

The Pilgrimage to Sand Hill Road: Venture Capital Investment in Publishing-Related Tech Start-ups

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Abstract

Many entrepreneurs in the world of tech start-ups seek venture capital funding to establish and grow their businesses, but this can be a process fraught with difficulties and laden with long-term consequences. Most attempts to secure VC funding will fail, and most start-ups that are VC-funded will not succeed. Moreover, start-ups that do secure VC funding will tend to find themselves on a developmental trajectory that is very different from that of many traditional businesses. This paper seeks to shed light on the unique and special relationship between venture capital and tech start-ups by focusing on a particular subset of tech start-ups: those that are related to the book publishing industry. It examines this relationship both from the viewpoint of a well-established venture capitalist in Silicon Valley who funds tech start-ups and from the viewpoint of entrepreneurs who are trying to secure VC funding. By examining this relationship from both points of view, we can understand why some entrepreneurs succeed in raising funds and others don't. We can also understand why the developmental trajectories of VC-funded start-ups are very different from those of many traditional businesses and we can explain why some VC-funded businesses fail while others, competing in a similar space in seemingly similar conditions, survive and flourish.

Keywords: Tech start-ups, venture capital, publishing, Silicon Valley, Sand Hill Road

As the digital revolution gathered pace in the 1990s and early 2000s, it had a growing impact on traditional media companies and on the broader environments within which these companies operated. Media companies were particularly exposed to the impact of the digital revolution because they were dealing primarily with symbolic content that could be digitized, and hence their principal asset—their symbolic content—was quickly caught up in the new forms of information processing and transmission that were being developed by computer-based technologies. The impact of digitization varied greatly from one media industry to another, and from one sector of any particular media industry to another, depending on an array of factors and conditions that were often specific to particular industries and sectors—it would be a mistake to assume that the impact of digitization was the same, or even similar, across different media industries and sectors.² But apart from the impact on traditional media industries, the digital revolution was also creating opportunities for new players to enter the fields which traditional media organizations had long regarded as their own. The barriers to entry that had afforded some protection to traditional media organizations were being eroded or swept away. Traditional media organizations found themselves facing a plethora of new start-ups, some of whom were seeking to collaborate with them while others were positioning themselves as competitors: their world was changing quickly, and it was often difficult to know who was friend and who was foe (and sometimes it was both).

While the music industry and the newspaper industry were being rapidly and dramatically disrupted by the digital revolution, the book publishing industry was being deeply affected too, though in ways that were complex and specific to this industry. In the late 1990s and early 2000s, the retail environment of the book publishing industry was transformed by a tech start-up that used digital technology and the internet to revolutionize the book supply chain. From modest beginnings in a Seattle garage, Amazon would quickly become both the world's largest retailer and the most powerful organization that the book publishing industry had ever known—suddenly, the oldest of the media industries had a tech behemoth in its midst, and publishers were struggling to cope with the consequences. But Amazon was not the only tech company that was disrupting the book publishing industry: there were dozens of tech start-ups emerging both within and on the margins of the publishing field, experimenting with new technologies and looking for ways to create new products and services in an industry that had remained pretty much unchanged, in terms of its basic structures and revenue models, for several centuries. The activities of these start-ups ranged from hardware to software, from ebooks to apps, from self-publishing to crowdfunding to subscription services to online marketing to social media—in an industry where value was tied up in text-based content that could be turned into 0s and 1s, the opportunities for developing new forms of content creation, production, and distribution were considerable. The book publishing industry was bracing itself for a decade or two of digital disruption that could be every bit as radical as that which was transforming other sectors of the media and creative industries.

This was the context in which I began working on the digital revolution in the book publishing industry. I had previously analyzed the structures of Anglo-American trade publishing and their transformation in the half-century from 1960 to 2010,³ and I now wanted to focus more sharply on the impact of the digital revolution in this sector. Of course, I had devoted a lot of attention to the impact of the digital revolution on publishing in my earlier work—this

was a key issue in the publishing industry from the mid-1990s on, so no serious study of this industry could ignore it. But understanding the impact of the digital revolution on the publishing industry was not my primary concern in the earlier study: my primary concern there was to understand the key structural characteristics of the field of Anglo-American trade publishing and to analyze the dynamics that shaped the evolution of this field over time. A key assumption of the field-theory approach to media industries which I developed in my work, drawing loosely on Bourdieu, was that all media organizations—and that includes publishing organizations—exist within particular social contexts or fields that are structured in certain ways, involving the distribution of different kinds of resources, or forms of capital, which individuals and organizations accumulate and deploy in pursuit of their interests and aims.⁴ If we study technological innovation from this perspective, we will focus less on the technologies per se and more on the social contexts in which they are developed and deployed, and we will see technological innovation for what it is—namely, a set of activities carried out by particular individuals and organizations situated in particular fields, using the materials, forms of knowledge, and resources at their disposal (economic, technical, and social) to pursue certain ends. In other words, we will see technological innovation as inescapably wrapped up with the realities of human motivation and social relations, with interests, resources, and power. Technological innovation never happens in a vacuum: it is always part of the messy reality of social life.

While the theory of fields is a helpful way to think about the social organization of the contexts in which technological innovation takes place, I was conscious of the fact that I needed to move beyond the theory of fields as developed by Bourdieu in order to address the nature and dynamics of technological innovation in a sector like publishing—and I needed to do so for several reasons. In the first place, technology never featured very prominently in Bourdieu's work. While he wrote perceptively about literature, journalism, and television, he never paid much attention to the specific media in which these cultural forms were embedded and transmitted. I needed to put the question of technology into field theory and look in detail at what technological innovation amounts to in practice, how it makes possible different forms of practice within particular fields, how it feeds into the practices of both incumbent players and new entrants, and how it changes the very nature and boundaries of the field, in some cases lowering entry barriers and enabling newcomers to enter a field that had been largely closed to outsiders. I also needed to keep open the possibility that technological innovation could facilitate the emergence of new fields or sub-fields which would develop their own codes and conventions and their own cultural economies, in some cases overlapping with long-established fields and in other cases spinning off from them to form their own semi-autonomous spaces.

But it was not just technologies that needed to be integrated into field theory: we also need to put organizations into the heart of field theory and to analyze their trajectories over time—that is, to develop a longitudinal analysis of organizations and technology-related organizational change so that we can paint a dynamic portrait of fields in motion, fields in which organizations are constantly evolving to try to cope with the disruption and uncertainty caused by technological innovation. Analyzing these issues over time is crucial because technological innovation never happens in an instant: it is often a long, drawn-out affair, a process of experimentation, of trial and error, as individuals, most commonly working in teams

or in collaboration with others, try to figure out what is going to “work” and what isn’t. They may have a great idea, but making it work in practice often depends on whether they are able to develop an organization, like a company, that can carry it forward—and whether they can do this often depends on whether they can raise enough money to employ staff, acquire premises, and do the other things that organizations do. And just as technologies evolve, so too do the organizations that carry them forward, and the extent to which these technologies become stable and ongoing features of our lives often depends on whether these organizations can survive and flourish. So understanding the fate of technological innovation is inseparable from understanding the trajectories of the organizations that underpin it.

