

Introduction: Information Matters

A website provides aggregated housing information. And not just all the properties on the market in a particular community, but each house's value and what it would likely sell for, and a whole lot more information. The company's business model uses its powerful algorithms to provide housing valuations in return for advertising revenue. To evolve and grow its revenue, the company uses its market information mastery to develop a new market—buying and selling or renting homes on its own account. The company figures it can assess market value and seize upon attractive properties before the market has time to react. This new business model takes off thanks to machine learning.

A manufacturing company with various products in production for decades sees its future as a slow decline unless it can morph its business or pivot in some way. The company has been collecting data related to its product for years. The company lawyer and chief privacy officer cringe at the thought of exploiting the data for fear of violating agreements or even appearing to abuse the trust of its customer base. But, if they can navigate the complex maze of laws, agreements, and privacy considerations, the company could have a new blockbuster product—packaging and selling its data.

Noah was a small boy and very ill. Without a significant medical breakthrough, he likely would not survive. Thanks to the Genome Project, Noah's DNA was found to include a relevant gene mutation. Without the power of computing that made sense of literally billions of inputs, Noah would not be living today.

Consider how different the world is now from when the twenty-first century began. Most of the companies transforming the business landscape didn't exist just a few years ago, while some of the oldest and most storied companies are withering or doing their best to pivot in this new competitive landscape. Change impacts the business world at an ever-increasing pace, with new technologies and new ways of doing business bombarding companies daily. And with every new technology comes new information-related business benefits, as well as legal and compliance risks and challenges. These issues have proved existential to some companies, and accretive to the bottom lines of the companies that know how to exploit them. What has become obvious is that sponsorship and guidance by the executives, directors, and officers who are tasked with managing company fiscal health are crucial. As rich as the rewards can be for seeing information as a new revenue source, a novel opportunity, or a new business direction, it is important to also see related risk and potential liability.

The winners in this new economy are harnessing knowledge and information in a different way that allows them to better plan for their business future. Other companies were unprepared and just didn't see it coming. Remember that it was not until 2010 that Blockbuster Video was overtaken by Netflix, a company it did not even see as "on the radar." Around the same time the most impressive Motorola and Blackberry mobile phones were finally being surpassed in shipments by Apple and Samsung. Note that Motorola did have smartphones and Blockbuster did have a DVD-by-mail service. But they were merely paying grudging lip service to the market; they were not listening so much as doubling down on their tried-and-true approaches.

Only two years later, Kodak, which invented the digital camera more than a quarter century earlier, succumbed to the technology it held back. And then there is Sears, the master of selling everything from A to Z (e.g., cradles, clothes, homes, tools, caskets) via its mail order catalog starting in 1893. In addition to its history as a dry goods business innovator, Sears was an online pioneer, developing the Prodigy Online system (with IBM). Around the same time that Kodak was inventing the digital camera, Sears was setting itself up in its new world's-tallest-building headquarters. Sears too has now withered away to retailing irrelevance.

We all see changes to the way service is provided and goods are selected and delivered every day now. So much so that a movie released five years ago might offer a snapshot of “how people lived back then.” And before we know it, we’ll be saying, “remember how people used to have to focus on the road when driving?” and “remember what a hassle it was to [insert a bad customer service memory here].”

How can you do a better job understanding what customers want now, like sharing-economy companies Airbnb and peer-to-peer lenders Prosper and Lending Club? How can you connect with your customers and engage them in ways that help you understand mood, address their future needs, and nurture loyalty, like Starbucks? Will you find the next big thing? Innovation and growth are fueled in so many ways by information. The winners in this new data-driven transformative era have a handle on their information assets: they know how to exploit them, they can readily unearth business answers from data, and they can do all that in compliance, even within a constantly growing swirl of relevant laws and regulations.

So, it’s up to you to make sense of the chaos and change, and to help your organization focus on what matters. As a leader, you must ensure that “making sense” of your organization’s information universe is not merely piling on more information that is valueless for business purposes or a risk and expense creator for legal purposes.

Those who master their information universe win. Mastering the information universe has both a business and a legal side. Companies that create and nurture an information culture can better predict

their customers' needs, exploit markets, and conjure up new business possibilities. Similarly, companies that have their information act together are better able to protect their legal interest, comply with myriad privacy regulations, and mitigate the pain and inconvenience of discovery in the context of a lawsuit. In other words, what matters now is that information—which, for most companies, is the lifeblood that pulses through their corporate veins—allows an organization to exploit business opportunities while being mindful to mitigate risk.

