

Senate Submission

Financial Technology and Regulatory Technology

FinTech & RegTech incorporates; Identity Frameworks, Artificial Intelligence, Payment, credentials, verifiable claims and related economic instruments; and the manner through which regulation / law will be formatted into machine readable (ai consumable) formats.

Author: Timothy Charles Holborn, Australian.

Submission Document Date: 11th February 2020

Disclaimer:

This document has been produced in an effort to address an array of highly-sophisticated and interwoven considerations; in a very short period of time (comparatively) with few resources.

Mistakes, grammatical errors and other features in this submission should be considered a 'best efforts draft'. The underlying body of work has been carried out from 2000-2020 by myself with others overtime.

I make this submission as a natural legal entity, an Australian civilian, a citizen - who has an ABN¹.

I have made use of the role thereby linked to the authorship of my submission in a manner that many who do so on behalf of organisations, institutions and related stakeholders - would not be appropriately able to do.

In my journeys I have had many unofficially say to me they agree; but then also say they cannot say anything because they may lose their jobs. Your enquiries could evaluate whether and/or how these sorts of consequential phenomena may be shown to exist, and if so what influence it may subsequently have upon your means to make decisions to take care of the needs of Citizens.

I note also, the audience is not simply the senate committee. This document becomes part of what is made to be discoverable via search, and I've tried to ensure it's 'fit for purpose' for public consumption.

I asked Noam Chomsky about his work on moral grammar, in relation to my work on AI; He responded,

Noam Chomsky

3 Apr 2018, 04:57

Timothy Holborn

The fact that there are pressures and costs does not absolve people of their moral responsibility. The primary custodian of one's actions is oneself.

I responded to Noam, with a note about the importance of 'sense-making', as to understanding upon what basis a persons actions are in-turn informed as to provide an consequential opportunity for good decision making.

Upon that same basis, as does in-turn form an interference pattern relations with me; I hope this helps.

¹ https://en.wikipedia.org/wiki/Australian_Company_Number#Progression_to_ABN

By: Timothy Charles Holborn

INDEX

Part 1: Executive Summary	3
"Human Centric" Augmentation of our Cyber Infrastructure Offerings	9
Part 2: Introductions	11
Enquiries	13
Implications	14
Technological socio-economic method	14
Technical Capacities of 'semantic web' ecosystem tooling	20
Implications relating to 'secure 'AI enabled' 'digital twin' hosting services' (knowledge bank accounts)	22
Human Factors and AI	25
Part 3: 'Knowledge Banking' EcoSystems	26
What is a Knowledge Bank?	26
Knowledge Banking Ecosystems	27
Human Centric - AI & AI Agency	28
'Knowledge Banking' app ecosystems	29
App 'safety' Verifications	29
Verifiable Claims & Credentials	30
Socio-Technical considerations	31
'Artificial Intelligence'	31
'Permissive Commons'	32
Economic Instruments	32
The Trust Factory - An Options Statement	32
Infrastructure Alliance - Project Partnership Structure	35
Technical Approach	36
Societal Approach	36
Part 4: Governmental Considerations	37
Importance of Governmental 'ecosystems' roles	40
Regulatory Opportunities?	40
Electoral representation	43
Rule of Law	44
Australian Government - Linked Data Working Group (AGLDWG)	47
Credentials, Government Entities and "Permissive Commons"	48
'Code as Law'	49
Rule of Law: What it is we need to maintain for Liberalised Democracies	50
Part 5: Response to Questions in issues paper	53
Response to Questions raised in FinTech Issues Paper	53
Part 6: Globally Shared Considerations	73
Biosphere Sustainability	73
International Considerations	74
The importance of 'sense making' for defensible FinTech/RegTech Ecosystems	75
Defining rationale for a future built upon Solid Foundations	76
Ideological considerations	77
Part 7: Summaries	78
The Big Win; what I've learned	80
Digital Identity Ecosystems	83
Closing Notes	86

By: Timothy Charles Holborn

Part 1: Executive Summary

In responding to this request for a submission with what could be characterised as 'thought ware' about the governance of FinTech & RegTech; I am concerned about the nature in which this very important topic has seemingly been radically oversimplified; yet, I also understand the rationale to why this may have occurred

- More and more pervasive business systems - that now act to support an informatics ecology; that features an array of;
 - Particular traits; and therein;
 - Problems that are very difficult to address - succinctly; and that;
- The basis upon which I seek to provide an opportunity to consider how, our parliamentary representatives of Australians; could productively consider less well known alternatives is predicated upon;
 - An awareness of the sophisticated traits of a complex technology ecosystem defined more broadly in association to the term 'semantic web'; and;
 - Economic considerations that could not otherwise be justified if the technical tooling to deliver an alternative modality for information systems did not exist; or was materially immature and not able to be depended upon.

The greatest concern, that I am hopeful will resonate; is that there is a quite different, multi-jurisdictional opportunity to form a vision about how our society, and that of others; will support Artificial Intelligence, IoT and Human Identity. There is a quote attributed to John Culkin (1967):

"We shape our tools and, thereafter, our tools shape us."

The way we are 'officially' forming our 'tools' today; seeks application upon 'citizens', as consumers.

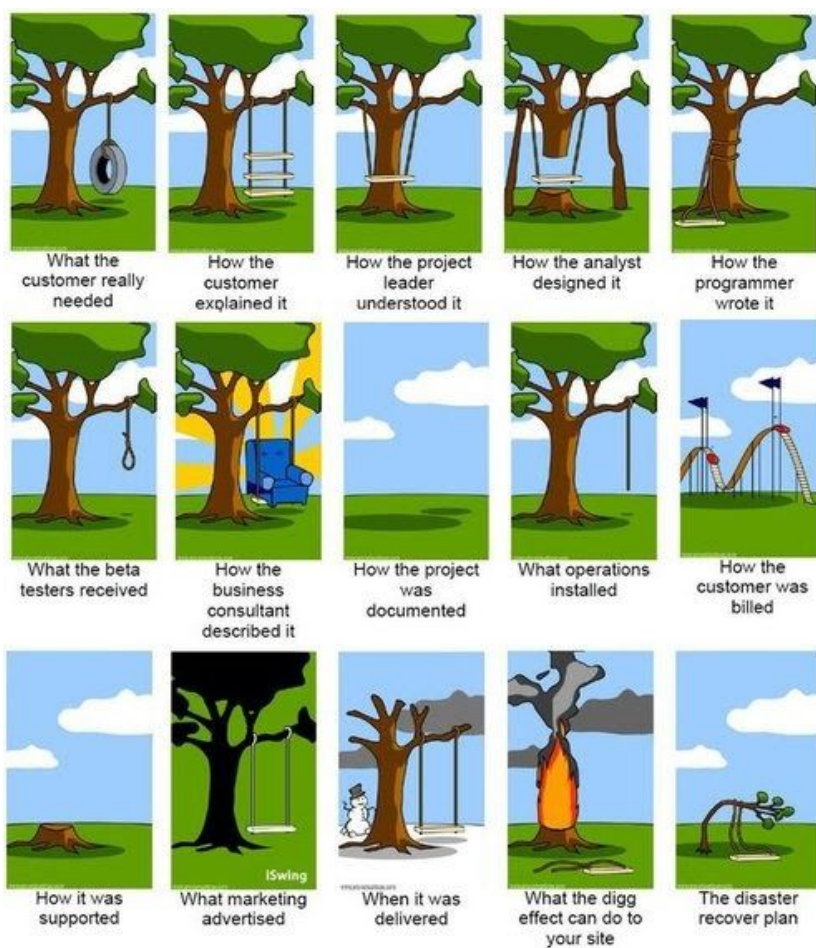
I believe we must build infrastructure that works in a different way. In-order to do so, support for provisioning that infrastructure requires governmental support, at an ecosystems level.

There is a lack of social infrastructure that may otherwise better inform the philosophical design requirements of cyber-infrastructure that results in outcomes that have a meaningful effect upon societies via various means, including AI. In all projects there are an array of different types of participants; such as legal, accounting, government, governance and administrative professionals; which may in-turn support an array of workers for some sort of project. Most industries have very old practices that form part of our common knowledge, which is moreover part of how our society has developed from before the industrial era; and through that time. Yet these concepts are not directly transposable to cyber related knowledge industries & societal changes which is in-turn inherently confronted by a lack of lexicology and other social infrastructure factors. Recently the term 'digital twin' emerged, which is in-turn enormously useful for engaging with others on matters relating to 'digital identity'. Yet, the broad-ranging implications for the broad-scale lack of investment in these sorts of areas, results in an outcome where it becomes very difficult to explain many concept topics in an accessible format; often also impossible to do so easily.

As an analogy to describe this problem in another way; If I use the term 'milk', most people in Australia would assume it relates to 'cow milk', in other regions it may be more commonly inferred to mean goat milk, and in a maternity ward when the term is used by nurses with respect to patients, something else.

If I use the term, 'address book', most people whose roles are as decision makers will think of a physical book, with a list of contact details in it. Younger people may think about their smartphone. Yet with Cyber infrastructure policies - how are the qualities of 'address books' in LinkedIn or Facebook considered? there is an array of implications brought about if someone chooses to leave those platforms; and in-turn, the infrastructure is now at a different time; many people today work with others elsewhere, in a manner that was not affordable, practical or indeed even possible prior to the rapid functional growth of cyber.

By: Timothy Charles Holborn



When this problem is applied to 'projects', the following metaphor encapsulated by the (aside) image² that may help easily confer share 'sense making' of the problem.

The current ecosystem that is applied as a result of longer-term societal developments from the industrial era are now considered 'most easily' applied to cyber.

The implication of the sorts of decisions raised by the enquiry have an array of qualities that are very different to the impactful consequences decisions had; on industrial era workforces.

Consequently, there is even a problem in trying to easily communicate; in a defensible manner, the very important qualities these sorts of policy driven works need to consider; as to support the interests of Australians.

These problems are systemic in nature and need to be addressed.

There is both a need, and a clear and viable opportunity, to reconsider how it is that we are defining our cyber-physical infrastructure in an impactful manner for 'sense making'. Doing so forms impactful derivative effects upon the productivity capabilities of our society; both independently, and as a valued participant in global socio-economic ecosystems. I call this method a knowledge banking industry.

There is an International Opportunity to engage in Cyber-Infrastructure building; via a cooperative values based alliance that could in-turn act vastly to improve productivity.

This belief is built upon a position of having developed an array of derivative insights, after having undertaken an enormous amount of work over two decades. As a consequence of having done such a large volume of work in this area; an array of experiences therein over time; whilst seeking to solve a systemic and foundational information systems problems; that causes 'ripple effects' across society.

The idea of a what I first called an 'ibank'³ (information bank) back in 2000, is now comparatively, highly evolved reinforcing the concerns and underlying considerations that were made since that time. The circumstances were quite different from those upon which I write to you today.

In 2020, the tooling and methodology is now associated to an entire embodiment of underlying open-standards definitions; whereby constituent apparatus is now being deployed world-wide; whilst it is even the case that the inventor of the world-wide-web is today working on a related project, Solid⁴, as to bring about the existence of infrastructure outcomes; that we've worked to define over many years.

Whilst projects such as Solid do not presently demonstrate the entire embodiment of my ecosystems solution; a useful concept that may simplify considerations both with RegTech/FinTech and its potential for application with respect to 'digital twins', innovation and the nature of invention is fairly well

² Image source: <http://evansheline.com/2010/10/differing-views-on-a-project/>

³ <https://web.archive.org/web/20190312002734/https://sailingdigital.com/iBank.html>

⁴ <https://www.youtube.com/watch?v=gZB6d-4klmU>

By: Timothy Charles Holborn

communicated by Thomas Thwaites in his Ted-talk - 'how I built a toaster'⁵; whereby the demonstrated concept presents a means to consider easily - that the creation of almost anything is never 'all done by one person or tool; rather, it's a journey that involves several interdependent ecosystem components.

The application of this concept to societies; includes, and many hope - pivot around - the role of citizens.

Today, our cyber infrastructure dependent economy doesn't support this practical reality very well.

"The Rise of the Hybrid Threat and Information-Centric Challenges" is raised in Australian Army Journal Cyber-Warfare Edition (Volume XIV, Number 2)⁶ whereby factors relating to information operations are made illustratable, as the importance of addressing these problems extends far beyond military needs.