Finally, we also need to make sure that our accounts of technological innovation are focused not only on fields, technologies, and organizations but are also populated by real, flesh-and-blood human beings—that is, we need to put people back in, or rather, ensure that people and their ideas are there from the beginning and are an essential part of the story. In some academic work on technologies, there is a tendency to focus on processes and artifacts, as if these alone were sufficient to drive innovation and change. But technological innovation is intrinsically bound up with people and their ideas, motivations, ambitions, and desires: they can neither be extracted from the story nor dropped into it later as if they were an incidental ancillary. Their aims and ambitions need to be there from the start. Of course, individuals don’t act in a void: they are always situated in certain contexts in which some things are possible and others are not, their perceptions and ambitions are shaped by their particular trajectories through social space, and even the most determined individuals will fail if all the cards are stacked against them. But, like all history, the history of technological innovation is made by people as well as processes, individuals as well as the organizations, technologies and the contexts in which they are embedded, and to leave people out of the story would be as partial and one-sided as it would be to recount this history by focusing on technologies alone. Fields, technologies, organizations, individuals: these are the key components of the theoretical approach I have developed in an attempt to understand technological change in the book publishing industry, giving each component its due and privileging none.

In addition to studying the impact of digital technologies within those organizations that were already established players in the field of Anglo-American trade publishing, I wanted to study the ways in which new players were using digital technologies to develop new ways of creating, producing, marketing, and distributing books and other kinds of long-form reading and writing, both within the field of trade publishing and on the margins of the field (or outside of it completely). For I was well aware of the fact that sometimes the most radical disruption to an existing industry comes, not from incumbent players, who may have a vested interest in maintaining existing structures that have served them well, but rather from start-ups that had no previous presence in the field.⁵ So I set out to study a variety of start-ups that were seeking to use digital technologies to innovate in the field of Anglo-American trade publishing. In some cases, these start-ups were seeking to develop new products, like new kinds of books and other forms and formats of texts that could be read in various media and on various devices; in other cases, the start-ups were seeking to develop new services for authors or readers or other established players in the field, with a view to enabling them to do what they wanted to do—whether that was write or read or acquire books, or do something else with books—in new and possibly better or more efficient ways. The sheer number

of tech start-ups that emerged in and around the field of publishing and the variety of the products and services they were offering were staggering. Many of these start-ups were based in Silicon Valley and the San Francisco metropolitan area, but some were located elsewhere, such as New York, Boston, Philadelphia, Toronto, and London.⁶

When you work on tech start-ups, you very quickly realize that a crucial factor in determining whether a start-up gets off the ground and is able to sustain itself over time is money—that is, the nature and quantity of a particular resource, financial capital, that it has at its disposal. You also quickly discover that the trajectory of a start-up and the issues that it prioritizes in developing its business strategy are strongly shaped by the nature of the funding on which it is relying to meet its day-to-day business needs. Like other start-ups, the tech start-ups that emerged in or around the publishing field were funded in a variety of ways—some had secured funding from angel investors, others were relying on personal savings or on funds provided by family or friends. But venture capital also played a big role. The availability of VC funding was often critical in determining the ability of many of these start-ups to get off the ground, and critical too in shaping their developmental trajectories over time.

There were three things about the funding of publishing-related tech start-ups that were particularly striking. First, in many cases, the founders/CEOs of these start-ups set out to raise funding from VCs at an early stage in the development process: they made “the pilgrimage to Sand Hill Road,” as one founder/CEO put it. His choice of terminology was apt: this was a dutiful, almost obligatory part of launching a tech start-up in San Francisco and Silicon Valley, and all of the entrepreneurs (who, in my particular sample, were mostly young white men recently out of college) knew that, at one stage or another, they would have to make the trek to Menlo Park and pitch their ideas to one or more of the VC firms on Sand Hill Road. They were supplicants in search of capital, and somehow they had to figure out how to maximize their chances of unlocking some resources from the gatekeepers of capital. Some would succeed, others would fail—“We had 168 no’s,” one cofounder told me. Success in the pilgrimage to Sand Hill Road was by no means guaranteed. But why were some of these entrepreneurs successful and others not? Why did some succeed straightaway and others try repeatedly and fail to raise any funds?

The second striking thing about these VC-funded tech start-ups was that, as businesses, they were operating in a very different way from a traditional publishing house, whether these are large publishing houses like Penguin Random House or small indie publishers like Akashic Books and Melville House. Publishers, whether large or small, typically aim to generate sufficient revenue through the sale of books and other revenue streams to cover their costs and, hopefully, produce a small surplus or profit—in other words, they operate with a pretty standard profit and loss account and aim to ensure that they are generating sufficient revenue to meet their liabilities and avoid running out of cash. Many of the tech start-ups, by contrast, were not really concerned about generating revenue and being profitable as businesses. They were focused on something completely different: growth. They weren’t completely oblivious to questions of revenue generation and profitability, but these were not their primary concern. It seemed clear that they were on a business trajectory that was radically different from that of the publishers with whom they were collaborating and sometimes competing: they were operating in the same space or field but they were playing by

very different rules. What are the rules by which these start-ups are playing? Why are their business objectives so different from the concerns of traditional publishers? And what are they seeking to do if they aren't aiming to become viable, profitable businesses?

The third striking thing was that the trajectories of these start-ups varied enormously, and their fate was often closely linked to their dependency, and the extent of their dependency, on VC funding. This was vividly illustrated by the different trajectories of two publishing-related tech start-ups who were competing directly with one another, Oyster and Scribd. Both of these start-ups launched their ebook subscription services at almost exactly the same time, in autumn 2013, one in New York (Oyster) and the other in San Francisco (Scribd). Both had raised substantial VC funding from major investment firms. Most observers agreed that Oyster had a better platform and user interface—they'd invested a lot in this, and it was a very stylish and attractive offering. These subscription services were competing head-to-head and, seen purely from the viewpoint of the user, it looked like Oyster had the edge. And then, suddenly, just two years after the initial launches, Oyster went under while Scribd survived and continued to grow. Why these very different outcomes in a race that Oyster seemed poised to win?