Digital Transformation: Everything Information

The digital transformation impacting nearly every industry over the last few decades has been driven by waves of information technology: technology that makes more efficient and effective use of information in every facet of a business. While each subsequent wave has made business happen “faster, better, cheaper,” it has also left companies, courts, and regulators to grapple with the resulting legal implications and effects. What follows is a sampling of significant transformative technologies—movements, really. Each producing information impacting business and legal realities.

Employee-Created Electronic Information Movement

The movement that democratized the use of computers gave employees the power to create and disseminate information in ways that didn't exist before. As a result of the spreading of computer use to more employees across all facets of the company's operations, a business environment spawned that, for the first time, relied upon digitally documented business activities throughout the company.

By giving every employee a computer, all employees were now free to create original company records. Ironically, the democratizing of information creation made the company's body of information less transparent than it needed to be. Employees have been generating an increasing amount of content ever since, and this trend

shows no signs of abating. Some companies have addressed the risk of unfettered information growth but so many others are still grappling with the decade-over-decade growth and unseen retention of employee-created information which, at some point, may be a significant privacy or discovery liability. Courts and regulators have had to recalibrate to accept computer-generated evidence and its unique technical features, such as the ease of alteration, and what constitutes an original document.

The internet spurred a whole new volume of data that further compounded the problem.

Internet Information Movement

The internet information movement allowed companies to put information on the World Wide Web for a variety of business purposes. Employees could disseminate or access information on the company website or any other publicly available forum. The ability to move information around the world with a simple push of a button introduced significant business challenges. For example, there needed to be an adjustment of thinking on a variety of risks, such as theft of intellectual property, the posting or reviewing of inappropriate content by employees, the sharing of unauthorized data with third parties, and employees using company time and assets to perform personal activities.

The internet offered new ways for companies to advertise their products, search for new hires, and conduct a whole host of other business tasks that created various legal and privacy problems that continue to this day. Furthermore, employees accessing the web posed human resources, compliance, and legal challenges. Indeed, employee internet access created a new training challenge and a need for robust policies addressing, among other things, “dos and don’ts,” where the don’ts could possibly trigger termination of employment. And marketing professionals could post product and service features and pricing on the web that also posed significant legal challenges in that the content might change often and without warning.

Communication Information Movement

The next significant movement involved the proliferation of various communications tools that allowed employees to communicate to one or many as often as they wanted. Email was one major wave within that movement that allowed employees to restructure their work-life balance based upon the availability and pervasiveness of email systems. In fact, many employees still spend a significant part of their day running their lives out of the email system. Email created great work efficiencies, but also promoted an environment of over-communication, over-distribution, and transmission of nonbusiness content, subjecting companies to binding legal obligations created via casual email. Other communications technologies like text and chat have further aided business, but they have made transacting business more casual, which has made the legal documentation of business activities more challenging. Further, communications technologies promote casual unstructured communication which traps corporate knowledge in a communication system with no easy way to repurpose it or make it available to other employees. Myriad communications technologies producing a proliferation of content has resulted in a treasure trove for plaintiffs as well as “bad evidence” unearthed from communication systems long after it should have been purged.

Electronic communications have been the focus of the litigation discovery process for years. As a result, companies have been forced to rework communications policies and discovery processes, buy new technology, and hire technical expertise just to deal with the legal fallout of the new communications technologies.

Social Network Movement

Social networks were the next big information creation change for companies. Companies found great outlets for their products and services and new ways to reach and interact with their customers in what was touted as “Web 2.0.” However, companies realized quickly that they were using and relying upon some third party’s technology to run their business and that they had less and less control over what employees did there or how to manage it. Social media expands a

business's ability to connect with the buying public through a variety of digital connectors, such as online communities, blogs, podcasts, video and audio files, widgets and apps, crowd sourcing, and geolocation tools, to name a few.

Controlling what employees do on behalf of their companies and what customers do on social media has been and continues to be a problem for companies to address. Managing privacy, protecting company intellectual property (and the intellectual property of others), and complying with records retention requirements has posed great challenges in the age of social networks.

Data Analytics Movement

In the last couple of decades, a variety of new powerful data analytics and artificial intelligence tools have been harnessed to extract answers to business questions using existing company data. As the scale of usable information grew, human analysis became impractical and computer-based tools became an increasingly routine way to unearth answers and connect dots and transform various aspects of business. The data analytics movement is about "big data" continuing to be retained over longer periods of time so that more complex business problems can be solved, and patterns discovered through the harvesting of the information. The problem confounding big data as part of the solution is that an organization doesn't always know what information will be needed to solve a future business problem, so there may be a benefit in keeping more of it. As will be discussed more fully in Rule 9, from a legal and privacy perspective, retaining more data creates greater potential risk and cost that unnecessarily impacts the company's risk profile.

