

IDEaLs

(Innovation and Design as Leadership)

ENDORSEMENTS

It will be impossible to reach global climate goals if cities don't transform to become more livable, more equal, and zero carbon. This transformation needs innovation that is co-created by a coalition of citizens, government, and businesses. More than anything, the process and outcome have to have meaning for every participant because cities will change only if we all have a stake in it.

IDEaLs is a much needed manual for a new kind of leadership, and a must-read for all changemakers who want to enable a process of cocreation that engages everyone to imagine and build better futures.

–Ani Dasgupta, President & CEO,
World Resources Institute (WRI)

Are we in an innovation glut, or a leadership rut? Is design at the core of our survival, or just on the periphery? Do we focus on one, the other, or all? While the answers may not be certain, what is clear to all of us who seek better futures is that the three words of this book – innovation, design, and leadership – are critical for humanity to thrive at every level. IDEaLs puts these terms back into perspective so that none of the three is engaged with the religious fervor recently found in so many books/articles/talks/blogs. These three are juxtaposed with clear examples which will satisfy those who nerd out in deep science, those requiring well-researched methodological frameworks, as well as those who need a bit of nudging for on-the-ground action. I especially appreciate the focus on

people, since in the end most of the challenges we face today were/are made by people, will be solved by people, and will be developed and delivered by people. *IDeaLs* helps us all to understand not just the how, but also the why. It is simply an excellent piece of work.

–Chris Luebke, Leader of the Strategic Foresight Hub in the Office of the President at ETH Zurich. Former Director of Global Foresight + Research + Innovation of Arup

IDeaLs defines a new wave of changemakers who are embracing the power of collaboration as the new way forward for innovative and sustainable leadership. Their research confirms the power of imagery as a catalyst for change – in business, society, and even from within ourselves. A motivating and powerful read for purpose-driven influence at any level.

–Lindsay Morris, Strategic Development Manager,
Adobe Stock

Innovation

IDEALS breaks new ground in powerful ways and at the exact moment when we, as innovators and designers, need new frameworks to lead deep and collective transformations for the challenges and opportunities we are now faced with. By infusing transformation with neuroplasticity, anthropology, design practices, and some of the deepest thinking on the collective imagination, this work beautifully reveals a generative sense of shared consciousness, thereby raising our ability to coconstruct new futures and nurture truly transformational change. This is an aperture expanding book for all of us.

–**John Seely Brown**, Former Chief Scientist, Xerox Corporation, and Director of Xerox Palo Alto Research Center (PARC), and Co-author with Ann Pendleton-Jullian of *Design Unbound. Designing for Emergence in a White Water World* (MIT Press, 2018)

How to transform is the existential challenge of our new decade. Integrating innovation, design, and leadership opens an important chapter on how to spark and sustain *transformative innovation*.

–**Ivanka Visnjic**, Associate Professor of Innovation, Director of Institute for Innovation and Knowledge Management, ESADE Business School

This buoyant book shows you how to connect the dots – between neuroscience, meaning, engagement, community, and transformation – so you can use innovation, design, and leadership to become a true *future maker*.

–**Bob Johansen**, PhD, author of *Full-Spectrum Thinking* and eleven other books. Distinguished Fellow, Institute for the Future

In times when countless publications promise the silver bullet for managing digital transformation, this book stands out for its welcome and refreshing combination of rich research-based insights and practical applications. *IDeaLs* does justice to the complexity of the subject while presenting an accessible reference for today's business leaders.

–Shiko Ben-Menahem, Senior Researcher and Lecturer
at the Chair of Strategic Management
and Innovation, ETH Zurich

Design

I have worked as a Professor in Academia as a Vice president in industry. Each community has its own view of reality sometimes with nothing in common. Even researchers who work in company research organizations are often clueless about how their work might translate into business opportunities. IDEaLs stands out as a unique, groundbreaking initiative to bridge this gap. It brings together leading researchers with industry executives, creating a collaborative environment that yields the best of both worlds. IDEaLs merges innovative ways of thinking with practical realism about the real, messy, chaotic world of competition and uncertainty.