It was partly in order to shed some light on these and other questions that I decided that I needed to look not just at the tech start-ups themselves but also at the venture capitalists who funded them. How exactly do those who control access to venture capital decide which start-ups to invest in, and how much to invest? What criteria do they use to make their decisions, and how do their priorities as investors shape the priorities and trajectories of the start-ups in which they're investing? Why do some entrepreneurs find that the doors in Sand Hill Road swing open for them, while others find the same doors firmly shut? And if VCs decide to pull the plug on a start-up in which they've already invested funds, why do they do this? Why are they willing to support some start-ups in a Series B or Series C funding round, while other start-ups, with seemingly similar offerings, fail to win their support? By learning more about the interests, priorities, and aims of the VCs who control access to capital, we might be able to shed light on some aspects of the behavior and trajectories of tech start-ups that are puzzling or difficult to understand.

Thanks to the excellent work of Tom Nicholas, we now have a fine history of the rise of venture capital in the United States, from its nineteenth-century origins in the New England-based whaling industry to its late twentieth-century flourishing in Silicon Valley.⁷ As Nicholas shows, what is distinctive about venture capital as a mode of finance is its high-risk character: it is a "hits" business where exceptional pay-offs from a small number of highly successful investments compensate for the vast majority of investments that yield poor returns or simply fail. This "long-tail" distribution of pay-offs tends to follow the power-law curve, where a small percentage of investments accounts for a large percentage of returns. The long-tail model of VC investment proved to be particularly well suited to the world of high-tech start-ups that began to emerge in Silicon Valley in the 1970s and 1980s, facilitated by the unique combination of high-quality educational institutions, local high-tech firms, a highly skilled labor force and decades of government investment in military-based technologies.⁸ Venture capitalists migrated to Silicon Valley to be close to the start-ups they would fund, and Sand Hill Road in Menlo Park soon became the most important cluster of VC firms anywhere in the world.⁹

While Nicholas's work gives us an excellent account of the history of the VC industry and how it became closely interwoven with the high-tech world of Silicon Valley, it does not give us a fine-grained account of the working practices of venture capitalists in Silicon Valley today—of how they do what they do day-to-day, and how they decide which tech start-ups to back and which to turn down. What frameworks do they use to evaluate proposed start-ups, and how do they decide whether to fund them? How does a VC view the world, and what practical principles or rules of thumb does he (they are mostly men) use to decide whether to put money into a start-up? If we viewed the world from the VC's point of view, would it help us to answer some of the questions raised earlier about VC-funded tech start-ups? Would it help us to understand why some entrepreneurs are successful in their pilgrimage to Sand Hill Road, while others return empty-handed?

The World According to Tom

Tom is a well-established and well-known venture capitalist in Silicon Valley who specializes in funding tech start-ups (“Tom” is a pseudonym). I was introduced to him by the CEO of one of the companies I was working on: he had funded the company, so I knew that he was familiar with publishing-related start-ups, but his portfolio included many tech companies that had nothing to do with publishing. Tom has been in Silicon Valley since the early 1980s, when most of the valley was orchards and orange groves. He took a job in a start-up as a semiconductor chip designer, and then, from 1991, he began working as a venture capitalist. He is now a partner in one of the large VC firms in Menlo Park, and he also invests his own (not insubstantial) personal funds. In addition to investing in other companies, he has started several tech companies of his own, and he made a lot of money when they were sold or went public. His perspective is no doubt unique, reflecting (as every perspective does) the specificity of his own life experience and career, but there is no reason to think that it's atypical. Tom had been working in Silicon Valley for thirty-five years and had been at the heart of the VC world for twenty-five years when I interviewed him in Silicon Valley in March 2016 and, while some of the views he holds may be idiosyncratic, many of his views about investment strategy and practice are shared by other Silicon Valley VCs.¹⁰

As Tom sees it, the Silicon Valley tech industry has been through five waves—Tom was a surfer in earlier days, and his view of the world (and, in particular, the world of high tech) is shaped by surfing metaphors. The first wave was silicon chips (where Tom started); the second was boxes—that is, hardware: switches, routers, hubs, communications gear; the third wave was networks—that is, connecting the boxes to the internet; the fourth wave was user interfaces (Facebook, Twitter, YouTube, Uber, etc.); and the fifth wave—the current wave—is data and data science. The next wave, the sixth wave, will, as Tom sees it, be a continuation and development of the fifth wave: applied data science. Tom looks for investment opportunities like a surfer looks for waves: “The way I work is that I look for waves and when I think there's a viable wave, then I go scouting for people or companies that I think could be players on that wave.”

In addition to the wave metaphor, which provides Tom with a theoretical framework for his investment strategy, there are two other factors that are key in shaping his investment

decisions. One is timing—this is crucial. Being at the right place at the right time. And it's particularly important from the third wave on because of network effects. Networks acquire a scale and stickiness that is hard to replace, irrespective of the amount of capital you channel into a competitor. Thanks to network effects, this is a winner-takes-all market, and if your timing is off—if you're too early or too late—then, like the surfer who misses the big wave, you're likely to find it very difficult to achieve the scale and stickiness you need to become a winner.

The second additional factor is the team—again, that's crucial. Who are they? Do they have the background to turn this idea into a hit? What was their GPA at school and at college? What did they do when they left college? Tom has a clear and deeply held view about this: some people are winners and others are not, and part of his job is to pick the winners and make sure that the team, the timing, and the wave are all working together. This is how he summed it up:

People don't change and there are certain people who are winners and if you can figure out who those winners are—not necessarily independent of the area because you have to match a winner to a wave where there's running room. If you take a winner and put him in a shitty market, you're going to get that great company in a shitty market and it isn't going to work. But if you get a great wave and a good rider, you're going to grow at least as fast as the wave. So you have to be in a wave that's moving and get a good rider and don't overspend and tire yourself out. Don't be late and don't overspend. If you do it right, if you're tuned to the timing and you're sitting there, all you have to do is paddle once and you're up.

Wave, timing, team: these are the three key elements that enable Tom to decide whether to back a start-up with capital.

But Tom isn't just deciding whether to back a start-up from the get-go: sometimes he's deciding whether to back a start-up that is already underway and needs more capital, perhaps to re-finance it in a Series B or Series C funding round. What is he looking for then? The same three elements apply here too, but now there's another crucial element: traction. The challenge now, from the VC's point of view, is to figure out whether the company in its category can be the one that claims the network effects and, ideally, becomes the winner in that category. It's vital here to make sure you've got the category right: the company doesn't need to be competing with Facebook or Twitter if they're in a different category. So how do you pick the winner in a category? "Evidence of traction," said Tom. By "traction" he means growth plus engagement: How quickly is a platform, whatever its business, adding new users? Is the retention of those users good or are they just experimenting? High growth rate, high engagement—those are the key things.

Does it matter whether the company is generating revenue or is profitable—is this a relevant or important factor? "It's better if they are but not to the detriment of growing its user base to the maximum," said Tom. Generating revenue is important but not at the outset. If you're convinced that the category will have value and if you assume that the biggest player in the category will have exponentially greater value than the second player, then it always pays to become the biggest player in the space. So if you have to defer revenue to acquire the users to get to the point where you are the biggest player in the space, you're better off doing that.

