

MAXIMISING PROPTech'S POTENTIAL IN RESIDENTIAL PROPERTY

Part Two

Introduction

Spencer Kelly – Presenter, BBC Click

I'm a massive fan of technology and I believe that despite a lot of things we're hearing these days it is going to get us out of more problems than it gets us into.

Although that seems dubious at the moment. It seems scary or overwhelming at times and especially for those dealing with some older residents, technology is not always what they've grown up with.

But of course, we're all consumers of technology, be it a smart phone, TV or washing machine. The chances are your customers will increasingly demand more and more technology to be fitted in the places that they live in. Many working people these days want a good working internet signal so they can work at home when circumstances permit.



This briefing paper is based on the proceedings of the Maximising PropTech's Potential in Residential Property briefing hosted by FirstPort at The Soho Hotel, London on 21 May 2019.

This is part two of a two-part briefing paper on PropTech. In part one, Spencer Kelly, Dan Hughes and James Dearsley explore the impact of PropTech on the residential property sector.

Interview with the PropTech experts

Dan Hughes – CEO, LIQUID Real Estate Innovation & Alpha Property Insight
James Dearsley – Co-Founder, Unissu

LET'S TALK ABOUT THE CONSTRUCTION OF BUILDINGS. WE ALL KNOW WE NEED TO BUILD MORE HOMES. IS THERE ANY WAY YOU SEE WE CAN USE TECHNOLOGY TO BRING THAT FORWARD?

Dan Hughes: There are three aspects to this. The first relates to physical construction. We don't have enough resources or people or skills. Technology should make this more efficient, whether that be using robots on site or applying technology to make the site itself work better.

The second issue is about money and funding. The amount of value stored up in residential property is absolutely enormous.

The third area is around planning. I think the biggest challenge is that everyone wants to build more houses but no one wants them near them. National and local policy is such a minefield, and that is very difficult.

Technology won't make this instantly better but it might help with engagement with local people, and helping to speed up the planning and design processes.

James Dearsley: 'Minefield' is spot on and at the start of this talk we mentioned resistance. Technology is moving far faster than legislation and as a consequence it's very difficult to instigate national and local change at the policy level.

WE SEE THAT A LOT GLOBALLY. PLACES WHERE THERE ARE OFTEN NO LAWS TO LEGISLATE AGAINST NEW INNOVATIONS, SO PEOPLE JUST PROCEED ANYWAY. ARE THERE ANY SIMILAR EXAMPLES IN PROPERTY?

Dan Hughes: Yes. In property there is a different regulatory environment from other sectors. You can't buy a building without engaging with the Land Registry. You can't build something without talking to the local planning authority. So there are already rules in place.

James Dearsley: One of the fastest PropTech companies in the world is Land Insight which is growing a tremendous amount. They're helping to make what's available via planning for your land much more visible.

There's also a very interesting company in New York called Envelope which is doing a similar thing around city centre locations.

So, on the planning level, there are some digitising companies you can start looking at. The other aspect, around the build side such as the robotic brick laying businesses occasionally make me laugh. Some robots can't build around corners... but there are some amazing start-ups which are helping to improve the cost efficiency of building and also the speed of delivery. Whilst modular building is not brilliantly beautiful PropTech, it's functional and it's going to do the job a lot quicker.

Spencer Kelly: You say it's 'boring' but then a lot of Artificial Intelligence is boring. But it's making a massive difference.



Technology is helping to speed up the planning and design process.

James Dearsley: Just because it's not sexy doesn't mean to say it's not useful. What I'm also seeing is this issue of the digital twin, it's tied up with Building Information Modelling (BIM). It's one of PropTech's lasting legacies which is how we map buildings – which G Builder is doing – where digital models allow you to build and then manage a building.

HOW ABOUT RETRO-FITTING OLDER BUILDINGS? WHAT ARE THE PROBLEMS, IF KNOCKING DOWN AND REBUILDING ISN'T AN OPTION?