–**Don Norman**, Cofounder of the Design Lab, University of California, San Diego’s Design Lab, cofounder of the Nielsen Norman group, and former VP of Apple’s Advanced technology group. Author of over 20 books, including *Design of Everyday Things*

Transformative Innovation is more than just a well-honed process, episodic investment, or set of promising new ideas – it only works for all of us when it includes all of us. IDEaLs offers a holistic, research-based approach to fostering sustainable innovation by integrating the human, social, and technical systems for lasting change. In an increasingly VUCA world, this pursuit is needed now more than ever before.”

–**Lisa Kay Solomon**, co-author of *Moments of Impact* and *Design a Better Business*, Designer in Residence, Stanford University Hasso Plattner Institute of Design

With keen insights on the uniqueness of our digital context, IDEaLs' integrated theory and rigorous research sparks a necessary reframing of innovation, design, and leadership. This book will enhance your awareness of the challenges to lead innovation for impact, and certainly encourage a critical dialog on our assumptions. Ultimately, this book is a call for all of us to move closer to the ambitious, yet critical goal of collectively transforming toward a more sustainable world.

–Dr. Falk Uebernickel, Professor for Design Thinking and Innovation Research at Hasso Plattner Institute (HPI)

An important reference for any business leader today navigating the complexity and volatility of current market conditions. A key takeaway from IDEaLs is to leverage neuroscience to inform how to integrate innovation, design, and leadership. This text also opens an important perspective for researchers and practitioners in the innovation game.

–Rhea Alexander, Director and Founder of Parsons Entrepreneurs Lab (ELab) and Professor of Strategic Design and Management, Parsons School of Design, The New School University

Historically, innovation and design begin with a service perspective: “we innovate for you.” Transformation, particularly changing systems toward shared purpose, requires a first-person perspective: “I innovate with you.” This book shares important learnings on engaging people for systemic change, making a crucial next step in the evolution of design practices with sustainable impact.

–Paul Gardien, Vice President of Philips Design

Leadership

IDeaLs is an important book because in reality an innovative and effective organization is a group product. It is the result of co-design and coimplementation by designers, producers, and users. By linking the traditionally separate processes of engineering, design, and group work, IDeaLs aims to link real work to the artistic in all of us. In the end, this is the only way to truly engage employees in the hard work of organizational change.

–Edgar H. Schein, Professor Emeritus, MIT Sloan School of Management, and author with Peter Schein of *Humble Leadership* (2018) and *Humble Inquiry*, 2nd Ed (2021)

The IDeaLs research represents a powerful combination of theory and practice in tackling real-world challenges. The authors present a fresh approach to developing systemic thinking *and* action by exploring the connections between innovation, design, and leadership. Case studies from some of the world's largest companies illustrate the real-world challenges of aligning individuals and groups to solving complex challenges and designing a desired future. These tangible examples reinforce the framework of design thinking to achieve transformational innovation – and the paradigm shift – required to drive real change. A must-read for those wanting to disrupt the status quo and breathe new life into critical strategic initiatives.

–Cheryl Flink, PhD, VP of Leadership Research and Innovation, Center for Creative Leadership

Rather than espouse capabilities or a model for transformational leadership, the IDEaLs research opens a space for researchers and practitioners to explore the nuances of engaging people for transformation in the digital era.

–**Shlomo Ben-Hur**, PhD, Professor of Leadership, Organization, and Corporate Learning and Director of IMD Business School Transformative Leadership Program

IDEaLs (Innovation and Design as Leadership) is a must-read for those who want to enhance a design thinking approach with sustainable transformation. It provides a compelling framework for transformation by democratizing innovation through shared leadership and cocreation with meaning.

–**Eun Y. Kim**, Founder and President of CEO International, and Executive Coach at The Center for Creative Leadership

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IDeaLs

(Innovation and Design as Leadership)

Transformation in the Digital Era

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INVESTOR IN PEOPLE

*To our mentors, who engaged us to transform ourselves,
and the communities we serve.*

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If powerful men and women
could center themselves in it,
the whole world would be transformed
by itself, in its natural rhythms.

