

A complex network diagram consisting of numerous dark blue and orange circular nodes connected by thin grey lines, forming a web-like structure that fills the right half of the cover.

The **FINTECH** Book

THE FINANCIAL TECHNOLOGY HANDBOOK FOR
INVESTORS, ENTREPRENEURS AND VISIONARIES

SUSANNE CHISHTI & JANOS BARBERIS

A red rectangular stamp with a double-line border, located on the left edge of the cover.

WILEY

The FinTech Book

The Financial Technology Handbook for
Investors, Entrepreneurs and Visionaries

Edited by

Susanne Chishti

Janos Barberis

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"Many are familiar with early stage investing. Many are familiar with technology. Many are familiar with disruption and innovation. Yet, few truly understand how different an animal is the financial services industry. Such vectors as regulation, compliance, risk, handling other people's money, the psychological behaviours around money and capital ensure that our financial services industry is full of quirks and complexities. As such *The FinTech Book* offers a refreshing take and knowledge expertise, which neophytes as well as experts will be well advised to read."

Pascal Bouvier, Venture Partner, Santander InnoVentures

"This first ever crowd-sourced book on the broad FinTech ecosystem is an extremely worthwhile read for anyone trying to understand why and how technology will impact most, if not all, of the financial services industry. It captures and highlights the disruptive forces at play. Start-up FinTech firms across the globe will have a profound impact on the future delivery of services to both institutions and individuals. This book is a terrific compilation of information and prescient thought that should prove useful to both financial services practitioners and users."

R. Todd Ruppert, retired CEO and President of T. Rowe Price Global Investment Services and serial FinTech investor and advisor

"Sometimes a book explains how the world has changed. Rarely, a book comes along that explains how the world is going to change in the future. This is one of those rare compilations that describe the fundamental changes taking place in how people live their lives. It portrays a world where, through a potent potion of technology and entrepreneurialism, power moves away from central banking institutions to local communities and the people within them. This book helps explain why London is the global hotspot for innovation in financial and payment technology. You won't be able to put it down."

Tony Craddock, Director General, Emerging Payments Association

"Finally FinTech is entering the mainstream vernacular such that more than just we finance, banking and payments geeks and innovators are aware of the revolution underway. If you're looking for a 'crash-course' on the FinTech industry, and the explosion of innovation that it's creating across the globe, look no further. The depth and diversity of views herein is staggering; a phenomenal compilation that will get you up-to-speed fast. Definitely worth a read."

Roy Vella, FinTech Expert, Public Speaker and Managing Director of Vella Ventures Ltd

"Fantastic to see a book on FinTech brought together by the community and written by the community. It will be valuable to anyone starting off in FinTech".

Nigel Verdon, Founder, Currency Cloud, Partner, Digital Change

"FinTech is about all of us – it's the future intersection of people, technology and money, and it's happening now there is an explosion of possibilities on our doorstep. Susanne and *The FinTech Book* paint a visual picture of the possibilities and make it real for every reader. A must-read for every disruptor, innovator, creator, banker."

Derek White, Global Head of Customer Solutions, BBVA

"FinTech is reshaping the financial experience of millions of people and businesses around the world today, and has the potential to dramatically alter our understanding of financial services tomorrow. We're in the thick of the development of an Internet of Value that will deliver sweeping, positive change around the world just as the internet itself did a few short decades ago. *The FinTech Book* captures the unique ecosystem that has coalesced around this sector, bringing together visionary entrepreneurs, innovative finance leaders, and forward-thinking policymakers to comment on the exciting changes taking place."

Chris Larsen, Co-Founder and CEO of Ripple

"There are few books out there that capture the pulse of how the internet is changing finance, but *The FinTech Book* has captured the views of many of the key players building the ValueWeb. It will prove an essential read to anyone wanting to know more about the next generation of banking, insurance and finance."

