that a company’s available resources are used in the best possible and most profitable way.

This book aims to bridge the gaps between creativity, innovation, and measurement, and it offers a comprehensive collection of powerful tools to manage creativity, objectives and key results (OKRs), products, and business success. I have seen an increasing demand for this in many projects, and all of them reached a point in the design cycle, from finding the right problem to scaling the solution, where questions are asked about the appropriate metrics.

In some organizations, questions about metrics come very early in the design cycle, and in others, they come later, for example, when it comes time to invest to realize initial prototypes. The fact is that data points provide certainty for decisions, and even small surveys that provide a marginal reduction of uncertainty can be extremely valuable and have a big impact. Thus, the goal should be to apply the appropriate metrics, measurement systems, and frameworks that help to provide true indicators for measuring progress and success. In both cases, they should support deriving the right actions from them.

In many of my engagements with companies over the last 20 years the focus has usually been on two objectives: building new capabilities (learning) and, at the same time, delivering high-impact outcomes in the project. This approach, better known as project-based learning, focuses on the people who are trained to strengthen their creative confidence and to apply the appropriate tools and methods at the right time, as well as to deliver convincing solutions at the end of the innovation journey.

Along with the people, the path from problem definition to solution is equally important in the development of any idea to market. This transformational journey is about networking with other teams, leveraging the strengths of each team member to the best of their ability, and allowing teams to grow beyond the problem and solution space that exists in the heads of individual team members. This way, the networking and interaction usually go through a positive reinforcement that empowers everyone to make a valuable contribution to the organization and its strategic ambition.

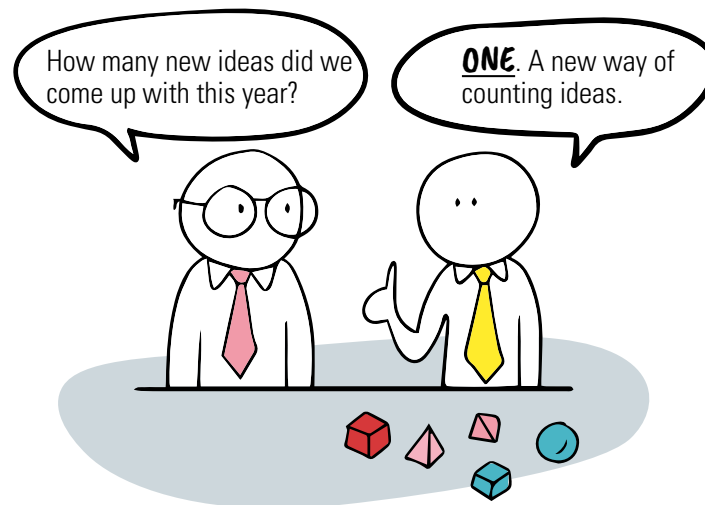
Measuring transformation, networking, and building new capabilities are ongoing and related to activities. Thus, not all metrics are the same, and their nature can range from lagging to leading, and financial to nonfinancial.

One possible way to set up a meaningful performance measurement system is to use objectives and key results that pay attention to the larger strategy and help the teams to focus time and energy on the appropriate customer problem. This book not only explains how to design and apply metrics for **EXPLORE** and **EXPLOIT**, but presents hands-on tools to align between company objectives and team objectives in establishing performance measurement systems.

Applying traditional KPIs in every step, before even starting to explore and test new market opportunities, is destroying creativity before it begins.

In addition, this book builds on design thinking, which gives us the mindset to think from the customer's point of view, to collaborate radically, and finally to better master the dance with ambiguity. If you've read the other books in which I have been the lead author, you know that the current mindset includes the combination of big data analytics, and the application of varying mindsets from systems thinking to design thinking, for example in the realization of business ecosystems.

This book provides a framework to better deal with metrics and also serves as a deepening of and complement to the books *The Design Thinking Playbook*, *The Design Thinking Toolbox*, and *Design Thinking for Business Growth*. In particular, it presents additional methods, tools, and approaches for the selection of ideas and the measurement of success across the problem of growth and scale framework, facilitating decision making, and comparison of options and opportunities. In short, this book is an advanced toolbox that positively supports our daily innovation work. Professional facilitators and innovation experts will use it as a playbook to get inspired.



However, the book is also intended to encourage people to rethink existing views and innovation measurement systems and not to focus on meaningless KPIs, such as the well-known vanity metrics that measure, for example, the number of new ideas generated by teams over a year.

I welcome your feedback on the application of these tools, methodologies, and metrics and wish you good luck in your current and future activities as you realize new market opportunities and business success.

Michael Lewrick



I welcome direct feedback on the book and an exchange of ideas on the application of design thinking and the ways to measure creativity, innovation, and business success.

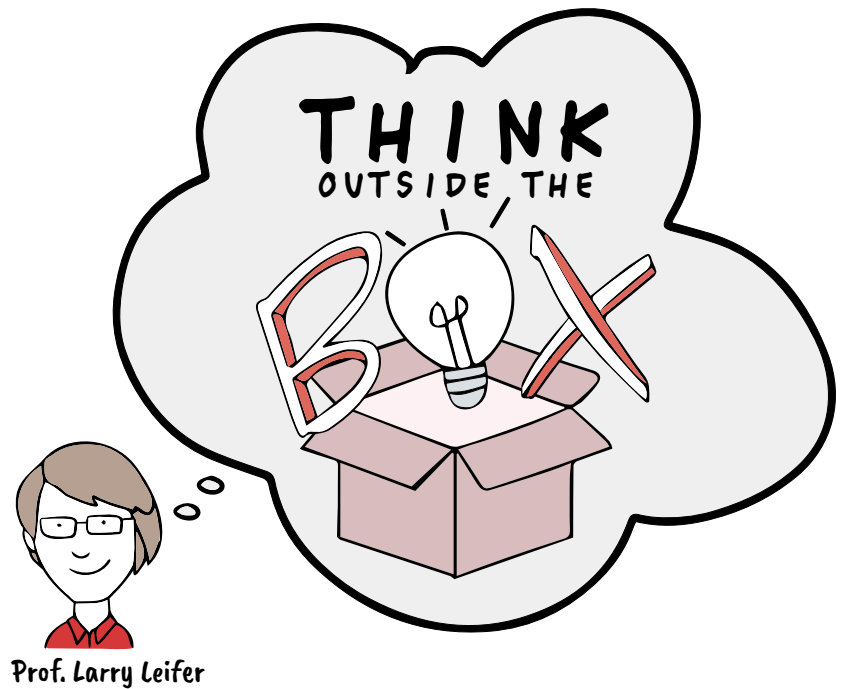
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The Roots of Design Thinking

