

## Property Valuation in the Postnormal

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### ABSTRACT

*This paper explores seven present and likely future shapers of the property sector and the concept of valuation. It argues that there are revolutionary dynamics emerging in contemporary societies that have the potential to change the form and shape of urban settlements everywhere, together with the nature and relevance of the organisations that inhabit them. It further asserts that, as these structural and systemic 'reconstitutions of reality' manifest themselves, they enable different expressions of identity and underlying mythology that not only provide opportunities for those who first take advantage of them, but also pose considerable threat to those who would wish to sustain the status quo. In canvassing these dynamics and assertions, this paper seeks to illustrate, by way of comparative understanding, the interplay between contemporary perceptions and alternative realities that can only be described as 'socially revolutionary' in their nature, and thus worthy of both focus and conversation for those who have the interests of the sector at the forefront of their thinking.*

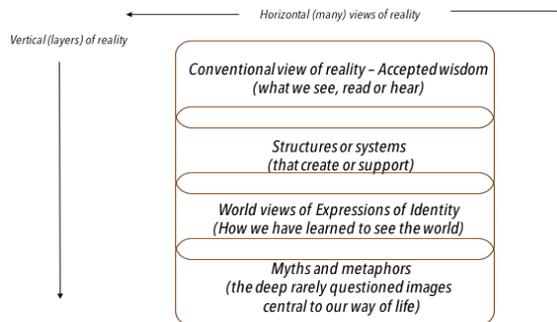
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### PROPERTY VALUATION IN THE POSTNORMAL

Given that 2020 represents a time of perfect sight, at least in some mythologies, there are good reasons to suggest that as contemporary society nears that magical year it might need to consider that the two decades that follow it might have very different characteristics from the period that preceded it. While this paper focuses on a number of these contextual elements as they relate to the future of property valuation in Australia, it is intentionally an outside perspective on the profession and the sector. Thus, in the 'property and valuation centric' discourse, and given that "the future is already here but it is just not evenly distributed", the purpose of this paper is to describe these external continuities and discontinuities in a way that encourages conversation about potential impacts on the sector, and the professions that purport to represent it. In doing so, it aims to assist in making visible early signs of these (future) changes in what will later be defined as the 'present future'.

In order to illustrate how particular propositions might unfold as an alternative reality to the one that represents the conventional contemporary dialogue, the paper uses a methodology known as 'Causal Layered Analysis' (Inayatullah, 2005/07). This conceptualisation of a multiple folding of reality, nested within a variety of 'interpretations of the same', seeks to articulate, not just accepted wisdom or litany perspectives, but also the structures and systems upon which those realities depend. It asserts that these structures are representations of the worldviews or expressions of identity that underpin them, and that these in turn are reflective of the often subconscious and rarely questioned foundation myths and metaphors that frame all we think and utter. In presenting these alternatives, as a way of 'comparative', rather than as analytical or empirical understanding, no assertion is being made about whether any distinct construction is right or wrong. Rather, what is being attempted is a reframing of the possible, so that options are considered and available should any particular alternative reality come to pass.

**Figure 1. Reality is not a single idea**



**Causal Layered Analysis Model as developed by S. Inayatullah (2005/07).**

The revolutionary nature of the macro and property forces canvassed in this paper is a consequence of how particular technologies redefine constitutions of time. As Lewis Carroll always understood, ‘time’ has particular, even peculiar, ways of affecting senses of reality. Hence, if there are variations in how time is perceived, so might one argue multiple, even competing, senses of reality are possible. This notion of variation is destabilising to modern, urban communities that have built socio-economic arrangements determined by an ever increasing mastery of chronological or clock time, and to a particular subset of those communities, ‘the professionals’, who have defined their ‘value’ through the charging of ‘professional time’. In contrast, network technologies have the ability to both expand clock time (by allowing a particular project to have work done on it around the clock, in different time zones, in a seamless fashion) and to facilitate particular services in close to real time. Thus ‘time’ has become hyper-chronological, expanded and timeless (real time) at the same time. As Wajcman notes “time practises are always sociomaterial, that [is] the contours and rhythms of our lives are calibrated by and with machines. In other words, we cannot comprehend the social organisation of time separate from technology” (2015 loc. 664)

**Big System Interrelatedness**

*We have recently come to the conclusion that certain processes have now become so obvious, dominant and determinative that they have now become part of a “new normal” that must underlie our development and generic images of the future (Dator 2014, p.487).*

The entire fabric of our present socio-economic system has been built upon access to very cheap and useful energy (mostly oil and coal based), coupled with a view that all natural resources are there for the benefit of human-kind. In more recent times it has also relied on the belief that, if the economy grows then almost everybody who is willing to work benefits. It argues for what is called ‘the trickle down effect’, notwithstanding concerns about widening disparity (Piketty 2014). While the case to consider at length that this might not be so in the ‘near future’ is interesting, this is not the focus of this paper. Rather, as Figure 2 depicts, the point being made is that, if energy becomes more expensive, and if environmental costs continue to mount because of climate induced extremes, ocean acidification or loss of biodiversity, to name but three of the environmental systems under threat (Rockstrom et al. 2009), then there will be consequential effects on economic systems that will, at the same time, struggle under almost any definition to grow over the next decade. While it is uncertain how this system convergence will manifest itself, the collisions it will occasion will frame the scale of transitions that need to occur.

