Stephen Alexander

CREATING VALUE IN AN INTERCONNECTED WORLD

Ningaloo Foundation Initiative

The Exmouth regional virtual innovation and digital incubator

Establishing Exmouth as an exemplifier of applying the power, capability and value of digital, to make our regions more affordable for people to live, learn & work in, business to operate & excel in, industry to invest in & governments to function & provide their services.

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Identifying dynamics, generating value and delivering measurable outcomes

Many regions across Australia are facing unprecedented challenges from the wide-ranging implications of people, organisations and industries applying digital technologies to existing infrastructure, workplace practices and the delivery of core services that underpin regional stability.

However, these changes are relatively minor and superficial when compared with the consequences to the regions from the emerging disruption tipping points of going digital that will, for some, challenge their ability to prosper or even to survive a global digitally based economy.

We are fast experiencing the impact of everything becoming interconnected with intelligent sensors embedded in every device, vehicle and type of infrastructure, accelerating entire industries towards even greater automation driven by cost efficiencies and the rationalisation of market sectors where, for example, the mining industry has already automated on-site vehicles, plant processing and is now turning its attention to both heavy vehicle and rail automation.

According to a report from Oxford University, the consequences of this trend will impact almost all job roles today resulting in the loss of up to 45% jobs and more recently, leading commentators McKinsey have reported that 30% of the payroll from 60% of all job roles will disappear in Australia, with a higher percentage in our regions. Some hope has been offered by other commentators with reassurances that historically new job types have replaced redundancies as a consequence of automaton. However, to date no meaningful or credible evidence has been offered to explain what these new roles will be, if they will match the payroll gap or if they will be generated in time to avoid adversely impacting our regions.

One of the distinguishing characteristics of this regional wicked problem is that the highly skilled jobs as well as very low skills employees will be less impacted than the middle skilled workforce where rule based and repetitive tasks will be eliminated first. This is why underdeveloped and rural regions will experience a tipping point of disruption first. The World Bank data estimates 69% of today's jobs in India are threatened by automation and China is estimated to be 77% with other developing countries also scoring high on the disruption scale. Its worth noting that many low-level computer programming tasks will be replaced by artificial intelligence in India so this may not be the solution for our kids as promoted by some education experts.

Interestingly, non-affordability can be viewed as the root cause of many of the recognised sustainability problems and will be used as a benchmark by the Ningaloo Foundation to measure

the meaningful and verifiable value of each initiative to each organisation and actor in order to determine if it could work in Exmouth and be replicated in other regions.

This unique value mapping approach uses a wide range of recognised mega-trends and global drivers to identify the tipping points of non-affordability and will help to make what is needed apparent for the regions to make the required transformation journey from the perspective of individuals, families, communities, small business, industry, government, and even inward investment models. For example, when we calculate together the cost of household bills, including energy, water, communications, transport, insurance, food and the growing health gap payments, the true picture of the stress points emerges. Furthermore, when the affordability question is raised from a Federal, State and regional government service delivery perspective and also factored into the equation then the systems thinking perspective clearly indicates that simply optimising existing models will not stem the tide of non-affordability or attract inward investment.

This is even more pronounced when factoring in the trend by multinationals to pay less tax to sovereign states as they gain more control of industry, services and supply chains in each region. For example, as global players start to dominate the retail sector in regional Australia the impact for local retailers, who today operate on very tight profit margins, will be harsh as will the effect on producers and manufacturing if they find themselves locked out of the supply chain. The same outcome of non-affordability will apply to professional services and contractors as market rates shift towards a global rate of pay based on the lowest market offering.

In acknowledging all this, we can begin to recognise that the digital economy is a double-edged sword with an opportunity at each tipping point of pain. So if the preconditions for a region's success exist at each waypoint of their transformational journey then the odds can shift in favour for our regions to excel. For example, if the Exmouth region could acquire electricity at the same wholesale rate enjoyed in India via new technologies of a rate at ½ a cent per KWH, then the value contribution to the cost of living would be immense and if, through the use of a well governed digital mesh, the region could leverage this synergistic value to water, transport and say communications to reduce the regional productivity costs then this would, in turn, alleviate the affordability pain to more parties at each waypoint of a region's journey.