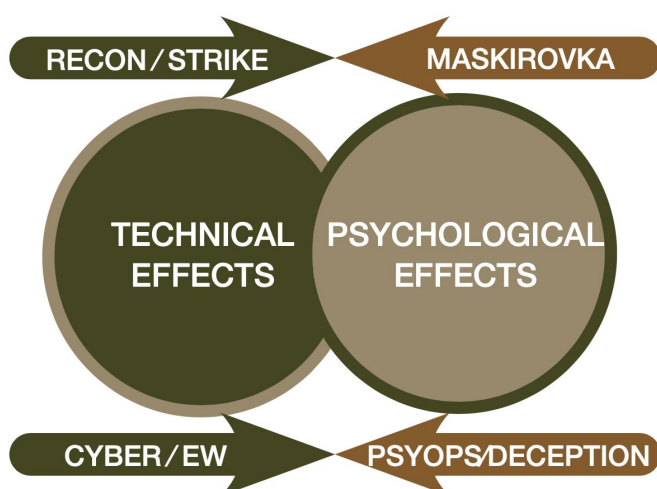


Figure 3. Russian 'New Generation Warfare' Strategy (Image derivative by Major Conway Bown)

The illustration provided (Figure 3) highlights new types of otherwise pervasive problems, from a defense basis.

The correlating text speaks of military deception doctrine which focuses on denial, deception, disinformation, propaganda, camouflage and concealment.

"Figure 3 representing the synergy between technological and psychological effects which underpins the new generation warfare approach."

The 'ecosystems' implication being that these sorts of problems impact every participant in a far broader environment of information ecology & "sense making" capability overall.

Whilst there are a number of notes to reflect cognisance for the needs of other tenants, my submission moreover seeks to focus on the needs of our society to support means to improve the lives of civilians.

All too often, 'knowledge workers' are mistreated, made subject to exploitative practices, 'web slavery', systemic means through which the relationship between 'gainful work', and work activity is made mute. The features of these problems have a series of impactful repercussive effects upon us all. Problems in-turn feature qualities and associative responsibilities of a highly sophisticated and complex international nature, that is exposing Australians and our liberalised democracies, to new risks. Works related to the concept of 'digital twins' have meaningful implications; and today, it is 'known' we live with infrastructure equipped to permissively support pervasive surveillance. Yet it fails to *help*, all too many.

The means to employ that capability to protect the values we hold most dear; the core tenant of our liberalised democracy, systemically exhibits an array of 'stressors' that are a cause for great concern.

These problems are not isolated to Australia; nor are there any known means to solve it in isolation.

The greatest difference between my capacity to speak of an 'idea', now so long ago, and my means to illustrate to the senate of my Australian Government; is that, today I am able to help in a manner that delivers an opportunity that is built upon patent-pool managed, royalty free global standards.

The means to formulate an ecosystem of online software defined socio-economic infrastructure, is now being pursued by those that include the inventor of the world-wide web alongside an array of other globally capable actors whose works are far less likely to be successfully undermined by subjective debate; than would otherwise continue to be the case, if a workable approach had not been defined to

⁵ https://www.youtube.com/watch?v=5ODzO7Lz_pw

⁶ https://www.army.gov.au/sites/default/files/aaj_cyber_edition_lo_res_for_web_190214.pdf

By: Timothy Charles Holborn

free the creation of the tooling required for apparatus; from the litany of problems traditional 'start-up' and/or commercial venture management practices would have diminished capacity to achieve.

A common misunderstanding, noting the time-span of acquiring specialised knowledge in this area of STEM pursuit; is that, an approach worthy of endorsement should exhibit an array of more traditional commercial characteristics. The nuanced difference in my method is; that rather than having achieved work over many years through the application of significant (debt) capital; which would have in-turn also required consideration as to how to produce a 'fit for purpose' intellectual property ecosystem; the work has instead been achieved by cooperative support of multiple 'component' projects around the world; including those relating to global royalty free patent-pool protected standards, backed by many of the world's largest companies with vast patent pool resources in the area & there's no shareholders, no debt.

Historically, the idea of human agency with respect to cyber-systems, was the subject of mockery. Today I write to you satisfied that despite the challenges, I've done the work, people increasingly see the merits.

The critical 'shared values' embodied by our works is all about the future of humanity. The greater opportunity is to consider the broad implications of these works both socioeconomically & with respect to AI. An approach has been formed that is believed to have the potential to provide an alternative ecosystems approach that is again, believed to have the structural capabilities that provide a viable opportunity to change the very nature of how ICT systems work.

The implication brought about by this opportunity; is thought to have a material impact on the considerations that should usefully be investigated by the senate committee as to diversify the market.

Pragmatically, the technical and business systems implications are in-turn very different to what may otherwise be achieved should a *solely* incremental approach be considered & taken-up.

As such, I believe it becomes incumbent upon me to describe these differences in a manner that may be employed for further investigation by the committee.

The present day opportunity to forge a leadership position in the creation of an international 'cyber infrastructure' project. The methodology works to apply 'model project alliance' / Public Private Partnership / BOT model⁷ domestic and internationally supportive frameworks; for the development of critical cyber-infrastructure. Whilst the ability to establish any such opportunity is envisaged to be something of international interest; I maintain my personable position that Australia should lead it.

If this supposition does indeed have merit; then it is the case that my considerations in response to the senate committee's scope of enquiry should be made aware of it.

This document attempts to canvas a number of loosely-coupled constituent pieces; that in-turn seek to provide a means to more fully investigate the potential for ensuring governmental support for an innovative ecosystems solution; to otherwise inexorable (systemic cyber-socio-economic) problems.

Whilst the implications are endemically broad-ranging; considerations that in-turn define policies that are applied by way of RegTech & FinTech tooling are in-turn of vital importance; if the array of illustratively considered societal impacts are sought to be made achievable on a domestic basis; and/or, by way of international alliance and ecosystems development.

This 'human centric' approach seeks to rewrite the underpinnings for our societal drivers to exceed its capacity to drive growth of knowledge based capital⁸ and in-turn reap the rewards of its underpinnings; for productivity growth. Whilst the full-breadth of economic benefit is unknown, I speculate it's substantive. Yet the underpinnings for that result, is about human agency; which has different qualities.

There are enormous advancements in ICT over the past few decades. Consequently, we now live in an environment that is coupled with cyber-enabled pervasive surveillance. Projects such as Starlink "to include panchromatic video imager cameras to film images of Earth and the satellite."⁹

⁷ <https://en.wikipedia.org/wiki/Build%E2%80%93operate%E2%80%93transfer>

⁸ <https://www.oecd.org/sti/inno/newsourcesofgrowthknowledge-basedcapital.htm>

⁹ https://en.wikipedia.org/wiki/SpaceX_Starlink

By: Timothy Charles Holborn

Yet 'the internet', as an infrastructure - poorly serves the needs of citizens; with particular regard for many of the core tenants of vital importance for a liberalised democracy; both here and abroad.

I have been alerted to the legal concept of 'principal' and 'principal agent'; there's no cyber-infrastructure that makes use of this kind of principle in the interests of human beings. Today, we serve our tools.

There is no known easily employable infrastructure that makes use of this concept with respect to our 'digital exhaust'¹⁰, the evidence of our lived experiences as civilians; whilst institutional providers, record legally admissible stores of 'data' ('knowledge' or moreover 'information') about us. The information in these systems are not easily employable by civilians in a court of law. In many cases, systems are built to support a 'one sided view' about the world; as does in-turn link to their rights, and operators duties to do so unto rule of law principles; yet if this continues to be without consideration, where does it leave our system of democracy? What is the causal effect upon our 'liberalised democracy', how is it sustained?

There are many institutional actors & agents who have vested interests in what may become recurring revenue for the creation of valued infrastructure systems; but if it does not support 'rule of law', how can real-world productivity outcomes be achieved? And at what cost...?

There are an array of mechanisms available to our parliamentary system which I ask to be more fully considered and thereafter better equipped to be explored. There is a difference in the duties of directors for corporations and those of elected leaders. At the UN, the US president spoke of patriots¹¹.

Governmental 'ecosystem' mechanisms should in-theory be equipped to support the needs of Australian members of our human family as is only made possible as a consequence of governmental leadership; This leadership is required to support the emergence of an ecosystem that may otherwise never be suitably equipped as to be brought about; much like libraries, schools, streets, passports & birth records.

The broader circumstance of existential jeopardy is about sense making ('inferencing'); and we must take domestic control over how solution to that can be made to work (choice), with a like minded alliance of others. Cyber presently acts to consume and commodify 'sense making' for the meaningful benefit of others. This needs an alternative (infrastructure solutions) to make a stand for our values as a society.

The valuation placed upon the entities involved; accumulate vast discounts to the value of democratic sensemaking apparatus, particularly given our extraordinary advancements in areas of ICT. In-turn, this is an area whereby vast economic yields are now part of a new type of cyber-based 'black economy'.

To sort this out, provenance is of most importance; and beyond that, truth telling infrastructure; or as I like to call it - Reality Check Tech. If a person is concerned about their life; a court should be equipped with the means to permissively review all the relevant details, with the help of AI¹², to sort it out rapidly.

Only then will our democracy & those like it; be equipped to compete with our cousins elsewhere, in our efforts to be best equipped to engage in fair trade; and, amongst other things, trade that reflects the values of Australia and that provides our people the best opportunity to thrive, 'to have a go & get a go'.

It is of vital importance that your considerations represent the interests of those who today are constituents of groups representative of those who are most vulnerable. Helping 'them', helps us all.

Each person is a member of many 'groups' which have an array of particular traits; that can today with AI be surgically targeted using advanced semantic query structures; for a variety of purposes. At the centre of my dismay, having an advanced knowledge of the capabilities of ICT; is that it appears there are *forces at play* to form destructive repercussive effects upon our society and to 'rule of law' (ie: "*Commonwealth of Australia Constitution Act sect. 5*"¹³); that are now vastly better equipped than the so many other measures that could be made, but are not; which is forming a continual degradation of our 'rule of law'.

These characteristics of both our environment for lived experience; and that of many others abroad, do not serve us. They are not enablers of productivity or economic growth; rather, trends act extractively.

In recent times; I've become aware of several models that make attempts to address this problem. Yet the underlying problem that cannot be addressed without government support, links to human identity.

¹⁰ https://en.wikipedia.org/wiki/Data_exhaust

¹¹ <http://webtv.un.org/search/united-states-president-addresses-general-debate-74th-session/6089079269001/>

¹² https://miro.medium.com/max/1648/1*whjhzHypf0Xubi3dIBElcA.png

¹³ http://classic.austlii.edu.au/au/legis/cth/consol_act/coaca430/s5.html

By: Timothy Charles Holborn

Whilst less practical solutions may employ & depend upon private keys, stewards and/or suggest 'self sovereignty'; the reality is, if systems are to support personhood - cyber-support for 'citizenship' is a requirement to any ecosystem that's developed where the stewards of personhood is a parliament.

My research; that was significantly influenced from its beginnings in relation to the mechanics of how human consciousness is made to work; which started with related concepts, due to a relative's work on synaptic nerve cells that led to his being awarded a Nobel Prize¹⁴; through to my more recent indicative findings, that provide instrumentality about 'ontological¹⁵ design'¹⁶; leads me to consider that we're not simply dealing with the derivative artifacts of 'bad people', but rather an epidemic of dissociative behaviors which are largely influenced by the manifestations of our societal information ecology.

Making matters worse; there is a problem about describing the depth and breath of the implications of these problems, given the manner and nature in which informatics is made available; as to mobilise the various constituencies of society - to address its symptoms.

So, in the interests of providing a far shorter and hopefully poignant submission to this enquiry; which in-turn embodies an array of very complex systemic underlying considerations,

My thoughts lead me to prompt the committee to think about the tenants of our natural world, not simply as a resource without considering the lifecycle cost, but moreover about the possibilities to vastly improve productivity via knowledge infrastructure.

It is of vital importance that public funds be employed to serve citizens.

An Australian knowledge economy could vastly outperform its resource based alternatives; and whilst one cannot exist without the other, 'advanced manufacture' and management of socio-economic activities that are able to be performed by Australians needs supportive infrastructure to realise value.