**Figure 2. CLA of System Interrelatedness in a New Normal**

|                            | <i>Dominant Western View</i>   | <i>New Normal View</i>   |
|----------------------------|--|--|
| <i>Accepted Wisdom</i>     | Energy is cheap<br>Nature is our servant<br>Capitalism is basis for prosperity | Energy will become more expensive<br>Future constrained by planetary limits<br>The current economic system can't adapt |
| <i>Structure Systems</i>   | Humans are there to serve the economy<br>Issues can be tackled in silos        | Economy is there to serve humans<br>Issues at a systems level are interconnected                                       |
| <i>World View</i>          | Technology will save us if we make the right adjustments                       | Many systems are at or beyond their limits   |
| <i>Myth &amp; Metaphor</i> | What has worked (at least for some) will always work                           | There is an urgent need for transformation   |

**The Postnormal (Complexity, chaos and contradiction)**

*It is the primary contention of postnormal times that in the current epoch when facts are uncertain, values in dispute, stakes are high and decisions are urgent the accepted normal doesn't work. (Further) the basic assumptions of normality such as progress, modernisation, growth, development and efficiency are dangerously obsolete (Sardar, 2015).*

If globalised connectedness and ubiquitous mobile technologies are added to the 'big system' dysfunction described above, a new kind of complexity becomes evident; one that almost renders siloed approaches (reduction before wholeness) redundant. The intended exit of the UK from Brexit is a prime example of this type of complexity. Not only is it multisided, with multiple actors trying to understand what is in their own interest, but it now has to take account of those popular forces that either determined the course of action in the first place, or which would want to imitate that same course of action in their own constituencies. It signals a future where little can be implemented without consulting and including others who see things differently.

Three important consequences emerge from this complexity. The first is that seemingly very small changes made in one part of the system can have vast unintended consequences that might not, or even could not have been, anticipated when the change was made. Thus chaos is a constant factor in the future. The second is that the transparency that comes from these same effects is highlighting increasing contradictions. So humans have never been more connected, but many are feeling more alone than ever; never has there been more wealth nor so much disparity (89 individuals have as much wealth as the bottom 3.5 billion on the planet) and so on. What makes these contradictions even more confronting is that many of those on the down side are becoming reluctant to accept that status quo as their fate, particularly when they now have devices available to them that reveal quite clearly how the privileged few live. The third, and perhaps the most confronting of these consequences, is the realisation that the sense of normality that contemporary society has relied on makes it ill-equipped to deal with the postnormal conditions it now faces.

The advent of the postnormal is a structural earthquake for entities and organisations that were established for a very different set of operating conditions, and they also provide the framing for a set of property and valuation related shifts.

**Figure 3. CLA of the Postnormal Networked World**

|                            | <i>Normal</i>   | <i>Postnormal</i>  |
|----------------------------|---|--|
| <i>Accepted Wisdom</i>     | It is possible to manage the world in ways that are simple, orderly and efficient | Energy will become more expensive<br>Future constrained by planetary limits<br>The current economic system can't adapt |
| <i>Structure Systems</i>   | Our language and structures are mostly mechanistic                                | The dominant network ethos is better seen as ecological  |
| <i>World View</i>          | Most of the risks we face are known and certain                                   | Increasingly the world is uncertain and the risks are unquantifiable   |
| <i>Myth &amp; Metaphor</i> | Progress and Enlightenment guides what we do                                      | There needs to be a different way of doing things  |

**A Radical Rebalancing – from Property Ownership to Hyperutilisation**

*The very thought of leaving markets and the exchange of property behind – of advancing a conceptual change in the structuring of human relationships way from ownership and toward access - is as inconceivable to many people today as enclosure and privatisation of land into property relationships must have been half a millennium ago (Rifkin 2000. p. 6).*

If private ownership of things is the defining characteristic of the present, mechanistic economic system, then access and utilisation is emerging as the ethos of network society. Under scrutiny, ownership is fast becoming a very expensive way of using goods and services, when compared with ‘access’ services that provide the same or better choices at vastly cheaper rates. For example, the average privately owned automobile lies idle for 95% of its life, and the costs of that privilege rise considerably when residential and commercial parking costs are factored. While there are always scenarios where ownership of a vehicle is the only way to ensure mobility, organisations like Ford are working with ride sharing companies like Uber and Lyft to put significant numbers of driverless cars on the road (by 2021) thus increasing the mobility options for those who cannot, or choose not to, own vehicles. More importantly, as ‘access’ offerings grow they are demonstrating that hyper-use of particular assets has a completely different cost and usage profile to that based on ownership.