Internet of Things (IoT) Movement

We are entering the IoT movement's growth phase. There are currently billions (soon to be tens of billions) of devices connected to the internet that monitor, collect, and transmit information for a given business process and then seamlessly (and without notice) push that information to a third-party computer for collection and analysis.

IoT data is expected to grow exponentially in volume and use over the next decade. Because IoT information's creation and transmission is largely hidden from employees, its volume and use grow largely unfettered. An example of IoT data may be output generated by an energy company through a smart device that monitors and collects information to ensure a seamless flow of electricity throughout its network or to detect component part failures within its systems.

A judge has ruled that New Hampshire authorities investigating the murders of two women can examine recordings made by an Amazon Echo speaker with the Alexa voice assistant.¹

IoT devices create significant potential information security risks for companies in that they can sacrifice private information or intellectual property, among other things. Improper access to a device can create harm beyond the apparent scope of the device itself and its stored information. For example, improperly accessing GM's OnStar computer system or a Tesla's self-driving capability might give access to a car or an entire system to a bad actor for a nefarious intent.

Information as a Revenue Source Movement

We have entered yet another new phase, where companies now routinely package their information and sell it to third parties as a new source of revenue. The confluence of artificial intelligence technologies, IoT device data, and robotics will only further grow the potential of the Information as a Revenue Source Movement for companies in the next decade.

From a legal perspective this creates many new questions. For example, is it appropriate, legally and ethically, to sell such information? And does selling the information violate any contractual obligations or privacy rights?

1. *Judge Orders Amazon to Produce Echo Recordings in Double Murder Case*, CBS News (Nov. 12, 2018), <https://www.cbsnews.com/news/amazon-echo-judge-orders-company-produce-alexa-recordings-double-murder-case-2018-11-12/>.

Electronically Stored Information (ESI)/Discovery Movement

Along with companies' increasing reliance on computers in the early part of the century came a desire by litigants to exploit the resulting volume of unmanaged electronic information. As a result, companies found themselves substantially hamstrung in the litigation process. Electronic discovery and litigation preparedness became a greater challenge because so much information was being generated, and that onslaught of information was poorly managed, making the discovery process exceedingly expensive and burdensome. Companies found themselves in the unenviable position of either spending endless amounts of money on discovery or settling meritless claims because it made business sense. Changes to the Federal Rules of Civil Procedure in 2006, among other federal and state changes, sought to make the process fairer and more reasonable. However, large companies today have been forced to build a business unit to address the discovery of information. The discovery process within big companies has become a separate business process with designated resources and computer tools.

A company gets embroiled in a typical business lawsuit whose facts are unremarkable. As the case winds its way through the court, what is clear is that the company's legal position will suffer substantially because it failed to properly manage its information over decades. The case is remarkable in that the court admonished and penalized not only the company for its failing to manage and preserve information which impacted the litigation but also admonished its board of directors, CEO, and lawyers.

Why Executives Need to Act

Information and technology saved Noah.

The harnessing of information can truly be a life or death pursuit. And where it's not saving lives it's helping to reshape the global economy. What will become clear as you work through the Rules of this book is that the way information is managed is now directly related to a company's fiscal health and competitive advantage and it may, in fact, be

a matter of its wellbeing, if not life or death. This book is written for those who run companies or advise those who run them. The only way information can make businesses “faster, better, cheaper” and legally compliant is when information initiatives get the attention, funding, and vision they need by engaged decision makers. According to the Sedona Conference, “[t]here is no generally-accepted framework, template, or methodology to help organizations make decisions about information for the benefit of the [entire] organization rather than any individual department or function.”² This reality makes it even more critical for leadership to dictate, get behind, and fund a global strategy that works for the company.

Navigating the expanding information universe has gotten much more complex and material to a company's bottom line. All leaders of all companies need to see information as a valuable asset without which the company will fail. It will require senior business leaders to lead and coordinate their efforts with legal, compliance, privacy, and IT leaders within the company.

What the Book Covers

The Executive's Guide to Navigating the Information Universe is arranged as twenty distinct Rules that provide an overarching understanding of “everything information” impacting your company, whether or not you know it. Each Rule includes an Executive Takeaway, Background Information, and Business and Legal Implications. Each Rule is self-contained, and you can refer to one Rule as a primer for a select topic or read the book from cover to cover to get a full sense of “everything information” impacting your company.

2. The Sedona Conference, *Commentary on Information Governance, Second Edition*, 20 SEDONA CONF. J. 95, 110 (2019), available at https://thesedonaconference.org/sites/default/files/publications/Commentary%20on%20Information%20Governance_0.pdf.