Gainful employment - Jobs

The most difficult part of my descriptive outline; is in considering the implications for gainful employment. In my journey, of having done this work - many have suggested that I'm 'unemployed', and certainly by many means of identifiers and both social, governmental and economic measure; this assumption may be considered more easily justified. But the problem I have with this concept, is that I've been working - so hard, on an impossible mission to bring about infrastructure that can ensure the experiences I've had - whilst committing my time, with others to define real-world solutions; is consequentially, not so hazardous for others who may seek to contribute to the betterment of our world, our society, our socio economics - in future.

Cyber infrastructure development is not safe or peaceful.

The vast majority of people wake up after sleep, and think about what it is they can do that day. Sometimes it's most important to forge work towards safety, other times it's some technical pursuit.

The reality seems to be; that by some means, no matter how it's introduced into the overall cyber-ecology; some sort of agent will be tracking 'what's going on'. This doesn't relate well, presently, to gainful employment. Various forms of activities that are covered under pre-existing, often incremental developments to industrialised economy forms of gainful employment; do not track well, productivity - as to relate the activities of that persons' job and role, with their responsibilities and performance.

Rather, there's an overwhelming series of motivators to act in a manner that consumes resources, in various ways that are neither sufficient, sustainable or equipped to support meaningful growth.

By forming socio-economic apparatus that is equipped to more meaningfully support growth, built-upon defensible sense-making capabilities; the means for someone to find something to do, and just do it - become an instrumental part of how our cyber-faculties are equipped to support real-world growth.

¹⁴ <https://www.nobelprize.org/prizes/medicine/1963/eccles/biographical/>

¹⁵ <https://en.wikipedia.org/wiki/Ontology>

¹⁶ <https://www.youtube.com/watch?v=aigR2Uu4R20>

By: Timothy Charles Holborn

"Human Centric" Augmentation of our Cyber Infrastructure Offerings

Central to the core tenants of a liberalised democracy; is its means to support 'free will'. Without this, the means to obtain 'consent of the governed'¹⁷, becomes a mute point as does in-effect, rule of law.

The critical infrastructure that is required to support cyber-operations of a liberalised democracy must include the domestic means for Human Agency, Personhood to be preserved. This is impossible to do if the elected approach is to replace print era infrastructure in such a way that means citizens neither have a means to maintain their own records and accounts about their lives as unbound economic agents; and/or, a subortant means in which the very minimum is done, as to render effective inequality.

Should the underpinning qualities of instrumental importance for the maintenance of a liberalised democracy in which object principles that include but are not exclusive to 'rule of law' be sought to be preserved and not; willingly or otherwise set aside for whatsoever reason, then there are an array of considerations that are thought to be of importance in any such agenda that may seek to correct the circumstances in which 'emerging issues' are a cause for great concern.

1. Separation of Powers

Much as it is inappropriate for any one corporation to 'beneficially own' a citizen, it is of equal importance for the operation of a sovereign nation built upon the principles of a liberalised democracy; that civilians are equipped as to seek legal remedy by way of a court of law for any dispute they may have with another. This includes the actions carried out by servants of the public on behalf of their government. Whether these acts be carried out by way of software or behaviours that occur in-person; there is a fundamental conflict of interest in seeking to ensure the only available record of any such interactions be maintained solely by the legal personality on behalf of the agent for any such legal personality.

This in-turn means there needs to be a regulated 'information' or 'knowledge bank' that is equipped to respond to proportionate law-enforcement requests; but is also equipped to support the needs of the software environments principle should they seek legal remedy in a court of law for any matter of inconvenience, to others.

2. Civic & Civics activities

Not everything is formed due to the ideas of a civil servant, nor those of a commercial agent. The idea that some form of otherwise trackable 'knowledge work' be considered in a binary format either free or royalty based in perpetuity; is false.

There is an array of intrinsically important economic instruments that are required to support a free and equitable liberalised democracy; and there should be no artificial limitation placed upon any persons capacity to contribute and be acknowledged for their contributions; both in the interests of provenance and socioeconomic sustainability.

'Free workers' cannot exist for 'free', this is an economic distortion that is increasingly made to be an illustrative choice. The problem is, that whilst opportunism may be rife; whomever fixes this problem, will reap the rewards.

Today, it appears to be most-likely that it'll be foreign infrastructure that does so.

3. Patent-Pool controlled, royalty free; scalable and interoperable technology

When seeking to address the technical qualities for systems that are of instrumental importance for the meaningful affiliate considerations linked to human rights, human agency, rule of law and related 'personhood' attributes; there is an array of considerations that are of vital importance. The characteristics of what it is that in-effects replaces the use of print-era tools and social vocabulary; should not incur an opportunity for any commercial agent to seek proprietary interest over a life.

¹⁷ https://en.wikipedia.org/wiki/Consent_of_the_governed

By: Timothy Charles Holborn

Key considerations:

1. Considerations broadly define new 'operating systems' for humanity, as is designed to govern AI.
2. Given what our present-day needs - are of our elected members of parliament as to assess whether the electoral offices are presently, suitably equipped.
3. Evaluate societal needs with respect to 'truth telling'. What do citizens need from their involvement in a 'paperless' society? How should our liberalised democracy be equipped?
4. What is critical infrastructure required for our modern socioeconomic environment?
5. How can policy stimulate the development of internationally interconnected, domestic cyber-infrastructure frameworks; whilst working side-by-side with international alternatives?

Recommendations:

1. That there be defined a regulated economic infrastructure market segment; for cyber services to be provided to Australian Citizens that supports our 'digital twin' (inclusive to AI).
 - a. These services should be 'fit for purpose' to act to store all data; inclusive to,
 - i. Media, Social Media and correspondence data
 - ii. Taxation related records (ie: payslips, retail receipts, etc.)
 - iii. Biometric information
 - iv. Medical Records
 - v. Security keys (ie: 'private keys' for controlling access to IoT, DLTs, etc.)
 - vi. Anything else imaginable.

And moreover - all of the above in formats that can process it all.

- b. That Government services (i.e.: 'mygov) be equipped to support these alternatives; as ecosystem participants.
 - c. Australia should operate domestic root-key infrastructure, distributed with browsers and other similar 'root store' dependent software environments. (Foreign territories such as the USA are unlikely to outsource their 'root certificate' infrastructure, why is that?)
2. Improve civil protections for 'digital identifiers'.
3. Engender an industrial web civic & civics framework; working with government, to rapidly build critical infrastructure requirements that are presently unavailable.
 - a. Review the organisational implications, structure and engagement frameworks for the Australian Government Linked Data Working Group.
 - b. Establish a public, multi-stakeholder panel equipped to rapidly engage in 'use-case' development and the making of tools / outcomes that in-particular support the needs of citizens. (even when they've got a capacity to expose bad actors to liability).
4. Engage in the formation of a 'fit for purpose' (inclusive to 'micropayments' support) of a sovereign 'Digital Australian Dollar' with a broader ecosystem of economic instruments.
5. Ensure that the deployment of 'regulation technology' is bonded to the responsibility of ensuring the use of the technology does not cause unreasonable asymmetry of rights or responsibilities. Artificial Intelligence is a product, not a legal actor; who goes to prison?
 - a. The implication is that the market should require / desire, the means for civilians to have personhood / agency - digitally, in-order to forge dependent business models.
6. Explore with international peers; how to jointly fund the creation of an international knowledge banking industry; built on international standards, for liberalised democracies.

By: Timothy Charles Holborn

Part 2: Introductions

I was prompted to make a submission as a consequence of reviewing an article published in the financial review speaking about the introduction of a digital currency.

The prompter was to ensure the committee considers the importance of support for micropayments and that the tooling employed to do so; therefore to be accommodating of the energy consumption qualities required to effectively support micropayments. Most of the less sophisticated choices incur 'transaction costs' that means micropayments can not be supported, technically.

As Decentralised Ledger Technologies (including but not exclusive to 'blockchain' technologies) are quite different to other standardised, patent-pool protected 'royalty free' (or royalty defined) protocols - such as HTTP, TCP/IP, etc. This is a consequence of technology maturity and market-level characteristics. Whilst there are an array of projects that seek to form 'standards', I am unaware of any 'standard' that is equipped to support the many various 'use-cases' in a fit-for-purpose manner at this protocol level. Consequently, the means to provide an interoperable and scalable flexible approach; appears to be something that can be supported through the use of semantic web ontologies and related ecosystem parts. Decentralised IDentifiers¹⁸ in-turn becoming part of the broader means through which an ecosystem could work.

However, as a consequence of having investigated how to respond; there have been an array of far broader considerations that I would consequently like to canvas with you, for your consideration. The broad nature of my work has been about improving 'cyber' support for human agency.

Over some two decades, a great deal of progress has been made. I am now confident that the vast majority of underlying tooling requirements have been produced; in a format that can now be employed using royalty free, global standards. Indeed also, works I have been highly involved with; are now being pursued full-time by those that include (but are not limited to) the Web-Inventor himself, Tim Berners-Lee.

At this stage, I no longer need to argue the merits of the technical plausibilities. Where these works intersect with the functional qualities of my liberalised democracy; there are an array of considerations of importance for my(our) Australian parliamentary representatives.

Some of these considerations may in-turn relate to;

1. ensuring that there is appropriate legislative measures to support our liberalised democracy and its means for socioeconomic growth;
2. others relate to the incumbent requirements that are brought about by foreign influences - requiring a local response; and others still;
3. are about the means through which our parliament can positively influence domestic affairs (and international opportunities) through socio-economic incentives;
4. alongside other policies which may bring cause to dis-incentives for less helpful alternatives.

The area of most concern is in related topics that seemed to be implicit to this enquiry. Many of which have a meaningful impact on the ability for our society to maintain support for our liberalised democracy, built upon human agency & personhood.

A central principle of Rule of Law; therein, one of the tenants to this principle is that:

"All people are presumed to be innocent until proven otherwise and are entitled to remain silent and are not required to incriminate themselves."

¹⁸ <https://www.iana.org/assignments/uri-schemes/prov/did>

By: Timothy Charles Holborn

Due to developments in the area of corporate personhood; this does in-turn lead to an array of complex problems linked to 'FinTech' and 'RegTech' governmental projects, stimulus, strategy and more broadly; repercussive implications.

Another constituent considerations about 'separations of power' alongside that of responsibilities put upon an agent / directors of legal entities; as prescribed by the corporations act and other related instruments. Therein, it appears to me that the responsibility of standing-up for the rights and responsibilities of citizens, is held by our elected members of parliament; save circumstances where judges assert rulings.

The instrumental constituent considerations linked to financial technology and regulatory technology include artificial intelligence, digital identity, frameworks and policies. Therein; I can understand why professional representatives of many ecosystem participants may not consider it to be part of their role to highlight considerations that are moreover of greater concern with respect to the interests of citizens; Yet, left unaddressed - I am also unsure of how it is underlying symptoms outcomes could possibly be raised, evaluated and expanded upon for our betterment.

This issue is seemingly aligned to issues disaffecting 'sense making' whilst instilling a belief that behaviours that are in-effect 'dissociative' are required by employers; which I believe, is leading to a significant and very negative impact on public health overall.

It therefore appears to be incumbent upon parliamentarians to address these issues. Should this assumption be correct; the consequential contextual question becomes how the structural process be equipped to properly and more fully, evaluate the opportunity landscape. In particular, those opportunities that may better serve the interests of Australian Citizens (Australian Human Beings / Civilians); in a manner that may expose any legal personality to liability, as a consequence of support for rule of law and moreover; improved means to support our liberalised democracy.

If there are options that may conflict with the interests of government departments; are they obligated to provide an outline of that option - or moreover, only those that either do not; or are of less consequential impact to any potential exposure that may be brought about as a consequence of systems that better support human agency.

As we replace 'paper', if a system is defined in such a way that means a record, perhaps but not necessarily dynamic; is considered a 'source of truth' stored solely by a provider, in an ecosystems solution that means affected parties do not have an independent copy or independent access to that sole (potentially dynamic) record; upon what basis is any legal personality required to consider the implications upon citizens; even if, that legal entity happens to be a government department or faculty? the implication being - how are parliamentary representatives equipped to be supplied the means for informed decision making with respect to 'digital identity' & related infrastructure, as to best support the interests of our liberalised democracies citizens?

In-turn - what responsibilities are considered to be of dutiful importance for humans acting as representative of; government departments, commercial entities and other 'legal personalities' who are part of the ecosystem? Are those who are equipped to represent and/or advocate for the needs of natural persons, civilians, citizens; equally and/or proportionately equipped to contend with alternative yet legal points of view?