The shift to hyperutilisation isn’t just confined to cars. It has already extended to spare residential space (Air BNB), underused office space (Liquidspace) and children’s toys (Rent that Toy). As more and more people experience access services, ownership of things as a status symbol diminishes. ‘Peak stuff’, or more properly, ‘peak consumerism’ has probably passed, as growing numbers realise (as they did in the 2008 Great Recession) that much of their so-called ownership is really built on unsustainable debt and that very little of what they now own has delivered the levels of happiness the advertising hype promised. As the English ‘consumer’ historian Trentmann has observed;

According to a number of recent commentators we are already living in the twilight of the empire of things. They announce the coming of ‘dematerialisation’ and ‘post-consumerism’, marked by a growing interest in experiences, emotions and services, a revival of repairing, and the spread of leasing initiatives and sharing networks enabled by the internet (Trentmann 2016. p. 682.)

To this must be added the idea of a sharing economy and ‘prosumerism’, where those who invest in the production of the goods also become the users. This trend has profound implications for the future of finance and also destabilises the entire supplier–buyer model upon which market economics and private ownership is built.

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**Figure 4. The shift from property ownership to hyperutilisation**

|                            | <i>Property Ownership</i>                         | <i>Hyperutilisation</i>   |
|----------------------------|---|---|
| <i>Accepted Wisdom</i>     | To use things when I want to I need to own things | All I need is access to things<br>The more ubiquitous they are the easier that is |
| <i>Structure Systems</i>   | Consumerism<br>Materialism                        | Post consumerism<br>Dematerialism   |
| <i>World View</i>          | What I own tells others about me                  | Who I connect with and how I connect defines me                                   |
| <i>Myth &amp; Metaphor</i> | Wealth and things make you happier                | Beyond subsistence there is no correlation between wealth and happiness           |

### From the Space of Place to the Space of Flows

*The most fundamental contradiction is emerging in our globalized, urbanized, networked world: it is constructed around the logic of the space of flows, people make their living in the space of places (Castells 2010, loc. 803).*

Form and shape are important markers of what we are and what we aspire to. They frame the way individuals and communities think about, talk about and use space, and they reference the social practices that are, or have been, undertaken in those particular spaces (Castells 2010, loc. 10336). So, just as in early industrial society the ‘mill by the water’ or the ‘town on the railway line’ circumscribed space and often designated surnames, today, the hub CBD’s, institutional edifices and suburbs do something similar. What is evident in ‘statements of space’ is that while ‘value’ and ‘location’ are closely linked ideas, what was (or is) perceived as value has dramatically changed, as our energy and communication technology infrastructures have reframed commonly accepted conceptions of time and space.

If, as many theorists argue and observable practice makes evident, network technologies change how we use spaces, while in many ways making people independent of having to ‘be’ in particular spaces (with Skype I don’t need to be at work for a meeting), then it may be concluded the ‘space of place’ which defined organisations twenty years ago is taking second place to the ‘space of flows’. Hence these ‘flows’ are creating a new taxonomy that will define our future economic, political and symbolic life and will have diverse effects on values that have until recently been solely developed by the space of place (Castells 2010, loc. 803).

The shift from ‘place’ to ‘flows’ changes dramatically what is benefit and who benefits. In the mechanistic ‘space of place’, benefit is principally captured by those who supply places, goods and services. However, in the world of networks, it is estimated that up to two thirds of the value generated through the ‘space of flows’ will be, and is being, captured by consumers or citizens, rather than by those organisations and institutions that have until now dominated power of supply (Dobbs, Manyika & Woetzel 2015, loc. 816). What this suggests is an incremental but transformative reshaping of the ‘space of places’ to those entities that understand how to capture value from the ‘space of flows’. A recent example of this reshaping is manifested in the development of co-working spaces, where highly flexible variations and terms for space are combined with careful design of how tenants act and interact with each other [flow] (Desai 2016). In the ‘space of flows’, the idea of co-locating with others of the same orientation has value that differs, depending on whether the community or commons being established is seeking to service a particular niche, multiple location abilities, synergistic partnerships or ‘beyond work’ relationships. Its emphasis, therefore, is in accommodating diversity not sameness, a construct that is mostly untrue in the siloed place model where space is organised around control. Thus it is contended that this ‘space of flow-places’ constitutes a completely different representation and qualification of value than that assessed through a location and ‘tenant security’ prism.

