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# ANTONY SLUMBERS



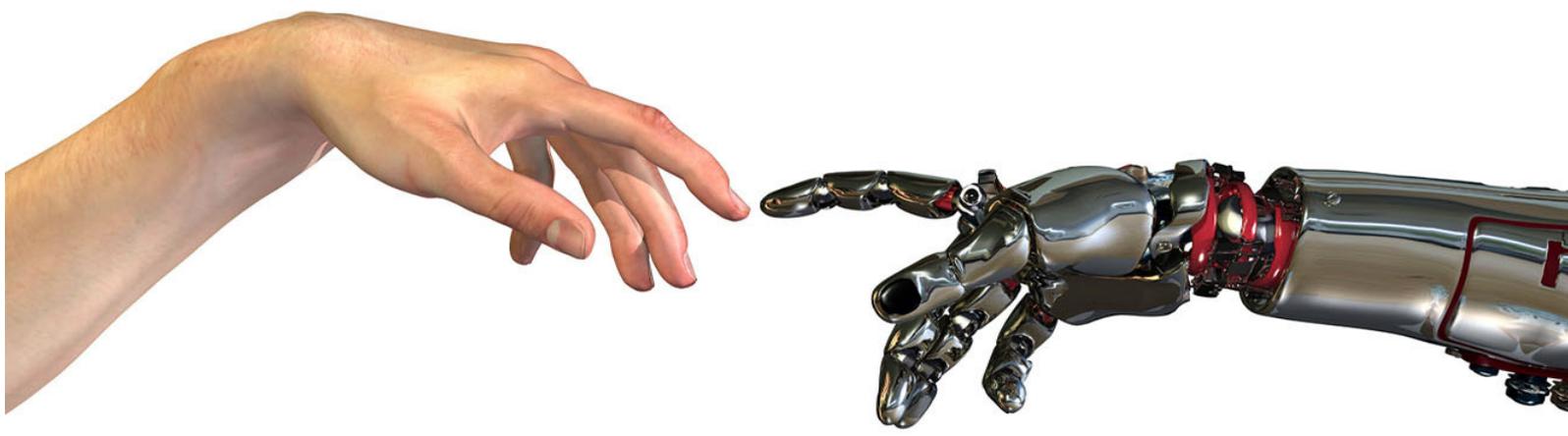
## News Contributor Series #5 Letter

### PART II Real Estate as a Service: All Change, All Change.

In Part 1 of this 5 part series we looked at the changing nature of demand within the real estate industry and concluded that everything boiled down to customers demanding, as they do in other walks of life, a great user experience. They are no longer content to simply buy the Product we offer them, but rather demand we deliver to them a Service, a supporting suite of physical and digital features and functionality to help them make the most of the places and spaces where they live their lives.

Delivering a great user experience though will not be easy, and will require a mix of skills the industry does not currently have, and a grasp of the technology trends that few have. What these are, and how to acquire them, will be the subject of this article.

**Human + Machine; because technology is not enough.**



## 'The Real Estate industry is no longer about Real Estate'

The starting point for understanding the skills that will increasingly be required within the real estate industry is that all the real estate knowledge, capabilities and experience you have today will be just as relevant, and important, in the years ahead, but whilst they will remain necessary, they are alone, no longer sufficient. As the industry moves from 'Product to Service' we all need to up-skill if we wish to remain competitive.

The second fundamental point is that in depth PropTech, or technology skills in general, are also necessary but not sufficient. Despite what one hears so often, humans cannot live by STEM knowledge alone.

**The future belongs to Human + Machine. In an age of exponential technology we need to become exponential humans. Better versions of ourselves, augmented by technology not replaced by it.**

Picasso once said "Computers are useless: they can only give you answers", and he was right, despite 50 years of Moore's Law since saying it. We may now be able to put 10 billion transistors on a computer chip, and the infrastructure available to run advanced programs may have increased in scale 300,000 times between 2012 and 2018 (yes, 300,000X in 6 years), but speed is not everything. Machines are good at what machines are good at, and humans likewise.

The way to think about the advance of technology is that anything that is 'Structured, Repeatable, Predictable' WILL be automated. It is only a matter of time. Likewise, as Dr Pippa Malmgren has written, anything 'dull, dirty or dangerous' will become the province of machines.

A McKinsey report in 2017 stated that:

**'49 percent of the activities that people are paid to do in the global economy have the potential to be automated by adapting currently demonstrated technology'.**

