

All About the Information Substructure

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Richard Susskind and Daniel Susskind, [The Future of the Professions](#) (2016).

Before big data, before cloud computing, before ubiquitous smart phones and tablets, and almost before a version of Windows that actually worked,¹ [Richard Susskind](#) has been predicting that, eventually, [technology will displace lawyers](#). While [the topic of how technology will change law and other professions is now a flavor of the day](#), you haven't done your homework if you try to write about how technology will affect law without taking Susskind into account.

Susskind is back with an ambitious new book, co-authored with his son Daniel, entitled [The Future of the Professions](#). This book is both broader and deeper than Susskind's previous work – broader, in that he takes on all the professions, not just lawyers, and deeper, in that he delves into just what it is that makes professional work different. He addresses head on how advancing technology impacts the core role of professions.

Engaging directly with the idea of professions represents [a shift from his previous work](#), which dealt with lawyers as an occupation providing one-to-one, custom services in an era when technology was enabling more efficient, standardized solutions. While his arguments had bite and insight, the same jeremiad could have launched against almost any white collar occupation that was slow to adapt new technologies. It was also not entirely clear why the progression he predicted—from custom work to standardized work to commodified and technologically automated work—applied to the legal profession as a whole, as opposed to particular issues as lawyers moved up the experience curve.

This time, addressing all the professions, the Susskinds go to the nub of what makes professional work special. They work through exactly how emerging technologies create substitutes for not just law but many other professional fields, including medicine, consulting and even the clergy.

Drawing on the sociological literature on professions, the Susskinds start from a standard place – professionals, above and beyond all else, are experts, possessed of formal esoteric knowledge and practical know how for applying that knowledge that laymen don't have. Put differently, professions are a way to manage, apply and develop certain kinds of information.

Fully formed professions have been able to leverage their expert knowledge into what the Susskinds term “the grand bargain”—credentialed professionals are granted social status and economic monopolies in return for sharing and advancing their expertise.

The Susskinds position this grand bargain, however, in a framework of “information substructures.” The step forward in this book—and it is an important step forward—is to link the professional stewardship of expert information with fundamental changes in how we manage information.

The Susskinds argue that society has passed through three phases of how we manage and share information, and is midstream in a transition to the next phase. At one time, all information had to be transmitted orally and held in living memory. The invention of writing led to the second stage in information management as script enabled scribes to record and pass on more fully developed accounts. The printing press, in the Susskinds's view, brought on the third stage, allowing the spread of printed information to a much broader audience. Not coincidentally, in the Susskinds's view, the age of print coincided with the full flowering of modern professional guilds, which draw upon printed books for much of the work of storing and sharing expertise.

The fourth phase of information management, the Susskinds argue, is upon us – the much discussed digital age. This digital age will offer new ways to develop, store, manage and share knowledge, including expert knowledge.

Our current professions, the Susskinds argue, arose in response to limitations on our ability to manage information made available through books. Put differently, the traditional professions may have been the best available way to filter and share expert knowledge in the age of print.

Best available, they take care to point out, does not necessarily mean all that good. The current professions, including law, suffer from a long list of structural flaws. “[B]y and large, our professions are unaffordable, under-exploiting technology, disempowering, ethically challengeable, underperforming, and inscrutable. This is not a trivial charge-list.” (P. 37.)

Against the defects of professions as we know them—and the Susskinds’s [list of charges is by no means novel or exhaustive](#)—they ask whether the core role of professionals, the handling of expert knowledge, is now open to very different solutions.

As might be expected, they answer in the affirmative, but it’s worth paying attention to how exactly they see technology playing a role. The Susskinds do not predict, at least in the near term, “thinking machines” that harness computing power to replicate human brains.

They describe as the “AI fallacy” the notion that to be useful machines must either follow rules set by humans or in some other way mimic how humans solve problems. Indeed, some of the most impressive technical ‘AI’ applications to date—such as speech-to-text, Google Translate or IBM’s Watson—take quite a different approach, applying brute force computing power and statistical correlation to provide solutions.