**Figure 5. A ‘Space of Flows’ Alternative Reality**

|                            | <i>Space of Place</i>   | <i>Space of Flows</i>  |
|----------------------------|---|--|
| <i>Accepted Wisdom</i>     | Socio-economic activity requires the 'right' space (location)               | Activity is framed by information flows and co-locating with the like minded                                 |
| <i>Structure Systems</i>   | The spaces we inhabit determine reality, socio-economic influence and power | As the physical and virtual blend into the other, reality is changing and value can be created in other ways |
| <i>World View</i>          | Value lies in occupancy/control of supply                                   | Value lies in connections and reach of network   |
| <i>Myth &amp; Metaphor</i> | The places I inhabit define me  | How I connect defines me   |

**Trust machines**

*The Blockchain (or its derivative Ethereum) is a new digital ledger of economic and other transactions that can be programmed to record (in real time) virtually everything of importance to humankind; birth and death certificates, marriage licenses, deeds and titles of ownership. Educational degrees, financial accounts, medical procedures, insurance claims, votes, provenance of food and anything else like IP that can be expressed in code (Tapscott & Tapscott 2016, p. 7).*

The Blockchain was originally developed to underpin (but should not be confused with) digital currencies like Bitcoin. It operates in a series of secured public ledgers where the transactions in question, once recorded in a series of ‘blocks’, are visible across all the internet devices interested in that particular series of transactions. These records are, as a result, held in a ‘distributed’ fashion rather than in a centralised repository. Further, because they are translated into a series of hashes (mathematically scrambled code) and they are then sequentially embedded into all other transactions of that same kind, no duplications are possible, mistakes are rejected (in other words the transaction doesn’t complete) and consequently they are both highly secure and almost completely unhackable, for to alter any one transaction would require the amendment of every other transaction, both before and since. This would not only require the power of several supercomputers, it would be in all probability far more expensive to achieve than whatever the object of the original hack was. It is for this reason that the Economist Magazine (2016) recently dubbed the Blockchain as ‘the trust machine’.

The Blockchain (mainly used for cryptocurrencies) or Ethereum (that is beginning to be used for everything else) will, within the next five years, rewrite the rules of most transactions. As Figure 7 illustrates, such is the pace of Ethereum development that it is likely there will be a wide variety of off the shelf applications within the next five years. As they come online, these will displace entities and/or people that acted as the third party conduit.

**Figure 6. Future growth of ‘Trust Machines’**

|   |   |  |
|---|---|--|
| Blockchain 1.0<br> | Decentralization of money and payments  | Major disruption to the role of banks and other trusted 3 <sup>rd</sup> parties  |
| Blockchain 2.0<br> | Decentralisation of markets for stocks and other exchanges<br>Transfer of other assets  | New methods of exchanging stocks, bonds, mortgages, titles and contracts   |
| Blockchain 3.0<br> | New governance & social contract models<br><br>New verification methods in science, health, learning, publishing, overseas aid and cultural artefacts | New voting, digital ID IP.<br><br>Participant controls own information. No more 3 <sup>rd</sup> party use of big data without permission |

**Table showing planned growth path for Ethereum and the Blockchain (Adapted from Swan, 2015).**

It is a mistake to think that this technology is some kind of fringe proposition. All of the large financial services organisations in Australia are considering how they might use it, and some have active trials. This includes ASIC who are already running Blockchain in parallel with their current systems. More recently (February 2016) the UAE formed a Global Blockchain Council (UAE Media-centre 2016). In May 2016 it announced pilot projects in areas as diverse as health records, securing the diamond trade, title transfer, business registration, digital wills, tourism engagement and shipping records. It is important to note that the underlying software cannot be owned in a monopolistic fashion. No longer will centralised and powerful entities simply commandeer this software for their own exclusive use. Indeed, it is more likely that advantage will go to vast collaborations of organisations who operate on widely differing scope and scale, but which have a shared ethos. Small niche providers of organics or Farmers Market providers, for instance, could access a shared transaction platform (currently in development), in the process availing themselves of levels of transaction cost presently only available to large supermarkets. Such is the design of the Blockchain that the parties to any particular transaction need only provide the data required for that transaction. Hence in very simple ways they can ensure (through virtual personal network software) that this data is used for only that and no other purpose. Ethereum, therefore, undermines the idea of a core or centre as a fundamental for organisation integrity, and also the concept that personal or transaction data can be used for any purposes other than for those transactions to which it was initially directed. As a ‘Trust Machine’ it has the capacity to constrain supply driven models of ‘big data’ normally used to benefit the supplier rather than the customer.