The reason why we do not have a regulated market-based & institutionally supported ecosystem that works with government to support both; digital identity instruments and in-turn also, the means for citizens to safely store digital assets in relation to their lives - is not a technical issue. The reason why we still rely upon thermally printed tax receipts is not an issue of technological advancement.

The underlying issue is a great cause of concern for our means to support a liberalised democracy. It is not simply an issue of a solely domestic nature, the implications have an array of similar exhibits; both, of the problems and seemingly also, desire to respond to those problems - internationally.

Global solutions such as those from California nor those most likely to emerge soon from Asia; should be considered the only way to address these underlying problems.

By: Timothy Charles Holborn

There is a means to build 'cyber infrastructure' that supports liberalised democracies, and I suspect that should policy leadership render and promote the means to do so, in Australia; for both our market and that of other liberalised democracies, there is far more economic value that could be gained from doing so, than is otherwise possible.

Finally, it is of vital importance the committee considers the qualities of international relations to these works both on a level of technical apparatus; and, in-turn also - scalability & interoperability.

Therein, I would like to alert the committee to the importance of royalty-free patent-pool protected technology standards; such as those that have been developed via W3C whose membership list of 429 members (as of 3rd February¹⁹) incorporates many world leaders' commitment to many royalty free tools. In-turn also, the approach I consider to be most scalable - is built on 'semantic web' tooling.

This tooling, enables broad-ranging capabilities used by most in some way; often unbeknownst to them - as is now the case, having been grown from DARPA Agent Markup Language²⁰ now over 20 years ago. A vast majority don't understand how to use it; yet that doesn't mean any alternative is better, it just means that there's a lack of domestic support for domestic, interoperable infrastructure.

Enquiries

In the course of preparing this submission I have undertaken to refresh my 'situational awareness' on a number of topics that seemed to be of instrumental importance.

These enquiries have included; seeking to clarify:

1. Staffing levels currently supplied to elected members of parliament.

Whether and/or how members of parliament are legally bound to an obligation of acting as a representative for their electorate and its constituents (moreover - natural persons / citizens). What, if any legal obligation is there to ensure all parties involved in a socio-economic event, with special consideration to any such form of event that may be of legal significance; to be furnished evidentiary artefacts in relation to that event, in a manner that cannot be later modified in a manner that neither extinguishes the 'readability' of the original content; and is tamper evident.

2. This consideration involves two aspects;

- i. The first is about whether there is any responsibility to support the provision of artefacts of instrumental importance to legal entities (generally - natural persons) for 'legal verification'.
- ii. The second is about 'version control', if changes are made - how are 'versions' made discoverable. This is in-turn quite different to a dynamic document, that may change to suit.

3. Whether and how informed opinions are able to be garnished by elected members of parliament; with particular consideration to, any impacts duties harboured by departmental decision makers may have upon ensuring parliamentarians are equipped to support their role & ability to make decisions.

The question raised with respect in particular, to the implications of conflicts of interests. For example;

- i. The means to ensure civilians at all times are provided evidence in a manner that is admissible for the purposes of a court of law; even when;
 1. That may expose a government department to some form of legal and/or financial liability.
 - a. Whereby the potential implication being whether and/or how entities, inclusive to those of government departments, are equipped to;
 - i. sue itself; and/or,
 - ii. exposure itself to liability without being required by others to do so; and/or,
 - iii. unapologetically engaging in wrong-doings; and/or,
 - iv. any exhibits shown to stymie productivity, rule of law, and other such things as human rights; on any basis, whereby any such departments are otherwise obligated to maintain its 'rule of law' entitlement 'to remain silent and [are] not [required to] incriminate themselves'.²¹

¹⁹ <https://www.w3.org/Consortium/Member/List>

²⁰ https://en.wikipedia.org/wiki/DARPA_Agent_Markup_Language

²¹ <https://www.ruleoflaw.org.au/principles/>

By: Timothy Charles Holborn

Implications

The implicit implications that are not easily considered nor communicated; relate to the very many risks that may occur as former print-era systems are replaced with 'all new - different ones' and that whether and/or how these alternatives, that may theoretically have better 'traits', are necessarily going to be designed to deliver an outcome where that become factually, the case.

In one case, when asking a human rights body - the response was that they're not doing any work in this area; which I felt was an unfortunate response, given that no right exists; if there is no responsibility to ensure a citizen is equipped by a liberalised democracy, to present evidence of a complaint. In-effect, I question how appropriately support for forming quorum is achieved, when it appears that there are an array of ecosystem constituents who are participating on a basis of gainful employment; who have collectively failed to acknowledge or remedy issues such as having an appropriate means to be provided - even most simply, a machine readable tax receipt or payslip.

Yet, those who are seemingly working on how to solve these problems are unpaid; and also unlikely to be awarded any funds to progress the work should it be considered to have merit; as those organisations who have not brought about a mandate to get the work done otherwise, would later seek the money to do so. Studies to evaluate such *trends*, may act to address issues & improve productivity.

It is likely the case that civilian contributors are not engaged on equal or similar economic terms to others (i.e.: paid / unpaid); and I question how this influences appropriate and proportionate considerations for tabled options (and/or exclusion to thereof) over the past decades; and whether if addressed, it resulted in better outcomes for citizens independent to international and/or domestic 'rent-seekers'²². I am unsure how to address this without rewarding them.

The other meaningful implication relating to these enquiries; particularly given the probability that many of the more important areas of cyber socio-economic development, is that there were no easy answers when posing many of these fundamental questions about moral grammar & our democracy.

Overall I would remark, that our 'sense making' capacities are seemingly today, fairly impaired regardless of our vast technological capability to deliver high-performance outcomes elsewhere. In this 'information age', there is a problem about the way 'power' discourages 'knowledge'. This now seemingly has a disabling effect of significance, which is as damaging to our society as slavery.

The mandate of the committee appears to be a need to evaluate the merits of sense-making, and its representation as to both support the needs of our liberalised democracy, our citizens; and that of others elsewhere, overseas who may seek a means to engage with like-minded, morally equipped actors; to address an array of problems that are not likely to be part of solutions from international regions that are not operated as a 'liberalised democracy' or those that are; but have commercially delivered global alternatives that elect not to consider in relation to 'consumers', our 'choice of law'.

Irrespective of the fact that there is no easily demonstrable enterprise example where leaders of societal institutions, whether they be public, private or international; have set-out to supply citizens with the critical cyber-infrastructure required to retain human agency, personhood & human rights, the real-world facts are that this is an illustration of moral choices; not technological incapacities.

There is a technical means to build infrastructure that is provided to support natural persons. There is a means to support a citizen as a 'principle' by a capability operated as a 'principal agent'; and moreover, it's more economically beneficial than incentivising other alternatives, for all involved.

Technological socio-economic method

The technological method I would like to alert the committee too; is based on 'royalty free open standards' and consequentially thereafter; a method, that can be made by those who know how to do so; rather than the method having anything to do with patent royalties from particular companies, etc.

²² <https://en.wikipedia.org/wiki/Rent-seeking>

By: Timothy Charles Holborn

The method I've sought to engineer over a long-period of time; sought to protect key principles.

1. Freedom of Thought

The methodology sought to ensure protection for 'freedom of thought', which is a complex thing; but as an attempt to simplify the consideration - human beings only need to learn how to speak, read and write English; there is no 'royalty requirement' (or institutional control over) the use of it.

AI tools, in relation to human agency - need to have these sorts of qualities; so my method, both sought to ensure that it was not a requirement to pay me to exist - whilst ensuring the case for any other would-be malfeasance opportunist.

Therein, the considerations that relate to 'freedom of thought' are reliant upon such underpinnings as the means to ensure systems do not pervert 'sense making', that is to say; we have a shared reality. Whilst people may argue this; doing so, is highly unsophisticated. Most people agree, there's a sun.

Yet thereafter, are some obligations; such as those of citizenship / personhood, whereby it is not just about 'rights' but moreover also responsibilities; this in-turn informs why it becomes of 'instrumental importance' to ensure a 'dignity enhancing' approach, rather than unfair manipulations; The problem with the latter is, that this problem is presently systemically 'accepted'.

2. Rule of Law

There are many very negative behaviours exhibited, most often economically motivated.

Should the means to ensure a high-probability of success for causing others injury for economic gain be substantially reduced by better employment of our 'pervasive surveillance' infrastructure; the incentive structures would most likely, change radically - as would productivity and our capability.

There is a significant cost incurred to a society that systemically supports wrongdoing; and/or, only provides a means to retain human agency by way of internationally provided solutions.

To build infrastructure that is able to address these problems; it's likely to cost less than a world-class event, like an olympics and, due to the means through which distribution of economic benefits could then work, enormous benefits.

The modality considered most feasible, is to form an international project whereby the useful derivatives of an international cyber-infrastructure project; provide a means for each participating nation, to form their own market-based regulated 'knowledge banking' industries; which are in-turn produced in a manner that provides them the ability to govern their own industries on a domestic basis, whilst participating in a cyber-infrastructure method; that's internationally interoperable.

As such 'rule of law' can be applied for all affiliate members of our human family; whilst international obligations, are in-turn lent support via regulated infrastructure providers ('principal agents') who in-turn have an interest in seeking to protect the needs of their customers; which whilst inclusive to legal personalities, is moreover equipped in a manner unlike other solutions are equipped to support today - the needs of natural persons, citizens / 'principles'.

In-turn; this means that any AI related 'RegTech' - can in-turn support our needs unto 'rule of law'.

3. Personhood.

The qualities of societal systems that are required to support personhood have an array of traits, many of which are outlined in the charter of the commonwealth²³; yet the provision of apparatus that has been designed to uphold those principles; is a different kind of job.

Part of that method is about ensuring the means for persons, even in the worst of situations, to retain access to 'their records' or moreover, records of material importance to them; should cyber apparatus

²³ <https://thecommonwealth.org/our-charter>

By: Timothy Charles Holborn

become available; it needs to be available on a basis that means no-person should lose access to it due to an inability to 'afford it'.

Yet, there needs to be some means to 'pay for energy' (and infrastructure); as nothing is free, as such.

Economic engineering methodologies have sought to ensure that there is no 'monthly fee' that may invalidate a person's ability to retain agency; rather, the inclusion of economic instruments means that when there's money in or out; this can in-turn pay for 'fees'; which is one of many possibilities for new types of cyber-economic instrument related 'products' that could be provided by 'knowledge banks', none of which require a 'knowledge bank' to sell any identifying data in relation to their customers ("principals"); this is in-turn an area of consideration that is reflected upon via 'permissive commons'.

On this basis; there's a belief that there's a means to bring about significant disruption within the banking and telecommunications sector; on the basis that our society could provide economic tools, that means - we're economically engaged as both contributors as well as consumers; rather than simply *paying money*, so that we can be 'consumers'.

4. Permissive Commons

The term 'permissive commons' refers to a methodology through which Decentralised Ledger Technology (DLTs) can vastly improve the functionality otherwise provided via 'open data' tools.

In the interests of retaining support for 'sense making' (and privacy when doing so); some of the differences remedy and/or consider that:

1. The information resource is able to be signed and associated to its legal creator; for example;
 - a. Council (and/or police) may be the authority associated with the publication of 'neighbourhood watch' house locations; that is in-turn employed via an array of devices, apps, services.
 - b. The Federal Government would be the authority on the publication and/or modification of legislation.
2. That these information resources can be 'downloaded' and used locally; with or without an AI agent.
3. That the 'information format', on any type of DLT uses Linked Data notation methods.
4. That the 'ontologies' employed on DLT's are also available via DLT's.
5. That there is therefore the capacity to support 'version control'.

There are many challenges today with respect to 'sense making'; which disproportionately benefit bad actors, whilst having meaningful consequences upon us all. 'Sense making' is critical for productivity.

It makes little 'sense' to encourage people to do work others have already done elsewhere; and, it makes no sense at all for public funds to be employed to do harm and/or undermine productivity.

Privacy is of tantamount importance; if people are concerned about private matters the probability is that they'll use internet infrastructure to learn more about it; or perhaps engage in other activities, which may cumulatively - by some means, often inclusive to those that are 'unclear'; end-up with what appears to be consequential implications - via their social media feeds, or other online experiences. Where this becomes increasingly difficult; is with respect to (young) children.

