



# FULL-SPECTRUM THINKING

How to  
Escape Boxes in a  
Post-Categorical Future

BOB JOHANSEN  
INSTITUTE FOR THE FUTURE

# FULL-SPECTRUM THINKING

The ability to seek patterns and clarity across gradients of possibility—  
outside, across, beyond, or maybe even without any boxes of categories—  
while resisting false certainty

PART ONE  
THE PAST  
CANNOT CONTINUE

Categories are coercive  
Question categories you are using  
in mindless ways  
Use future back thinking

PART TWO  
NEW FULL-SPECTRUM TOOLS,  
NETWORKS, AND PEOPLE

Try the new tools and be more clear but less certain—  
and more flexible about how you will get to your clarity

PART THREE  
BROADER SPECTRUMS OF

Business and  
Social Value  
Human-Computer  
Resources  
Hierarchy  
Diversity  
Meaning

We're all in a dangerous game of hope

## **Praise for *Full-Spectrum Thinking***

"This is a great read that energizes me. Leaders must engage with humility and courage to set clear direction—but look to their teams for the best execution across a spectrum of possibilities. Right or wrong is a fallacy that must be replaced by opportunities to dynamically decide, test, and adapt."

—**Jason Field, President and CEO, W. L. Gore & Associates**

"*Full-Spectrum Thinking* challenges us to be courageous as we knit together what humans do best with the power of computing for better outcomes at greater speed. We need to inspire human resources leaders to be the role models of try, fail fast and cheap—and try again as we build tools, frameworks, and experiences that enable our companies and teams to excel in the digital world."

—**Vicki Lostetter, Chief Human Resources Officer, WestRock**

"*Full-Spectrum Thinking* is just the right book at just the right time, giving us new tools, new ways of sense-making, and new hope. This will be the book I hand out to everyone who works with me, as well as to friends and family."

—**Paul LeBlanc, President, Southern New Hampshire University**

"Design thinking will blend with futures thinking in the near future. The mindset of *Full-Spectrum Thinking* will be needed to leap beyond the narrow categories of thought that constrain much of today's innovation."

—**Tim Brown, Chair, IDEO**

"Bob Johansen and the Institute for the Future have helped United Rentals enhance our spectrum of products, services, and insights for jobs that require equipment and expertise you may not want to own or have in house. New spectrums of business value will be needed to create profitable businesses in the future."

—**Matt Flannery, CEO, United Rentals**

"Bob Johansen has once again defined what it means to be an 'original contributor.' The insights and suggested responses contained in *Full-Spectrum Thinking* define a unique way to analyze and respond to our rapidly changing world. I will recommend this book to every board member and executive in my network."

—**James I. Cash, founder of The Cash Catalyst, LLC, and Professor Emeritus, Harvard Business School**

"You must read this book. It comes from a mind trained to live ten years in the future and a heart eager to get us there safely."

—**Commissioner Kenneth G. Hodder, Territorial Commander, The Salvation Army**

"The future has no map, especially in this era of rapid change. Agile open-mindedness is essential to navigate it, and Bob Johansen's *Full-Spectrum Thinking* lays out a clear path for how to get there. For starters, reject rigid categories that 'coerce,' 'keep us in cages,' and 'move us away from understanding the bigger

picture.' Seek clarity and context because the emerging future will be one with fluid roles and identities. Leaders will need to be 'very clear about where they want to go but very flexible about how they get there.' This insightful book is for all those interested in enhancing their own agility in how they think about and face the future."

—**Mary Kay Magistad, creator and host of the *Whose Century Is It?* podcast and former China correspondent, NPR and PRI/BBC's *The World***

"Classic departmental-based organizational thinking is the most prolific barrier to enterprise value maximization. *Full-Spectrum Thinking* empowers our holistic view of the consumer that is fundamental to personalized guest experience creation."

—**John Padgett, Chief Innovation Officer, Carnival Corporation**

"In his books, his workshops, and the countless friendships like ours that he's built over the past thirty years, Bob has helped a generation of leaders better anticipate future challenges and opportunities. He's done it again with *Full-Spectrum Thinking*, which provides the framework to evaluate new opportunities, experiences, and people through a broader lens. Leaders concerned about future-proofing their organizations should read this book."