### **The Future of the Finance Sector**

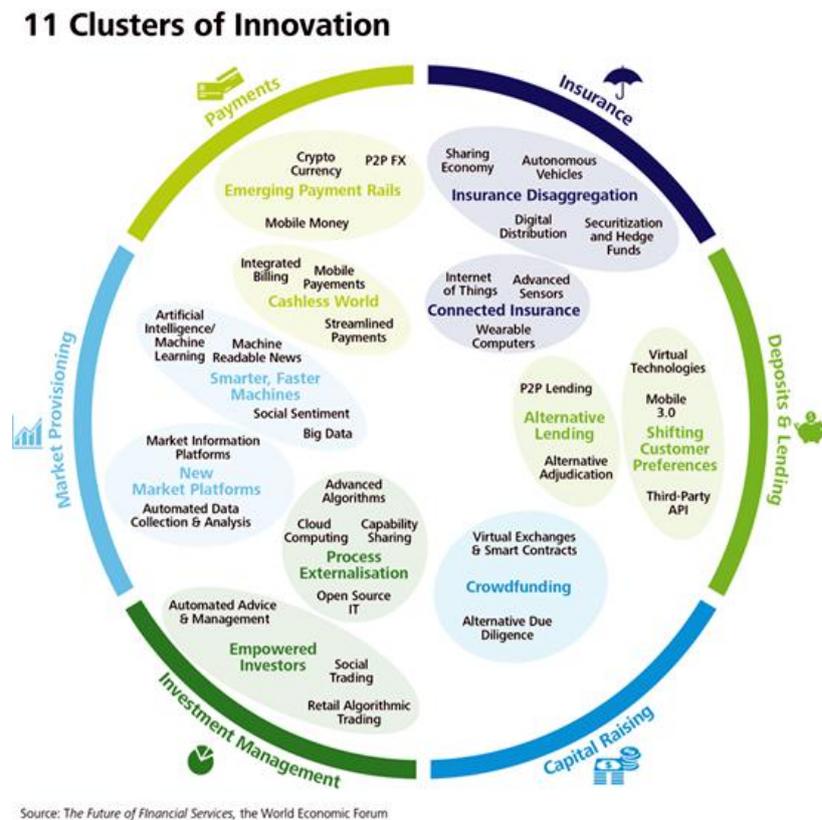
*The overall conclusion is that the market economy based on private property if left to itself contains powerful forces of convergence, associated in particular with the diffusion of knowledge and skills, but it also contains powerful forces of divergence which are potentially threatening to democratic societies and the values of social justice on which they are based (Piketty, 2014, p. 21).*

The concept of property valuation is intrinsically linked to the idea that property has financial value; in other words, property has individual title and is something to be bought and sold. However, if the conventional Australian view of property as a tradable asset is accepted as the starting point, any consideration of the future of property valuation needs to be considered in tandem with how the finance sector might evolve, given the role that financing has in the trading process.

While it is important to acknowledge that in the period since the 2008 Great Recession there has been a significant increase in the market power of the big four (pillar) banks, their continued and privileged

incumbency cannot necessarily be taken for granted by them, or others who might depend on it (Das 2016) They too are likely to be impacted by the same *disruptive innovation model* affecting the Valuation sector. A recent World Economic Forum Report noted that “innovation in financial services is likely to be deliberate and predictable and that these innovations will first emerge where the greatest source of customer friction meets the largest profit pools” (WEF 2015, p. 13).

Figure 7. 11 Clusters of Innovation: World Economic Forum, Future of Financial Services Report



However, another alternative is also developing, one that might be described as the ‘*Collaborative Economy model*’. This extends what is now called by some the sharing economy idea (which is really just part of the disruptive innovation model) to an idea that is beyond “property based markets and hierarchically organised firms” (Kostakis & Bauwens 2014, loc. 807) As confronting as it may seem, this proceeds from the premise that “the best of capitalism is over and for the rest it will be over in our lifetime” (Mason 2015, p. x.). While this may seem fanciful, the Commons model is in many ways just a socially distributed variant on the De Hock designed ‘Visa chaordic system’, that the banks now own. Unsurprisingly, there are already multiple examples of the Commons at work, and at scale. It is particularly evident in the information services sector with Linux being an early standout example (a commons based operating system that destroyed the market leader’s (Microsoft) proprietary operating system). When considered together, there are therefore two kinds of disruption at play at the same time, with each having the potential to mask the impact of the other. However, whatever the outcome both (or either) suggest that business as usual is unlikely to continue as the de facto reality. The WEF concludes that “while the most imminent effects will be felt in the banking sector

the greatest impact of the disruption is likely to be felt in the insurance sector” (WEF 2015, p. 13) This will come through:

[T]he adoption of business models that are platform based, data intensive and capital light. [Further these] disruptions will not be one-time event, rather a continuous pressure to innovate that will shape customer behaviour, business and the long term structure of the financial services industry (ibid).

Seen through this prism, it is reasonable to assume that the nature of the relationship between Financial Services and Valuers will be re-examined at a fundamental level in the same way that will impact every other part of Financial Services.