The mindset, tools, and methods presented in this book relate mostly to the principles of design thinking applied at Stanford University. Stanford University's involvement with design-oriented programs began in the 1950s, and it has been an influencer of many companies globally ever since. At the same time Stanford has been influenced by new industry movements and developments in applying design thinking for products, services, processes, and business ecosystems. The research and education programs at Stanford have become a global standard for design thinking and applied design. From the early days, Stanford's engineering design was influenced by studies on creativity and human-centered design. One of the postgraduate program's first students was Professor Larry Leifer, who for decades drove Stanford's academic vision of design in engineering, eventually founding the university's Center of Design Research (CDR) in 1984. The CDR has produced gigantic amounts of design thinking-related research throughout the years, mostly focusing on the effectiveness of collaboration, teamwork, and, lately, the application of neurodesign. Since the late 1980s, Larry Leifer has led the iconic and radical engineering design course ME310, which celebrated its 55th year in 2022. The course displays many of the aspects that today are associated with design thinking. For almost 20 years, ME310 has been taught in partnership with universities and clients from around the world, becoming a breeding ground for hundreds of followers of design thinking the Stanford way. In 2005, the d.school was founded by David Kelley (founder of IDEO), a former PhD student of Larry Leifer, who attended the ME310 course back in the 1970s. The d.school and CDR remain Stanford's leading institutions for a more holistic view on design thinking.

Inspired by the research, tools, and methods of Stanford University, many frameworks, like the Business Model Canvas and Value Proposition Design, have been derived over the years. In addition, CX/UX/UI designers use the design thinking process to discover problems and come up with creative solutions by thoroughly understanding the customer/user needs, pain points, and jobs to be done.

The methods presented in this book have also been profoundly influenced by my mentor, friend, and colleague Larry Leifer over recent decades. Completely new research, practical models, and approaches have emerged from this collaboration, such as business ecosystem design, which is based on a skillful combination of systems thinking and design thinking to create the basis for scalable solutions and exponential growth. In the future, design thinking will become even more important and will accompany and co-exist with AI solutions in solving the biggest and most complex questions of mankind, from stopping global warming and dealing with pandemics, to the design and realignment of the political order.



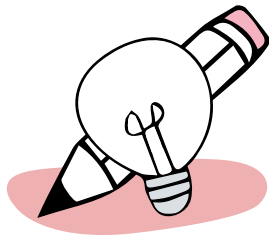
Prof. Larry Leifer

The Evolution of Design Thinking



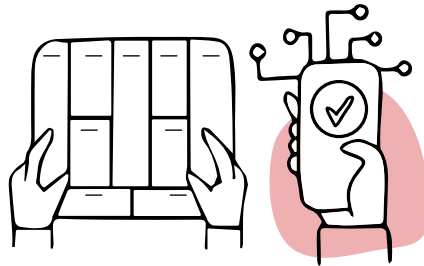
DESIGN THINKING

**[Design thinking is a mindset for creative problem solving.
The approach leads to breakthrough innovation.]**



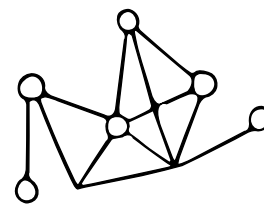
EARLY DAYS

Focus on (re)design of products, services, processes, business models, and experiences



TODAY

Enable digital platforms, business ecosystems, new organizational behavior, and user experiences



FUTURE

Design of immersive experiences, convergence with AI, automation, and mass customization; relevant mindset for tackling the most wicked problems of mankind



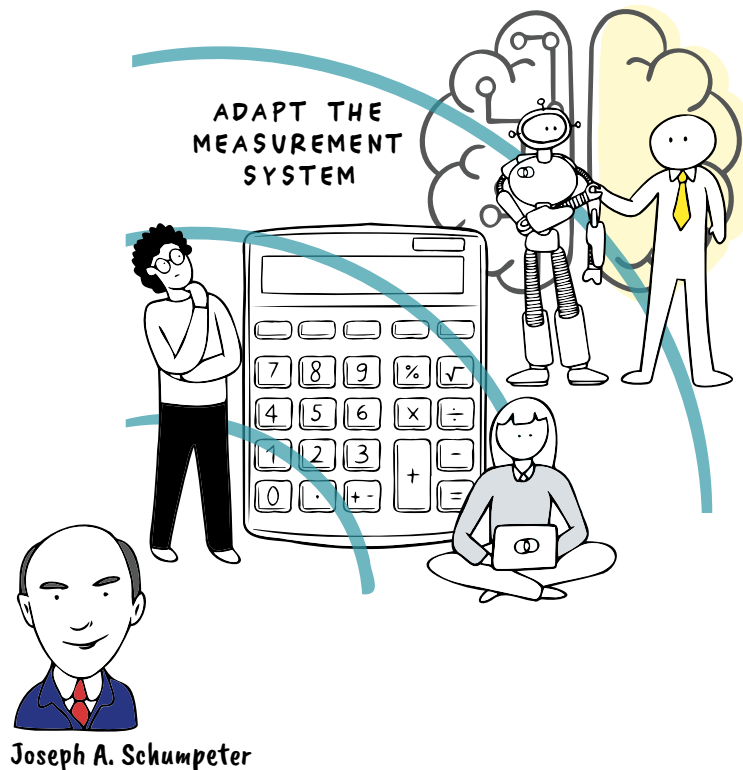
The History of Innovation Metrics

As with design thinking, innovation measurement systems have also evolved over the past decades. Innovation measurement originated in the 1960s, with the establishment of international standards to measure the research and development (R&D) efforts by companies. However, it was soon realized that this measure alone did not cover the diversity of innovation and that adaptable models were needed. In the 1970s and 1980s there were several attempts to overcome the linear models of innovation and new theories of economics of industrial innovation were established. This was followed by a period in which Schumpeter's theories were revived in order to lay down the basis for a new economics of innovation, the classification of innovation typologies has to be given a special attention in the innovation and measurement community. As a result, measurement activities, either quantitative or qualitative, focused on specific business functions and any improvement in these functions was seen as evidence of innovation. At this stage, the measurement of innovation output was seen as a priority. The identification of an innovation process through a few potential outputs, such as a new business model, new product, or new process, was proven to be very effective for the measurement purposes at this specific period of time. With the digital transformation, frameworks with different metrics looking at innovation and investment in intangible assets as two highly correlated phenomena became established. These mostly included business activities related to technology, digitization, environmental and social sustainability, customer experience and branding, internal innovation networks, purpose, and external innovation ecosystems.