Chris Skinner, Author of *ValueWeb* and Chair of the Financial Services Club

"Over the next decade, the notion of what a bank is will be turned on its head – where bricks and mortar give way to apps, artificial intelligence, and decentralized ledgers. *The FinTech Book* comes at a perfect time when incumbents, start-ups, and investors alike are trying to grasp what this future holds, for the stakes of getting it right or wrong are truly enormous."

Greg Rogers, Executive Director, Techstars

"*The FinTech Book* provides an excellent open platform to hear from a wide variety of thought-provoking voices. True innovative change only happens with the support of collaborative ecosystems. *The FinTech Book* allows readers to hold this ecosystem in the palm of their hands,"

Liz Lumley, Director of Global Ecosystem Development, Startupbootcamp FinTech and InsurTech

"A truly indispensable guide for anyone who wants to understand the market dynamics of the FinTech revolution and the disruption behind it. Intelligent and thought provoking, you'll either be exhilarated by the scale of the growth opportunities or horrified that your world is going to change so fundamentally."

Dr Louise Beaumont, Head of Public Affairs and Marketing, GLI Finance Limited

"London has established itself firmly as a global powerhouse for FinTech. With the world's leading international financial centre and Europe's fastest growing technology hub, London is at the forefront of the latest innovations in financial technology and we are changing the way governments, businesses and consumers manage their financial affairs. We are also a city of great creativity, where new ideas thrive and disruption is welcome. All these ingredients will help London to become the FinTech capital of the world. It is important that we continue to promote the sector and shout about our successes. *The FinTech Book* not only provides valuable insight into the industry from some of the leading experts in London, but also shines a spotlight on what makes London an ideal destination for FinTech companies."

David Slater, Director of International Trade and Investment, London & Partners

"With many of the contributors to this book we shared the very first FinTech days, back to 2008. In the middle of the hype now, where often noise and relevance are intertwined, I am really happy to see so many meaningful thoughts and opinion pieces about what is certainly one of the biggest pivotal shifts in financial services."

Matteo Rizzi, FinTech Investor and Co-Founder, FinTechStage

"FINTECH Circle are at the forefront of the latest FinTech developments and innovation, and *The FinTech Book* reflects their open, collaborative and inclusive approach. It offers a unique insight into key trends in this industry to each part of the ecosystem – entrepreneurs, investors and service providers alike will connect with the dynamics captured here. Reaching out to such a wide range of experts provides unprecedented insight into FinTech, making this an interesting read for anyone interested in this space."

Axel Coustere, Founding Partner, The Hub Exchange

"The FinTech book is a great jumping off point for anyone looking to understand FinTech, especially in Asia. As this new kind of technology becomes more ubiquitous, resources like this book will become more and more valuable to both newbies and experienced hands."

Vladislav Solodkiy, CEO, Life.Sreda

"This book is a brilliant kaleidoscope of themes, success stories, and current and future trends in the financial technology space. A must-read for anyone who is interested in FinTech, it provides a solid overview of the various ways digital innovation can transform banking and finance."

Dr Markos Zachariadis, Assistant Professor, Warwick Business School; FinTech Research Fellow at Cambridge Digital Innovation, University of Cambridge

"There is a lot of confusion around what FinTech really is and how it could be deployed by existing financial services companies. This book is well timed as it cuts through the hype and allows the reader to review practical approaches from actual exponents and thereby educate themselves on where different technologies can be applied to their businesses."

Brendan Bradley, Chief Innovation Officer and Member of the Eurex Executive Board; Chairman of the Executive Board, Deutsche Boerse Asia Holdings Ltd

"*The FinTech Book* really lives up to its title. Janos and Susanne have not just succeeded in explaining the key trends, drivers and implications across a wide spectrum of FinTech themes (including payments, crowdfunding, advisory and cryptocurrencies), but have also clearly laid out the path forward, pragmatically detailing enablers such as regulatory / compliance management, analytic capabilities, and technical competency that are required to effectively capture and monetize the different FinTech disruptions. This is a truly cross-discipline, hands-on and comprehensive FinTech bible, which all players in the FinTech space, including investors, entrepreneurs, incumbent institutions and regulators, can benefit from."