**Figure 8. A Comparison of Financial Models**

|                            | <i>Conventional Finance</i>   | <i>Disruptive Innovation</i>   | <i>Collaborative (Post Capitalist)</i>   |
|----------------------------|---|--|--|
| <i>Accepted Wisdom</i>     | The FS is integral to and necessary for profit maximisation                                 | Disruptive technologies will allow innovation that embeds FS in every aspect of socio-economic activity            | Current system is unsustainable and inaccessible to many.                              |
| <i>Structure Systems</i>   | FS systems are both technological and personal - designed to serve markets and shareholders | Present FS models are replaced by platform based service offerings that will better serve markets and shareholders | Commons and P2P models allow for other forms of economic activity                      |
| <i>World View</i>          | Neoliberalism and uncontrolled markets best route to prosperity                             | Next generation technology will create ecosystems that are effective drivers of wealth creation *                  | Technology by itself will not save us - a new post capitalist system must be developed |
| <i>Myth &amp; Metaphor</i> | Accumulation and strong activity creates prosperous societies                               | There is no other model  | The current system is broken and it cannot adapt to what is required                   |

\* K. Schwab, *The Fourth Industrial Revolution*, p 112

**Comparative table of Conventional Finance with WEF Disruptive Innovation and Post Capitalist Models**

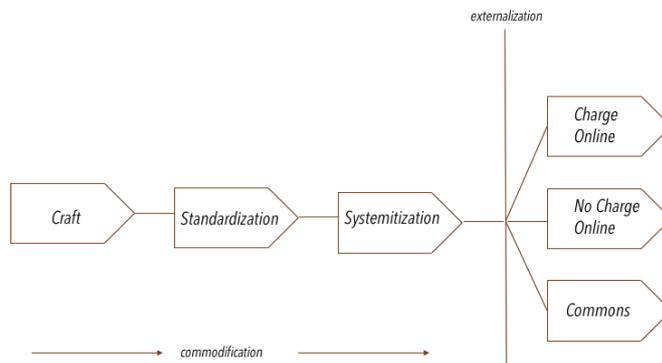
**The Future of Professional Work**

*While we do not anticipate an overnight big-bang revolution, equally we do not expect a leisurely evolutionary progression into the post-professional society. Instead we predict what we call ‘incremental transformation’ in the way we organise and share expertise in society (Susskind & Susskind 2015, p. 231).*

The Blockchain is just one instance where either robotics or algorithms are intruding upon, even replacing routine and analytical work, be it manual, clerical or middle management. Most of the professions are not, and will not be, exempt from this process, and Susskind and Susskind describe it as an incremental transformation in the making (ibid p. 2). Their argument rests on three premises; firstly that the democratisation of knowledge has undermined the tacit social contract upon which the craft of professions were initially established. Their second premise (commodification) suggests that the aggregation of professionals into large firms has led to levels of standardisation and systemisation that enable many parts of those standardisations to be carried out by para-professionals (and algorithms over time). Finally, their third (externalization) premise looks at how the professions disaggregate when their roles are externalised in an online and networked world.

In considering this divergence, they explore the counter arguments of trust, professional norms, personal relationships, empathy, and the investment in expertise that are frequently used by particular groups to rebut even the possibility that their profession might change when faced with these contentions. In general, these counter counter-arguments show that the fundamental premises for maintaining the professional advantage cannot be sustained with respect to the majority of work professionals undertake in their day to day practice.

**Figure 9. Susskind and Susskind Incremental Transformation of Professions (2015, p.197)**



The Susskinds posit that the traditional, and often explicit, social contract between professions and the public rests on an *implicit social contract*. This contract suggests that as recognition of the extraordinary knowledge of great importance in a particular field that a professional has demonstrated, they have a mandate for social control in that specialisation. Further, they have autonomy in the management of that specialisation and a license to determine who shall assume the mantle of professional authority, or as it is sometimes known, accreditation. Clearly, as the access to knowledge has democratised through the internet, the gap between what is known to the educated and interested observer and the professional has diminished. Like many other kinds of knowledge, the ‘extraordinary’ has become ‘ordinary’, and technological in its orientation. As a consequence, the implicit social contract is disappearing, particularly on those occasions when those same professionals who seek to maintain their advantage outsource many of their functions (sometimes with oversight) to those who are not professionals. This use of ‘para professionals’ lowers costs and is particularly prevalent when the services of professionals are aggregated into large firms. Concurrently an increasing number of professional services are being made available through the internet, either for free or at vastly reduced rates, further undermining the sense of social contract (professional dentistry in Singapore v the same in Australia, or accounting functions undertaken in the Philippines for instance). The consequence of all these factors is that the ‘craft of the professional’ is reduced to a rump. This rump is so highly specialised or knowledgeable in a particular form of practice that what they offer it is not considered practicable to include in aggregations of increasingly standardised, technological, professional practice.