In the current discussion and application of innovation measurement systems, it is believed that the work of design thinking and innovation teams is subject to constant change. For this reason, on the one hand, the full range of statistical tools should be used to keep pace with this change. On the other hand, measurements should be made on two levels: a carefully described object and productivity as a measure of innovation. Thus, besides the qualitative indicators, the quantitative output indicators are an important element in understanding whether individual measures, from building new capabilities to implementing a strategy, are effective and successful.

Thus, many more approaches to various assessment and measurement methods will be added in the future to account for the multiple impacts of innovation, including the quantitative and qualitative dimensions of the performance and experiences of individuals, teams, and organizations.

Likewise, new names are invented for the respective measurement systems to emphasize the importance of certain elements, such as the aspiration aspects of OKRs for innovation teams based on customer insights, so called AKIs (Aspirations and Key Insights).

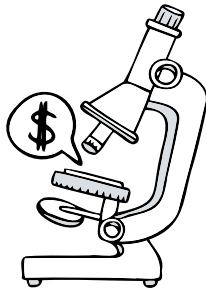


The Evolution of Innovation Metrics



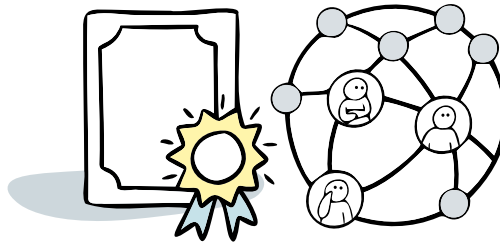
INNOVATION MEASUREMENT SYSTEM

[Today organizations build custom-made innovation and performance measurement systems based on a set of minimum viable exploration metrics.]



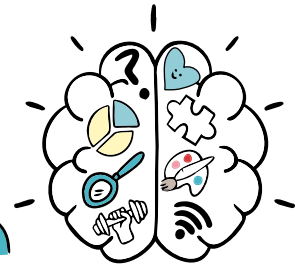
EARLY DAYS

Focus on R&D expenditures, capital, tech intensity, patents, number of publications, and number of new products



TODAY

Focus on outcomes, processes, portfolios, risk/return, clusters, network effects, design thinking and systems thinking capabilities, and team performance



FUTURE

Extension toward system dynamics, collaboration, future capabilities, supported by AI, big data analytics, and emerging measurements about communities and ecosystem capital

1960

1980

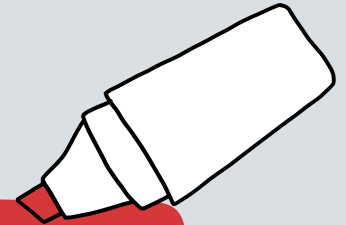
2000

2020

2040

TIME

To the Point!



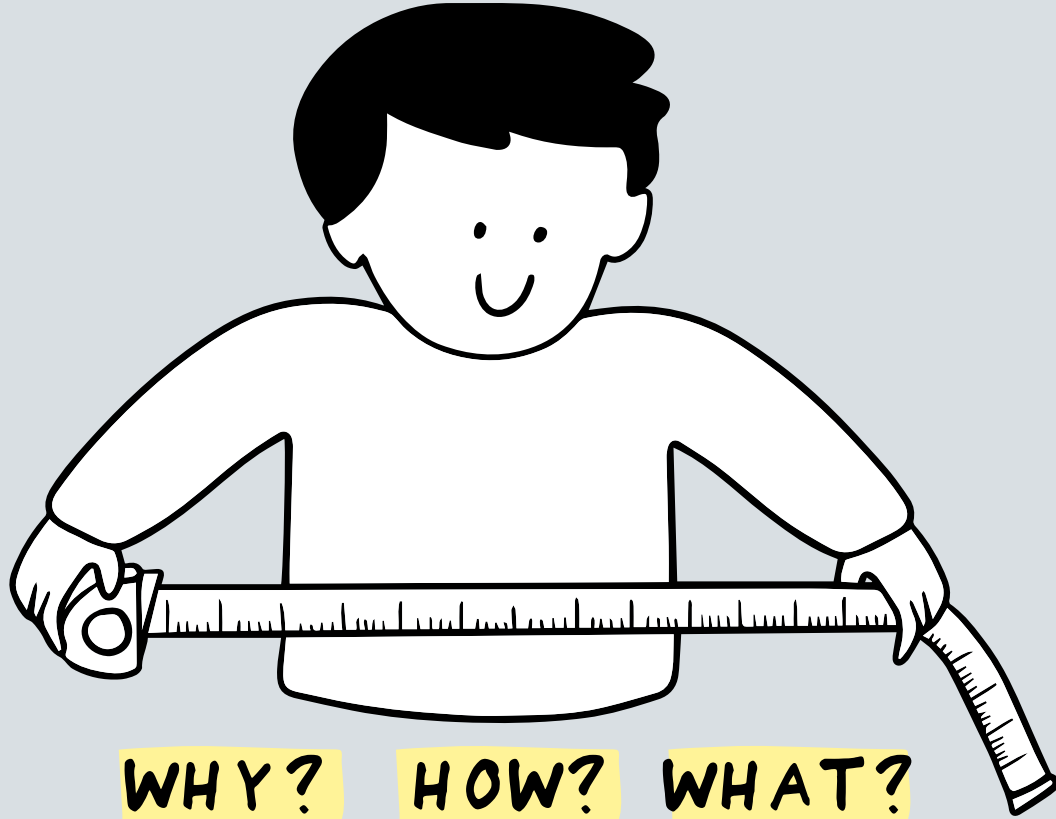
In an era of increasingly rapid change, wicked problems to solve, and extraordinary opportunities for business growth and positive change, design thinking provides the appropriate mindset.

Measuring creative work, business, and innovation success remains a challenge for individuals, teams, organizations, and entire ecosystems.

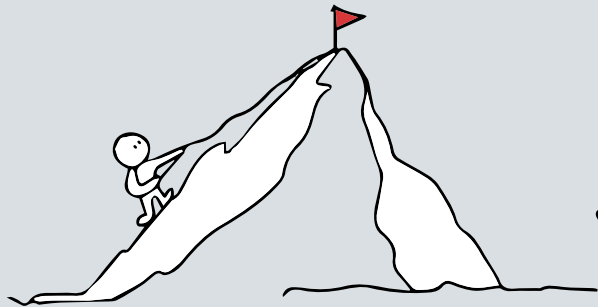
In many instances vanity metrics are applied, for example, in counting the number of randomly collected ideas without meaning. However, most of those traditional measurements are not related to the customers' needs and do not help make better decisions and take effective action.