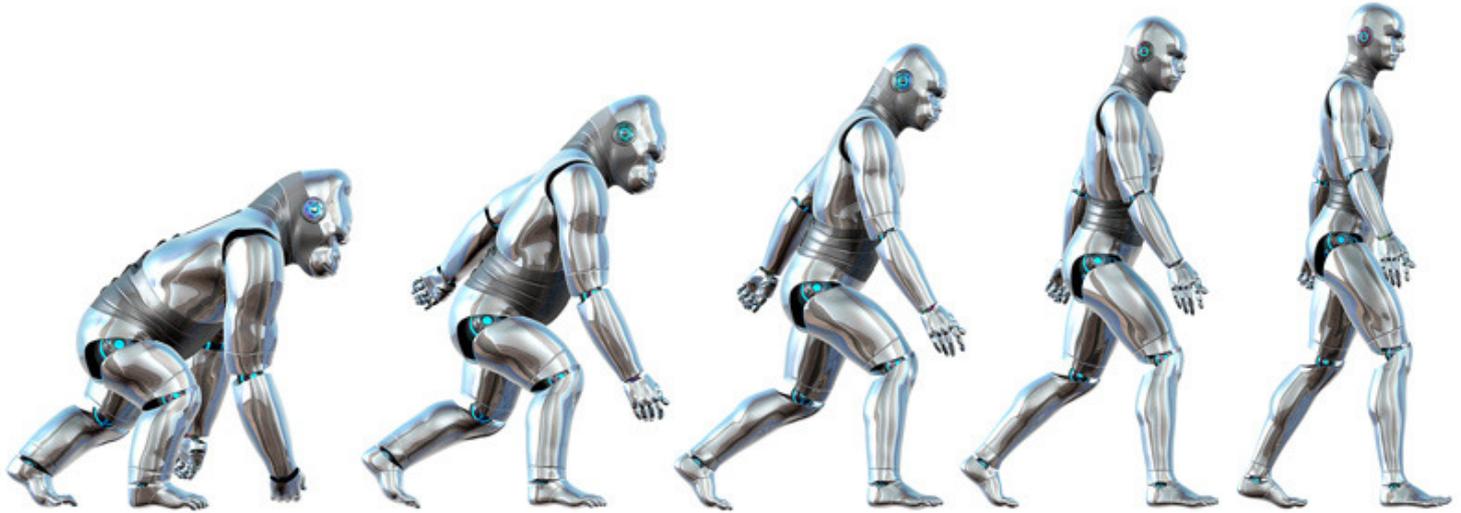
Note they talk about activities rather than jobs, but that 49% relates to daily tasks that are 'Structured, Repeatable, Predictable'.

Something cannot be made 'Structured, Repeatable, Predictable' though until it has been created in the first place, and computers are pretty much useless at creation. Unlike us humans. We may not all have the genius of Michelangelo, or Shakespeare, or Mozart but the human brain is designed to be creative. When we think of human skills we think of everything that 'the machines' are not: Design, Imagination, Inspiration, Creation, Empathy, Intuition, Innovation, Collaboration, Social intelligence, Judgement. These are what humans are good at and whereas the 'Structured, Repeatable, Predictable' tasks we have traditionally been paid to do are definitely going to disappear, as of now (and for probably a good few decades into the future) no machine is capable of replacing us for 'human' work.

So that's alright then? We're safe....

Actually no, having strong human skills is not enough. Because the future really does belong to Human + Machine. Picasso may have been right about the uselessness of computers, but give a computer the right question and they do have a fabulous utility in returning an answer faster or cheaper than a human can.

The point is that there is a two way bargain to be had between humans and machines. We can help 'train, explain and sustain' a machine (Paul R. Daugherty CTO of Accenture has written extensively about this) but a machine in turn can amplify dramatically our own capabilities. For example we need to decide on the data inputs we feed into an Excel spreadsheet, and define the formulas we wish to calculate, but once done the computer can handle millions of such calculations every second. A trivial example, but the same fundamental merging of capabilities scales up in the most truly awesome way when we start talking about the capabilities of artificial intelligence.



Neither a human or a machine alone will be able to compete with a human + machine working in well designed collaboration. Gary Kasparov, in his book *Deep Thinking*, has shown how if you combine a human with a chess computer program a “weak human + machine + better process was superior to a strong computer alone and, more remarkable, superior to a strong human + machine + inferior process.” Human + machine trumps any human alone, but the real winner is pairing a human and a machine with a sophisticated understanding of how the two can best exploit each others abilities.

We have complimentary skills; those individuals and companies that can meld the two will have an almost unassailable advantage over those who cannot, or simply do not.

**The better PropTech companies will aggressively pursue this merging of human and machine capabilities. And the smarter real estate companies will be working with them, in partnership, to exploit these new tools. Let's look at how this might evolve.**

Starting with what is easily available today, it is remarkable how much second rate equipment one sees in use within real estate. Without powerful laptops, desktops (if you must) and smartphones much of PropTech, and technology in general, will be inaccessible to you. Because any smart company combines quality personal hardware with the data centre scale hardware available on-demand from the likes of Amazon AWS or Microsoft Azure. Linking almost infinite processing power, with 'all the data in the world', via high speed, ubiquitous connectivity is one powerful user experience that automatically differentiates winners from losers. This should be table stakes; sadly it is not. Yet.

Going forward, all our real estate will become cognitive, in the sense of being able to tell us in real time, through the use of pervasive sensing, how it is both performing (think lighting, temperature, noise, air quality) and being used by our customers. Real estate today is largely run on hunches; educated (or not) guesses on performance and usage.