Robin J. Loh, General Manager, Ping'an FinTech

"FinTech innovation is an important component of economic development, especially for emerging economies. There are few books that summarize the FinTech movement more completely than *The FinTech Book*. It provides a wonderful summary of the global innovation in the industry to date."

Melissa Guzy, Managing Partner and Founder, Arbor Ventures

"I have a passion for helping businesses invest and grow, and often the key to this is education. At a stroke here is a book that opens up the FinTech world to all who are curious, ambitious and entrepreneurial. FinTech is moving at a tremendous pace and this truly excellent book enables the reader to keep up and even get ahead of how global innovation in financial and payment technology will change and shape the world we live in. The joint editors, Susanne Chishti and Janos Barberis, have done an outstanding job."

John Davies, CEO, The Just Loans Group PLC

"London is rapidly becoming known as a leading FinTech centre internationally. The development of *The FinTech Book* is timely and innovative, capturing the knowledge of the City's ecosystem players. It will be a valuable resource for those seeking to understand the implications of these disruptive technologies for the finance landscape."

Professor Michael Barrett, Cambridge Judge Business School, Academic Director, Cambridge Digital Innovation

The FinTech Book

Preface

We both started off delving into the field of FinTech at roughly the same point in time. Eager to learn more, we quickly discovered that there existed no single, consolidated, and authoritative source on the subject. On a remarkably sunny London day, we met up in a local café, ascertaining our mutual passion for FinTech and our desire to find out more. Typically of entrepreneurs, we decided to fill the currently existing gap in FinTech knowledge and produce a FinTech book ourselves, a book that would provide food for thought to FinTech newbies, pioneers, and well-seasoned experts alike. This is how *The FinTech Book* was born.

The reader will notice that this is the first “globally crowdsourced” treatment of the subject. The reason we decided to reach out to the global FinTech community in sourcing contributors for the book lies in the inherently fragmented nature of the field of Financial Technology. There was no single author, organization, or indeed region in the world that could exhaustively cover all the facets and nuances of FinTech. What is more, by being able to call upon a truly global contributor base, we not only stayed true to the spirit of FinTech, making

use of technological channels of communication in reaching out to, selecting, and reviewing our would-be contributors, we also made sure that every corner of the globe had the chance to have its say. Thus, we aimed to fulfil one of the most important purposes of *The FinTech Book*, namely to give a voice to those that would remain unheard, those that did not belong to a true FinTech community in their local areas, and spread that voice to an international audience. We have immensely enjoyed the journey of editing *The FinTech Book* and sincerely hope that you will enjoy the journey of reading it, at least as much.

More than 160 authors from 27 countries submitted 189 abstracts to be part of the book. We asked our global FinTech community for their views regarding which abstracts they would like to have fully expanded for *The FinTech Book*. From all these potential contributors, we selected 86 authors who have been asked to write full chapters, which have now been included in this book. We conducted a questionnaire among all our selected authors to further understand their background and expertise.

Education of our Authors

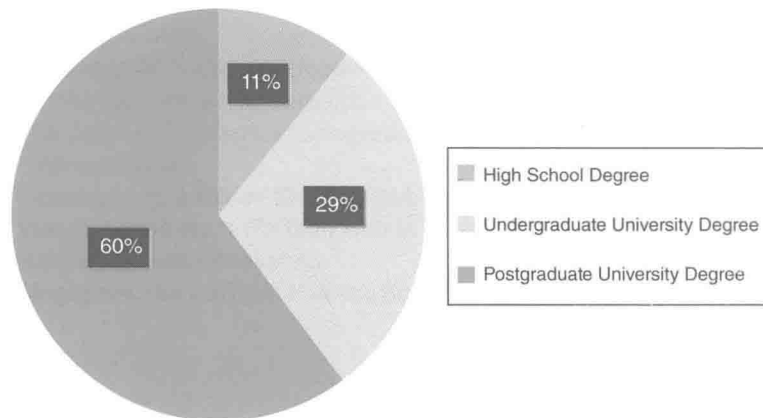


Figure 1: What is the highest educational qualification of our authors?