This book is an advanced toolbox that positively supports the daily innovation work and deepens the mindset that is needed to create purpose, action, and impact for customers, employees, people, and society.

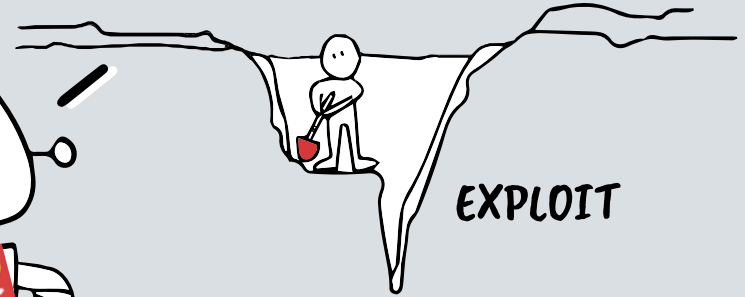
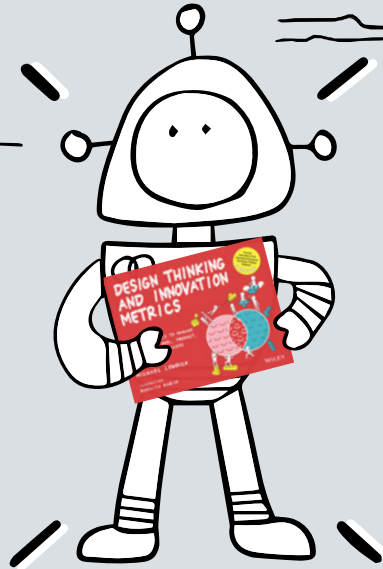
INTRODUCTION TO THE TOPIC



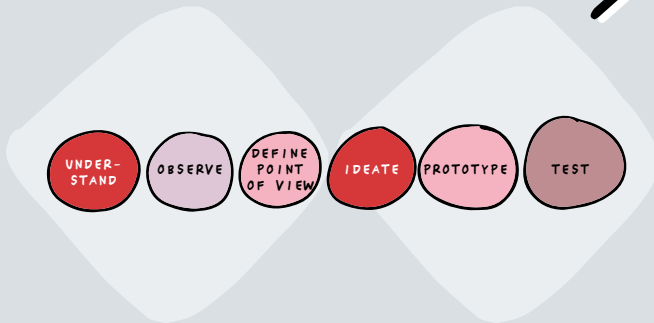
WHY? HOW? WHAT?



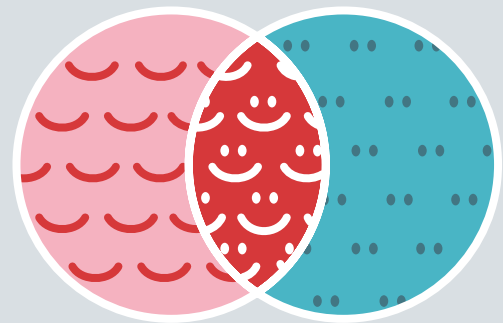
EXPLORE



EXPLOIT



DESIGN THINKING



METRICS

WHY Are Design Thinking & Innovation Metrics Important?

Design thinking and meaningful metrics are key for creating new and viable products, services, business ecosystems and business models. The design thinking mindset fits perfectly into the new world in which companies are striving to become even more meaningful to the customer. It is also ultimately intended to enable interdisciplinary teams to collaborate in an ad hoc and radical way across the established silos of the enterprise. Design thinking offers the best starting position especially for wicked problems and the development of radical innovations. The design thinking mindset helps the respective teams today in the most innovative companies worldwide not only to explore the problem space and develop initial prototypes, but also to respond to constantly changing customer needs in the setting of agile customer development.

Change requires innovation, and innovation leads to progress, which can be measured at different levels.

Design thinking helps organizations, teams, and each individual employee to define success and to work out the critical functions and experiences that are important for the customer today and in the future. Design thinking also helps establish a common understanding of the organization's ambitions and the North Star, so it is not surprising that building up and applying design thinking as well as measuring innovation success are skills that are in high demand. Both are becoming increasingly important for companies to establish a mindset and the development of appropriate innovation measurement systems. Together, they help not only to realize value capture, but also to support and realize value creation and delivery in the best possible way. However, individuals, teams, and decision makers underestimate in many cases their innate desire to optimize their behaviors to meet the objectives with which they are presented.

In many companies, the objectives are still designed to support this behavior, which leads employees to design their activities around it to optimize numbers, but not focus on value creation, value delivery, or value capture depending on the growth phase or maturity of the initiative the individual or team is working on.

Value creation, value delivery, and value capture become more important than optimizing numbers.

In organizations and environments where vanity metrics have a long tradition, employees tend to make them their individual and team objectives. An especially hard-to-understand strategic vision can lead teams to lose sight of their North Star and instead only optimize themselves for the short term. Often such behavior can also be observed in agile teams, which are required to develop solutions based on ideas and do not get the opportunity to explore the problem space first to know what the ultimate purpose of the solution should be for the customers or other stakeholders. As a result, the organization, the team, or each individual misses the wrongly set targets, and leaders criticize not the system of measurement and how objectives have been defined, but the individual employees and teams that have been subjected to this system. In most cases, failure occurs because the organization measures efficiency, but they actually want to know more about effectiveness.