Lao Tzu, Tao Te Ching.
Translated by Stephen Mitchell, 1999

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LIST OF ABBREVIATIONS

AI	Artificial Intelligence
ADR	Action Design Research
ANN	Artificial Neural Network
AR/VR	Augmented/Virtual Reality
BVP	Business Value Proposition
CCL	Center for Creative Leadership
CDO	Chief Design Officer
CEN	Central Executive Network
CEO	Chief Executive Officer
CIO	Chief Information Officer, Responsible for the Information Technology Organization
CLO	Chief Learning Officer
CNS	Central Nervous System
Cognitive UXD	Cognitive User Experience Design
COVID-19	“CO” stands for Corona, “VI” for Virus, and “D” for Disease, which was initially referred to as 2019
CTM	Computational Theory of Mind
D ² T	Design-Driven Transformation
DAC	Direction, Alignment, Commitment
DAO	Distributed (or decentralised) Autonomous Organizations
DAT	Digital Acceleration Team
Diagnostic OD	Diagnostic Organizational Development
Dialogic OD	Dialogic Organizational Development
DMN	Default Mode Network
DTP	Digital Transformation Platform
EEG	Electroencephalogram

fMRI	Functional Magnetic Resonance Imaging
fNIRS	Functional Near Infrared Spectroscopy
HCD	Human-centric Design
IDeAls	Innovation and Design as Leadership
IFTF	Institute for the Future
IM	Nestlé's Innovation Methodologies Team
IT	Information Technology, Common Description for the Department Responsible for All Technological Systems
LTP	Long-term Potentiation
MET	Material Engagement Theory
MInD	Meaningful Innovation Direction
MIT	Massachusetts Institute of Technology
MLP	Multi-Level Perspective
MMO	Massively Multiplayer Online Game
OB-GYN	Obstetrician-Gynecologist
OCB	Organizational Citizenship Behavior
OECD	Organisation for Economic Co-operation and Development
PCP	Personal Care Product
PNS	Parasympathetic Nervous System
PSI	Para-Social Interaction
RBV	Resource-Based View
R&D	Research and Development
ROI	Return on Investment
RTD	Research Through Design
SDGs	Sustainable Development Goals (from the United Nations General Assembly)
SNS	Sympathetic Nervous System
SSE	Social and Solidarity Economy
STEEP	Social, Technological, Economical, Environmental, Political
SVIO	Nestlé's Silicon Valley Innovation Outpost

TOM	Target Operating Model
VP	Vice President
VUCA	Volatile, Uncertain, Complex, and Ambiguous

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For more information about IDEaLs please visit our website at <http://www.ideals.polimi.it>.

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FOREWORD

Cooper's *Stage-Gate*, Google's *Sprints*, Amazon's *Working Backwards*, IBM's *Jams*, *Scrum*, *Kanban*, *Lean*, *Extended Programming*, and *Double Diamonds*. This is what academics and practitioners of *innovation* have been focusing their attention on over the last 20 years. And if there were a single question arising out of all these efforts, it would be this: *what is the one magical process to make all innovation happen?*

David Kelley, the celebrated founder of IDEO, stated it clearly on the 1999 ABC late-night show when he was talking redesigning the traditional shopping cart: “[...] we’re experts on the *process* of design. We don’t care if you give us a toothbrush or a space shuttle...it’s *always* the same task...”.

Lately though, some managers and researchers dealing with innovation are starting to feel uneasy about the quest for the perfect process. We, the founders of IDEaLs, are among their ranks. The world of innovation has profoundly changed over the last 15 years. Today, the majority of companies place a high priority on innovation and encourage creativity for generating new ideas. But now that we have plenty of ideas, the critical question is: *how can we make sense of all these ideas and converge on those that really deserve our heads, hearts, and hands?*

Moreover, the reassuring dichotomy between those within an organization who deal with innovation and those who run the company is long gone. Today, it’s no longer just our organizations but society as a whole that expects and needs each one of us to be innovative – not just how we do things but also our methodologies and tools, as well as the very reason why we do things.

When it comes to each one of us as individuals, we are so easily overwhelmed by innovations – whether it be the new ways of communicating, social networks, photo editing apps, data analytics, or the latest way of building self-confidence in our kids.