Secondly, it is doubtful our society would have been so successful if we never had libraries or 'education infrastructure'. By 'education infrastructure' it's not just about schools, but moreover the ability to learn; and sadly it is easily shown to be the case today, that the categorisation of content; whether it be genre's or even more simply, the difference between 'fiction' and 'non-fiction' is (artificially) made to be increasingly difficult. So, part of this problem is about retaining our 'social agency' over our capacity to retain and make use of 'knowledge' as vital, shared resources.

Another quality of 'permissive commons' is about the flexibility of application types. The information that reflects the story of two people's relationship, is a form of permissive commons between them; yet within that, there's an array of things they'd like to keep private between them, and other bits and pieces that they'd like to share with others; and/or, that others were involved with.

In yet another use-case; say, two people start chatting about an 'idea', and decide they'll do some work on it; well, there's an easy way to help organise that - start a new DLT. This kind of idea is well known to

By: Timothy Charles Holborn

developers where the way this type of thing works is easily shown by GitHub; and commercially, it's fairly easy to illustrate by way of 'slicing pie'²⁴, demonstrating 'dynamic equity'.

In yet another example; there's that of statistics and academic research.

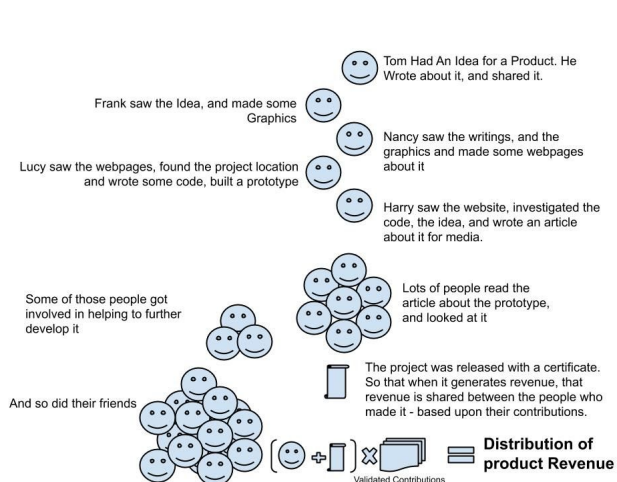
It is sadly well known by many whom I've collaborated with closely over many years, the story of 'the internet's own boy'²⁵. If people become yet another example of those who have had an untimely death who have worked in this area that is so closely associated to 'cyber warfare' in all too many ways; there is no note on a plaque like there would have been, if they fell off a bridge they were building, or if they donned a more classical uniform linked to other virtuous fights for human rights. Sadly, there are many other examples of Australians, it becomes hard to figure out how to dignify them.

There is an underlying question of material importance relating to the availability of knowledge; which in-turn has a direct relationship to our capacities to support radical improvements to productivity. It's recently been reported that China built a 1000 bed hospital in 10 days²⁶. In Australia, it was announced on the 7th of October 2018 that the state government would build a 500 bed hospital with construction to begin within two years²⁷, expected to be opened by 2025²⁸ (7 years).

How are we going to fix local problems so that we're able to become a decent competitor?

The implications to that question; is that, whilst we have the means to slow-down local innovators, local development that can harm local productivity without legal remedy; but that won't matter elsewhere.

Our problems have a great deal to do with our capacity to mobilise, socioeconomically, knowledge.



It is of course an unfair notion to expect that some people work for 'free' in-order to economically benefit others; yet, my point of view about the topic also considers the inequity incumbent upon any act that may seek to impugn the capacity for others to have 'freedom of thought' / sense making capacities about reality; about the world around them, about the realities of a circumstance or event.

The idea that 'information systems' make it 'too expensive' for some people to get a proper diagnosis for a medical problem seems to me; to have qualities that are not consistent with our societal views.

So, the implication becomes a design paradigm; that is engineered to support 'micropayments' and to

in-turn ensure that systems that are of most vital importance for 'learning' become equipped to supply knowledge about our world, in a scalable yet highly economically accessible way.

Where these considerations extend to statistics, the point would be that knowledge that may be garnished in aggregate by 'knowledge banks' about an array of more common considerations; could be achieved by, for instance, the ABS forming a query request; which may then be processed by each 'knowledge bank' and that the aggregate statistical submissions are then able to be aggregated together and made available publicly as a resource that can in-turn be referenced (in its machine-readable format) to be used by all sorts of different types of supplemental documents that may reference it and communicate ideas and/or insights; and/or form other works, in reliance of it.

In other areas; for example, when studying rare diseases; special consent may be sought to obtain information from a far smaller group of persons, as to empower international studies on that problem.

²⁴ <https://slicingpie.com/the-grunt-fund-calculator/>

²⁵ https://en.wikipedia.org/wiki/The_Internet%27s_Own_Boy

²⁶ <https://www.abc.net.au/news/2020-02-03/china-completes-wuhan-makeshift-hospital-to-treat-coronavirus/11923000>

²⁷ <https://www.vu.edu.au/about-vu/news-events/news/state-government-announces-a-new-hospital-at-footscray-park-campus>

²⁸ <https://www.facebook.com/watch/?v=305575906696737>

By: Timothy Charles Holborn

where these sorts of considerations extend to areas such as academic papers and the like, there may be an array of different licensing models (i.e. dual-licensing or similar) that results in micropayment-empowered accessibility for humanity, and different considerations for commercial users.

In other areas; such as the means to decentralise all of man-kinds knowledge about flora, or fauna; on a macroscopic, microscopic, encyclopaedic, statistical, machine-readable & discoverable basis (i.e.: phonetic / computer vision object identification) these assets, distributed on decentralised ledgers.

Perhaps with an in-built business model that employs the principle that the cost to use it, may be very nominal (negligible addition to the cost of using internet at all) and that this 'human work activity' cost is in-turn spread across all users, world-wide, until they've all been paid minimum wage for their work; which are in-turn the terms upon which, they agreed to do the work - in the first place.

In-turn, this methodology is thought to provide a viable alternative to addressing wide-spread economic issues that are otherwise considered to require social policies such as 'universal basic income'²⁹ which I do not believe would actually resolve the underlying problem, which relates moreover to 'web slavery'.

Most people can find a 'job to do' that's a useful contribution to society; but it doesn't mean they'll get paid. The barriers to gainful employment are artificially made to be very high, undermining productivity.

The idea of providing a means to support micropayments for human labour, as part of a suite of economic instruments, is not new; Indeed, one of those who are most worth noting who has highlighted this need is Ted Nelson who has written that he invented the term 'hypertext in 1960 just in order to make micropayment possible'³⁰ - so it is a fairly old issue, that may now be better understood.

It may be quite useful also - to have a look at Ted's demonstrations of 'Xanadu'^{31,32} which does in-turn provide a type of interface to an underlying concept of far broader 'multi-media' implications. Herein - there are three major constituents to the implications that are otherwise implicit:

1. Payments for useful work - forming a means to put an end to ever increasing 'web slavery'.
2. Encouragement to find, review and link to existing works; not 'copy' and/or duplicate; enhancing productivity, whilst recognising the instrumentality of a derivative not being the same as its body of underlying works that enabled any such derivative to have been formed, to begin with.
3. Encouragement to ensure information assets about our world and (the vast majority of) useful arts and sciences is made to be accessible; as a uniform part of how it is nuanced 'new internet' works.

The use of internet presently considers the issue of 'human identity' to be a content issue; and in-turn also, the means to economically support labour (or 'thought ware') of mankind to be ancillary to its underlying business models.

Which is moreover focused on selling:

1. Software
2. Online services (hosting, domain names, etc.)
3. Connectivity
4. Devices / Consumer Electronics
5. People's data / time

So, when seeking to provide an alternative to these more easily, widespread models / modalities; the consideration is that it becomes vital that the introduction of both micropayments and associated electronic contracting infrastructure, is able to be brought about.

²⁹ https://en.wikipedia.org/wiki/Basic_income

³⁰ <http://transcopyright.org/hcoinRemarks-D28.html>

³¹ https://www.youtube.com/watch?v=En_2T7KH6RA

³² <http://xanadu.com/xanademos/Moe.JusteOrigins.html>

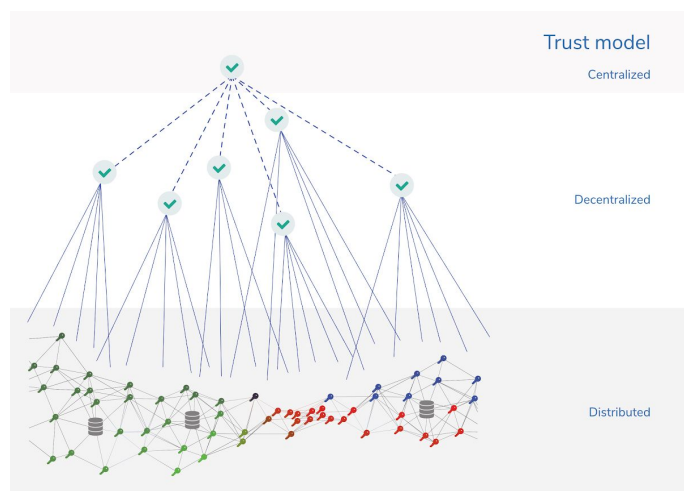
By: Timothy Charles Holborn

The subsequent implication, is that the means to facilitate a micro-payment; technically depends upon the inclusively achievable floor-price for facilitating a transaction; inclusive to KYC/AML and implicitly related requirements, in addition to considerations about the energy expenditure incurred consequentially. The more peers involved, the higher the cost of energy.

Therefore, an institutional - modality provides a means to significantly lessen the cost of facilitating both domestic and international transactions; but the second problem becomes, that of how to support 'anti-money laundering' or moreover, knowledge that relates to transactions other than the face-value of the currency amount, itself.

The implication of these 'permissive commons' designs, alongside the broader ecosystem considerations; is that support for these qualities, alongside rapid advancement of globally standardised non-proprietary decentralised AI systems; becomes part of how problems are solved.

It is the case today that global platforms such as Facebook already have enormous 'sense-making'



capacities bonded to its billions of users. The implication being tools like graph.facebook.com are today equipped to perform an array of functional capacities, that are otherwise very difficult to form alternatives to; noting, despite popular opinion, it's actually not that easy to 'leave Facebook'; as its platform, and those like it, continue to become increasingly important for daily activities; with 'friends' who may not be connected, associated or mutually engaged in any other way.

The implications of 'Libra', 'pages' and 'marketplace' may well lead to an ability to deliver opportunities and outcomes that are of great value to Australians, Australia & our businesses; yet, it may also be the case that

should this develop without alternative, it'll be increasingly impossible to 'leave'; for instance, economic tools, no matter how they're made available to pay for otherwise unemployed persons to go into the forests & remove 'fuel', blackberry plants growing since the mining era is still better than the fires.

The implications of Libra; more specifically, relate also to the notional concept of 'currencies', therein, my belief and recommendation is to ensure there is an appropriately defined domestic digital currency; that is defined in such a way that's being built, to support micropayments; and work as part of an emergent international ecosystem of sovereign digital currencies - from sovereign jurisdictions around the world.

The most difficult task within all of this; is about how to remedy the likely concerns about 'tax havens'.

A theory about how this might be addressed; is by their issuance of their own standardised digital currency, which may in-turn be made to work with knowledge banks, maintaining some of the qualities sought by customers of such institutions. Yet this is one of many international issues, to be addressed.

The broader implication; of that AI framework, is the ability to ensure parents have a meaningful association to the AI upbringing of their children, to agency; and that in-turn, the capability is built into the network to immediately sort out any problems that are exhibited, at that 'CDN level', with respect to child-abusers (in particular). The means to solve this and many other problems; isn't about global centralisation, rather, it's about the means to support locally suitable and equipped persons to do their jobs (and escalate it if they do not); and for technology, inclusive to AI must assist humanity.

"Considering, primarily, the texts of the Bible, the Social Doctrine of the Roman Catholic Church, its catechism and, in the alternative, in particular the statement "An Interfaith Declaration: A Code of Ethics on International Business for Christians, Muslims, and Jews"(1994); the guide "Ethischnachhaltig investieren: Eine für Orientierungshilfe Finanzverantwortliche katholischer Einrichtungen in Deutschland" (2015);

By: Timothy Charles Holborn

Considering that "Money must serve and not govern" (Evangelii gaudium, Nr. 58) and that the seeking of material well-being cannot adversely affect dignity inherent to the members of the human family;..." Source: FUNDAMENTAL CHARTER OF CHRISTIAN ETHICAL FINANCE³³

I thereby argue that the same underlying principle should also apply to our tools. In that, Artificial Intelligence and moreover ICT - must serve (humanity) and not govern, nor should their vendors.