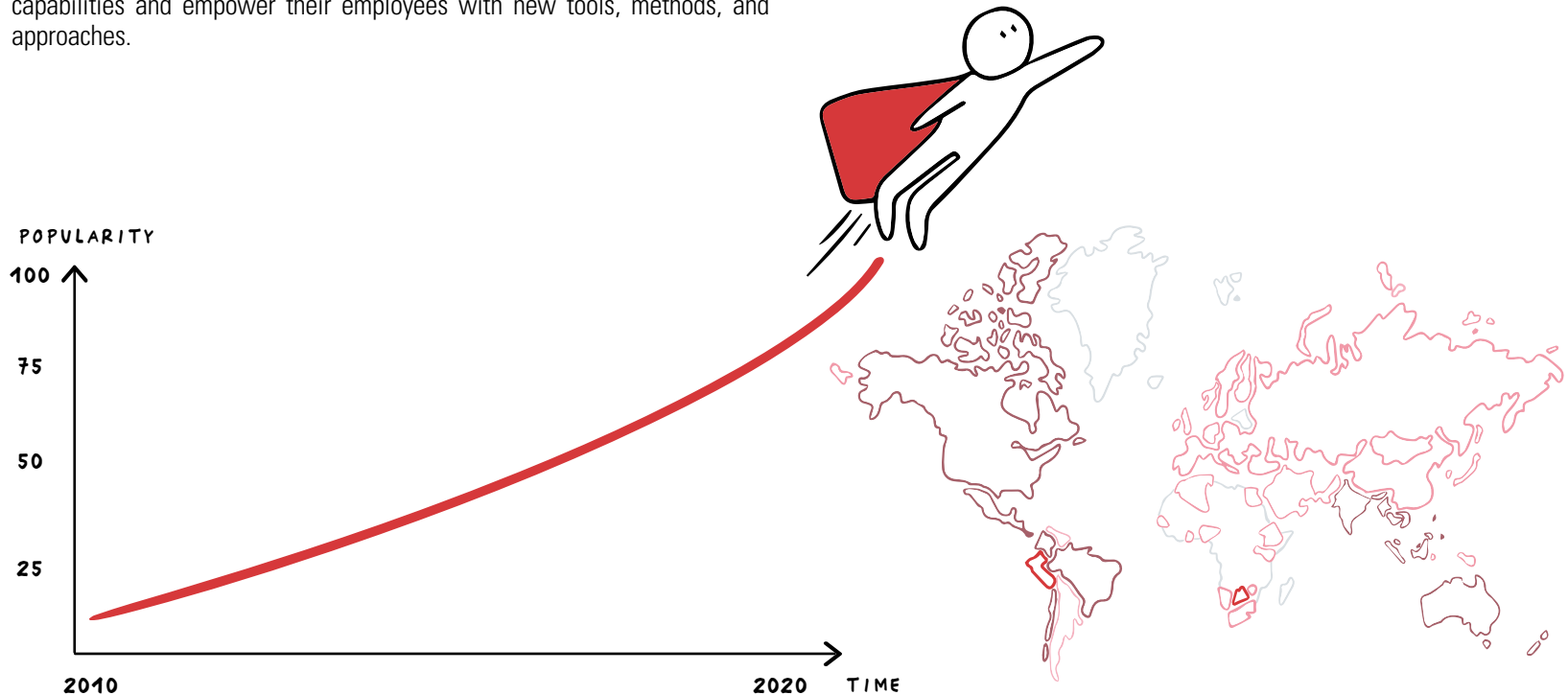
If the measurement doesn't make sense, you can't expect the behaviors of each individual and the team to be logical, either.

Practical experience shows that teams are more willing to engage in design thinking activities when they feel they are not measured by their achievement hard requirements, but by their achievement of great outcomes that create value. In exploration, outcomes are often related to behavior change that drives business results.

Increasing Interest in the Design Thinking Mindset...

Design thinking as a mindset has become very popular in the last decade. More and more companies have realized that exploring the problem space more deeply before finding a solution helps them to discover better solutions, and thus increases the success of market opportunities. Traditional companies from the pharmaceutical, banking, insurance, retail, and engineering industries are increasingly recognizing the need to build design thinking capabilities and empower their employees with new tools, methods, and approaches.

The Google Trends radar chart for the search term “design thinking” confirms that there is a very great global interest in design thinking. This also brings us a statistic on the interest in the design thinking mindset, which correlates very well with the number of requests training and consulting companies are receiving to make design thinking a central mindset across organizations.



Source: Google Trends “Design Thinking” (2010–2020)



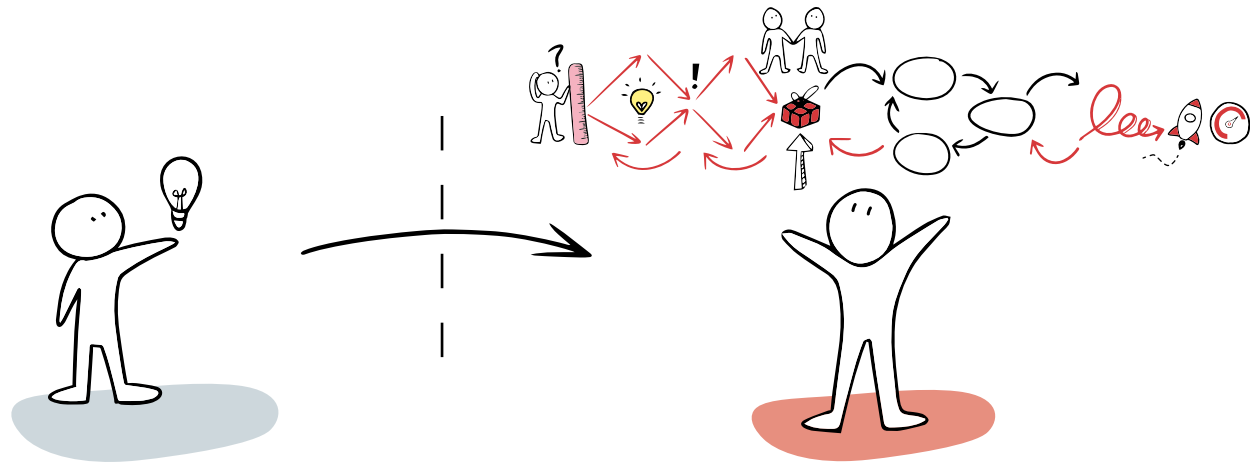
Very high High Moderate Low

... and Even More Potential by Applying a Broader Design Lens

Today, design thinking is much broader than the (re)design of products, services, and processes. It is used for a wide range of problem statements. Design thinking teams radically design new value propositions for business ecosystems. The mindset is used to improve business models or to combine completely new value streams in such a way that exponential growth can be realized. Design thinking is also used in combination with big data analytics to design better features and experiences for customers/users. Furthermore, it is applied to set up conversational AI solutions, such as responding to already known customer needs and frequent inquiries, so customers receive fast and promising answers.

Since the onset of the digital transformation of products, services, organizations, and teams, the design thinking mindset has become indispensable for companies, start-ups, and non-profit organizations. Business development and strategy teams base their strategy considerations on customer insights and iteratively develop new product, service, and growth strategies. For this and many other reasons, the interest in design thinking and innovation metrics is also increasing. In the end, what counts is the impact, transformation, and customer delight regarding all activities delivered.