Rather, they see a flock of technology aided approaches that together will shift traditional professions to the margins. In some cases rules based automation will indeed play a role, with unaided computers processing work that once required professionals —something we already see with predictive coding and sites such as LegalZoom. In other cases, computers will team up with what they see as a growing class of para-professionals who, given [narrow, specific training](#) and aided by software, will deliver services that once required mature professionals. Internet enabled [communities of users](#) will provide another way for consumers to reach the correct solution to their problem, with cancer or divorce survivors passing on knowledge. Still other tasks will be handled by the kind of brute computational force and statistical correlation that underlies IBM’s Watson—with [Watson, incidentally, already opening for business in the legal services sphere](#).

Given that machines will not ‘think’ in a human sense, they also will not on their own exercise judgment in the way human professionals do. They might enable humans with more narrow or specialized training to exercise judgment in their narrow field, and they might enable non-professionals to share insights and judgment based on their experiences as cancer patients or divorce clients. Judgment, of course, draws heavily on experience, and one advantage of machines is that, like the computer that [bested the world champion at the strategy game of Go](#), computers can [draw on and weigh more iterations of the possibilities than one human could ever experience](#).

The Susskinds are elusive about how long it will take for the transition to technology to take place. Near term, they see the technological changes pushing law practice toward a more efficient model able to follow standardized processes for most work. Highly customized work and advocacy are likely to fend off technologically driven substitutes more successfully. Work that can be reduced, in whole or part, to routines or defined processes are more susceptible to substitution by machines—but anyone who has practiced law for a while, even very elite law, recognizes that much of what all lawyers do involves routine work.

At some uncertain future date, they see technology altogether displacing lawyers and other professionals as we have known them. If technology can take us directly and quite cheaply to the correct solution, what need is there for

professionals?

Some technology driven services, they admit, may not meet the standard of the very best professionals, who will hang around in some capacity for a surprisingly long time for reasons of nostalgia, if nothing else. At the same time, they are quick to note, by definition average and below average professionals also don't meet the standards of the very best professionals.

Richard Susskind has always been a both a bit utopian and a bit of a Cassandra, with many of his predictions of fundamental change falling on deaf ears. Even in this book, he finds it necessary to point out not once, but twice, that he was right in predicting that e-mail would become an important way for lawyers to communicate. That said, the arrival of email is small potatoes compared to the more sweeping changes he began predicting 20 years ago. Email has had an effect on how lawyers communicate with their clients but it has not fundamentally changed how they do what they do. Even with all the new technologies floating around, we are still waiting for a technology that changes the fundamentals of how lawyers work.

Advancing technologies may make the difference—and the Susskinds agree with those who claim that when it comes to computing power, [we're still in the very early stages](#). That said, those, such as myself, who think Susskind is on the right track in thinking that technology will displace lawyers in many settings are still waiting for conclusive examples.

More than that, Richard Susskind is a utopian and an optimist when it comes to whether having technology play a bigger role will be a good thing. Fundamentally, he sees technology solving problems that humans heretofore have been unable to solve. There are [dystopian views of a technological future](#), however, and some would find no comfort in the prospect of machines interpreting, applying and sometimes enforcing laws, using algorithms that humans cannot see and could rarely understand.

Even more so than Susskind's previous works, this is a book everyone concerned about what the future holds for the professions and young professionals should read. If this book is even half right, how we go about [training bright young people](#) for a role in the future world of legal services needs a radical overhaul. By working carefully through what new ways to manage knowledge might mean for people who ultimately owe their status to their command of esoteric knowledge and skills, the Susskinds have made an important contribution.

1. It is understood that some Apple users maintain that we still await a usable version of Windows. That aside, I refer to Windows 3.1, which came on the market in 1992, four years before the first publication of Richard Susskind's breakthrough book, **The Future of Law**. [2]

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