TABLE OF CONTENTS

Fo	reword	5
Int	roduction	7
1.	An Introduction to Brilliant Failures	
	A Call for Less Caution	13
	So What Exactly is a Brilliant Failure?	14
	Brilliant Failures as Part of Life	17
	The BriFa Model: Positive Change Through Trying and Learning	27
	Applying Chapter 1	33
2.	Failure Is in Our DNA	
	Reality Often Turns Out Differently Than Expected	35
	The Dirty Dozen	38
	Creativity	43
	Theory U: Changing and Being Open to Failure	44
	Applying Chapter 2	49
3∙	Complexity as a Cause of Failing Brilliantly	
	Complicated Systems	51
	Complex Systems	52
	Complex Adaptive Systems	59
	Our World Has Truly Become Much More Complex	60
	Complexity in Projects and Programs	62
	Applying Chapter 3	67
4.	A Favorable Climate for Innovation and Entrepreneurship	
	Innovation	69
	Open Innovation: An Additional Layer of Complexity	74
	Entrepreneurship Is a Process of Trial and Error	76
	Applying Chapter 4	85

5.	A Common Language: Archetypes	
	Pattern Recognition	88
	Patterns in Failing Brilliantly: Sixteen Archetypes	90
	Failing and Learning at Various Levels	119
	Applying Chapter 5	122
6.	On knowledge and Learning	
	Knowledge Makes the World Go Round	125
	The Knowledge Value Chain	126
	Knowledge Transfer	129
	Various Levels of Learning: Single-Loop and Double-Loop Learning	132
	Failing and Learning in the World of Science and Research	138
	Applying Chapter 6	144
7.	Scenarios: Learning from Brilliant Failures Before They Happen	
	Alternative History	146
	Alternative Future	147
	Scenarios: Learning from the Future	148
	War-Gaming: Failing Brilliantly in the Future	157
	Applying Chapter 7	160
8.	The Importance of a Safe Environment	
	The Influence of the Environment	162
	Biomimicry: What We Can Learn from Nature	165
	Serious Optimism	168
	Applying Chapter 8	173
9.	The Influence of Culture on Failing Brilliantly	
	On Culture	175
	Brilliant Failures in the Netherlands Compared to Other Countries	177
	Failure in the Context of Government	193
	Applying Chapter 9	202

	10.	The	Institute	of	Brilliant	Failures	(loBF)
--	-----	-----	-----------	----	------------------	-----------------	--------

The IoBF Knowledge Environment: BriFa Learning Environment	204
IoBF Intervention: Journal of Brilliant Failures	205
IoBF Intervention: Brilliant Failure Award	206
IoBF Intervention: "Awareness Climate" for Experimentation	
and Learning	215
Applying Chapter 10	216
Acknowledgments	
Guest authors	
References	224

FOREWORD

People love stories; above all, stories that make sense. We interpret everything that happens around us in the context of subjective mental constructs—stories or "narratives"—that we develop throughout our lives, outside of our conscious awareness. And if these narratives are inconsistent with the facts, we are not very likely to adapt our narratives to the facts. On the contrary, facts that don't fit into our stories are denied, disputed, or rationalized in such a way that the underlying narrative structure remains intact. It takes time and effort for us to change our ways. This is how thought patterns, theories and insights that have long proven vulnerable to the cleansing power of facts may nonetheless persist for a long time, often implicitly and subliminally.

One of these persistent narratives concerns the way people, organizations, products/services, and insights evolve and improve. Long story short, this narrative is as follows: If all goes well, everything is balanced and runs like a well-oiled machine within the bounds of possibility. This equilibrium is the starting point from which people and organizations seek improvement. First you determine what is necessary and possible, then you carefully map out the change, and finally you successfully implement the innovation. In this way, the "system" moves from equilibrium to equilibrium, carefully planned and well thought out. This narrative leaves little, if any, room for trial and error. Mistakes are almost always seen as avoidable and culpable. In this worldview, they tend to be seen as the result of intellectual laziness in the initial phase or carelessness and errors in the implementation phase.

If you stop to think about it for a moment, you'll realize just how pervasive this way of thinking is in many social processes. Mistakes always require that someone takes the blame or gets fired, leaving a permanent blemish on their resume. Costs resulting from unsuccessful experiments are considered a waste of money. Decisions must be recorded and justified in advance with absolute bureaucratic perfection, as if all necessary information is known in advance and leaders are able to predict the future. The effects of "equilibrium thinking" can also be observed in economic theory, the basis for so much policy: The economy is usually seen as being out of

equilibrium, but tending toward it.