—**Scott Price, Chief Strategy and Transformation Officer, UPS**

"Bob Johansen continues to demonstrate thought leadership in preparing for a more positive future. His new *Full-Spectrum Thinking* extends our Army War College Strategic Thinking Framework. In doing so, it requires our leaders to resist the certainty lure of heuristics, actively challenge categorizing assumptions, and seek greater inclusiveness in generating better possibilities for the future."

—**Charles D. Allen, Professor of Leadership and Cultural Studies, US Army War College**

"A future-back mindset and full-spectrum thinking are needed urgently to create a vision and strategy that is not stuck in the tired categories of the past."

—**Mark W. Johnson, cofounder of Innosight**

"The process of naming nature, or communicating it through language at all, involves fragmenting what is essentially an undivided evolutionary continuum. *Full-Spectrum Thinking* is a critical plea for humans to think more fluidly, beyond the boxes and labels, to overcome the urge to reduce, simplify, and fragment nature."

—**James Prosek, artist, writer, and naturalist**

"Bob Johansen is proposing a fundamental shift in how we form our shared stories of identity, organizations, and world vision. He is applying the science of the story to the art of communication."

—**Kendall Haven, story consultant, author, and master storyteller**

"The wisdom of *Full-Spectrum Thinking* is enduring, but the new tools will make it scalable globally."

—**Robert A. McDonald, Eighth Secretary, Department of Veterans Affairs, and retired Chairman, President, and CEO, Procter & Gamble**

# **FULL-SPECTRUM THINKING**



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by Bob Johansen**

*Electronic Meetings*

*Teleconferencing and Beyond*

*Leading Business Teams*

*Groupware*

*GlobalWork*

*Upsizing the Individual in the Downsized Organization*

*Get There Early*

*Leaders Make the Future*

*The Reciprocity Advantage*

*The New Leadership Literacies*

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**BOB JOHANSEN**  
INSTITUTE FOR THE FUTURE



Berrett-Koehler Publishers, Inc.

# Full-Spectrum Thinking

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To Robin,  
Cory and Amanda, Lisa and Zach,  
Nico and Everett, Robbie and Nate,  
and Atticus

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is the ability to seek patterns and clarity  
across gradients of possibility—  
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## CONTENTS

*Please look inside the book jacket  
for a visual summary of the book.*

### Introduction

<b>The Core Story</b>	1
-----------------------	---

### PART ONE

<b>THE PAST CANNOT CONTINUE</b>	7
---------------------------------	---

1	<b>Ramping Up to Full-Spectrum Thinking</b>	13
	More Clarity, Less Certainty	
2	<b>The Coercion of Categories</b>	22
	Please Don't Stamp Me with <b>Your</b> Label	
3	<b>Escape the Boxes of the Past</b>	34
	How to Use Futures Thinking	

### PART TWO

<b>NEW FULL-SPECTRUM TOOLS, NETWORKS, AND PEOPLE</b>	49
--	----

4	<b>Clarity Filters</b>	53
	Scrambling with Distrust	

<b>5</b>	<b>Distributed-Authority Networks</b>	<b>66</b>
	Scrambling for Control	
<b>6</b>	<b>The True Digital Natives</b>	<b>78</b>
	Scrambling with the Social Order	
 <b>PART THREE</b>		
<b>BROADER SPECTRUMS, NEW APPLICATIONS</b>		
	<b>FOR THE FUTURE</b>	<b>89</b>
<b>7</b>	<b>Broader Spectrums of Business and Social Value</b>	<b>95</b>
	Operating in a Post-Categorical Distributed-Authority Future	
<b>8</b>	<b>Broader Spectrums of Hierarchy</b>	<b>107</b>
	New Animated Organization Charts	
<b>9</b>	<b>Broader Spectrums of Human-Machine Symbiosis</b>	<b>117</b>
	The New HR Will Be HCR	
<b>10</b>	<b>Broader Spectrums of Diversity</b>	<b>128</b>
	New Inclusive Paths to Innovation	
<b>11</b>	<b>Broader Spectrums of Meaning</b>	<b>137</b>
	A New Game of Hope	
 <b>Conclusion</b>		
	<b>Full-Spectrum Thinking for an Urgent Future</b>	<b>147</b>
	What Can You Do Now?	
	 Notes	 <b>165</b>
	Bibliography	<b>175</b>
	Acknowledgments	<b>187</b>
	Index	<b>191</b>
	About the Author	<b>199</b>
	About Institute for the Future	<b>204</b>