We know very well that this challenge goes far beyond mere apps to make innovation happen. In fact, the world of innovation has been so focused on

finding the perfect process and method that it nearly forgot the *people* who make innovation happen. Ultimately, it is people who will need to change our existing situations into preferred ones. Given the realities of 2020, with its pandemics and protests, we absolutely need to focus on how to empower people to make innovation happen.

This is the starting point for IDEaLs – exploring how innovation and design creates the leadership required for collective action. We know that innovation leaders not only have to find and adapt the right processes but also engage people during innovation. They need to make people want to be part of it, to make them love it, and to make it meaningful for them. Extrapolating from this observation, we crafted a central research question with other like-minded innovation leaders:

In the Digital Age, How Can I Engage People to Make
Transformative Innovation Happen?

This fundamental starting point for our research triggered our collaboration with at least two unique aspects: how we began our journey and the type of involvement expected from our partner companies.

The original name of the research was called “Leadership for Innovation.” It actually took us some time to fully comprehend what we really had in mind. When the team of Politecnico di Milano initially met with the leadership team from the Center for Creative Leadership, it was difficult to understand what the true purpose of our research should be. It then occurred to us that we shared a similar discomfort about the current focus of innovation and change management.

This did not start out as a standard research project but more as a kind of cultural proposal. Our manifesto (Table 1) sought to shape more precisely what we were struggling with, and then propose a radical alternative. While working collectively on the manifesto, we came to view innovation as a *de facto act of leadership*. From this tenet, we intuitively understood that *collective design* is key to making people want to lead both innovation and the transformation required for impact. This was the genesis of the IDEaLs acronym: *Innovation and Design as Leadership*.

Table 1. The IDEaLS Manifesto: Transforming Our Existing State to an IDEaLS' State.

People is driven by the creation of shareholder value	Shareholder Value	Meaning	People is driven by the creation of meaning, for users, society, their organization, themselves.
Leadership is for leaders	Leader	Leadership	Everyone is called to the art and practice of leadership
Innovation is a process. A system. Whichever the output, what matters is the process	Process (How)	Gift (Why)	Innovation is what you deliver to others. Innovation is first about loving the product you create and why you do it
The world needs more ideas. Innovation is about empowering individuals to generate ideas	Ideation	Depth	The world needs meaning. Innovation is about empowering individual to find and create meaningful things in a world awash with opportunities
Leadership is through expressing yourself, and innovation is divergence	Human	HumanS	Together is better. Leadership is about journeying together and innovation is about change
There is one best way to do innovation	Positivistic	Constructivist	Together we search, learn, imagine, and change the world for the better

The second unique aspect of this research lies in the relationship with our partner organizations. In the design of research, there are two dominant models: In the first, researchers study companies without getting involved directly in their processes. They develop a research protocol, collect primary data through interviews and surveys, and then triangulate them with secondary data coming either from the company (internal documents) or the public domain (websites, professional associations, press, customers' reactions, etc.). In the second, known as action research, researchers become an active part of the company's initiative. They share objectives with management and go through a four-stage process: study and plan, action, data collection, and reflection.

IDeaLs is certainly more aligned with this second type research method, but with one notable exception: we did not restrict our research to collecting data by exploring the challenges of our partner organizations. In an attempt to create new insights with real value, we invited the organizations to be active participants in our research. Organizations do not join IDeaLs simply for tackling a business-critical problem in an innovative way and then supporting the research. They also actively contribute to the ongoing process of learning and shaping the theories, methodologies, analyses, as well as the ultimate framework that arises out of all this.

In this manner, together we also employ an additional research methodology, design science (Sanders and Stappers 2008). In this way, the *entity* joining the research is no longer the organization, but the *people* (managers, innovators) who make up that organization, specifically those who want to contribute and develop their thought leadership. They do it because they want to drive, design, and live the research process itself alongside the formal researchers and other curious practitioners.

In other words, the innovation leaders in IDeaLs collaborate in defining both the objectives and the research questions, and then propose tools, ways of designing experiments, and methods for testing results, from both an organizational and an academic perspective. As a benefit, they not only witness the actual transformation of a community in their organization, but they also retain access to the prototypes we co-created and the knowledge required for applying and redesigning them in the future.