The real world, however, is messier and less clear than the above makes it seem; and it always will be. This is a fundamental fact of existence. Almost all decisions must be made based on incomplete information. Circumstances are always changing, and many things are completely unpredictable. Everything—people, organizations, countries, even nature itself—is constantly in transition. In such circumstances, the command-and-control approach is of limited use. Greater emphasis is placed on learning through frequent experimentation. Trial and error, in other words. It's virtually impossible to know everything in advance and absolutely impossible to predict the future, so we'll have to learn by trying. The human mind actually evolved to prefer this way of learning, where failure is considered as valuable as success, if not more than. This intuitively doesn't feel right to many people, especially because it's not what they've been taught. One might reasonably argue that people surely shouldn't be asked to start experimenting left and right, only to celebrate when their project predictably goes sideways. But experiments can be designed in such a way that they add a lot of value, even if they fail. These are the Brilliant Failures this book is about. We need to change our way of thinking about experiments and failures, and this book contributes greatly to that end. It presents a systematic framework of thought, that is, an alternative narrative to the joyless and rigid narrative summarized above. And it does so in a way that can be considered positive and even cheerful. It's exactly what we need.

Dr. T.B.P.M. Tjin-A-Tsoi Director General Statistics Netherlands (CBS)

INTRODUCTION

Ever since childhood, I've been fascinated by knowledge, particularly the progress of mankind as a result of the development and effective application of knowledge. During my studies and doctoral research in theoretical physics, I developed a passion for understanding complex systems. I studied topics in the field of statistical physics, which attempt to understand the behavior of systems consisting of many parts. However, I discovered an even greater challenge: understanding systems in which *people* influence each other rather than molecules or elementary particles. Although people can achieve many great things together, they can also create less pleasant environments to be in. Sometimes they do so on purpose and sometimes it's a case of "organized stupidity"; that is, us making it unnecessarily difficult for ourselves to get the most out of ourselves and each other.

In a system in which we focus only on success and sweep everything that doesn't work under the rug, we've essentially trapped ourselves in such an environment of organized stupidity. This is a missed opportunity. Business schools and entrepreneurship programs, business incubators, entrepreneur awards: they all prioritize success, growth, unicorns, slick pitches, prizes, etc. The truth is that over 90 percent of new initiatives don't make it. Reason enough to prepare people for lack of success while still encouraging them to keep trying, and—if they don't succeed—to be proud of their efforts and apply the lessons learned in the future, whatever their plans may be. But that's often not what happens.

Success and happiness also tend to prevail in the "perfect world" presented on "not-so-social" media, which often causes feelings of inadequacy in young people. The consequences are well known: There's an alarming increase in young people suffering from stress, burnout, depression and loneliness, primarily because of the pressure they feel to perform.

At the many conferences and other meetings I've attended in my career, the world also seems to consist of a series of successes. It's just like the timeline of your average Facebook or Instagram account. Even in "serious" networks, such as academic networks, people prefer to report on successful activities, and "likes", that is citations. count heavily toward the evaluation of someone's achievements. The truth is that constantly emphasizing

successes and omitting failures has nothing to do with reality.

Public debate started in the Netherlands around 2005 over the way we treat people who've gone bankrupt—the ultimate failure in the business world. Research had already shown that under certain conditions, people who went bankrupt in a "brilliant" way, i.e., not a particularly stupid and definitely not a criminal way, have a better chance of success the second time around than first-time entrepreneurs. This actually makes sense: They have experience and show perseverance. But the people around them often don't see it that way. People who fail are pitied or no longer trusted, or both. This is not exactly constructive. And it doesn't just apply to people who've failed in the business world either. You can fail in your personal life, in academia, the arts, sports... In fact, failure may lurk around just about every corner.

I was once responsible for ABN AMRO Bank's Dialogues Incubator, an innovation platform focused on creating more disruptive, sustainable business models and open innovation. There were a few successes, but many of these businesses were ultimately unsuccessful. This wasn't a problem: the Institute of Brilliant Failures could always use them as case studies! (This is what they call "hedging" in the world of finance.)

I'd already started wondering how one might go about creating an environment in which people find it perfectly natural to learn from their failed activities and subsequently share the lessons they learned with others in order to prevent them from running into the same problems. This led to the founding of the Institute of Brilliant Failures, which attempts to answer such questions as: what is the difference between a mistake and a Brilliant Failure? How can we learn from failures? How do you create an environment in which people and organizations feel free to experiment, even if results cannot be guaranteed? How do you take away the fear of admitting and learning from mistakes? And how can failed activities become easier to recognize and communicate to others?

Everyone knows that getting knocked down and getting up again is part of life. Can't we use this to our advantage and learn from each other, rather than just bragging about our successes? What if knowledge acquired through trial and error can benefit not only you, but also the people around you? A failure could suddenly become very valuable and may well turn out to be a Brilliant Failure.