This consideration of the future role of the professional needs to sit within the wider future of work context, in a time where higher education systems driven by output metrics are producing as many graduates as possible. The breaking of the link between any sense of supply and demand seems to be occurring in every sphere without any consideration of the evolving skill sets required by any given professional in a networked society. As traditional avenues to work are increasingly unavailable to these graduates, they are turning to social enterprises. In many instances these enterprises are creating integrated propositions outside of the traditional silos (e.g. architects, social workers and journalists working together to produce low cost housing propositions), where the value per owner/employee is many thousands of times that which is considered the norm in a traditional enterprise. Unsurprisingly, these alternative enterprises are both diverging and disaggregating the standard ‘industry’ models that most professions have used as a barrier to entry. As a consequence, the social contracts upon which the professions have relied are making even less sense and are certainly less relevant than was previously the case.

**Figure 10. Alternative professional reality model in a networked world**

|                            | <i>The professional of today</i>  | <i>The professional of tomorrow</i>   |
|----------------------------|---|---|
| <i>Accepted Wisdom</i>     | Professionals are valued and have unique skills and knowledge   | Most professional work is commodified and externalised  |
| <i>Structure Systems</i>   | Professional bodies will control standards and protect role   | Standards are being built into algorithms and customers can get advice online or in the Commons     |
| <i>World View</i>          | Professionals are trusted 3 <sup>rd</sup> parties who always add value                                | Only occasionally is a trusted physical 3 <sup>rd</sup> party required otherwise no value is added. |
| <i>Myth &amp; Metaphor</i> | The professional role is specialist and based on deeply embedded and mostly implicit social contracts | The future requires a blend and integration of knowledge not protection of self interest            |

### Membership and Belonging

One of the key ways that professions have managed to protect their status is through controlling ‘barriers to entry’. They normally achieve this through the establishment of organisations whose status is sometimes protected by legislation or regulation. Thus membership, in its traditional definition, is linked to both status and reputation. It can be seen as a space or place, or network that provides an opportunity to gain or sell influence “for people that would otherwise lead more limited lives” (Castells 2010, loc. 9151). In the history of prestigious organisations, election to membership (say of the Royal Society) or ascension to the position of ‘office holder’ was seen as the pinnacle of one’s career and a statement of respect by one’s peers. However, now almost ubiquitous connectedness is redefining both our understanding of what it means to network and what it means to belong. This reconception is not just about the capacity to create connections or circles of influence, it is also about the availability of robust and transparent ways to assess reputation together with high levels of versatility (the capacity to rapidly change) that modern networks exhibit in contrast to the constitutionally bound organisations of yesteryear. In sum, membership as an idea is being redefined.

One counter is that with professional membership based organisations there is a need to verify good standing and manage reputation. This might be described as the protection of ‘global trust values’. Perhaps surprisingly these trust values are as important or perhaps even more important in networks where the relative anonymity of the participants, some of whom may have malicious intent, is possible. In fact “it has been suggested that the future development of P2P systems will depend largely on the availability of novel methods for ensuring that peers obtain reliable information on the quality of the resources they are receiving” (Schlosser, Kamvar & Garcia-Molia 2003). While in transactions this ‘reputation indexing’ can be obviated by the nature of the system itself (Ethereum), or in the interactions between physical entities through the embedding of algorithms based on Promise Theory (Burgess & Bergstra 2014), other more specific algorithms are required for network and commons interactions. In the work of Kamvar et al. (2003), their view is that such algorithms should be self-policing, protecting of anonymity, providing no (extra) benefit to newcomers (thus incentivising and encouraging consistent behaviour by group members) and be robust to the malicious activities of peers. These ‘reputation indexes’ now form a vital and dynamic part of commons communities like Kickstarter (crowd funding), Freelancer (marketplace for information services) and Trip advisor (travel experiences). With their dashboard-like reporting, they aggregate nuanced feedback in transparent ways that would previously have been unobtainable. This user-centric reputation management is challenging to ‘professional’ membership based organisations, who with their concern to ‘protect’ members

seem unable or unwilling to provide a similar offering. Reputation indexing is now establishing new base lines for transparency and information that consumers and communities are increasingly creating when those that should create them don't (comparative Insurance offering sites is a useful example). They can even use these system dynamics to experiment, to refine what is required. In short it provides levels of versatility that conventional organisations struggle to imitate, but that they will need to adopt if they are to survive.