The objective of the Ningaloo Foundation initiative is to discover, define and prove the tipping point of affordability for each critical party though the intelligent application of digital technologies to optimise existing infrastructure and services, create new innovative ways to reduce cost and improve efficiencies as well as develop digital oriented assets that can generate new types of revenues and market capitalisation opportunities.

By establishing the Exmouth region as a virtual innovation and digital incubator it can become an exemplifier of applying the power, capability and value of digital to make our regions more affordable for people to live, learn and work in, businesses to operate and excel in, industry to invest in and governments to function and provide their services.

Our central value proposition of delivering more verifiable value outcomes with less cost or risk will be attractive for both the public and private sectors who need to discover and prove if a new approach to regional sustainability can actually work prior to any large-scale investment in infrastructure, service delivery or product development.

To date we have generated sufficient interest to move forward from both the State Government Emergency Services (DFES), who wish to develop and test emerging block chain technologies and digital governance frameworks to optimise service delivery and unlock regional assets to better cope with emergencies, along with interest and support from the private

sector, in particular, from ConsenSys.net who are the most advanced thought leaders in the development of open protocol based tools, digital governance and digital value creation.

This value can then be captured via digital tokens to enable token-powered economic growth, consumer protection and social cohesion to underpin regional economies in a manner that builds capability, capacity and resilience to both human made and natural shocks. For example, a partnership with ConsenSys will not only assist regions to restore trust between people and institutions by harmonising existing compliance with the new forms of digital transactions, but it will also be possible to mechanise the levels and types of trust that exist today. This capability will be established in the first project by the granting of informed consent via a digital Smart Contract. This, in turn, lays down the foundation of the capturing of the value generated via trusted relationships though the use of a digital token exchange where value can be bartered, swapped or even sold within the context of the regional governance rules which will form part of Smart Contract conditions. In addition to the various legal, business rules, or standards, we will employ a set of overarching principles that can reinforce the unique Australian regional culture that will enable greater self-determination as well as more collaboration with regions around the world.

The first waypoint project will establish the use of a digital smart contract that will enable an individual to assign permission to an authority established by the Deputy Commissioner of Emergency Services to access digital devices, systems, data and infrastructure via an informed consent certificate. This would greatly assist each organisation and the local actors to do more with less resources especially with the use of a regional token exchange that would mimic what occurs more informally today but to greater effect. But more importantly DFES will seek to address the growing affordability gap of the centralised emergency service delivery model by unlocking local resources of both the physical and digital assets via a digital token exchange.