If you can live through the early period of funding and acquire enough sticky customers to become the dominant player in the space, then you can figure out how to monetize later. This is what Marc Andreessen—cofounder of Netscape and Silicon Valley guru who went on to cofound the influential VC firm Andreessen Horowitz—called the “Microsoft lesson”: “One of the fundamental lessons is that market share now equals revenue later, and if you don’t have market share now, you are not going to have revenue later. Another fundamental lesson is that whoever gets the volume does win in the end. Just plain wins.”¹¹

While growing the user base as fast as possible is crucial, there is an important qualification here, explained Tom: you also need to make sure that the lifetime value of a customer is much more than what it cost to acquire that customer—many multiples of what it cost to acquire that customer. If the cost of acquiring a customer and delivering a service is so high relative to any conceivable lifetime value of a customer, then you’d have a negative gross margin business: it would cost you more to deliver your service than you’d ever get per customer. So that gives Tom a pretty straightforward set of criteria for deciding whether to back a start-up that needs more capital: one, is it a big space? Does the category have value? Two, can that player become a dominant player in that space? What’s the evidence of traction? Does the data show high growth rate and high engagement or stickiness? Three, is the lifetime value of the customer much greater than the cost of acquiring the customer and delivering the service? Is it many multiples greater?

So, despite the complexities of the different projects that Tom finds himself assessing and the great variety of projects, Tom’s formula is surprisingly simple: wave, timing, team—WTT. And when it comes to deciding whether to put more money into a start-up that is already underway, he adds the fourth element to his formula: wave, timing, team, traction, or W3T for short, with the important qualification that the growth must be such that the lifetime value of the customer must be much greater than the cost of acquiring the customer—let’s call that traction+, so the formula for deciding whether to put more money into a start-up is W3T+. Of course, the judgment call in any specific case is seldom straightforward and there is plenty of room for differing assessments in particular cases—it’s easy to get things wrong, and the mere fact that the majority of investments don’t pan out is testimony to the intrinsic uncertainty of investment decisions of this kind. But the criteria of assessment are remarkably simple and straightforward.

So what is the ultimate aim of investing in a start-up? As a venture capitalist, what is Tom trying to achieve? To make money, of course, but how do you do that? Essentially, a VC makes money, and makes money for the limited partners who invest in a fund, by exiting the investment on terms that secure a multiple on the investment, and the greater the multiple, the better the exit. There are basically two desirable exit strategies from a VC’s perspective: sell the business to another company or go public with an initial public offering (IPO). “There’s no tactical execution plan,” explained Tom, “but you wouldn’t invest in something if you didn’t think it’d get big enough to go public or have a valuable enough business to be acquired.” So when you’re making your investment, you have your map of the space and you’re thinking about which players—Google or Amazon or Facebook, for instance—might want to be in this space but aren’t there yet, and you’re thinking that if this start-up can execute fast enough, maybe they’ll get acquired to fill that gap.

But are selling the business or going public the only worthwhile exit strategies from the VC's point of view? What about just helping the start-up get on its feet and become a viable business, growing modestly and becoming profitable—might that be a good outcome? “Not really,” said Tom. “The employees don't want that either. They don't want to sit around and be a salaried guy for their whole life, struggling. They're all going to want liquidity, and they can keep drawing their salary and have liquidity too. If somebody acquires them, they're still going to make a salary but they'll all have a giant check to go buy their house and everything else too.” So the idea of funding a start-up to enable it to become an independent, stand-alone business without either being acquired or listed is not in the VC mentality—it's not the kind of outcome that any venture capitalist would aspire to as a goal. But the irony is that a company has to have that as a possibility in order to make a strong exit. “The best exits occur if you have a company that can stand on its own and keep growing and get big,” continued Tom. A company will be more attractive as an acquisition or an IPO if it is seen as a company that could one day stand on its own feet, even if it can't for the time being. So this is relevant but not as an end in itself: it's relevant because it will enable the VCs to exit on the most favorable terms.

So the VC is investing with the aim of being able to exit with a multiple of their investment. The multiple the VC can expect depends on the stage when the investment is made, but if you're investing at an early stage, as Tom typically does, then you'd be looking for a multiple of at least ten times your investment. Venture capital has always been a hits business where exceptionally high pay-offs from a small number of investments compensate for the majority that fail, but the investment odds in Silicon Valley have changed over time. Tom explained it like this:

When I first entered the venture business, the rule of thumb was that if you're good and you make ten investments of a million dollars each, you can very much expect at least two of them will go to zero where you'll lose 100 per cent of your money. You can expect six of them to be walking wounded or walking dead—the companies are alive, they don't die, but they never get liquid. And you can expect two to be ten times your money. So on that metric, you invest 10 million and you make 20, you lose two for sure and the other stuff, you don't quite know—so maybe you make 23, 24 back on 10 if you're lucky. That's what it was like in the beginning. But what's happened with network effects is that now, if you make twenty or more investments and if you're really lucky, one of those becomes an Uber or a Facebook or something like that where it's a hundred or a thousand times your money and everything else is dead.

So the 80:20 rule that was typical when Tom started as a VC in the early 1990s—where 80 percent of your investments fail and 20 percent deliver multiples of ten times—has morphed into something more like a 90:10 or 95:5 rule, or even something closer to a 99:1 rule, where 90 percent or more of your investments fail (or limp along as walking wounded) but the small number that succeed deliver multiples far in excess of ten times. The tail has become longer. Failure is the norm—and now more than ever. While we like to focus on the successes, the Facebooks and the Twitters and the Ubers of this world, the vast majority of start-ups fail. “You're failing 90, maybe 99 percent of the time,” said Tom. He tries to prepare his entrepreneurs for the possibility, indeed the likelihood, of failure. “I tell my entrepreneurs that if you're going to fail, you want to fail spectacularly. You don't want to just be a failure that drifts

off into the unknown and no one knew that you existed and no one knew that you failed. If you go down, you want to go down big. You want to go down doing something visionary and impactful. And if it didn't work, so be it, but you tried to do something phenomenal and you will always come back from that. People will always say, 'You know what, I remember that guy, they were trying something that mattered.'"