Expertise of our Authors

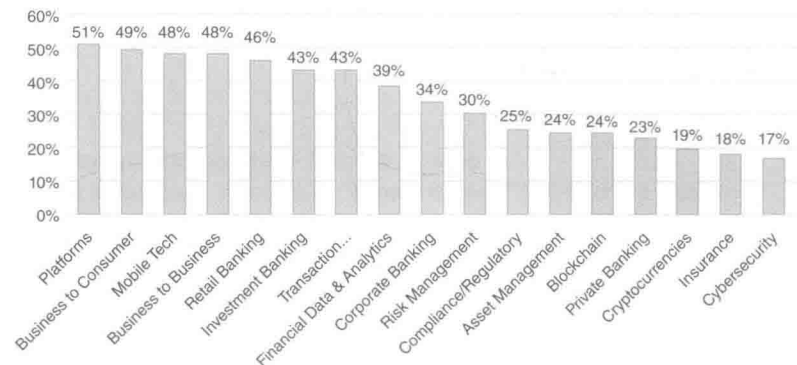
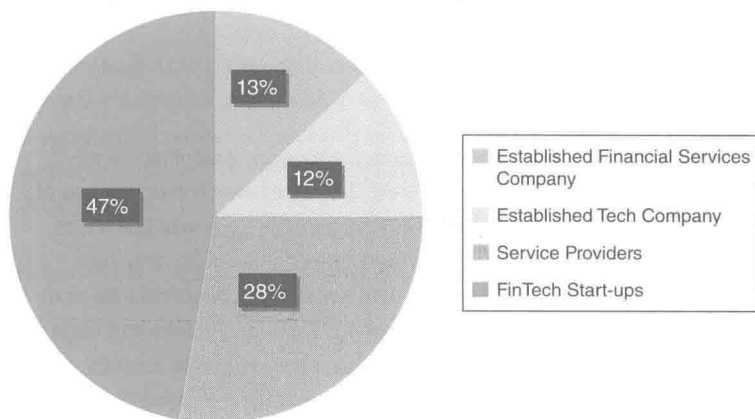


Figure 2: Areas in which our authors have domain expertise (multiple choices were possible)

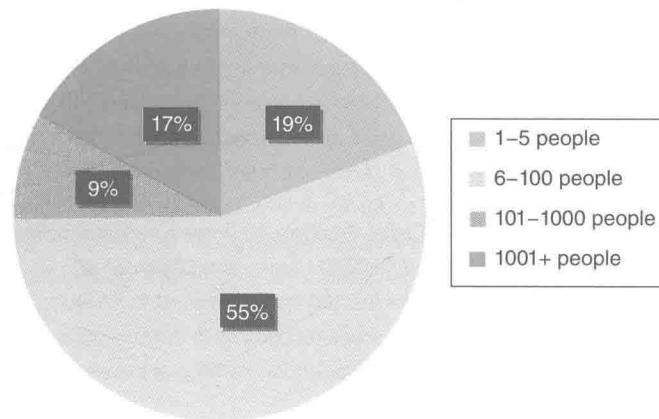
Where do our Authors work?**Figure 3: Type of company in which our authors were working**

Our selected final authors come from 20 countries. The majority have postgraduate university degrees (60%) (Figure 1), strong domain expertise across many fields (Figure 2), and 93% of our finalist authors have had articles published before.

Figures 3 and 4 show that almost half our finalist authors are entrepreneurs working for FinTech start-ups (many of them part of the founding team), a quarter come from established financial and technology companies, and another quarter from service providers such as consulting firms or law firms servicing the FinTech sector.

Almost a fifth of our authors work for start-ups with up to five people and another 55% for start-ups/small and medium-sized enterprises (SMEs) of up to 100 people. 17% of our contributors are employed by a large organization of more than 1,000 employees.