Dan Hughes: I think sometimes knocking it down and starting again can be the right answer but it depends on different factors. Some old office buildings went through a stage where they were very attractive because they looked great, but the floor to ceiling sizes wouldn't allow the necessary space for the wiring.

The introduction of wireless technology is the key driver here. All of a sudden things can be connected that don't require hard wiring. A lot of the sensors that are around have been available for a long time, but are only now coming down to an affordable price. So you can now get sensors that are the size of a button which you can put everywhere for a few pounds.

Spencer Kelly: Wireless around the world is just leapfrogging the existing technology.

James Dearsley: Wired Score is a company that is measuring the connectivity of all our buildings. One of my pet subjects is how do you value a building? It's currently based on lease length but we should be starting to look at factors such as connectivity. People aren't going to want to use a building which has poor internet connectivity.

A good case study for this was WeWork. They turned off all their water and electricity and everyone stayed in the office. The moment they turned off the internet, everyone left.

So retrofitting is going to be forced upon landlords.

James Dearsley:

"The analogy I like to use is that we're now giving buildings heartbeats. We all know when we're not feeling very well. We can tell our temperature and there are lots of indicators as to what's happening. This concept of predictive analytics when buildings aren't feeling very well, for example that particular air conditioning unit on level four isn't running efficiently, is really important for a building's owner to know."

Another company from Scandinavia, called Disruptive Technologies, installs batteries with a fifteen year lifespan. These are the type of companies that will change the sector.

Dan Hughes: Future proofing is a phrase that is used a lot, but no one is sure what is going to happen in the lifetime of a building. I think what's important is that we start thinking about what might happen.

If you look at the Build to Rent sector for example, people are now looking much longer term. So they're putting in bigger risers to allow for future space for new technological enhancements which will no doubt happen, even if we don't know exactly what they are.

EVEN IF YOU INSTALL ETHERNET CABLING NOW, WHAT'S TO SAY IN THE FUTURE SOMETHING BETTER WILL SUPERSEDE IT? WHAT DO YOU THINK IS KEY TO GETTING DEVELOPERS TO INVEST IN INNOVATION?

Dan Hughes: Fundamental change for the sector in my opinion comes from two different approaches. You've got a mixture of carrot and stick.

The stick is around planning and regulation and you can force change around that. The more important one is around the value of properties, I think that's the carrot for people. Take something like Rightmove, it's a great way of seeing what customers are looking for to make their decisions, for example broadband speed, schools, transport time. Those are things that people are looking at. As more data on these sort of things becomes available there will be a more direct influence on the value of a property and in turn, this will drive behaviours in the industry.

Audience Q&A

WHAT DO YOU THINK ARE THE NEW CAPABILITIES AND POTENTIAL OF 5G?

Dan Hughes: I think 5G is potentially awesome. Personally though, I think we're getting a little over excited about it at the moment. The range of 5G is not that high. It's not 4G plus a bit faster. We're going to need a lot more masts – so that will present an opportunity for some people – but it is a step change that will be slower to implement than many people anticipate.



The potential of 5G is vast... but we're going to need a lot more masts.

James Dearsley: Here in the cities in the UK of course we need 5G. My question is that in rural areas how are we going to bring them on board? Increasingly, as people work remotely you have to have the broadband service in your nice rural house or development that you've bought into.

Dan Hughes: That plays to the point I've just stated. If you have that nice house but it doesn't have broadband, you just won't live there. Certainly the value of properties will start to be reflected in their connectivity.

James Dearsley: The cities we live in today will be hampered by their infrastructure, transport issues foremost amongst them. I went to Lagos in Nigeria recently and seeing how their mentality for change is so advanced they're totally brought down to earth by their lack of infrastructure. Project Neo in Saudi Arabia which is a heady vision to build a totally new city from the ground up, demonstrates that the cities of tomorrow are not going to be the cities of today. We need all of these things: the hyper-loop; driverless cars; driverless drone delivery, we are not set up for that in our retrofitted cities, let alone our retrofitted buildings.