Supplicants on Sand Hill Road

If we see the world from Tom's point of view, it's not surprising that some of the start-ups in the publishing field, or on the margins of the publishing field, found that their attempts to raise funding from VCs in Silicon Valley came to nothing. Pitching for funds is a particular kind of social ritual and performative speech act that requires the ability to tell a good story that resonates with the priorities, preconceptions, and concerns of the capital gatekeepers. Those pitching for funds are supplicants at the court of capital, and they have to be able to tell a story about themselves and their company, about their abilities and their aims, which will persuade those who control the resources to back them. A VC like Tom is approached every day with several new proposals, he is well connected, and many people are recommending him to entrepreneurs seeking funds; he has to decide every day which proposals to follow up and which to pass on. How does he do it? In effect, he uses the criteria embedded in his formula—WTT—to decide whether it would be worth his while to take a proposal further. Only if the proposal fits with his way of seeing the world, his way of thinking about what is likely to succeed in the current stage of technological development and what is not, will he take the time to consider the proposal carefully. And "succeed" means: stands some chance, however remote, of becoming one of those companies that will exit on a multiple of ten times or more. If he can't see any way that the proposal could align with these conditions, he'll pass.

Viewed from Tom's point of view, it's not surprising that the founders of Inkshares were unsuccessful in their attempts to raise VC funding. Inkshares is a publishing-related start-up based in Oakland, just across the bay from San Francisco. It began life as a good idea, dreamt up by a smart young philosophy graduate from Reed College, Thad Woodman, for an innovative publishing company that would be based on crowdfunding principles. It would use a crowdfunding platform to raise the capital to fund book projects and it would then provide the book production and distribution services to get funded books produced and distributed through the traditional book supply chain. By using a crowdfunding platform, they would be able to bypass the traditional gatekeepers of the publishing industry—the agents and publishers—and put the decision about which books to publish in the hands of readers, the crowd. But unlike existing crowdfunding platforms like Indiegogo and Kickstarter, they would also provide the publishing infrastructure that most authors need in order to get a book produced and distributed. It was a clever idea: surely they could raise some VC funding to get this innovative project off the ground. Thad moved out to San Francisco with another cofounder, Larry Levitsky, to start the company and they began pitching their idea to VCs.

They got absolutely nowhere. They duly made the pilgrimage to Sand Hill Road, indeed made it many times, and every time they hit a brick wall. “It was brutal,” recalled Jeremy, another member of the team who had joined the company as CTO. “The notion of publishing books, and doing so with physical copies of books, was anathema to the Silicon Valley VC investment thesis.” Jeremy’s colleague elaborated: “Nobody in Silicon Valley believes in books. It just struck them as super-antiquated and, just . . . unsexy. They said to us, like, ‘What if you did it without books?’ And we were like, what would we be doing then? And they were like, ‘Just the front end.’ It was like being in a show. You’d sit there and you’d be thinking, what the fuck did they just say to us?”

The principals from Inkshares and the VCs in Sand Hill Road were seeing the world from very different points of view and their meetings were occasions when the two parties were talking past one another, like dances in which the movements of the two dancers were completely out of sync. While the responses of the VCs in Silicon Valley struck Jeremy and his colleagues as ridiculous, they were not irrational: they were just rooted in a different kind of rationality that was part of a worldview and set of beliefs that Jeremy and his colleagues neither shared nor understood. For VCs who were looking to get back at least ten times their initial investment, book publishing was a turn-off. The idea of a crowdfunding platform for books piqued their curiosity, but as soon as they realized that the books would be physical objects that had to be produced, stored in warehouses, and distributed by trucks on roads, their interest quickly waned—the “front end” was attractive, but not the “back end.” The book publishing industry is small, it’s not networked and frictionless, and it’s difficult to scale-up. “There’s no way that the industry is going to ten times in the next ten years,” said Thad, summing up what had been said to them, in one way or another, by the VCs. Tom wouldn’t even have made the time to see them and listen to their pitch: Tom was focused on the fourth and fifth waves, and Inkshares didn’t fit into his schema. Another 168 potential funders agreed with Tom’s view that Inkshares wasn’t worth backing (“we had 168 no’s”). Despite this, the founders of Inkshares did manage to raise \$350,000 from friends and a further \$860,000 from a variety of angel investors—small sums by Silicon Valley standards but enough to get their start-up off the ground. The failure to get VC funding was not fatal for Inkshares—the company got going without it, though it remains a small, niche player in the publishing ecosystem, lacking the capital to scale up the business in any significant way. But their failure—despite repeated attempts—highlights the mismatch between the perspective of venture capitalists and the perspective of these entrepreneurs, and demonstrates how little these entrepreneurs understood of the interests and priorities of the gatekeepers of capital.

Not every publishing-related start-up had such bad experiences trying to raise VC funding. Wattpad, for example, successfully raised several rounds of VC funding, and again we can understand why if we see the world from Tom’s point of view. Wattpad is a Toronto-based social media platform in which readers and writers interact around the shared activity of writing and reading stories. It was the brainchild of two software engineers who were specialists in mobile communication. They conceptualized it as YouTube for storytelling that would take place in a mobile environment, mainly on mobile phones. They raised a small amount of seed funding in 2010, enough to hire a couple of developers to get the process

underway, and by 2011 they were ready to make their pitch to VCs. Their pitch was both simple and startlingly ambitious:

There are around 5 billion people in the world who can read and write, and over 3 billion people with access to the internet. And reading and writing are among the core human activities—there’s watching video, listening to music, viewing pictures and images, and then there’s the written word. So it’s a big, big market, and there’s no one building a network for this media type. People build networks for video, like YouTube, people build networks for pictures, like Instagram. But no one was working on the written word, no one was building a network that catered to storytelling—we were the only ones, and we’re still the only ones. So we want to build the largest network in the world for reading and writing.

It was a good story and the VCs took them seriously. They raised \$3.5 million from Union Square Ventures in 2011 and a further \$17 million from Khosla Ventures and from Jerry Yang, cofounder of Yahoo, the following year. These VCs will have used their own metrics, but Wattpad’s pitch would’ve resonated with many of Tom’s priorities and concerns too. This was definitely fourth wave—Wattpad was building a network-based user interface. They had identified a category that was underdeveloped—writing and reading in an online environment—and they cleverly leveraged the YouTube experience to make a plausible case for the growth potential. They were ambitious (“we want to build the largest network in the world for reading and writing”) and, if you meet them, there’s no reason to think that they couldn’t pull it off—it was a good team with a solid technical background. Wave, timing, team—they ticked all three boxes. Moreover, by 2015, Wattpad had increased its user base from 3 million (where it had been in 2011) to 45 million—an increase of fifteen-fold in just four years. So they were getting serious traction too, growing fast with high user engagement. Now it was W3T. In 2014 they raised another \$46 million in a funding round led by OMERS ventures, and in 2018 they raised a further \$51 million from Tencent Holdings and others. This was a VC-funded start-up on a clear upward trajectory. From Tom’s point of view, Wattpad was ticking all the boxes. And so it’s not surprising that, in 2021, Wattpad was acquired by the Korean internet conglomerate Naver, parent of digital comics platform Webtoon, in a deal worth more than \$600 million. This was not an exit on the scale of a YouTube or an Instagram—it was more like the classic ten times multiple than a return of a hundred or a thousand times. But it was a successful exit nonetheless.

