

Meet the Architects

Agents of Change

■ A Vision and a Plan

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The technology leaders featured in this book are agents of change, persuading their constituencies to adopt technology selectively to enhance business processes and advising them on how to do so. They understand the importance of enterprise class technology; they have clear visions and control the resources for their implementation.

The leaders profiled in this book are visionaries in that not only can they identify current opportunities where technology can add value, but also they are capable of imagining how future advances in technology could continue to enhance our businesses going forward. This creative capacity—the ability to couple creativity and technology—is a key attribute.

Always on the lookout for an edge, financial firms recognized early the value of technology and smart technologists. These firms have been early adopters of technology throughout the trade cycle. As markets become increasingly competitive, financial firms have become proponents of new technology—and empowered their technologists. Not surprisingly, smaller, more nimble participants have taken the lead in this process. One caveat is that some firms tend to view technology as a straight revenue play. These firms seem to hesitate to invest in IT except in areas where its

implementation generates immediate revenue. The leaders featured in this book understand that spending on technology in other areas, like the back office, is often as important in terms of the strong foundation that it lays for business operations.

Throughout the conversations that generated the content for this book, interviewees stressed the importance of institutionalized, professional information technology structures and processes. While the business side has maintained a clear business plan, technology has sometimes been treated as a discretionary area. Technology is not discretionary; its integration throughout financial companies is essential in laying a foundation for success. What's more, formalized information technology structures are needed to equip companies to deal with tough challenges on the horizon. The recent financial crisis was a valuable lesson and, for many in financial technology and outside it, a catalyst for change.

■ Broad Focus

While the media has focused its attention on advances in technology that help firms achieve ultra-low latencies, this book refuses to focus solely on them. Technologies that are geared toward high-frequency trading (HFT) are covered in this book and they are an important topic. However, the reach of technology extends throughout our industry, on a macro market structure level and on a micro level within individual companies. Interviews address a variety of areas in which technology is being harnessed creatively to address a range of challenges. For instance, among other topics, they also show how technology can be applied to make markets safer with automated risk control and derive value from better data, as well as how emerging markets are utilizing mobile technologies to serve customers better.

The technologists that have been interviewed for this book hail from a variety of companies across asset classes. Some of the market segments that they represent are fully electronic and others utilize technology in different ways that vary, depending upon market structures. But at all of the companies and in all of the markets represented, technology is enhancing operations and, as an extension, business overall. This book is entitled the *Architects of Electronic Trading*, but to be more precise, the architects featured within it are utilizing technology to build infrastructures that harness technology in order to facilitate participation in all markets, regardless of the degree to which that market is traded electronically. They represent

trading firms, alternative asset managers, brokers, hedge funds, vendors, and exchanges.

■ Great Communicators

Those who understand technology and can help the rest of us see its value are responsible in large part for progress. As technology extends its influence throughout our business, and our lives more generally, the role of the technologist only grows in importance. Because technology is for many of us an abstraction and our understanding of it is often superficial, the technologist who can communicate or translate between the worlds of technology and business is at a premium. The technology leaders featured in this book are highly skilled exactly in this area, and it differentiates them from their peers.

This book centers on the theme of encouraging common understanding between technologists and non-practitioners in the financial markets. For, if we better understand the trends and challenges facing our industry we may be more receptive to the technology solutions that can help us solve them. Technologists, for their part, stand to benefit from a more informed constituency.

Financial firms have understood the importance of fostering communication within their ranks. In fact, some even employ translators of sort, who are tasked with helping traders and technologists better understand each other, including helping them decode both trading and technology terms. By aiming to achieve a common vocabulary, they are helping to encourage cooperation in development.

The importance of communication extends beyond cooperative development, throughout the trading business, and has opened the door to new ways to encourage effective communication that includes, but is not limited to IT staffs. In one insightful background interview for this book with Pe-Ru Tsen, managing partner at rheform WorkplaceInnovation, a strategic business and design consultancy, who conducted extensive fieldwork and interviews in the financial industry focusing on the relationship between space, organization, communication, and technology in modern trading rooms, she stresses that the integration of technologists into the team environment can be a game changer: “It’s all about communication. Trading room design is essentially about creating the most effective trading environment to enable interaction with counterparts, clients and colleagues in

the market. New technologies have enabled faster and more complex ways of trading, which has ultimately shifted trading activities to more interdisciplinary and collaborative work. Savvy financial institutions can leverage their potential and performance with a sound and sustainable trading room design.”

■ Other Important Character Traits

Great technologists are rare, and technology leaders are rarer still. When interviewing technologists for this book, character traits common among them were clearly visible. And some of them distinguish technology leaders from other types of leaders. Yes, leadership skills are essential. On top of those, technology leaders possess some unique attributes that seem to help them be especially effective.

For one, almost without exception, the people whom I interviewed were accessible, not surprisingly, through technology. While many of my interviews were a result of relationships and networking, I reached out without introduction to others. In my experience, CEOs rarely respond to LinkedIn pings. I was surprised when several CIOs responded to my request.

Across the board, the people featured in this book are excited about technology in a refreshing way. Most are natural optimists who believe in the promise of technology to improve processes going forward. All were excited to help teach others about our common technology challenges and novel ways to address them.

In their responses, many technology leaders discussed the importance of asking questions and the iterative process in technology projects. According to Carol Dweck, PhD, in *Mindset, the New Psychology of Success*, the ability to ask questions and learn from them is a hallmark of success. She argues that “[Leaders] are constantly trying to improve . . . and because of this, they can move forward with confidence that’s grounded in facts.”

■ This Book’s Structure

This book is a compilation of edited interviews with technology leaders. They were asked broad questions and to minimize “tech speak” to help give a wide range of readers a readable—and hopefully enjoyable—overview of the big trends in technology and creative solutions for solving them. Given

the privacy characteristic of our industry, the technologies profiled in this book are leading edge. Readers will understand that no “secret sauce” is revealed in this book.

The interview format was selected in part in homage to the great *Market Wizards* by Jack Schwager, and in part because it was a practical way to structure readable, discrete interviews on single topics. Though they fit together as an anthology, readers should feel free to jump around and read the important key points with regard to a specific topic.

Individual chapters cover key developments in technology as seen through the lens of technologists in the financial and commodity markets. I relied on my own research and helpful suggestions from both interviewees and colleagues when compiling the list of technology trends. Any omissions are my own.

