

Proptech - what is it and how will it impact the real estate industry?

 By Yael Geffen

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The acronym "proptech" has been bandied about with increasing regularity of late, often accompanied by terms like disruption and digitised. Although most people understand the gist of the concept, many are still not entirely sure what it means and how it is likely to impact the real estate industry going forward.



In basic terms, proptech is essentially the implementation of technology to streamline processes and make transactions more efficient, whether it intersects the planning, building, management, or even demolition stages.

What started as a trickle with the introduction of online search portals a decade ago, has become a wave of disruptive solutions and cutting-edge technologies that have steadily been transforming the way in which we conduct business.

The advent of online marketing and behemoth property search engines like Property24 ushered in the initial era of time-saving convenience in the tedious process of filtering out unsuitable properties by criteria like size, location and price and allowing prospective buyers to house hunt without leaving home.

They also provided the first platforms for sellers' homes to be marketed to a global audience at a reasonable cost.

However, this emergent sector has since grown in leaps and bounds and its acceleration is clearly demonstrated by a recent report by the analytics firm CB Insights, which reveals that around \$9.7bn has been invested in the industry globally since 2011 - with around half of this being in the past two years alone.

Wayne Berger, managing partner of iShack Ventures and a propTech venture builder, takes a closer look at the exponential technologies that are likely to have the greatest impact on the industry.

"Exponential technologies are those which are rapidly accelerating and massively impacting major industries and, if not already, then will in the future, very likely touch all aspects of our lives.

Several of these technologies are already influencing the industry to varying degrees, but there a number of key emergent trends that are likely to have a significant impact within the next few years.”

The following are innovations that Berger believes property professionals should start preparing for in order to stay on top of their game and ahead of the pack:

Big data – the term used to describe large volumes of data (structured, semi-structured and unstructured). However, the volume of data is not important; rather the collection and analysis of all the data relating to your business which can then be converted into valuable business case studies that offer insights for management to make better decisions and action informed strategic moves.

The real estate industry is one that is truly data-driven, and more-in-depth, clearer insights on pricing, residential and commercial trends and buyer demographics, as well as the potential value of neighbourhoods, is invaluable.

Machine learning – the field of scientific study of algorithms and statistical models that gives computers the ability to learn without explicitly being programmed. This can be an extremely valuable tool in property investment or sales decisions, especially to organise available data in a way that would be able to pick up past and future trends, as well as factors that can influence the immovable asset investment over the duration of the intended term.

Internet of things or IoT sensors – This is the interconnection via the internet of computing devices (sensors) embedded in everyday objects, enabling them to send and receive data. Sensors are progressively being installed both inside and outside of buildings to collect large amounts of data to optimise the experience for the occupants, while enhancing the operations and the entire infrastructure of a building.

Examples of usage include:

- Smartphone connectivity to a building’s network to assist users in populated buildings to best navigate and optimise their routes. i.e. finding free parking or open boardrooms;
- To learn occupancy behaviour to maximise performance and cut down energy costs.

IoT applications in real estate will change both the industry and also our lives in multiple ways. Predictive technology is already making buying, owning, and selling homes more accessible than ever and not only will IoT help homeowners become more aware of their home’s functionalities, it can also generate more market value for your home.

Blockchain – can be described as a digital ledger stored on a distributed network, which simply means the information is stored over multiple locations and updated instantly throughout.

A distributed ledger system is a smarter and more secure storage infrastructure than traditional ledgers as, rather than giving one person or company sole responsibility for the ledger, many people have copies. Each user, known as a node, stores a copy of the data and several nodes verify the information before all nodes update their records so that all is up-to-date and in sync.

Blockchain is very exciting from a real estate perspective as it can:

- Increase transparency and improve pre-purchase due diligence;
- Speed up the transfer process, as no third-party verification is required. Blockchain would remove the requirement to do title deed searches or a middle-man to secure the title transfer, which can be a major disruptor to the escrow companies.

One of the primary friction points in global real estate markets is the complex and lengthy contractual procedures that property exchange entails, and we’re beginning to realise that blockchain systems are capable of streamlining all aspects of

real estate sales, from listings and auctions to settlement and transfer.



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3D printing and modular construction - 3D printing is already an emergent trend internationally and I believe it's not too long before it will be introduced to the local property market as a low-cost housing alternative. Currently, a home can be printed and erected in 24 hours at a cost of around \$4000 and it's likely to become even cheaper.

Modular homes which are constructed in factories and then assembled onsite are also taking off and a UK engineering company has already developed and launched a range of self-deploying modular homes which unfold in under 10 minutes - without the need for builders, cranes or even foundations.

As the challenge of affordability continues to grow with first-time buyers increasingly struggling to enter the market, we expect the modular home, including those made from shipping containers and those constructed using cutting-edge technology, to become increasingly appealing over the coming decade.

Autonomous vehicles – Driverless cars will impact the industry in a number of ways, most notably the fact that parking facilities for these vehicles can be located on the outskirts of a city. Less demand for parking space means that existing parking can be converted to retail, or storage space and, as these vehicles are electric, petrol stations will not be taking up as much prime real estate.

Drones - Amazon's flying warehouse (Prime Air), which is still being developed, will have an enormous impact on the industrial sector. Drones are also increasingly being used to take aerial footage of properties for identification of maintenance issues in hard-to-reach places and security enhancement.

Technology already enables multiple parties in the transaction process to share data and information quickly and often in real time, and it allows integrated data flow to and from internal systems, thereby creating operational efficiencies and potentially increasing the speed of financial decisions.

PropTech, however, is a powerful new level of tech which is increasingly merging the digital world with the built environment and, as one of the fastest growing new sectors, it is poised to impact every aspect of the industry.

It's also very likely that we will begin to see an even quicker rate of innovation during the next five years and it's therefore imperative that property professionals begin to familiarise themselves with these concepts as those who learn to adapt to the rapid changes will have a significant advantage over those who choose to stay in the dark.

ABOUT Yael GEFFEN

Yael Geffen is the CEO of Sotheby's International Realty South Africa and a member of the board. Geffen has a BA in Communications and Economics and a Master's Degree in Integrated Marketing and Communications Strategy.

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