Spencer Kelly: If 5G helps us collect more data, whilst 4G was all about mobile telephony, I wonder whether the value of 5G might be in leasing out a corner of your building to enable a signal to have direct line of sight to a mast – since 5G can't pass through walls?

Dan Hughes: It could be. I'm not sure I'd use that as a recommendation though!

YOU GAVE AN INTERESTING PERSPECTIVE ABOUT TAKING CONSUMERS WITH US. HOW DO WE TAKE FORWARD THOSE WHO DON'T WANT TECHNOLOGY, OR CAN'T AFFORD IT? HOW DO WE BRING THESE PEOPLE WITH US, ESPECIALLY WHEN WE WANT TO MAKE PROPERTY MORE SMART?

James Dearsley: As I mentioned before from the Housing Association level there are two different types of people who we need to respond to differently. The people who can't, or don't know, is a very specific group. That cohort can't be moved too quickly.

We often talk about PropTech as being the endogenous change which is the future thinking, the blockchains and all that stuff, and we often overestimate the impact that technology will have. Often when I'm asked that I just say in a lot of cases it takes place over a generation.

So, for those guys who can't, or don't know, I'm not sure we can take them on that journey, so it's our responsibility and our duty of care, as organisations to make sure we don't discriminate the technology underclass.

The people who don't want to are a completely different concept. They will be those who are stubborn and generally with them a subtler approach is required. I've seen solutions where Alexa is being used to report faults in property management. It's fascinating. I've seen it work and it works well. But those 'stubborn' people are not going to want to use Alexa, because it's 'listening to me'.

Then you have the subtleties of property management technology and solutions such as Ask Porter, a UK business which is Google's first UK PropTech investment. It's very subtle, it uses chatbot technology and gives instant answers.

It's the benefits of that technology which will win those doubters over. That 24/7 answerability will soon change their mind when there's no one else at 3am available to take a call quickly.

Refining the problems to the issues your staff really need to deal with is one of the major bonuses of the technology here.

Dan Hughes:

"We're all about building houses that people are happy to live in. So as long as the technology enables us to do that it doesn't necessarily need to involve the person who's reluctant to use the technology, provided the managing agent and developer are using it to help make their life more comfortable and efficiently run."

I'VE VISITED A LOT OF APARTMENT BUILDINGS WHERE THE BASICS AREN'T THERE AND RESIDENTS DON'T GET THE MAXIMUM EXPERIENCE FROM THEM. HOW SHOULD WE BE USING PROPTech IN THE DESIGN AND DEVELOPMENT STAGE TO GET THESE UNITS RIGHT AND ENSURE PEOPLE ENJOY LIVING IN THEM?

Dan Hughes: There are two different approaches: one is I think the use of data will help us to inform the use of buildings. The use of data is becoming more efficient as we progress and will inform better design solutions in the future.

The other thing is you can use data to get feedback from people about their experiences. One of the things that people find most frustrating is walking into a building, having a bad experience and not being able to tell anyone about it. There are some obvious technology solutions to capture that feedback, from email all the way through to data collection apps or touch button surveys.

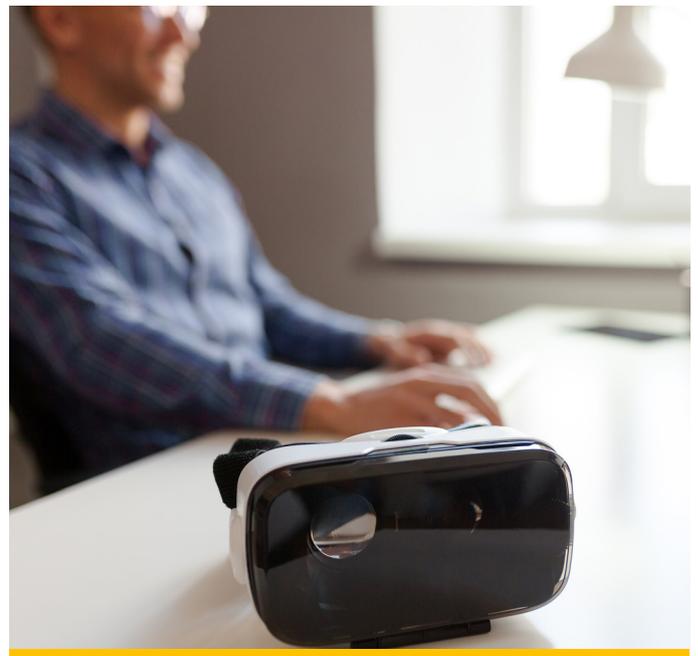
The use of data is critical, first to inform future design and also to collect ongoing performance information.