Why Scribd Succeeded and Oyster Failed

Seeing the world from Tom’s point of view also helps us to understand why two publishing-related start-ups that began at almost exactly the same time and were competing with one another in the same space had such different fates. San Francisco-based Scribd and New York-based Oyster were both ebook subscription services that set out to do for the book publishing business what Netflix had done for movies and Spotify had done for music: offer subscribers online access to a large volume of attractive content for a modest monthly subscription fee. However, unlike other subscription services in the media industries, these ebook subscription services had been obliged to use a threshold or pay-per-use model

where they would pay the publisher as if the book had been bought outright once the user had passed a certain threshold; this was fundamentally different from the upfront licensing model used by Netflix or the royalty pool model used by Spotify,¹² and it put the ebook subscription services in a much weaker position. They'd been obliged to use this model because no major publisher was willing to license their ebook content to them on any other terms, and, unlike the record labels, which had experienced a sharp decline in revenues in the early 2000s, the publishers were in a strong position to resist pressure from the ebook subscription services to adopt a different model. The way the threshold or pay-per-use model typically worked in practice is that the subscription service provider would pay the publisher 80 percent of the price of the book whenever 20 percent of the book was read: as soon as the reader reached the 20 percent point, it triggered the payment. The threshold itself was variable—it could vary from publisher to publisher, but 20 percent was the norm. This model had obvious attractions for publishers: it shifted the risk from the publisher to the service provider, ensuring that publishers were paid as if the book had been sold once a user had read 20 percent of the book. But the model carried big risks for the service provider because it assumed that subscribers to the service would, on average, read very few books. If all or most of the subscribers read several books every month, or even read just 20 percent of several books every month, then the payouts to publishers would greatly exceed the revenues they earned through the subscription fee, which was initially set at \$8.99 per month for Scribd and \$9.95 per month for Oyster. In other words, this was the gym model for books: there are a few heavy users who go to the gym every day, and most of the people who take out a gym membership go to the gym very rarely or not at all. Having a gym membership makes them feel good, but they don't actually go to the gym very often. The viability of the model depends on the fact that most subscribers are infrequent users—gym-goers in spirit rather than in the flesh. If most of your subscribers are keep-fit fanatics, you're in trouble.

Both Oyster and Scribd launched their ebook subscription services in autumn 2013—Oyster on September 5 and Scribd three weeks later. Both had raised VC funding from major investment firms, including \$14 million from Highland Capital Partners in the case of Oyster, and \$9 million in a round of funding led by Charles River Ventures followed by \$13 million in a round led by MLC Investments and SVB Capital in the case of Scribd. Oyster and Scribd were competing head-to-head in the same category, and they knew it would be difficult for both to succeed. When I met with Eric Stromberg, the young CEO of Oyster, in the midtown Manhattan loft that was their headquarters in March 2015, he seemed confident that Oyster had the upper hand: its interface was being lauded in the tech press for its stylishness and user-friendliness, it had signed up three of the Big Five publishers, and it had just landed a deal to make Harry Potter available on the platform. Eric was bullish and Oyster seemed to be a start-up with a future.

Then, on September 21, 2015, just six months after our conversation and two years after it had launched, Oyster announced that it was closing down. It was reported that Eric and some other members of the Oyster team would be joining Google, and that Google would be paying investors in the region of \$15–20 million for the right to hire some of its staff—not an acquisition but rather an “acqhire” where Google would buy Oyster's IP and hire some of its staff, who would be integrated into Google's business.¹³ This was not the kind of exit that enabled Oyster's investors to earn a multiple of ten times their initial investment, let alone a

hundred or a thousand times; it was a fire sale that enabled them to get out of the business and minimize their losses.

So what went wrong? Why did a start-up that seemed to be on the cusp of taking off suddenly turn belly up? When I heard the news that Oyster was closing down, I thought I knew why: surely it was the threshold or pay-per-use model that sunk Oyster. By agreeing to pay publishers 80 percent of the price of the book whenever 20 percent of the book was read, Oyster had locked itself into a business model that would oblige it to pay out to publishers more than it would be raising in subscription fees, draining its cash reserves and dashing any hope of ever becoming profitable—that seemed like the most obvious explanation. But there was one obvious problem with this explanation: Scribd was using the same model and it was still going, indeed it was growing at some pace. If an unprofitable subscription model was the explanation, why did this model sink Oyster while Scribd continued to grow? And if it wasn't the subscription model, how could we explain why Scribd succeeded and Oyster failed?

It was only when I was interviewing Tom six months later and looking at the world of start-ups from Tom's point of view that I realized why my initial theory was wrong, and realized what Oyster's real problem was. Oyster was not undone by the pay-per-use model—in fact, Oyster was profitable, not hugely but to some extent. Oyster was undone because the cost of acquiring new customers was out of kilter with the lifetime value of customers, and this was why their VC funders had pulled the plug. Tom had been perfectly clear about that: from the VC's point of view, when it comes to putting more money into a start-up that is already underway, you also need to make sure that the lifetime value of a customer is much more than what it cost to acquire that customer, many multiples of what it cost to acquire that customer—that was the important qualification to traction, the + in traction+.

Investors in a subscription business like Oyster are generally looking for a ratio of 1:3 or 1:4 between the cost per acquisition (CPA) of a customer and the lifetime value (LTV) of that customer, which means that for every dollar you spend on acquiring a new subscriber, you should be generating three or four dollars of lifetime value. Oyster was actually making a small gross profit on each user—for every \$10 it was being paid in subscription fees, around \$8 was being paid out to publishers, leaving it with a small surplus of around \$2. But Oyster was spending a lot of money trying to build its subscription base and acquire new subscribers. It was advertising online, primarily on Facebook and Google, and that was expensive. The result was that the ratio of CPA to LTV was nowhere near 1:3 or 1:4—in fact, it was slightly negative. In Tom's terms, Oyster was a negative gross margin business: it was costing it more to deliver its service than it would ever get back per customer. Had Oyster been able to show that it was growing its subscription base at a good rate and with a CPA to LTV ratio in line with industry expectations, it might have found investors willing to come in on another funding round. As it turned out, it wasn't able to raise more funds, and wasn't in a position financially to continue without another round of investment. Hence the closure.