In summary, we are very proud of our highly qualified authors, their strong expertise, and passion for FinTech through being either entrepreneurs or often

Size of Companies where our Authors work**Figure 4: Size of companies for which our authors work**

“intrapreneurs” in large established organizations who all are committed to play a significant role in the global FinTech revolution. These remarkable people are willing to share their insights with all of us in these pages.

Firstly, this project would not have been possible without the dedication and efforts of all contributors to *The FinTech Book* (both those who submitted their initial abstracts for consideration by the global FinTech community, as well as the final authors whose insights you will be reading shortly). In addition, we would like to thank Inna Amesheva, Suki Jutla, and Maya Petersohn for their invaluable help in the final stages of the editing process. Last, but certainly not least, we would like to thank our editors at Wiley whose guidance and help ensured that the project which started off as an idea in a London café has become the book which you are now holding in your hands.

Susanne Chishti and Janos Barberis
The FinTech Book Editors

2016

About the Editors

Susanne Chishti

Susanne Chishti is the CEO of FINTECH Circle, Europe's 1st Angel Network focused on FinTech investments, founder of London FINTECH Tours, and Chairman of FINTECH Circle Innovate. Selected as one of the 100 leading Women in FinTech and top 15 FinTech UK Twitter influencers, she was recognized in the European Digital Financial Services 'Power 50' 2015, an independent ranking of the most influential people in digital financial services in Europe.

Susanne is a senior capital markets manager, entrepreneur, and investor with strong FinTech expertise. She is a mentor, judge, and coach at FinTech events such as SWIFT Inn tribe, Barclays TechStars Accelerator, Cambridge Judge Business School, and Startupbootcamp FinTech Accelerators. She has more than 14 years' experience across Deutsche Bank, Lloyds Banking Group, Morgan Stanley, and Accenture in London and Hong Kong. Selected among top UK FinTech Influencers by City A.M. Susanne is also the author of FinTech articles and an international keynote speaker at FinTech conferences. She runs one of the leading online FinTech communities of FinTech entrepreneurs, investors, senior management from established financial and tech firms, and thought leaders – FINTECH Circle's LinkedIn Group with more than 10,000 members worldwide.

You can follow Susanne on Twitter via her account @SusanneChishti.

About FINTECH Circle

Founded by Susanne Chishti, FINTECH Circle is an international brand linking the FinTech ecosystem of investors, entrepreneurs, business leaders, and influencers who all are enthusiastic about the growing FinTech sector globally. In addition to accessing top FinTech investment opportunities via the Angel Network, members also enjoy knowledge sharing amongst peers, access to board and non-exec positions in FinTech companies, and the opportunity to

attend exclusive FinTech and angel investment educational seminars (www.fintechcircle.com). In addition, London FINTECH Tours (www.fintechcircleinnovate.com) provide non-UK FinTech entrepreneurs with the opportunity to visit London to leverage London's FinTech ecosystem of investors and clients to help them grow their business. FINTECH Circle Innovate (www.fintechcircleinnovate.com) was set up in response to demand from growing numbers of banks and large institutions who needed help to close the gap between corporate strategy and sustainable innovation in FinTech. We guide them through the global FinTech landscape and are able to source the best targets for partnership, incubation, investment and acquisition purposes. You can follow FINTECH Circle on Twitter via @FINTECHCircle and @FINTECHTours, and FINTECH Circle Innovate via @FTCInnovate.

Janos Barberis

Janos Barberis is a Millennial in FinTech, recognized as a top-35 global FinTech leader. His expertise is focused on the new regulatory considerations raised by the development of FinTech. With a passion to drive change, he founded FinTech HK, a thought leadership platform, and the SuperCharger – a FinTech Accelerator that strategically leverages Hong Kong as a gateway to Asia.