Evolving design thinking from pure product / service development into a wider design thinking lens with transformational digital and business growth opportunities

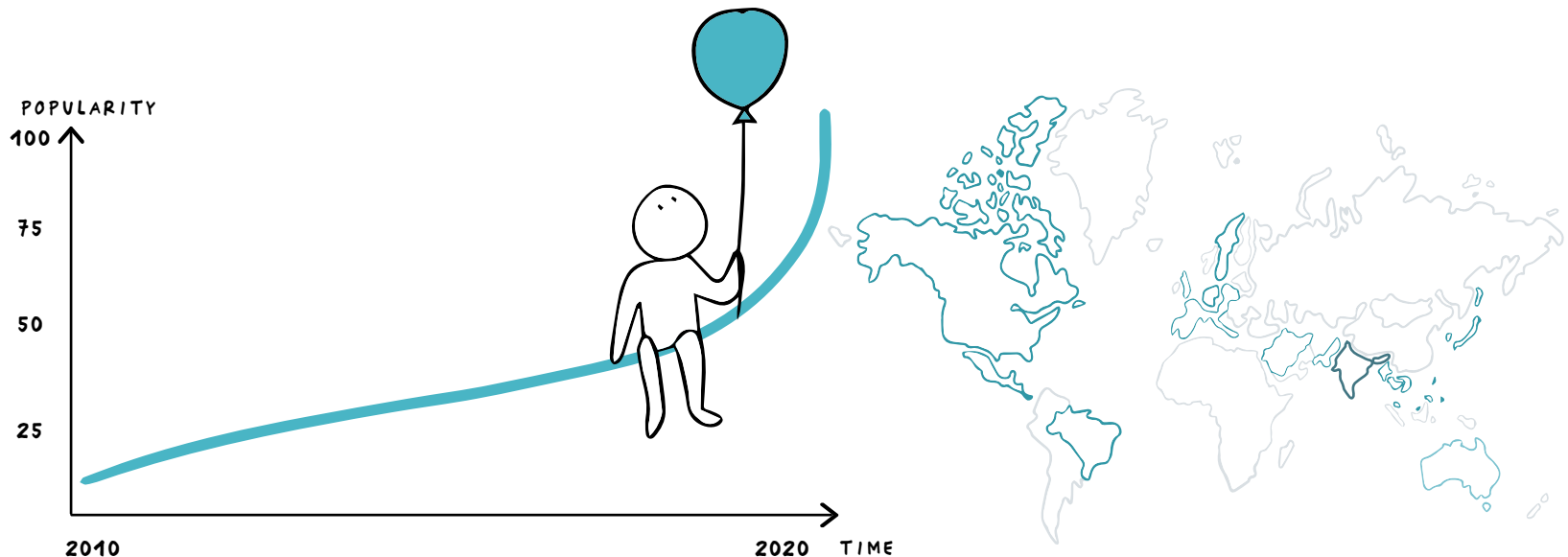


Design thinking has evolved over the last 50 years. Today, the design thinking mindset is used for the (re)design of products, services, business models, and even complex business ecosystems. The examination of the problem and solution space is the basis for strategy work, the definition of OKRs, and initiating new organizational models.

Increased Interest in Measuring Innovation ...

There is also a great interest in measuring innovation. One reason for this is that business models have changed in recent years and, at the same time, dynamics have increased, which means that companies have to react to changes much more quickly than in the past. Companies use big data analytics for agile product and service development and act proactively on current and future customer needs with tailored offerings. However, the measurement of innovation often lags behind the described developments, although the data, information, and inferences would positively support decision making and business management.

It is not surprising that the Google Trends search on "Innovation Index" is also gaining in importance, even if the global distribution shows that India, Australia, Europe, and North America have so far shown the greatest interest. A quick check of the search trends on Baidu shows that the map in Asia continues to fill up for the keywords "Design Thinking" and "Innovation Index" as well.



Source: Google Trends "Innovation Index" (2010-2020)



Very high High Moderate Low

... But Still a High Popularity of Vanity Metrics

Vanity metrics can be found in many innovation frameworks of organizations. Especially in large companies, such indicators have a high longevity, as they are an easy way to quantify the claimed innovation power in an impressive way. In most cases, however, they only provide an indication of the current impact and neglect the benefits that will be generated by the respective activities in the future. This is another reason to broaden the view and present innovation metrics that are actionable, informative, and measurable.

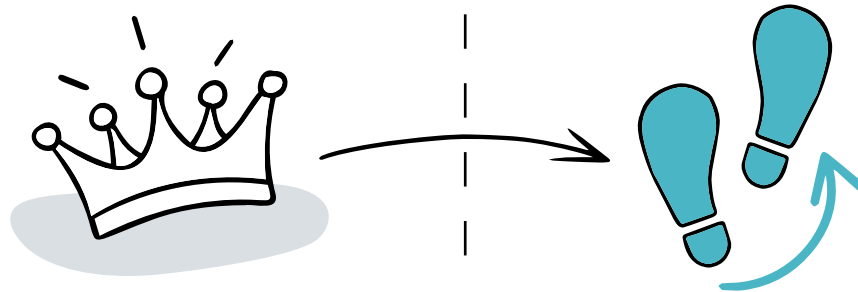
It is also important to differentiate between what your organization wants to achieve currently and in the future regarding EXPLORE and EXPLOIT and how other key objectives relate to transforming and developing new capabilities. This includes the establishment of new organizational models, in addition to the pure realization of market opportunities.