IS THERE A WAY OF CONSTRUCTING A BUILDING SO THAT IT CAN CHANGE THROUGH ITS LIFECYCLE?

James Dearsley: Absolutely. There's some really innovative new ideas coming out of Holland and Scandinavia in respect of construction tech, space utilisation, and there are builders out there who are now constructing buildings to a modular design so that you can move walls to accommodate large numbers of small rooms, etc.

WE'VE BEEN HELPING DEVELOPERS TO RUN FOCUS GROUPS WITH IMMERSIVE TECHNOLOGY SO YOU CAN SEE HOW PEOPLE ARE REACTING TO CHANGES THAT YOU MIGHT NOT YET NECESSARILY KNOW THAT YOU WANT. WHAT ARE YOUR THOUGHTS ON THE IMMERSIVE TECHNOLOGY SPACE?

Dan Hughes: I think Augmented Reality and Virtual Reality are clearly different but something that has had a huge amount of press. As examples of asking people to test stuff, they're clearly useful. VR is great for gaming and looking at things in an immersive way but I think sometimes it's still looking for a solution in real estate. But we are seeing some use cases such as bringing planners into a virtual environment where they could visualise the plans they are being asked to approve.



The immersive nature of Virtual Reality makes it an ideal tool for planners.

I'M CURIOUS TO UNDERSTAND HOW OUR CHILDREN WILL BE EDUCATED TO FACE THE WORLD YOU'RE NOW TALKING ABOUT?

Dan Hughes: Technology is going to do the heavy lifting and the boring stuff, the number crunching, things that are repeatable. But more and more it will be the human skills that are needed.

Creativity, critical thinking, interaction and ethics are the skills that they'll need. In terms of how they're then trained to do that I think if they're human skills they'll be trained by humans, there will also be a separate group who are more and more focused on the technology and we'll see a divergence of people who are more attuned to human interaction and those who are attuned to analysing data.

James Dearsley: This is a particular preoccupation of mine. I recently went to have interviews with my children's teachers and they were all talking about 'we're not a hothouse'. I said I really don't care, the only thing I want for my child is for us and you to create a child with confidence and the ability to communicate. Privately I've evolved that a little bit: the ability to communicate with us together with confidence but also the ability to communicate with artificial forms. That could be as simple as working within a computer environment with which they're comfortable.

From an educative standpoint we talk about STEM subjects an awful lot. I think a huge interest from me is what they're now saying about STEM-A: and adding the Art bit onto the end, because we cannot lose the creative spark that our children have because that's what sets them apart.

Meet the speakers



Spencer Kelly
Presenter, BBC Click

Spencer is a respected technology presenter and computer scientist who's been in the business for over 20 years.

After a seven-year stint as a breakfast radio host, Spencer joined the BBC as a Presenter on Click and has travelled the world to seek out not only the most advanced tech but simple devices which make a huge difference.



James Dearsley
Co-Founder, Unissu

James is recognised as one of the leading thought leaders on the future of the real estate market.

His role as the Co-Founder of Unissu, the global leader of PropTech data, information and resources, means he has an unrivalled perspective on global PropTech trends.



Dan Hughes, CEO, LIQUID Real Estate Innovation & Alpha Property Insight

Dan has spent his career working across the built environment and has held senior roles in some of the world's leading data organisations.

He was voted one of the Top 50 Data leaders in the UK in 2017 and in 2018 he won the inaugural EG Tech Award for bridging the gap between property and technology.

Like to learn more?

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