## INTRODUCTION

# The Core Story

### WHAT CATEGORIES DO YOU USE TO DESCRIBE YOURSELF?

I like to ask this question at the beginning of workshops, and I'm always surprised by how many different categories people use to describe themselves: mother, father, manager, accountant, leader, board member, soldier, cook, gardener, writer, and so on. Quickly listing 20 categories to describe oneself is not uncommon.

How many different categories does it take before you start thinking of yourself across a broad spectrum?

Categories coerce. Categories are thrown at people like capture nets over wild animals. Categories keep us in cages. Categories can kill.

Full-spectrum<sup>1</sup> thinking is the ability to seek patterns and clarity across gradients of possibility—outside, across, beyond, or maybe even without any boxes or categories—while resisting false certainty.

In today's political climate, categories dumb down the way we talk about each other. Categorical thinking moves us away from understanding the bigger picture. It lacks context. Categories lead us toward certainty, but away from clarity.



Full-spectrum thinking has the potential to diffuse polarities, to reveal that our differences are not as stark as they seem through the narrow lens of categories. My colleague Toshi Hoo, who leads Institute for the Future's Emerging Media Lab, commented to me that full-spectrum thinking helps us find the multidimensional ways in which things are connected—not just the ways in which they are distinct from each other.

Think of the best leaders you have ever had, the people who inspired you the most.

How did those leaders categorize themselves?

How did they categorize you and others?

My guess is that your best leaders didn't categorize others mindlessly. They made you feel recognized and empowered—but not stereotyped. They used appropriate categories to define your strengths and highlight your contributions, rather than pigeonhole you or degrade your efforts. They didn't box you in or categorize you as something you are not. They saw the full amplitude of your potential. My guess is that your best leaders were clear about the future but rarely spoke in certainties.

This book is about how to seed and nurture a mindset that expands the characteristics that you already admire in the best leaders. Full-spectrum thinking fosters empathy. Mindless categorizing fosters contempt. Categories make it easy to write off others with tired labels like “immigrant,” “black,” “white,” “millennial,” “gay,” “Jew,” “Muslim,” or “old.” Choosing an identity for yourself is one thing, but being labeled by others is quite another—and the way you say it can be just as important as what you say.

The way forward is to develop full-spectrum thinking—not by advocating for our own stereotypes of others or by creating new boxes to throw people into without careful thought.

Being stuck in categorical thought doesn't actually involve much thinking at all—you just assume without thinking that new experiences will fit into your old boxes, buckets, labels, generalizations, and stereotypes. Knee-jerk categorization of others is reckless. Even if after careful thought you decide to categorize, you should start by thinking about a full spectrum of possibilities first.

Categorizing is a convenient and time-honored strategy for gaining and maintaining power. Categorization can have psychological or material benefits by helping you develop your own identity and community. But lazy or careless categorizing of others is dangerous—and it will get even more dangerous in the future. Fortunately, a gradual shift from categorical to full-spectrum thinking has already begun.

Elite basketball players, for example, used to be categorized as a 1 (point guard), a 2 (shooting guard), a 3 (small forward), a 4 (power forward), or a 5 (center). Then came Magic Johnson and later LeBron James, and now even more broad-spectrum players can play more than one position. Categorizing basketball players no longer works in the same way it did. Today's best players are position fluid. They cannot be categorized easily or consistently. The serious players all have a spectrum of talents that defy static categories. They play multiposition—I'd call it full-spectrum—basketball.

But it won't be a total flip from categorical to full-spectrum thinking. I'm not against categories if they are accurate and fair and do no harm. All of us need to create structures and categories of some kind that work for us and for others. The categories that we choose can be empowering.