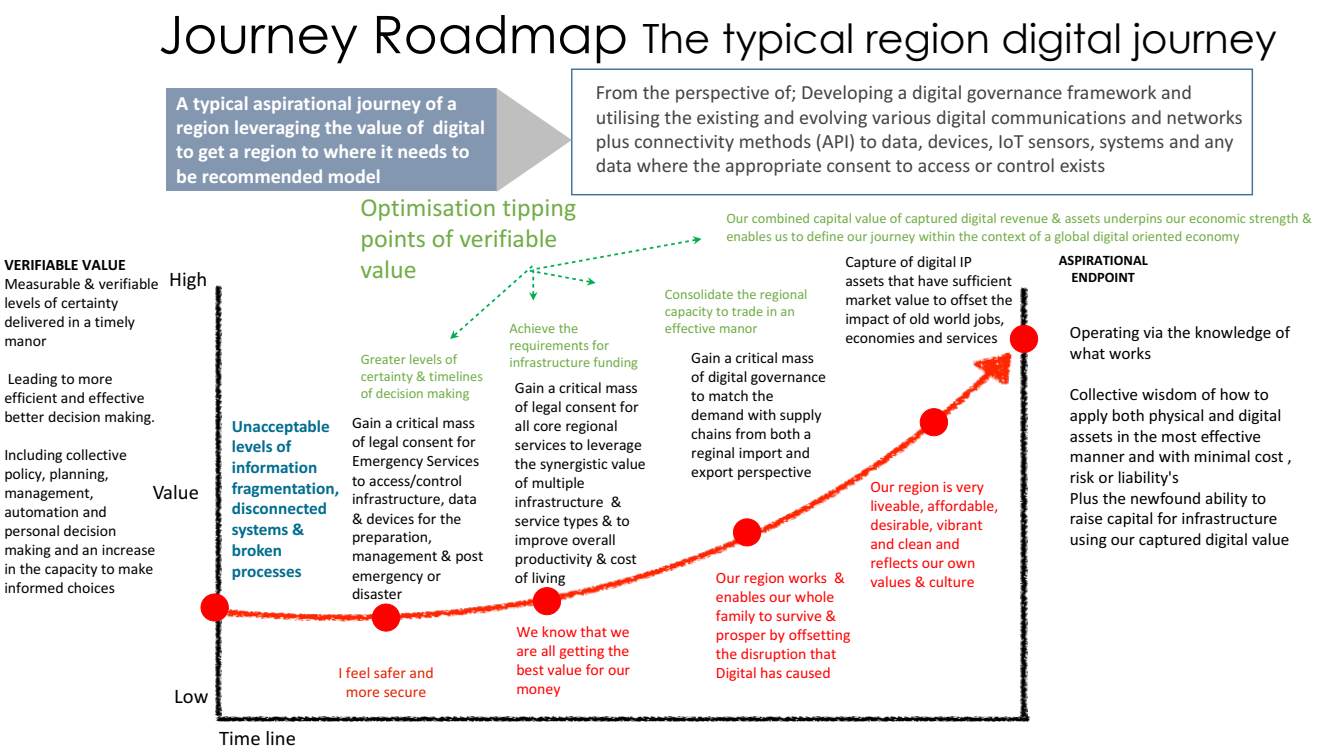
This outcome will drive the aspirational journey towards the creation of a blockchain based governance framework that would enable any smart city or region to reduce the risk and liabilities of its digital environment using a compliance benchmark of non-repudiation. As with say banking or stock exchanges today, each party agrees to all of the rules required to enable the full automation of transactions as a condition of engagement.

The intention would be to share the model with regions around the world and, where applicable, commercialise some of the know-how and evidence of what has worked to optimise an entire region along with the evidence of savings to each role and organisation.

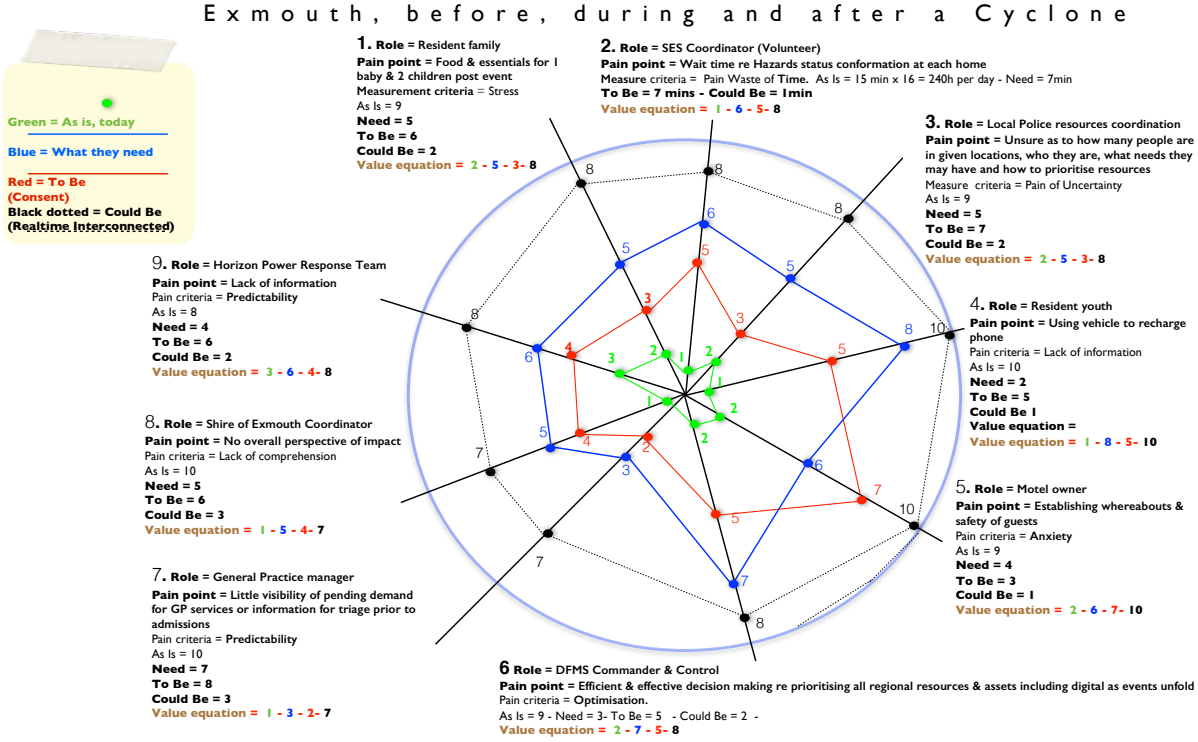
The opportunity also exists to partner with ConsenSys to help develop each successful initiative that has potential to be a global business as well as leveraging their extensive academic knowledgebase and developments that promises to “[will] be the source for everything you need to stay in the know”. The recommendation is that ConsenSys become a founding member of the Ningaloo Foundation along with Minderoo Foundation on behalf of Andrew Forrest. www.minderoo.com.au