In parallel, he sits on the advisory board of the World Economic Forum's FinTech Committee and is a PhD Candidate at Hong Kong University Law School. Janos regularly delivers Keynote speeches and has been featured in *Forbes*, *The Financial Times* and *Business Insider*, among others. He is also the Co-Founder and Editor of *The FinTech Book*.

Previously, Janos was the first hire at a prospective UK challenger bank, Lintel, helping it to secure a banking license from the PRA and FCA. This role followed a specialist interest, developed over 7 years, in financial systems and their stability. Notably, in 2012 Janos proposed to reform the Chinese shadow banking sector by developing P2P lending channels. He also introduced a framework of developing

real-time and dynamic regulatory supervision models for financial networks, paving the way towards what is now regarded as RegTech.

Janos holds an LLM in Corporate and Financial Law (HKU) as well as a BSc in Economics & Finance and an LLB in Law (UK). He has been awarded a Research Postgraduate Scholarship from Hong Kong University Law School. He co-authored the academic paper, "The Evolution of FinTech" which ranked within the Top 10 of SSRN globally.

You can follow Janos on Twitter via his account @JNBarberis

About FinTech HK

Founded by Janos Barberis in July 2014, FinTech HK is a thought leadership platform that has the objective of catalysing Hong Kong's position as a world-leading FinTech Hub. FinTech HK produced Hong Kong's first FinTech Report: "The Rise of FinTech: Getting Hong Kong to Lead the Digital Financial Transition in APAC."* Since then, the platform has hosted and supported a number of local and international FinTech events. FinTech HK is a main supporting organization of the SuperCharger, Hong Kong's first home-grown FinTech accelerator dedicated to both early- and late-stage companies that are scaling within Asia.

* The report is available on: <http://www.slideshare.net/FinTechHk/fintech-hong-kong-report>.

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When we started discussing our desire for a book which would summarize the global FinTech sector in an easy way, it was just an idea between two people. From that moment onwards we spoke to hundreds of our FinTech friends globally and everybody supported the idea. FinTech entrepreneurs across all continents were eager to share their powerful insights. They wanted to explain the new business models and technologies they were working on to change the world of finance. FinTech investors, “intrapreneurs”, innovation leaders at leading financial institutions and thought leaders were keen to describe their embrace of the FinTech revolution. Finally, many FinTech visionaries wanted to share their vision for the future.

This global effort of crowdsourcing such insights is a world first. We are aware that this would not have been possible without the FINTECH Circle and FinTech HK global communities. We are very grateful to our members who have been with us since 2014 when both groups were created. Our FINTECH Circle Group on LinkedIn has more than 10,000 members globally and all readers of the book are invited to join and continue the conversation online. We also want to thank our 20,000 Twitter followers across our Twitter accounts @FINTECHCircle; @FinTechHK; @FTCIInnovate; @FINTECHTours; @SuperChargerFT; and of course our dedicated Twitter account @TheFINTECHBook. Without the public support and engagement of our global FinTech community this book would not have been possible.

The authors you will read about have been chosen by our global FinTech community purely on merit, thus no matter how big or small their organization,

no matter in which country they work in, no matter if they were well known or still undiscovered, everybody had the same chance. We are proud of that because we believe that FinTech will change the world of finance forever and the global FinTech community is made up of the smartest, most innovative and nicest people we know. Thank you for being part of our Journey. It is difficult to name you all here, but you are all listed in the directory at the end of this book.

We also wanted to select the best publisher for the book and we have chosen Wiley to allow readers globally to buy their hardcopies or order online. A special thanks goes to our fantastic editor Thomas Hyrkiel who saw the vision for the book from the moment we met. Thank you and to your team – we could not have done it without your amazing support!

We look forward to hearing from you. Please visit our website www.TheFINTECHBook.com for additional bonus content from our global FinTech community, consisting of the top FinTech entrepreneurs, investors, intrapreneurs and FinTech visionaries!

Please send us your comments on *The FinTech Book* and let us know how you wish to be engaged by dropping us a line at info@thefintechbook.com

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Janos Barberis
Twitter @JNBarberis

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Introduction

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