This explains not only why Oyster failed but also why Scribd survived and, indeed, flourished. Before Scribd began offering its ebook subscription service in autumn 2013, it had existed for several years as a document business; hence it had a pre-existing revenue stream and also, crucially, it already had a large existing user base of around 150 million monthly visitors. So when it decided to launch an ebook subscription service, it could market this new service

directly to its large existing user base. It cost Scribd very little to acquire each new subscriber because it could focus its effort on converting some of its existing users and visitors into paying subscribers. Oyster, by contrast, was using paid advertising to reach out to and acquire new subscribers, and it was costing it \$40–\$50 to acquire each new subscriber. Most subscription services that succeed have something that gives them a leg up at the outset: Netflix did deals with electronics manufacturers to place free trial membership coupons in DVD players, and it did a deal with Walmart that directed Walmart customers to Netflix; Spotify did a deal with Facebook, which enabled it to reach millions of potential users; and Scribd had its existing document business. Oyster was starting from scratch. When we look at these start-ups from a VC's point of view, we see that it was Oyster's high cost per acquisition and Scribd's low cost per acquisition that sank Oyster and enabled Scribd to survive and flourish. Tom captured it nicely with his felicitous surfing metaphor: "Oyster was spending a lot of money trying to swim up the back of the wave when Scribd already had millions of customers to leverage."

Conclusion

In this article I've developed a particular approach to technological innovation and sought to demonstrate its value and effectiveness in relation to a specific case study—the funding of tech start-ups emerging within, or on the margins of, the book publishing field. All too often, studies of technological innovation focus on the technologies themselves, emphasizing their technical properties and affordances. But technological innovation always takes place in a broader social context, and if we want to understand which technologies succeed and which fail, which end up becoming constitutive features of our social worlds and which fall by the wayside, then we have to broaden our perspective and take account of those aspects of the social context that underpin and make possible the process of technological innovation. I've tried to do this by developing a version of field theory that emphasizes four key components: fields, technologies, organizations, and individuals. Technologies are unquestionably important, but they are only one element in an array of factors that shape the process of technological innovation. When we study technological innovation from this perspective, we examine it as a set of activities carried out by particular individuals and organizations situated in particular fields, using the resources available to them to pursue certain ends—in other words, as a set of activities inescapably wrapped up with the realities of human motivation, social relations, and power.

Among the resources that are particularly important for technological innovation is financial capital—without it, it's very difficult for individuals to turn ideas, however good they may be, into technologies that can be developed, tested, scaled up, and deployed. If innovation takes place within an existing organization, then the financial capital needed to turn ideas into realities may be provided by the organization as part of its R&D. But how does an entrepreneur with a good idea get the funding that he or she would need to launch a start-up that might have some chance of surviving, some chance of turning the idea into a sustainable reality? And assuming that he or she is successful and securing the funding, how does this funding shape the innovation process and the organization that underpins it?

There are various sources of funding available to entrepreneurs, but for entrepreneurs working in the domain of technology and IT, venture capital plays a key role. Viewed from the perspective of field theory, an entrepreneur who is trying to secure funds is an actor pursuing a particular goal within a particular field in relation to other actors, and in this setting it is the other actors—the venture capitalists—who have the power to decide whether the funds should be granted and, if so, under what conditions. Pitching for funds is a specific kind of social ritual or game in which entrepreneurs have to be able to tell a good story about what they want to do and why it's a good idea, and the story has to be told in a way that is sufficiently persuasive in the eyes of the capital gatekeepers that these gatekeepers will decide to support them. But how do entrepreneurs do that if they don't know what venture capitalists are looking for? How do they know how to structure their pitch so that it resonates with the priorities, preconceptions, and interests of the VCs if they don't know what those priorities, preconceptions, and interests are? In practice, many entrepreneurs flounder in this setting. They don't see the world from the viewpoint of VCs, and they don't know what principles and criteria VCs are using to make their funding decisions, and partly as a result of this, their pitches fail. Their ideas might never get off the ground—not because they are intrinsically bad ideas but simply because the entrepreneurs seeking to develop them don't understand the rules of the funding game.

With the help of Tom, a well-established member of the VC community in Silicon Valley, I reconstructed some of the principles and priorities that shape the worldview of a typical venture capitalist who specializes in funding tech start-ups. I showed that, while individual decisions will always be affected by a variety of circumstantial factors, the principles used by Tom to decide whether to back a start-up with capital are remarkably simple—wave, timing, team, or WTT for short. And when it comes to deciding whether to put more money into a start-up that is already underway, Tom adds a fourth factor: traction, that is, growth plus engagement, especially where the growth is such that the lifetime value of the customer is much greater than the cost of acquiring the customer, what I called traction+.

By reconstructing the principles and priorities of the capital gatekeepers, we can develop a powerful set of explanatory tools that can be used to explain, among other things, why some start-ups secure VC funding and get off the ground while others get nowhere. Wattpad was successful in their fund-raising activities because, in the crucial social interactions where funding decisions were being considered, Wattpad's founders told a convincing story about what they were doing and what they wanted to achieve, one that resonated very well with the principles and priorities of the VCs; moreover, by the time the founders needed to embark on another funding round, they also had some solid evidence on growth and traction to back up their story. Wattpad's development from its initial pitch in 2011 to its acquisition by Naver a decade later was a more-or-less perfect illustration of the investment-to-exit trajectory that venture capitalists are typically looking for (even if they might be hoping for a higher multiple on exit). By contrast, when the founders of Inkshares made their pilgrimage to Sand Hill Road, their pitch fell on deaf ears. They had a good idea: they had come up with an innovative plan for a crowdfunding platform for books, something that no one else had developed in this way; but their pitch was a complete mismatch with the principles and priorities of VCs. Every VC they

approached turned them down—an outcome they had not expected at all. They simply had no idea that their attempt to raise funds would prove so futile, and they went into their interactions with VCs with no real understanding of the rules by which the funding game was played.

Taking account of the principles and priorities of venture capitalists can also help us explain why some start-ups succeed in securing further rounds of funding and continue to flourish while others find their lives cut short. If we want to explain why Oyster and Scribd—two very similar start-ups competing in the same space—had very different fates, we could never explain this on the basis of their technologies alone: the general consensus was that Oyster had the better technology, and its platform was widely praised for its stylish and user-friendly interface. Nor could we explain it by invoking the pay-per-use subscription model, which placed most of the risk on the service provider, because both Oyster and Scribd were using the same model. We can only explain why Scribd succeeded and Oyster failed by taking account of the principles and priorities of the VCs who were funding these organizations: the VCs pulled the plug on Oyster because the cost of acquiring a new customer was far too high relative to the lifetime value of that customer, and hence it failed the traction+ test. For Scribd, by contrast, it cost very little to acquire each new customer because they already had a large existing user base and they could focus their efforts on converting some of their existing users into paying subscribers, so its CPA to LTV ratio was much more in line with industry expectations.