Thus, in this book a rough distinction is made between:

- North Star metrics
- Minimum viable set of exploration metrics
- Appropriate set of exploitation metrics
- Performance measurements (OKRs)

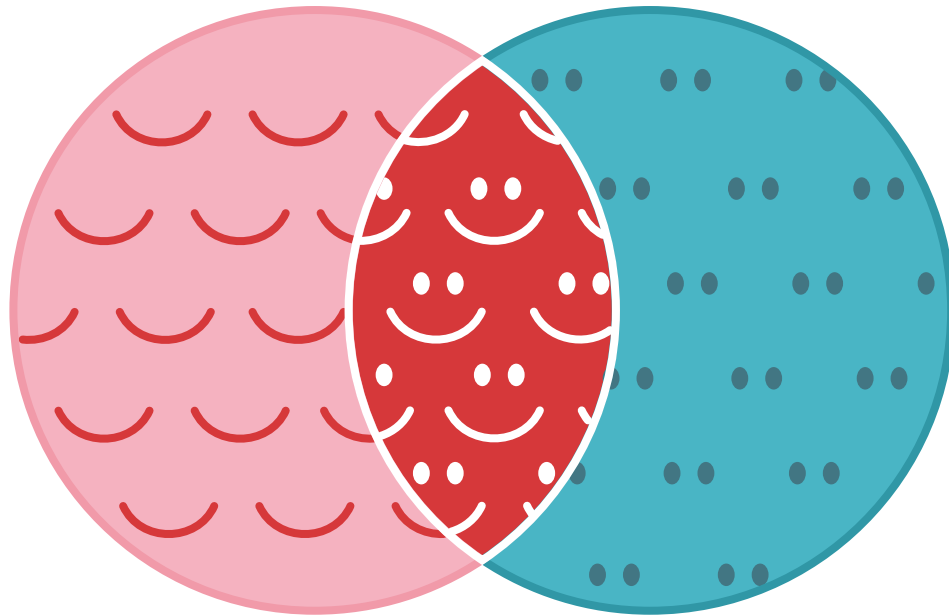
The overall motivation is to provide individuals, teams, decision makers, and organizations with a choice of tools and methods for creating actionable measurements and objectives, which allows them to reveal possible directions for change, motivates them to create impact with purpose, and provides for more frequent and time-bound evaluations. However, for many metrics it is also necessary to add external data points for measuring innovation and defined success.

From vanity metrics to meaningful metrics



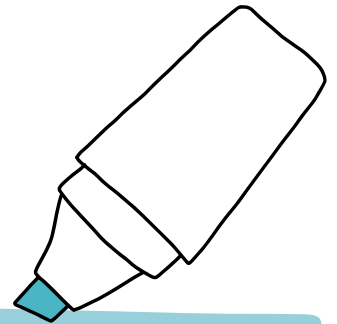
Meaningful measurements for creativity, innovation, and business success range from a minimum viable set of exploration metrics embedded in a powerful innovation measurement and performance measurement system, to the appropriate set of exploitation metrics aiming to steer, reflect, and adjust activities toward the desired future outcomes.

The Symbiosis of Design Thinking and Measurements



- Does the mindset of your organization consider the pains, gains, and jobs to be done for your customers?
- Does the organizational setup allow radical collaboration and a balanced portfolio of **EXPLORE** and **EXPLOIT**?

- Do the metric and the measurement system of your organization matter to your customer?
- Does the metric lead to taking actions and making better decisions?



HOW to Apply It to Unlock Value

As an extended toolbox for design thinkers and business practitioners, this book presents the different levels of defining metrics and the new and known metrics for daily work. This book takes a broader view of the design lens from problem identification to solution scaling. In addition, approaches are presented that help in applying the design thinking mindset in defining objectives and key results.

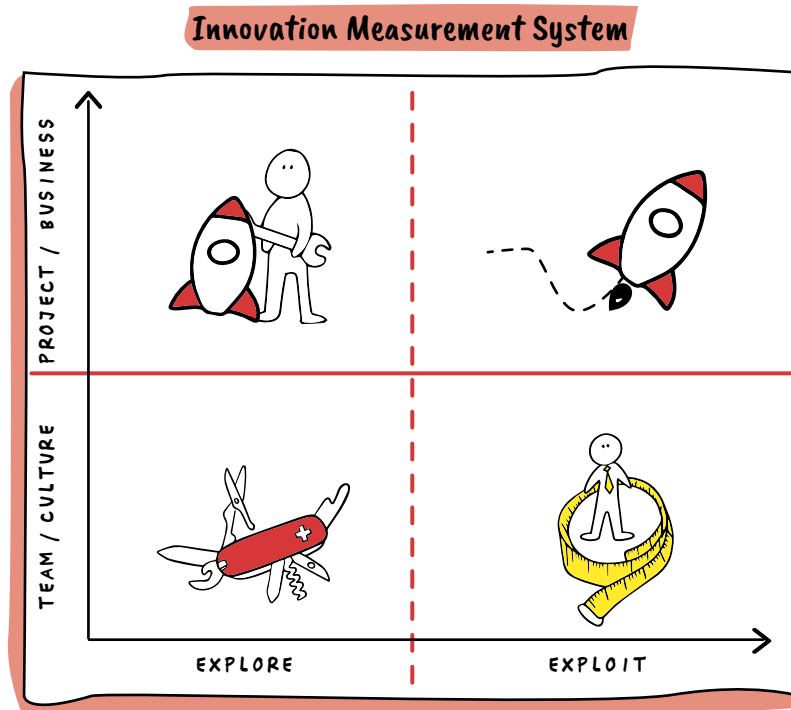
The subject of metrics is roughly divided into EXPLORE and EXPLOIT because the goals, the underlying mindset, and the measurement are very different between these two categories. EXPLORE usually has a focus on creativity and experimentation up to the establishment of new capabilities and organizational structures. By contrast, EXPLOIT focuses on achieving the best possible efficiencies, optimizing costs, and increasing output. These are measures that help to optimize ROI and achieve the targets of business plans.

Metrics based on the one-size-fits-all pattern for EXPLORE and EXPLOIT often do not achieve the desired goal.

Depending on the organization, there are different levels for the definition of metrics. The framework presented in this book includes elements that are usually relevant for established companies and illustrates how different the basis for the respective definition of metrics can be, depending on the focus and purpose: EXPLORE or EXPLOIT.

In contrast, start-up companies usually deal with EXPLORE at the beginning and can start with a greenfield approach in terms of structure, culture, and the targeted portfolio. Often OMTM (one metric that matters) is applied in the early incubation phase. However, the start-up philosophy is often also found in established companies in the form of intrapreneur units, which are assigned the task of disrupting the existing business. At the same time, other established companies have neglected their EXPLORE capabilities and directed all activities toward EXPLOIT.

Focusing on the team/culture and project/business spheres of measuring EXPLORE and EXPLOIT over time and iterations can create a superior innovation measurement system. This unlocks value and taps into the full potential of design thinking and measurements.



EXPLORE needs minimum viable metrics that allow an organization to measure progress and learning while reducing risk from problem definition to scale.