This level of engagement was an exciting experiment in itself, as we asked managers to not only provide resource support and a transformational project as an experimental field but also to be engaged from an academic perspective, to contribute ideas and suggestions, and to actively participate in

the crafting of research. This led to our roles occasionally shifting, with researchers being more concerned with the practical applications and managers with theory. Once, during a meeting to frame a research intervention, we scholars shared a concern that the workshop may not achieve an impact for the transformational project of the organization. The company manager was instead initially more concerned about how to design the workshop in order to support the overall research project. As we pointed to this unexpected dynamic, the manager observed: “I can already see that this method will be useful for us. Now I want to be sure it is useful for the whole research project. If the overall research moves forward, we will also gain more value in the future.”

To add more external validity to our research process, we also decided to involve a “brain trust” in the IDEaLs platform. Inspired by Pixar’s group of advisors on every film project, we created a *Brain Trust* of internationally recognized influencers in the field of leadership for innovation whom we asked to inspire, validate, and challenge our research (Catmull 2008).

Finally, after having defined a manifesto, crafted a new way for involving the companies, and strengthened the research methodology through the brain trust, we had one final important step to take: finding our research partners for the first year.

We admit that it was not an easy task to present an international research program without really proposing a clearly-defined list of expected outputs and requesting a high level of commitment to collectively define what we will do. Nonetheless, some of the managers introduced to the IDEaLs vision reacted positively. The way we framed the problem resonated and they recognized what they were struggling with.

IDEaLs emerged as an ecotone for exploring the new transformation practices in the digital age. Technically, while we started out with seven founding partners and three brain trusts members, it would probably be more appropriate to say that it really started with seven teams of managers who clearly saw the challenge and accepted the challenge, and three passionate experts who very committed to helping and reviewing our progress.

We are grateful to all the leaders and managers of our partners, and our Brain Trust, who made that remarkable leadership decision to be engaged into IDEaLs.

The IDEaLs Team
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ABSTRACT

Our world is replete with unresolved problems, despite being inundated in the digital age with ideas and technologies to solve them. Many acknowledge that people are the critical element in making change happen. However, even as professional innovators are augmented by anyone who can suggest solutions, our existing situations remain far from being preferred ones. Clearly, in the digital era we have an urgent need to explore new ways of engaging people to make transformative innovation happen.

IDeaLs – Innovation and Design as Leadership – was established to research our collective conundrum. A global research platform, IDeaLs explores the intersections between innovation, design, and leadership to reveal new insights and practices on how to make transformative innovation happen. Learning from actual transformation journeys, we collaboratively embark on researching real change challenges with six global companies (Philips, Nestlé, Sintetica, Sorgenia, Stolt Tankers, and Adidas).

To ensure we examine our biases in innovation, design, and leadership, we reflect on and then infuse our current theories with neuroscience. The resulting reframing opens opportunities to integrate these new perspectives, specifically:

- *From the Innovation of Ideas to Innovation as Meaning*: rather than encouraging more ideas, people are more engaged by seeking personal meaning within socio-technical systems.
- *From Human-Centered Design to Design as Making Objects*: rather than designing for other people, people are much more engaged in a revitalized design practice that encourages the cocreation of objects that either metaphorically or literally represent meaningful new directions.
- *From Leaders to Leadership as Community*: rather than managing others, people are committed for collective action when making collective sense of new situations with others.

These positions inform a model to research how co-creating images of strategic objectives can engage people to transform existing situations into preferred ones. Each action research experiment explores an aspect of our initial model – the individual, the collective, and the intended transformation. Each had a common goal: explore the synergies of innovation, design, and leadership to engage people to converge on a shared meaning of a new strategic direction. We share in detail each research experiment, describe the design of each experience and their assessment, and conclude with our findings.

In reflecting upon our research experiences, and recent research on dialogue in organizations, we propose an iteration of the model: Design-Driven Dialogue. This engine underlies a prototype for engaging people to make transformative innovation happen: Design-Driven Transformation. Although based on a relatively small sample, we contend such an integrated approach can provide a powerful new perspective on our collective challenges. We intend to conduct further research, specifically on story making, and codify our tools for others to experiment with, in the coming years. We see IDEaLs as a journey and view this book as an invitation to join us in this mission-critical search for changing our existing situations into preferred futures.

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