Joseph Lubin, the founder of ConsenSys, recently articulated the mission which corresponds with the aspirations of the Ningaloo Foundation and translates them in to practical outcomes. He told an audience in London the mission is “to create systems that enable humanity to move with a shared purpose, our work allows value to flow seamlessly across networks of people, distributing abundance throughout the many, rather than concentrating among the few. We envision a world blooming with plurality and bound together by consensus. One where we are all free to realise the highest expression of human potential.”

The following road map illustrates the stages of the initiative which also matches the way-points of the typical transitional journey of a region including the optimisation of emergency services, core infrastructure and utility services, demand and supply chains and the creation of digitally based assets.



This map illustrates what the pain reduction and value generation would be to a range of actors in a day in the life of scenario relating to an emergency event in Exmouth.



This map demonstrates where the initial DFES initiative journey will go

Journey Roadmap

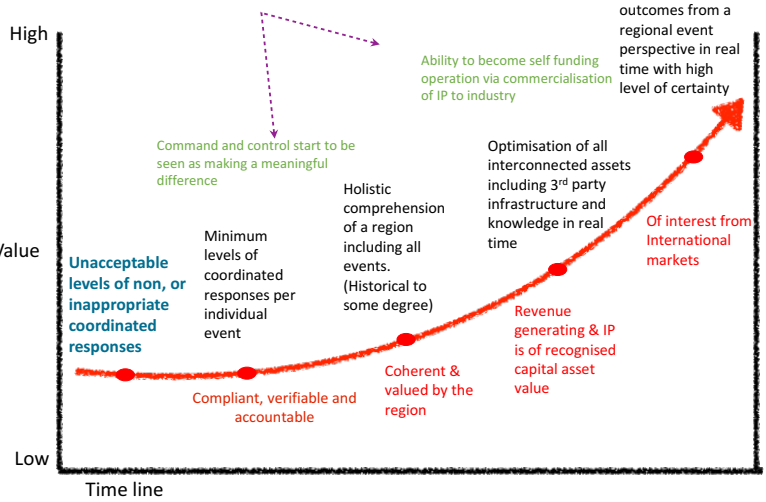
A typical perspective of the aspirational journey from the emergency services fraternity

From the perspective - Interconnecting the demand and supply of Information with reference to emergency events, generating knowledge, optimising service delivery and generating public value through

VERIFIABLE VALUE
Measurable & verifiable levels of certainty delivered in a timely manor

Leading to increased better decision making.

Including policy, planning, event management & automation



ASPIRATIONAL ENDPOINT

Operating via the knowledge of what works

Collective wisdom of how to apply both physical and electronic assets in the most effective manner and with minimal cost and risk