Project / Business

- Focus on ecosystem/co-evolution fit
- Optimized value streams
- Leverage multidimensional business models

- Focus on system/actors fit
- Minimum viability of ecosystem (MVE)
- Activities of customers and ecosystem actors

- High uncertainty
- Budget and resource for developing disruption
- Reinventing business models

- Focus on problem/solution fit and product/market fit
- Test and validation of assumptions
- Viability of product, service, offering

- Attributes related to diversity and tolerance to failure
- Balance between readiness for change and fear
- Trainings for future skills and new capabilities

- Moonshot and Everest objectives and key results
- Progress and team-of-teams collaboration
- Diversity and interdisciplinarity

- Progress of capability and skill building
- Aptitude for collaboration and entrepreneurship
- Openness for change and mindset-shifts

MINIMUM VIABLE SET OF
EXPLORATION METRICS

EXPLORE

North Star Metric(s) 

Scale

Business Ecosystems

Portfolio

Design Challenge / Project

Alignment

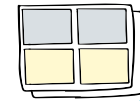
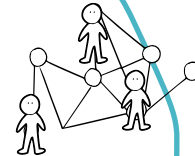
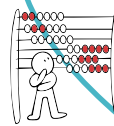
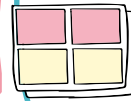
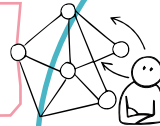
Organization / Culture

Team

Individual

PERFORMANCE MEASUREMENT
SYSTEM

OKRs



- Network effects and exponential growth
- Leverage of digital, physical, and hybrid touchpoints
- Scalable processes, IT, data analytics

- Adaption of ecosystem and co-evolution of actors
- Building up and leveraging of ecosystem capital
- Enhancement and expansion of core value proposition

- Low uncertainty
- Budget and resources for developing the core
- Sustaining business models

- Focus on the systematic improvement
- Based on forecasts and more detailed plans
- Achievement of growth targets or efficiency gains

- Driven by automation and process efficiency
- Balance between agility and discipline
- Culture of continuous improvement

- Roofshot objectives and key results
- Efficiency gains and reorganization
- Standardization and specialization

- Individual contribution to the team
- Aptitude for efficiency and automation
- Openness for exponential growth

**APPROPRIATE MIX OF RELEVANT
EXPLOITATION METRICS**

EXPLOIT



Building Blocks of the Innovation Measurement System (IMS)

Levels for Defining Metrics and Examples

The different levels in the illustration show how complex and comprehensive the management and measurement of creativity, products, and business success are. The focus in this book is on the largely ill-defined measurements, which represent the greatest challenge in the context of EXPLORE. Likewise, different approaches are presented to appropriately select the more often well-defined measurements, in the context of EXPLOIT. Another central element relates to the tools and methods that are suitable for the implementation of performance measurement systems for innovation and design thinking teams. Performance measurement systems, minimum viable exploration metrics, and exploitation metrics are briefly defined next.

Performance Measurement Systems

In terms of measuring and breaking down strategic goals and priorities, there are different approaches. One way is to work with objectives and key results. This approach is grounded in having a concrete North Star, clearly defined ambitions, or the corresponding mandate to the teams to consciously radically rethink things. Good performance measurement systems support the company in achieving the objectives in both EXPLORE and EXPLOIT. At the team and individual levels, objectives are defined that are action oriented, significant, concrete, and, especially in EXPLORE, inspirational. The respective key results act as benchmarks and monitoring for the teams. Most of the key results are measurable and verifiable. This book places a special focus on the OKRs for innovation teams, which often work with stretch goals for the achievement of Moonshot and Everest objectives. However, the applied system for performance objectives must also fit the culture of the company. With the appropriate performance measurement system, design thinking and innovation teams are able to cascade and align goals to different levels of an organization, defining outcome-based key results that help verify the innovation success of the objective. Moreover, a wider acceptance guides daily work and connects all employees to a larger purpose. Many companies add powerful performance measurement systems to the measurement of EXPLORE and EXPLOIT (see the next page).

Minimum Viable Set of Exploration Metrics

It is not easy to measure EXPLORE activities and impacts, but it is a necessity that the metrics applied by decision makers, practitioners, and design teams on a daily basis should have more impact. The upshot is to start with a set of minimum viable exploration metrics that are known to immediately derive initial indications for concrete action. Some parts of these experiments with measurements will succeed and others will fail. However, the approach is appropriate because it fits well into the current belief that experimentation is part of creating value in a dynamic environment.

As the metrics are dynamically adjusted over time, the measurement system becomes more robust and can be expanded based on initial data points. Metrics that do not generate valuable information and do not contribute to innovation success are discarded. In this way, the measurement system can be continuously developed to suit each company, organization, or team. Of course, this always needs to take into account the respective objectives, from the long-term increase in the value of the company to the development of new capabilities or the transformation of new forms of collaboration.

A minimum viable set of exploration metrics is an efficient core piece of a potential innovation measurement system. Initially, it should be assumed that stakeholders, decision makers, and teams have a certain need, and every metric, measurement, and data point will help them to make better decisions in the short and long term.

A first minimum viable set of exploration metrics, co-created with or exposed to teams, might begin to measure the validated lessons learned and provide crucial feedback on individual items, as well as capture combined values derived from the metrics. Based on the information, the metric(s) will either remain, be adapted, or be discarded. Over time the data points will help to convert the most powerful metrics and measurements into more sophisticated systems.

Appropriate Mix of Relevant Exploitation Metrics

Measuring EXPLOIT seems to be easier because many data points already exist from customer interactions, sales, and operational activities. However, the challenge remains to select the appropriate mix of relevant exploitation metrics and include lagging with leading indicators.

In the context of EXPLOIT (i.e., after the launch phase of product-/market fit or systems-/actors fit in the case of business ecosystem initiatives), an appropriate mix of relevant exploitation metrics is increasingly applied, as these metrics are common indicators for business growth, quantity, and the basis for scaling and exponential growth.

Common quantifiable metrics include ratios indicating the percentage of successfully met financial ambitions; the percentage of sales from new products in the past n-years; the return on investment in design thinking and innovation activities; the percentage of profits from new users, customers or categories; and customer satisfaction/net promoter scores. In addition, all metrics related to the scalability of IT or the performance of real-time data analytics are of interest.

For an appropriate mix of exploitation metrics, it is in many cases valuable to question classic KPIs to see if health metrics are not the better option of measurement to derive the desired action. As the name implies, health metrics describe a business's vital signs, much like physical vital signs. Especially in turbulent times, health metrics can be the better choice, as they help to find out how resources and time are used. It is important to select the appropriate metrics, which are meaningful and really help to improve organizational efficiency, scalability, and processes.

The input variables for exploitation metrics often come from financial controlling, sales, HR, IT, operational excellence process monitoring, or external data sources.