Perhaps the most important PropTech of the next few years will be dedicated to enabling us to understand our real estate assets in a way that is vital to efficient and effective use, but that is largely missing in the industry today.

In the tech industry there is a default position when developing new software. 'Build, Measure, Learn' is rule No 1; put a product in the hands of a user, measure how they use it, and then iterate, iterate, iterate, as usage demands. In real estate we stop at Build; we don't measure, we don't learn and we don't iterate. This has to end. It works for a Product business (once they've signed that lease....) but it is death for a Service business. We have to use all the technology at our disposal to understand how our real estate operates at a granular level. And then use our real estate skills to interpret that data; we may be able to make a lot more computer driven predictions about how our buildings are working in the future but we need highly developed human judgement to do the right thing in response. Human + Machine wins.

So beyond our existing real estate skills, we need to layer on top 'modern' hardware, high speed connectivity and cloud computing. All of this as a platform for designing the data science and analytics the best real estate operators will apply to the multitudinous real-time data points emanating from the Internet of Things networks they will become skilled at rolling out, across their portfolios. Into the mix will also be woven Generative Design, BIM, Digital Twins, Drones, 3D printing and Virtual and/or Augmented reality. And then on top of all of this the real winners will be making extensive use of what Harvard Professors Erik Brynjolfsson & Andrew McAfee describe as the most important general-purpose technology of our era, **Machine Learning. (More on that in part 3)**

None of this will be particular to the real estate business. Throughout all industries these digital skills will increasingly become standard operating procedure. Initially a lot of outsourcing to specialist providers will take place but over time, more and more skills will find their way into all businesses. Either through specific hiring policies or by the 'continuous learning' of existing employees (can anything be more vital?). It is annoyingly common to hear 'we are not a tech business' within the real estate industry, because like it or not every business will be a tech business in the future. And we'll all think nothing of it, as we no longer think anything of having in our pocket a smartphone hundreds of times faster than a 1980's Cray Supercomputer. We become blasé about the magical very quickly.

**Yet even with all the above we still won't have the full compliment of skills the future real estate company will need. Because the other side of the coin to all this exponential technology is vital as well. And that is the highly developed human skill of User Experience design.**

**User Experience design is about how something works, not how it looks. It is about removing friction and enabling discovery.**

Removing friction in the sense of making it as easy as possible to do the things we need to do, and enabling discovery in the sense of making available to us all the information we need to do whatever it is we are aiming to do, wherever we are.

Think about this in real estate terms; how easy is it to get in and out of your office, to book a meeting room, to book an event, to adjust the heating or lighting, to register a helpdesk request, or book in a visitor? After more than 500,000 Leesman Index employee surveys have been completed, only 57% of office workers say they believe their workplace enables them to be productive.

Clearly there is much to be improved. Similar 'user experience' issues apply within residential and all other asset classes. It just goes on and on; endless repeated 'jobs to be done', issues to be resolved or information to be sourced. Real estate is often one long irritation of an industry to deal with. So much is harder than it should be, and so much is simply unknown, or unknowable.

Solving this is the remit of User Experience design. And the PropTech industry should be obsessing over every single irritation, looking for solutions. As should real estate companies. Preferably together. BUT, almost nothing will be resolved unless we deploy multi functional teams in addressing these problems. We need teams who can 'Think, Feel, Do' (see the Harvard Business Review article 'The Ultimate Marketing Machine' for the genesis of this idea.) and work together to combine technical, empathetic and pragmatic inputs to design solutions that work across all dimensions. A great User Experience feels like nothing to the person experiencing it, but it only happens as the result of great care and attention, from diverse teams. For real estate this critical capability will likely be developed by bringing in people with a hospitality mindset, but over time the industry must develop these skills internally. Either way, the industry will look very different in 5 years time. More diverse, more skilled, more customer focussed, more technologically capable and above all, more human.

Technology is changing society, and the nature of business. PropTech will change the real estate industry. But not, as we have seen, perhaps in the way many expected. The great paradox is that as technology increases inexorably in power and capability, our human skills are becoming more, not less important. We can build a better built environment, but only by being better humans, and then by understanding how technology can help us get there.

**Human + Machine Wins.**

**In Part 3 we will look at how all of this impacts on Real Estate Companies and Service Providers. If the industry is changing as much as suggested, where does that leave existing business models and strategies?**

# ABOUT THE AUTHOR



## **ANTONY SLUMBERS**

HAS BEEN A SOFTWARE DEVELOPMENT AND TECHNOLOGY STRATEGIST IN COMMERCIAL REAL ESTATE SINCE 1995. NOW, HE CONSULTS AND WORKS WITH REAL ESTATE BOARDS ON TRANSFORMATION, TECHNOLOGY AND INNOVATION. A WELL-KNOWN SPEAKER IN PROPERTY, HE IS A GLOBALLY RECOGNISED EXPERT ON PROPTech, AND #SPACEASASERVICE. FOR MORE GO TO [ANTONYSLUMBERS.COM](http://ANTONYSLUMBERS.COM) OR TALK TO HIM ON TWITTER @ANTONYSLUMBERS