Technical Capacities of 'semantic web' ecosystem tooling

Semantic Web ecosystem tooling defines a method whereby the entire network (internet) becomes an 'access controllable' database. Systems are able to support 'linkages' between data-sources, rather than necessarily requiring one tenant to control the entire body of computational resources.

What this means, is that there is a means to associate the 'ownership' of 'data' with the legal entity who should otherwise have the moral right to 'own' (or have) a copy of that 'information'; and that, systems are able to use 'links' to acquire and process information from multiple sources.

This can in-turn be linked to law; whereby the provision of data on behalf of one entity to another can be defined by law and therefore be legally requested to be compliant to; a series of (business) rules.

An example may be that one agent is providing information to another agent for a singular short-lived purpose, and that they then ask the other party to remove their copy of it; or alternatively, a trusted mediator could acquire information from both sources, provide both a receipt and store the exchange as a record, should the event require some form of legal audit-ability, later down the track.

As it is presently the case that there is an increasing volume of 'data stored', the implication isn't so much about whether or not the data is being stored; but rather, how 'access control' is made to work.

History and Growth of Semantic Web

The Semantic Web Technology ecosystem was brought about in the late 1990's and incorporating works to form DARPA Agent Markup Language (DAML). Semantic Web is also known as Knowledge Graph technology and/or Linked Data. In 2020, the technology ecosystem has matured and is now of instrumental importance to the operation for many of the worlds largest and most important infrastructure systems.

One of the qualities this ecosystem provides is the means to make use of the network (ie: WWW) as a database. The way this is achieved is through the use of vocabularies. Some ubiquitous examples include schema.org³⁴ used to power search and related functionality by Google, Microsoft, Yahoo, Yandex and others; alongside OGP³⁵ (Open Graph Protocol) used to power Facebook. Others include SNOMED³⁶ used in the medical industry alongside other examples used by governments around the world.

The second quality of semantic web technology is that it is in-effect, one of the most foundational levels to AI systems. Whilst the term AI (artificial intelligence) is considered by professionals to be a 'dirty word', due to the many meanings that can be applied to the acronym; at its most basic level, Artificial Intelligence is about logic.

Semantic Web technologies are defined to provide Logic; in the form of defining both rules and 'inferencing' capacities (amongst others). Resources obtained from semantic stores are in-turn consumed by other forms of AI software, such as Deep Learning infrastructure; and in-turn also, able to be made interoperable with systems that may perform media-analysis (phonetic, audio, image, video processing); and, through the application of Semantic Web ecosystems tooling; provide for multi-tenanted entity discovery, automation, knowledge representation, attribute based access control; alongside many other consequential capacities.

³³ https://drive.google.com/file/d/0Bz_os8GdvH2nUGR3TERGMzJnNVU/view

³⁴ <https://schema.org/>

³⁵ <https://ogp.me/>

³⁶ <http://www.snomed.org/>

By: Timothy Charles Holborn

Ecosystem

The technical underpinnings for Semantic Web technology ecosystems have been produced as royalty free open-standards with sophisticated patent-pool protection by way of standards consortia W3C³⁷ as is a core constituent of World-Wide-Web design; incorporating functional components built into many Web Standards (including HTML5). This Ecosystem provides standards based support for IoT (Web of Things), GeoSpatial, Credentials, Payments, Federated Queries (ie: multiple-data-sources), MultiMedia and any other conceivably applicable modal for any cyber-physical application and/or use-case. Works are currently under-way to standardise support for non-http based URIs (support for DLTs / Blockchains) via Decentralised IDentifiers³⁸.

Supplier Ecosystem

The 'database technology' is commonly called a 'triple store', referring to the structure of linked-data (triples). There is today a well-developed marketplace of open-source and commercial triplestore vendors; noting, the list provided via Wikipedia³⁹ whilst being aware of an array of additional related notes (i.e.: native support in Drupal, which in-turn lends support for improved functionality for organisations who depend upon solutions such as GovCMS⁴⁰) which become part of the broader complexity - this document is not intended to address.

Enterprise & Government Ontology Definitions

The second, and perhaps more important functional 'job' is that of an 'ontologist'. The role of an ontologist is to define how software agents define an entity (i.e.: business), their relationships to other entities; and in-turn how a software agent (Artificial Intelligence system) is made to function in an automated manner. Ontologies define both vocabulary and inferencing related rules. There are an array of internationally supported ontologies, many of them published as 'open data'⁴¹ alongside those that are operated privately and/or commercially. Part of the process involved in forming ontologies, is to form the associative rules between ontologies.

A simple example is that one of the early vocabularies FOAF has a definition for Email which can be programmatically defined to be same as data entered in association to OGP (Facebook) or schemaorg (search).

Enterprise & Government - Credentialing & Attribute Based Access Control

Once 'ontologies' are defined, tools exist to 'map' existing relational databases and their access control systems; to unify knowledge management across all verticals; as to manage accessibility through the use of 'attribute based access control'⁴². Credentials & semantics form part of the *attribute ecosystem*.

In this way, a form of API is defined to take advantage of a homogenised 'structured data fabric' which results in an ability to manage and make-use of cyber-infrastructure through the employment of business rules; rather than getting stuck into problems linked to particular 'siloes' infrastructure.

More recently these ecosystems have been extended to support 'digital identity', 'identifiers and credentials. The useful application of these instruments in connection to other ecosystems; provides a means to define 'digital twin' infrastructure in a manner that supports multi-tenanted ecosystem based capacities that are otherwise unable to be achieved.

High-level Enterprise and Government - Projects Considerations

For executive and societal leaders who operate in areas of expertise outside of Computer Science, these sorts of projects are about the means in which institutional frameworks are equipped to support Artificial Intelligence, knowledge based assets / knowledge-equity; and the expansion of operations to include software automation.

The implications that equip organisations to support functional, operational capabilities through the use of Semantic Web related infrastructure; is in-turn, both technically and operationally distinct to

³⁷ <https://www.w3.org/Consortium/mission>

³⁸ <https://www.iana.org/assignments/uri-schemes/prov/did>

³⁹ https://en.wikipedia.org/wiki/Comparison_of_triplestores

⁴⁰ <https://www.govcms.gov.au/>

⁴¹ <https://lod-cloud.net/>

⁴² https://en.wikipedia.org/wiki/Attribute-based_access_control

By: Timothy Charles Holborn

alternatives. Amongst the many benefits, semantic web infrastructure helps organisations be technically equipped to make vast improvements to business practices to manage risk, improve efficiencies, operational responsiveness, cost of project and/of infrastructure development and operations.

Where this applies to 'knowledge banking infrastructure', is that enterprise and government systems would thereby / thereafter; be able to form cyber-relations and informatics processes with citizens.

Presently; systems do not have support for civilian data-infrastructure due to a lack of 'knowledge banks'. Therein, the implications are widespread; from the ability to maintain digital identifiers in relation to persons and property (i.e.: automotive vehicles); through to business applications relating to licenses, verifications, multi-tenanted 'checks' (i.e.: police and/or license checks associated to privileged access to premises and/or equipment); and means to employ these 'linked instruments' procedurally.

Implications relating to 'secure 'AI enabled' digital twin' hosting services' (knowledge bank accounts)

Whilst most retailers only provide 'consumers' a thermally printed receipt; that's not how they store their records of the same activities.

Providing an equivalent 'copy' to 'consumers' is not hard to do technically; although, there are an array of barriers; that includes issues such as:

1. Where is the secure place to store it?
2. How should the electronic documents be formatted?
3. Are they defined in a way; that provides;
 - a. linkable & machine-readably useful formats for those resources?
 - b. the ability to explore its entire supply-chain 'cradle to grave' history of the 'things'?
 - c. ability to associate with credentials, licenses, warranties and other related artefacts related to the 'thing'?
4. (With respect to IoT) the means to use it, without having an on-going relationship with a nominated software vendor made at the choosing of the 'thing's' manufacturer; apart from S/W updates?

The implication with Consumer Electronics, is that our (Australian) market is far too small to usefully support the manufacturing volumes desired by international consumer electronics manufacturers. This was part of the considerations that led me to a journey, now linked to the TV Standard HbbTV⁴³.

As such; if there's a future where the 'home helper', that device that's listening into everything that's happening in your home; one where the FitBit or watch, people seemingly don't take-off when having sex; don't have the capacity to elect dating ad's if vitals don't show how much fun they're having or ad's for romantic getaway advertisements if the stats are different; or indeed baby ads...

US Investment firm Andreessen Horowitz speaks about 'the end of cloud computing'⁴⁴ which in-turn means a great deal of 'intelligence' needs to be pushed out to the edge (i.e.: homes).

If we want a means to both support environment and naturalised interfaces (i.e.: 'voice control') with privacy; in domestic settings (for instance, but not solely) - then there's an array of practical considerations about how that might be made to work, and what infrastructure is required to support it. With projects such as 'Solid'⁴⁵ the tooling I have been involved with provides a means to support a socially-aware personal federation of services; where there's a means to produce 'private infrastructure' that supports infrastructure requirements with the proposed 'knowledge banks', therein - when working with 'free-tv' - there's a means to equip the service to support personalisation; with 'second screen' functionality (phones / tablets as social interactive tv devices); without tracking us in any way similar to how it works today; yet to do this, there needs to be a series of very differently engineered infrastructure alternatives, than what is otherwise made available today. As is otherwise referred to by Brian Wassom in his book *Augmented Reality Law, Privacy, and Ethics*⁴⁶ - the web, is becoming ever more pervasive; and

⁴³ <https://www.slideshare.net/Ubiqitousau/the-itv-company-references>

⁴⁴ <https://a16z.com/2019/11/15/the-end-of-cloud-computing-2/>

⁴⁵ <https://www.wired.co.uk/article/inrupt-tim-barners-lee>

⁴⁶ <https://www.amazon.com.au/Augmented-Reality-Law-Privacy-Ethics/dp/0128002085>

By: Timothy Charles Holborn

whilst some define 'augmented reality' as a type of technology that requires glasses, social network silos arguably 'augment' our 'reality' in an array of other ways that don't simply relate to headwear.

Today, I'm fairly sure it's cheaper for YouTube / Netflix communications to Australians - than those provided even by ABC or SBS; particularly if 'quality' is taken into account. The way a lot of people engage their elected members of parliament and #AusPol, is Twitter.

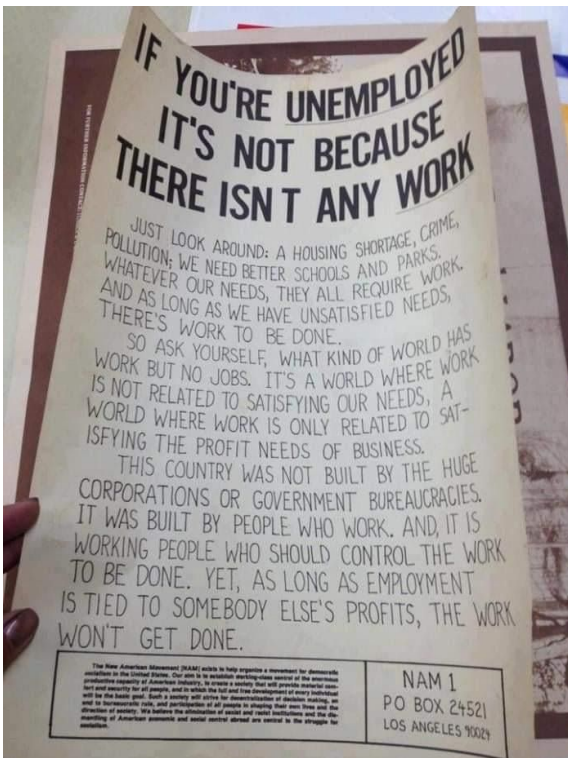
There is a means to provide a domestic alternative, but the hard part is in building a solution that maintains some level of moral integrity with respect to how Digital ID works. Part of getting the solution to that problem right; is that elected members should be able to engage in private communications with members of their electorate; and know their talking to a real-person; and that the person is legitimately part of their electorate, can collaboratively work on a topic with permissively shared records - as may help our democracy 'make sense' of complex problems & resource itself to be best equipped to respond.