**Figure 11. The Reconcepting of Belonging**

|                            | <i>The Membership organisation</i>                              | <i>Networked clusters</i>   |
|----------------------------|---|---|
| <i>Accepted Wisdom</i>     | Established to verify, protect and Promote interests of members | Link together to create shared value among those who are invited to participate |
| <i>Structure Systems</i>   | Constitutionalist structures Place based 'chapters'.            | Commons and P2P virtual (open or closed) clusters                               |
| <i>World View</i>          | Belonging provides benefits, status and influence               | Participation grows shared knowledge and opportunity                            |
| <i>Myth &amp; Metaphor</i> | Exclusivity is Value  | Inclusivity creates value   |

**Articulating Uncertainty**

This paper has introduced eight key ideas about how the external context for the property sector will change in a post-industrial age. It argues that the early indicators of all these changes are evident now, and that their effect and impacts will accelerate over the next decade. Consistent with the logic of 'big system interrelatedness' and the reframing of time, form and shape occasioned by a revolution in network technologies, it suggests that very little of what we now define as successful will stay the same. If it does, it may well be through an artifice that goes against the logic the changing context demands. It also contends that many of the effects will come about through the way that these shifts and others act, and interact, with each other. As such the most important changes may well lie between the shifts identified here rather than in any particular location.

While emphasising that the purpose of this paper has been to explore 'what ifs' rather than predictions, our suggestion is that attention should focus on naming and understanding key uncertainties that will, if they come to pass, have a profound effect. This search to understand which of the many will have the most impact is now central to many strategic conversations in organisations and sectors across the globe. However, this is an exercise that should be undertaken with care. Having then reached some consensus on what those uncertainties are, the next step is to understand the nature of the option spaces in which solutions might be found. If this is done in a concentrated way then, not only will threats be obviated, but opportunities may well emerge that would hitherto have remained hidden. The consequence will be a new diversity of activity among those who realise that now is not a time to have a crisis of imagination, and that what is at stake is a better understanding of what it means to be human.

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## References

- Bergstra, J & Burgess, M 2014, *Promise Theory: Principles and Applications*, XtAxis Press, Oslo, Norway.
- Castells, M 2010, *The Rise of The Network Society The Information Age : Economy, Society, and Culture*, 2<sup>nd</sup> Edn, Wiley-Blackwell, Chichester, West Sussex; Malden, MA.
- Dator, J 2014, "'New beginnings" within a new normal for the four futures', *Foresight*, Vol. 16, No. 6, pp. 496-511.
- Dobbs, R, Manyika, J & Woetzel, J 2015, *No Ordinary Disruption*, Public Affairs.
- Trentmann, F 2016, *Empire of things : how we became a world of consumers, from the fifteenth century to the twenty-first*, Penguin Random House, UK.
- Inayatullah, S 2005/07, 'Causal Layered Analysis - Deepening the Future' in S Inayatullah, *Questioning the future: Methods and Tools for organizational and societal transformation*, Tamkang University Press, Tamsui.
- Kamvar, S, Schlosser, M & Garcia-Molia H 2003, 'The EigenTrust Algorithm for Reputation Management in P2P Networks', *WWW2003*, Stanford University, Budapest, Hungary.
- Kostakis, V & Bauwens, M 2014, *Network society and future scenarios for a collaborative economy*, Palgrave pivot, Palgrave Macmillan, Basingstoke.
- Mason, P 2015, *Postcapitalism: A Guide to Our Future*, Penguin, London.
- Piketty, T & Goldhammer, A (Translator) 2014, *Capital in the twenty-first century*, Harvard University Press, Cambridge, Massachusetts.
- Rifkin, J 2000, *The Age of Access: The New Culture of Hypercapitalism, Where All of Life is a Paid-for Experience*, J.P. Tarcher/Putnam, New York.
- Rifkin, J 2011, *The Third Industrial Revolution : How Lateral Power is Transforming Energy, the Economy, and the World*, Palgrave Macmillan, New York.
- Rifkin J, 2014, *The Zero Marginal Cost Society: The Internet of Things, The Collaborative Commons, and The Eclipse of Capitalism*, Palgrave Macmillan, New York.
- Rockstrom, J et al. 2009, 'A safe operating space for humanity', *Nature*, Vol. 461, No. 7263, pp.472-5.
- Sardar, Z 2015, 'Postnormal times revisited', *Futures*, Vol. 67, pp. 26-39.
- Susskind, R & Susskind, D 2015, *The future of the professions: how technology will transform the work of human experts*, Oxford University Press, Oxford.
- Swan, M 2015, *Blockchain: blueprint for a new economy*, 1st edn, O'Reilly, Beijing Sebastopol, CA.
- Tapscott, D & Tapscott, A 2016, *Blockchain revolution: how the technology behind bitcoin is changing money, business, and the world*, Portfolio/Penguin, New York.
- Taylor, G 2008, *Evolution's edge: the coming collapse and transformation of our world*, New Society Publishers, Gabriola Island, B.C.
- Wajcman, J 2015, *Pressed for time; the acceleration of life in digital capitalism*, The University of Chicago Press, Chicago.