We can't change the past, but we should strive to use past insights and ideas in new attempts as much as possible. This is what failing brilliantly is all about. The way ahead usually isn't a straight highway like Route 66 through Monument Valley; it's a winding road, sometimes no more than a trail, through a varied landscape. People who only drive on automatic pilot on Route 66 miss out on much of real life. This book is intended to serve as a navigation system for the road map of real life, in which people who've taken a wrong turn—as we all regularly do—may still end up at the most beautiful destinations.

My goal is to take away the feelings of fear and shame associated with failure. I'd like to see them replaced with a sense of pride in trying, and a sense of enrichment derived from the lessons that can be learned, shared, and applied.

Because there's so much to be said about failing and failing brilliantly, and we want to share as much information with you as possible and as clearly as possible, we've used symbols to indicate parts of the text that add to or expand on the main text:



Indicates an example of a Brilliant Failure



Indicates a concept or a theoretical foundation or digression



Indicates a guest author's contribution

1. AN INTRODUCTION TO BRILLIANT FAILURES

Let's get right to the main point of this book: Daring to fail is important! If no one dared to take any risks anymore, things would go downhill fast. Failure is inevitable, even necessary, for society to progress. This is why we should stimulate enterprising people and organizations that aren't afraid to try something new and to face the consequences. Because, let's be honest—where would the world be without courage, without the opportunity to learn from things that don't go according to plan, without serendipitous discoveries?

A Call for Less Caution

Everyone can contribute to reducing caution and increasing acceptance of failure. This applies first and foremost to legislators, policy makers, social partners and senior managers. They have the power to simplify regulation and turn penalties for failure into positive incentives for sticking one's neck out. The media can also play an important role by reporting on the positive aspects of failure. But "be the change you wish to see in the world" applies here as well. Ultimately, everyone could give themselves and the people around them more room to experiment and to accept and share mistakes and failures.

The Institute of Brilliant Failures (IOBF) gathers knowledge that can be used to clear the way for new experiences, innovation and enterprises and to increase the learning potential of people, organizations, and society as a whole. Just to be clear, we do encourage people to stick their necks out every now and then, but we don't advocate irresponsible risk-taking. While wandering onto the highway blindfolded is adventurous, it doesn't fall within the scope of the IOBF. Yes, the possible (or probable) confrontation with oncoming traffic would be a failure, but certainly not a *Brilliant* Failure!

So What Exactly is a Brilliant Failure?

There are a great many situations that may turn out differently than expected, both in business and in private life. These kinds of situations tend to arise when we were trying to do something right, not when we were acting foolishly or selfishly. But when exactly is a failure not simply a failure, but a Brilliant Failure? We'll be using the following definition:

A *Brilliant Failure*[©] is an attempt to create value whose originally intended result isn't achieved, despite the fact that no avoidable or culpable mistakes were made. Lessons were learned and learning experiences are shared.

The word "failure" suggests an unsatisfactory outcome—something you'd probably rather not talk about. The opposite is true of Brilliant Failures: They're the kinds of failures you'll be itching to talk about! The result obtained through a Brilliant Failure may not be the intended result, but it does have value. It might even be more valuable than originally intended. We distinguish two types of Brilliant Failures, based on their outcome:

- Type 1, whose result is different than intended but still valuable, sometimes even more valuable than the intended result.
- Type 2, whose result is less valuable than originally intended, but does provide a learning experience.

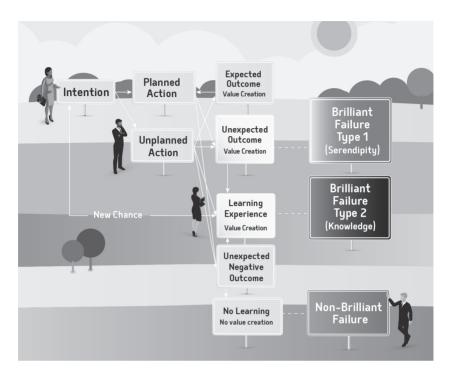


Figure 1. Different types of Brilliant Failures

A Type 1 Brilliant Failure often involves serendipity; discovering something important by chance. To quote the definition favored by Pek van Andel, who's done much research in this area, "Serendipity is looking for a needle in a haystack and finding the farmer's daughter." Accidentally making a mistake (unplanned action) can also be a brilliant failure, as it might result in a different desirable outcome or a valuable learning experience. In some cases, it's actually useful to make a mistake because it may lead to new insights and progress. Think, for example, of the board game Mastermind: you can choose to create a combination you know to be incorrect in order to acquire new information.'

¹ The book Brilliant Mistakes (2011) by Paul Schoemaker is about these kinds of mistakes, which are sometimes deliberately made to discover a way forward.