In-turn, the broader implications beget an array of highly complex problems within an evolving marketplace of complex and (globally) sophisticated actors via infrastructure that only when deployed; defines how it is that a society is equipped, in some way, to be made able to 'work' or in-turn also, the delivery of new means to (be) consume(d).

The critical distinction between today's choices and those that could be brought about; is in the means through which they support both liberalised democracies and their citizens.

Where these implications start to become of far greater consequence; is as soon as the silos of often false, misleading, 'un-fact-checked' data gets an 'uplift' by some commercial contract; to turn unstructured or previously purposes database content; into repurposed, structured & AI processable content - without having any consideration for the fact, perhaps moreover - potentially relying upon the probability that Australian Consumers (citizens) won't have any access to important evidence; particularly the poor ones, and much like a \$50 pack of cigarettes (disproportionately consumed by poor people) - their ability to say or do anything about it; means, a successful strategy for productivity? How do *easy decisions* relate to long-term outcomes?

What when 'easy decisions' leads to significant public harm? What when those harms impact kids?



Will these 'legislation as code' systems be applied with regular drug-screening of all publicly funded workers? or is that not a possibility? If not, what are the implications on the administration of; and enforceability of, the use of AI technology for use-cases that have a relationship to law; given the common-sense impacts such activities should quite easily be known by a layperson - to have.

How do these decisions impact the ability to make knowledge available, for study, for real-world insights that would otherwise provide society means to deal with reality & improve productivity...

There was / is a capacity to define 'machine readable payslips', which if done well; could also vastly improve the way our 'award rates' are published online, so that they're also made 'machine readable'. This means new tools could be produced, to positively impact employment; yet that has not seemingly been considered; rather, what did happen was that a few companies won large contracts at the expense of poor people, via a series of horrible experiences people helplessly had due to 'robodebt'. machine readable payslips would have other benefits, such as ensure

those seeking mortgages; supply factual income information; and that any request to the 'employment

By: Timothy Charles Holborn

guarantee scheme⁴⁷, is based on fact not fraud; yet The most distasteful reality underpinning the current situation; is that the likely reason why this has come about, is due to the implications of international projects such as Libra⁴⁸ and the Government has not been proactive about solving these problems. I believe the only rational explanation is that elected members are understaffed, ill-equipped to perform as effectively as has otherwise been required of them, for our democracy.

The sadly reactive result appears to upset many; and the way in which these issues have been 'processed' in past; sadly also, leave a lot to be desired about how it is that those involved with our government - need to think about, with respect to their role in ensuring we have a workable, liberalised democracy. The poor are treated punitively, whilst there's few modern economic instruments to ensure they're equipped to be engaged in gainful work activities or defend their rights in the continually developing array of 'emergent forms of work'; the circumstances appear to have worsened to such a degree, that even in areas of traditional employment there's been systemic underpayments even by many of Australia's largest corporations, as reported by SBS⁴⁹

I have seen a great deal of 'scaremongering' about the implications of china, and certainly i do agree that there are an array of issues that do need to be addressed. I am emphatically a patriot, an Australian, i care about democracy; Yet i also, see it as an evolving problem that may end-up similar to that time, back in 1788 when white people landing in Australia; dignity should be a goal - employing 'people power', with cyber tooling.

It is reported that China can build a hospital in days, and if a person has an idea for a 'thing', within a week - they can start manufacturing thousands of them. That is an incredible feat for any part of our human family to have achieved. It is something we should be celebrating as a species....

Notwithstanding the underlying problem in our part of the world - the bigger issue is about the implications of becoming so out-moded; it is as though we are still 'selling' 'spears'. We have a liberalised democracy, but we've not built domestic infrastructure that is equipped to help us and those like us, stay competitive.

It appears, long-past due, that an array of international leaders within many liberalised democracies world-wide; get together, and talk about the importance of cyber-infrastructure, and whether it is the case that the VC Funded global organisations - generally via California, are sustainably enough. *Whilst noting, the implication of the method; is that the 'apps' should be able to be made to work, without requiring those 'providers' to also store (and own) the 'consumers data'; due to the w3c standards works, only useful if used...*

The real-world cost of building our alternative infrastructure at this stage; isn't really 'the problem'.

The broader problem is inclusiveness: to timelines, diplomacy, ability to instigate and support carriage of complex multi-stakeholder works; in a short-time frame, requiring high-scalability.

Employment stats suggest there's 5.2% unemployed in Australia, 8.6% in France, ~3.7/8% US/UK, 17% in Greece, 14% in Spain 9.9% in Italy - a few examples from 'google public data'⁵⁰

Within the sphere of reality, there's an array of far more complex issues which both have an impact on these numbers; and on others that are of vital importance, with respect to unpaid work of various forms, and other sustainability factors.

With appropriate economic infrastructure there is an ability for far fewer people to truthfully be 'unemployed'. Infrastructure gaps & choices today act to victimising those who can't figure out how to 'find a job', when there's simply 'not enough'⁵¹; increasingly 'work activities' are sought to be done without either acknowledgement or economic recognition; which means 'policy says', it is not a job. There are an array of potential answers; Whether it be 'innovating bounties' so that civics works have an incentive

⁴⁷ <https://www.ag.gov.au/industrial-relations/fair-entitlements-guarantee/Pages/default.aspx>

⁴⁸ <https://libra.org/en-US/partners/>

⁴⁹ <https://www.sbs.com.au/news/the-feed/here-s-a-running-list-of-australian-businesses-that-have-underpaid-staff-in-2019>

⁵⁰ <https://www.google.com/publicdata/>

⁵¹ <https://www.smh.com.au/politics/federal/simple-mathematical-fact-report-finds-lack-of-jobs-for-unemployed-20191015-p530pt.html>

By: Timothy Charles

structure - similar to 'bug bounty programs'⁵² (ie; 'democracy bug bounty programs') or more generally, the means to associate the implications of a person's work to socio-economic recognition; employing means to fix these sorts of problems, is far better than investing in the people who just 'take the work'.

The way economy is made to work, is by ensuring people can trade 'money', as a means to support the way in which individuals do work, and in-turn depend upon the 'work derivatives' of others. That is the fundamental basis upon which our society, as is defined to depend upon money and/or economy, is today built upon. By allowing an increasingly applied means for some, to freely exploit the work of others our means to sustain our economy and everything connected to it; is undermined & distorted..

It is increasingly unlikely the 'creative inventor' can retain or associate themselves to any economic value associated to any good idea; and whosoever is considered by 'the market' to be the 'approved maker' would likely take a few years to bring it about, whilst blocking out the market due to the way investors don't like making duplicate investments to existing startups.

There is a lot of talk about start-ups, but it would be interesting to do a comparison on how much they earn for the work they've put in; vs. what would have been the case if they worked as cleaners on minimum wage, and in-turn what the evaluators indices are about the 'economic activity governance' supports; in that start-up 'scene', alongside many others. What is required of our Cyber Infrastructure to ensure that young-people are best equipped to support their needs; to have a safe home and a family.

An exemplar and/or tribute to the merits of the words of George Santayana⁵³ is only notionally valuable for those who are careless with respect to the events and implications of history, such as the 8 hour movement⁵⁴

Human Factors and AI

The last point I'll try to make with respect to the consequential implications upon 'RegTech', is that the level of support for Artificial intelligence to consider, process or be programmatically defined as to take into account in some meaningful way that would have a causal impact on programming; are the array of factors relating to our human condition, and international agreements such as those produced by the united nations. If these types of things are not taken into account, that's a choice.

If these types of things are taken into account to forge cyber-weapons, that's another problem again.

Software is a form of tool, as are 'artificial intelligence' systems. They should not be granted personhood. Consequently, it is important that legal entities be held accountable for the impact the design of their tools have upon other legal entities in our environment. This means there are an array of implications that affect the means through which persons are made able to seek lawful remedy.

A mistake made by software and/or with software, can still have significantly punitive impacts on others.

Consequently, systems need to be defined in such a way that ensures 'mistakes' and/or acts of wilful wrongdoing can be identified and addressed. It doesn't seem reasonable to allow harmful wrong-doings to occur on the basis that responsibility is in some way legally decoupled from responsible legal entities.

Should a methodology be employed that supports the semantics of human behaviour and experiences; both as independent persons, and as participants in groups - then, the means to 'govern AI' for purposes that are directed to ensure the use of enabling technology assistive, rather than as a governor; can be made to be rendered meaningful support for liberalised democracies; both domestic & internationally.

⁵² https://en.wikipedia.org/wiki/Bug_bounty_program

⁵³ [https://en.wikiquote.org/wiki/George_Santayana#The_Life_of_Reason:_The_Phases_of_Human_Progress_\(1905-1906\)](https://en.wikiquote.org/wiki/George_Santayana#The_Life_of_Reason:_The_Phases_of_Human_Progress_(1905-1906))

⁵⁴ https://en.wikipedia.org/wiki/Eight-hour_day

By: Timothy Charles Holborn

Part 3: 'Knowledge Banking' EcoSystems

My ideas for a 'knowledge banking system' have evolved over 20 years and seek to alter and uplift our institutional heritage to form 'fit for purpose' apparatus that is equipped to contend with international alternatives; that today act to artificially stymie 'rule of law', sovereignty and the capacity for us to deliver a future built upon a means to support 'liberalised democracies'.

Whilst these systems are designed to work with systems that support the operation of legal personalities, the primary issue that I am focused on illustrating is about the needs of natural persons. Systems that support natural persons today, often exhibit traits that I describe as global 'cyber nations' and whilst there is already a level of discomfort about market leading examples, that are generally from California, USA; this level of discomfort is likely to be heightened when alternatives emerge, with cheaper devices from Asia as alternatives.

Whilst an inter-domestic ecosystems framework is disruptive, I think it is; both;

- a. Necessary; and,
- b. Better than the (known) alternatives.

Whilst other processes and alternatives that have been incrementally developed may consider various means to limit disruption; the challenge for governments is to consider the ramifications of ecosystems that fail to respond to our emerging issues on behalf of Australian Citizens.

These ramifications are not simply socioeconomic on a domestic basis; but more broadly impactful upon our capacity to respond to:

- Issues that harbour facets of both International diplomacy (secret) and 'sense making' more broadly - publically, which directly forms an interference array upon personhood and human agency.
- Future Evolution of STEM Leadership and the ability for people to thrive and contribute.
- Biosphere threats and challenges and our ability to append productivity to activities.
- Human Relationships, our capacity to trust, live and work with one another.

What is a Knowledge Bank?

Imagine a world where all the data, all of your 'electronic exhaust'⁵⁵ as a natural person was primarily stored in a cyber-environment that was created, managed and augmented by you.

Imagine if all of the data created as a consequence of your life, was formatted in a standard way; so that it could be employed, consumed and built-upon making links with other 'informatics facts'. Imagine a world where your government was principally responsible for the governance of your capacity to own you, your 'digital twin'. Imagine if all the data humanity is generating in relation to your life, was not only available to you; but that you got to decide how it was that you defined your own relationships and how 'artificial intelligence' was applied in relation to you, your 'sense making' capacities and the way you managed your relationships with others; unto, rule of law.

Meaning, that whilst it is the case in any system of democracy that we are subject to laws that are intended to serve us; and that these laws may put upon us a series of requirements, social contracts - where systems are designed to support the needs of society and this in-turn requires from us - an array of expectations and demands; imagine if that was managed in a manner that was coupled with where it is we live, our domicile.

Our rule of law, as does apply to you, me and whomever as a natural person.

If this is the type of future that is considered to be 'desirable' then; it's more than an 'idea'.

⁵⁵ https://en.wikipedia.org/wiki/Data_exhaust

By: Timothy Charles Holborn

Whilst a great deal of underlying study occurred throughout the 00's; from 2010 onwards, the journey led to an expansive, international undertaking - producing a variety of international ecosystem constituents that were required to realise the vision. With great humility, it has been wonderful to have found overtime both that my views have been shared by many remarkable 'thought leaders', and have had in-turn the opportunity to have spent time with them; on a broadly joint pursuit, of this nature.

From around 2013-4, my journey led to being engaged in W3C works that produced 'web payments', 'credentials' 'verifiable claims' and an array of other constituent 'pieces'. By comparison to my early beginnings, and the consequence of articles written back then; what is amongst the more remarkable outcomes, is that the inventor of the world-wide-web himself; changed his life, to focus full-time on complementary works; that i've had some involvement with - over many years.