Understanding the interests and priorities of venture capitalists can also help us explain why the business practices of VC-funded start-ups are so different from those of traditional businesses. When start-ups secure VC funding, the capital comes with strings attached: venture capital has conditions and consequences. The start-ups become locked into the interests and priorities of the venture capitalists who fund them, and their trajectories and survival as businesses are shaped by these interests and priorities. For VCs who have invested in a start-up, there are only two desirable exit strategies: either the business is sold to another company or it goes public with an IPO, and in both cases the VC is seeking to exit with a multiple of ten times or more on the investment. This means that, from the VC's point of view, the development of a business they're funding needs to be geared toward a suitable exit strategy, and that means fast growth plus traction—especially the kind of traction where the lifetime value of the customer is much greater than the cost of acquiring the customer. Start-ups find themselves locked into a Faustian pact with their VC backers. They are propelled along a development path that obliges them to focus on rapid growth above all else, geared toward a successful exit on terms that prioritize the interests of venture capitalists. The conditions attached to venture capital explain why the business practices of VC-funded start-ups are so different from the business practices of most traditional businesses—why they are able and willing to burn so much cash so quickly, and why they pay so little attention to traditional business concerns like revenue generation and profitability. But these conditions also highlight the precariousness of many start-ups and why they are so vulnerable to collapse: things may be fine so long as the funds are flowing, but if a start-up is not growing sufficiently quickly and achieving the kind of traction expected of it, then the tap can be turned off very fast and, unlike a traditional business with its own revenue streams, it will typically have little else to fall back on.

For entrepreneurs seeking to innovate in Silicon Valley and other high-tech regions, securing VC funding is an appealing, almost obligatory part of start-up culture. Acquiring premises and taking on staff—especially highly skilled programmers and other technical staff—is an expensive business, and a large injection of venture capital can provide a start-up with the liquidity it needs to ramp up the development process. By enabling an entrepreneur to build an organization quickly and to develop and roll out new technologies at speed and scale, venture capital can be a tremendous spur to technological innovation—and without an organization to underpin and support it, the innovation process may not get off the ground at all. But the conditions attached to venture capital have important consequences for the innovation process. They establish a development path for start-ups that is constraining as well as enabling, locking them into a developmental trajectory over which the founders or entrepreneurs may have very little control. The interest of VCs is to see the company grow as quickly as possible, to gain traction and become the dominant player in the space: developing in this way will maximize the chances for a company to achieve the VC’s ultimate goal, which is to exit at a multiple of ten times or more. For entrepreneurs who are willing to align their aims with the interest and goal of venture capitalists and are willing to accept the risks involved, including the risk of having the tap suddenly turned off, the conditions attached to venture capital may be a price worth paying for the benefits that accrue to the start-ups that receive it. But for other start-ups, especially those working on technologies or other projects that are unlikely to achieve the kind of rapid growth and traction that venture capitalists are typically looking for, they may be better off in the long run if they are able to establish themselves and survive without VC backing, relying on other sources of funding that are less geared to VCs’ concept of the successful exit and focusing their attention more on generating revenue streams that will enable them to become profitable and stand on their own feet as independent, stand-alone businesses. They will not benefit from the substantial injections of financial capital enjoyed by VC-funded start-ups, but they will also be less constrained by the interests and priorities of VCs; they will have more freedom to set their own goals and to innovate in the ways they see fit, and, in the long run, they may have more control over their own destiny.

¹ Emeritus Professor Sociology at the University of Cambridge and Emeritus Fellow of Jesus College, Cambridge.

² This point is well made by Amanda D. Lotz in *Media Disrupted: Surviving Pirates, Cannibals, and Streaming Wars* (Cambridge, MA: MIT Press, 2021).

³ See John B. Thompson, *Merchants of Culture: The Publishing Business in the Twenty-First Century*, 2nd ed. (Cambridge, UK: Polity; New York: Penguin, 2012).

⁴ See Pierre Bourdieu, *The Field of Cultural Production: Essays on Art and Literature*, ed. Randal Johnson (Cambridge, UK: Polity, 1993); Pierre Bourdieu, “Some Properties of Fields,” in his *Sociology in Question*, trans. Richard Nice (London: Sage, 1993), 72–7; and Pierre Bourdieu, *The Rules of Art: Genesis and Structure of the Literary Field*, trans. Susan Emanuel (Cambridge, UK: Polity, 1996). For an explanation of how I adapt Bourdieu’s theory of fields for the purposes of analyzing the book publishing industry, see John B. Thompson, *Books in the Digital Age: The Transformation of Academic and Higher Education Publishing in Britain and the United States* (Cambridge, UK: Polity, 2005), ch. 2; Thompson, *Merchants of Culture*, 3–14.

- ⁵ A point well made by Clayton M. Christensen in *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail* (Boston, MA: Harvard Business Review Press, 1997).
- ⁶ I carried out this research over a six-year period between 2013 and 2019, during which time I conducted around 180 interviews with CEOs, entrepreneurs, and others, both at traditional publishing houses and at a variety of tech start-ups; the research was funded by a grant from the Andrew W. Mellon Foundation. Some results of this research are presented in John B. Thompson, *Book Wars: The Digital Revolution in Publishing* (Cambridge, UK: Polity, 2021). This article draws on this research, but the issue of the VC funding of tech start-ups and its consequences is not addressed in *Book Wars*.
- ⁷ Tom Nicholas, *VC: An American History* (Cambridge, MA: Harvard University Press, 2019).
- ⁸ On the conditions facilitating the rise of Silicon Valley, see Annalee Saxenian, *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* (Cambridge, MA: Harvard University Press, 1994); Martin Kenney, ed., *Understanding Silicon Valley: The Anatomy of an Entrepreneurial Region* (Stanford, CA: Stanford University Press, 2000); and Christophe Lécuyer, *Making Silicon Valley: Innovation and the Growth of High Tech, 1930–1970* (Cambridge, MA: MIT Press, 2006).
- ⁹ Nicholas, VC, 212.
- ¹⁰ The basic elements of Tom's perspective are also reflected in Scott Kuper's practical guide for entrepreneurs on how to get venture capital: see Scott Kuper, *Secrets of Sand Hill Road: Venture Capital and How to Get It* (New York: Penguin Random House, 2019), esp. ch. 2. Scott Kuper is a partner in the VC firm Andreessen Horowitz.
- ¹¹ Marc Andreessen, quoted in Robert H. Reid, *Architects of the Web: 1,000 Days that Built the Future of Business* (New York: John Wiley & Sons, 1997), 31.
- ¹² On the subscription models used by other streaming services, see Daniel Herbert, Amanda D. Lotz, and Lee Marshall, "Approaching Media Industries Comparatively: A Case Study of Streaming," *International Journal of Cultural Studies* 22, no. 3 (2019), 349–66.
- ¹³ Mark Bergen and Peter Kafka, "Oyster, a Netflix for Books, Is Shutting Down. But Most of Its Team Is Heading to Google," *Recode* (September 21, 2015), available at <https://www.recode.net/2015/9/21/11618788/oyster-books-shuts-down-team-heads-to-google>.