The best scientists, for example, learn how to use categories without being deluded by them. Categories have a long history and at times have been very useful. Nevertheless, John Fowles argued that we have become so steeped in categorical thinking that we sometimes cannot experience the spectrum of possibilities that the world around us offers. Often, we cannot see the forest because we're so focused on naming the trees.<sup>2</sup>

Full-spectrum thinking will apply across all levels of aggregation: individual, organizational, and societal. In the future, full-spectrum thinking will become both more necessary and less difficult because of a new range of tools.

A fresh mix of new and old technology and media tools will enable—and then require—full-spectrum thinking. Over the next decade, the current tools for full-spectrum thinking will get dramatically better, just as the need for more nuanced ways of perceiving and judging the outside world will increase.

Powerful digital media—including gameful engagement, big data

analytics, visualization, blockchain, and machine learning—will be both more powerful and easier to use. New clarity filters will get practical just as the need becomes urgent. Digitally amplified full-spectrum thinking will help us resist the temptations of premature categorization and false certainty. It will be an antidote to the dangerous polarization of today.

Full-spectrum thinking has the potential to reveal that commonalities are hidden in plain view. Full-spectrum thinking is about recognizing patterns, seeking clarity, and resisting certainty. A full-spectrum mindset is a great place to start in order to make sense out of ourselves, the world around us, and the future. It provides context. It encourages nuance.

Even though unexamined categorical thinking remains in force and is unconsciously followed in many fields, a more positive future is coming that will allow us to be much more nuanced and hopeful. The preferable future will be an intelligent blend of cautious categorical and disciplined full-spectrum thinking.

Increasingly, we will be able to use new digital tools for full-spectrum thinking to achieve breakthroughs in business, leadership, innovation, politics, community relations, and many other domains. Sloppy categorical thinking, so common today, will be inexcusable and embarrassing in the future.

The future will be a scramble: an asymmetrical patchwork of urgency, panic, imbalance, and hope. Full-spectrum thinking will make people more future-ready and better able to make sense out of new opportunities and threats. Some people practice full-spectrum thinking already, and their efforts will become more visible and powerful. It will also be much easier for novices to develop their own full-spectrum thinking abilities.

We will move toward—but never quite reach—a post-categorical future that will reward rigorous full-spectrum thinking. Categories won't disappear, but they will be far less coercive.

This book is about why now is the time to shift from categorical toward full-spectrum thinking. It will help you become more of a full-spectrum thinker. It will guide you in creating organizations that value and benefit from full-spectrum thinking. I have three goals in this book:

1. Improve how people think about the past, the present, and the future.

2. Improve how organizations identify and evaluate new business opportunities.
3. Depolarize strategic conversations to allow for a wider range of alternatives beyond binary choices.

This book is designed for use in training and executive development programs for corporations, nonprofits, government agencies, and the military. It is written for hiring managers, chief talent officers, CHROs, CEOs, CIOs, and innovators of all kinds.

The Conclusion includes a series of guidelines, tools, and actions you can take now to develop your own full-spectrum thinking mindset as well as spread this kind of thinking across your organization.

I want this book to seed and nurture full-spectrum thinking and a next generation of full-spectrum thinkers. My purpose is to encourage business leaders, educators, public officials, and individual people to think beyond simplistic labels, categories, boxes, slots, or buckets. The dangers of certitude are swelling.

*Full-Spectrum Thinking* can be read on its own or in concert with *The New Leadership Literacies* and *Leaders Make the Future*. In *Full-Spectrum Thinking*, I focus on the *mindset* that will be required to win in the future—and make the world a better place. I began this trilogy after my experiences at the Army War College, when I asked what kind of *skills* would be necessary for leaders to thrive in the post-9/11 world. Then, I became intrigued with leadership *literacies*—the disciplines and practices of leadership—beyond skills. I recommend that you begin with mindset, then consider literacies and skills.

This book flows through three related parts:

- Part One is focused on the core concepts and how futures thinking and full-spectrum thinking can break us out of the categorical constraints of the past and present.
- Part Two is focused on the emerging tools, the networks, and the true digital natives who will engage with the scrambled world around us and expand full-spectrum thinking on a global scale.
- Part Three is focused on the future that is already beginning today.

It will show you examples of broader spectrums and new applications that will become possible first, then mandatory.

New spectrums of meaning will become possible as people see the future with more clarity, but less certainty.

Many people are certain, but few are clear.

That's about to change.