The reason why I termed the concept 'knowledge bank' from 2012; was that the effect of these informatics environments, incorporating support for personalised AI services; means that it's not just processing 'data', nor is it communicating 'information', that may be entirely unreliable; the reason for the use of the term 'knowledge', is that - its contextual. Wisdom, is in the mind of the principal⁵⁶; whilst the application of that principle concept of 'wisdom', both grows overtime; and is operationally supported by their 'principal agent', the knowledge bank that is providing the enterprise level services; in a standardised, transportable; internationally interoperable manner overall. These systems are designed to be funded (and therefore in-effect, provided 'freely') via the use of financial products and services. The environment will know more about the person than the person can recall about themselves; the main difference between this method; and others, is human agency.

Knowledge Banking Ecosystems

The technical ecosystems required; have been the subject of on-going technical developments that have both formed 'standards' and collated royalty free use of patent from an array of corporations and other stakeholders, as to form accessible patent-pools that make the production of technology safe from those who may seek royalty payments.

The only viable means to achieve a 'knowledge banking' empowered future; is through the use of these works, which is largely built upon the semantic web technology ecosystem.

Through the development of 'decentralised IDentifiers⁵⁷' non-HTTP sources (ie: DLTs) are now also able to be supported; noting that the informatics frameworks on these ledger assets are usefully designed to employ 'semantic web' notation methods.

Manifestly, the means to ensure a viable alternative to 'free services' incurs an economic requirement to ensure services are able to be provisioned without undue barriers. The most significant of these barriers is the potential for applying 'monthly fees', that bring about the problem that someone may not be able to afford the monthly fee and 'lose themselves'. This problem is solved by the method of rendering these infrastructure services in a manner that extends upon the use of economic instruments; as to make use of advancements to traditional financial products and services, to fund infrastructure costs. The next issue; is that 'lock-ins' to any particular vendor, would cause problems.

This is envisaged to be something that can be addressed by building upon existing works in a particular sort of way - which in-turn requires foresight and future regulation. Given the core ingredients specifically deal with 'identity fabric' government must be involved if it is to be considered even as a possibility for core infrastructure needed for our system of democracy. Equally, a market-based solution is required to maintain separation of powers.

The concept is that what it is we require, in the end, is a framework that is 'standardised' that provides a means for 'consumers' (human stakeholders) to select from an array of institutional providers within their jurisdictional area; and that these services are interoperable both domestically and abroad.

A coupled consideration being - that if you don't like one 'bank' - its important to be able to safely move to another; and if you move overseas, to some other sovereign nation - it's important not to 'leave yourself behind', electronically. Technically, solutions are not entirely incompatible with existing global

⁵⁶ https://en.wikipedia.org/wiki/Principal%E2%80%93agent_problem

⁵⁷ <https://www.iana.org/assignments/uri-schemes/prov/did>

By: Timothy Charles Holborn

platforms; such as those provided by Apple, Google, Dropbox, facebook and many others. This was in-part an important design requirement; both, to support browsers and future app interoperability.

This approach is moreover termed 'human centric'. In a 'human centric' approach, the real-world legal actors are human beings, not bots. Moreover, the purpose and funding mechanisms for these services are modelled as to accommodate international considerations. Any 'island based' alternative; without the means to engage with others internationally - is simply considered unworkable.

As such; there is a series of mutual problems that are exhibited across multiple Jurisdictions / countries; whereby the underpinnings require governmental custodianship.

Human Centric - AI & AI Agency

Artificial Intelligence, or AI, is a complex set of interrelated tools that in-turn bring about the means to programmatically define how software agents are made to work. The principle means 'artificial intelligence' services are designed to work in a knowledge banking industry, by design, is as assistive technology, operated in a manner defined by self, to enhance Human Agency. The design characteristics of a 'knowledge banking industry' have been designed for humanity.

By forming an informatics environment that means AI services are defined by way of personally defined decisions. The way this is achieved is through the use of semantic web ecosystem tooling. This provides a means through which RDF related semantics & inferencing relationships can be applied helps to shape the personalisation of relationships, overtime, with other agents.

In effect, what is brought about is the means for AI agents, to be an extension of self, like a prosthetic instrument. The modal differences embodied by the design I try to distinguish as a 'human centric' web.

The decisions people make in applications today, can be translated to modal considerations made by those persons at the time; in a manner that can both retain the resolution of decisions made earlier, in addition to providing the means through which personally define changes occur that in-turn changes the way a persons AI agent behaves; by rendering support for human factors, like 'learning' temporal relations - factors that relate, to causality.

As are parts of the types of decisions people make, the result delivers a means to personally decide how to alter the resolution of queries; for example;

- to decide whether a person can identify the exact location of a person (GPS point data), or
- the approximate location (suburb, State or country) of a person; and,
- whether and what is able to be identified through the use of AI related technologies with biometric signatures (i.e.: 'facial recognition', phonetics, biomarkers, etc.).

There are many parts to a person's 'infor⁵⁸g' and in-order for solutions to support citizens; all these parts are able to be interoperable; defined, in-terms of what is able to be 'augmented' as is provided to any agent individually (temporally); via 'knowledge banking' infrastructure, contextual, individual relations.

In our natural world, every person who knows you - will have a different concept of who you are; and that interactive system, will in-turn change overtime - as you will also, as is part of consciousness.

The solution for AI, is to build a human centric web, to support how we make the AI extension of self.

Therein, the point of the design methodology involving its multiple parts; is to power, this smart 'bot' and it's more complex than simply 'RegTech', 'FinTech' or other better known, yet still absent implications to the enquiry summary. A potential problem being that poorly considered legislation may make it illegal for this type of infrastructure to be made-able to be brought about, due to the design of emergent laws.

⁵⁸ <https://en.wikipedia.org/wiki/Infor>

By: Timothy Charles Holborn

The implications & design questions engineered into solutions (over 20 years); that have impactful consequences on human consciousness (freedom of thought), experience, causality & AI strategy; may in-turn want to considers (amongst the many things):

- What is the 'role of the observer' and who is defined as the observer?
- Who is defined as the legal actor and who is defined as a stakeholder?
- How is any form of 'social contract' reasonably equipped, as to be binding?
- Upon what basis is a participant equipped to retain 'human agency' and their capacity to form informed (legally binding) opinions / choices?
 - What are the consequential impacts either way; on self, societal interactions & causality?
- If this infrastructure is operated by foreign interests, what are the implications for democracy?

"In order to make quantum mechanics work, you've got to bring the human agent into the equations of quantum mechanics which are designed to explain human experience."

Henry Strapp⁵⁹

Human Consciousness exhibits traits described by quantum mechanical works; the way this could be addressed via online systems could employ (amongst other things) 'ontological design' apparatus.

'Knowledge Banking' app ecosystems

The means to produce an application for a 'knowledge banking' enabled fabric; is built using W3C HTML5 development tools; and/or other, more sophisticated alternatives.

The methodology intentionally seeks to form a cohesive informatics fabric that supplies a means to perform informatics centric networking. What this means, is that rather than one organisational database providing discoverability of information assets from across the network; in a manner that is similar to the functional properties of DNS; there is a requirement to decentralise the discoverability and use of information assets so that they are able to be consumed in a decoupled manner from original providers (using DLTs); and that communications can be supported via a federation approach that employs standards; not (a) singular company(ies), and their proprietary - commercially operated solutions.

This is in-turn required to produce a differentiated ecosystem that is able to pair the role of a physical legal actor; with the activities of their 'digital twin'; and given these systems have been designed to support an array of royalty free, open web-standards applications can be made to work; without having to be required to store user-data in relation to that applications function. In this way, a person's contact (addressbook), communications (messages, short-messages, etc.), photos, calendar events and all sorts of other 'data'; can be employed by any application that is designed to consume these underlying data standards. The benefit to app developers, is that they don't need to store user-data; and given the user is storing their own semantic environments; there is a much higher richness of available data to make use of in creating new, innovative and useful - applications.

App 'safety' Verifications

Mobile phone operating systems have 'app stores' and these 'app stores' undertake verification processes for applications - to ensure they're 'safe for end-users'.

There is a need to perform the same functional process; as to ensure decentralised applications are safe. This functional requirement - in-turn - is something that should not be up to one 'verifier' in the interests of delivering an ecosystem. The modal consideration is that some 'verifiers' will develop a more 'trust-worthy' brand than other 'verifiers' in much the same way as the anti-virus/malware markets.

This is in-turn one of the very many 'verifiable claim' or 'credential' use-cases.

⁵⁹ <https://www.youtube.com/watch?v=ZYPjXz1MVv0>

By: Timothy Charles Holborn

Verifiable Claims & Credentials

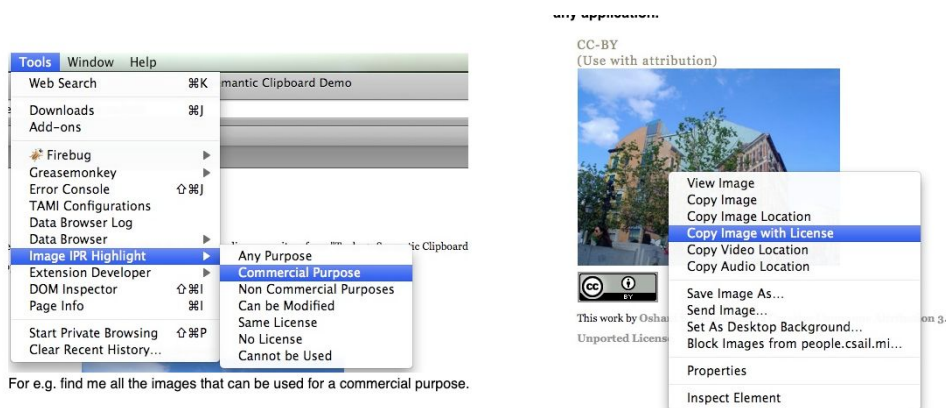
Since around 2012 an array of activity has been undertaken via W3C groups, which in-turn has had an array of flow-on effects; to produce a 'verifiable claims' and 'credentials' ecosystem.

Some of this work has been directly applied to 'human identity', which is from my perspective - not the intended purpose.

To be clear about this; the underlying 'knowledge banking' ecology is not simply built on 'blockchain'; yet the means to incorporate semantics about 3rd party actions, validations & decisions; plays a vital role in 'truth telling'.

To achieve this, the means for 'authorities' to provide software instruments that can be made use of by (intended) recipients - is in-turn what 'credentials' / verifiable claims is about. This work has developed additional 'DLT' works, which should be able to be made to work to support permissive commons.

Therein, ontological referencing; such as law, can be formatted into a machine-readable format; an example of this, is Creative Commons⁶⁰; and although, Creative Commons doesn't use Credentials, Verifiable claims or DIDs and is currently not easily equipped to support micro-payments to the copyright holder - the basic methodology can be applied to various other use-cases such as Austlii⁶¹, the UDHR⁶², the CRC⁶³ or any other 'resource' as to form machine-readable sense-making linked to content.



Source: semantic clipboard CSAIL-MIT⁶⁴

An example of how this type of functionality is already well-developed on the web is able to be demonstrated via the redlink demo⁶⁵ which updates unstructured text (copy/paste) to an entity graph.

Another example could be terms that are applied on behalf of consumers with respect to electronic transactions. My 2014 description (RASPS⁶⁶) considered Data:Reuse, Data:Accessibility, Data:Security, Data:Privacy & Data:Sovereignty. Beyond the availability of these 'tools'; it is important the vocabularies are defined. Presently these vocabulary works are not very well developed despite years of advocacy⁶⁷.

Whilst there is globally, a very well developed capability as is illustrated by such resources as lod-cloud⁶⁸, the means to support both localised vocabularies (incorporating cultural differences) and thereby also; enable support for 'inferencing' between international relations, is not presently well developed particularly in fields relating to human factors, civics and other less commodifiable applications.

⁶⁰ https://wiki.creativecommons.org/wiki/License_RDF

⁶¹ <http://www.austlii.edu.au/>

⁶² <https://www.un.org/en/universal-declaration-human-rights/>

⁶³ <https://www.ohchr.org/en/professionalinterest/pages/crc.aspx>

⁶⁴ https://miro.medium.com/max/1648/1*whjhzHypf0Xuhi3dJBEIcA.png

⁶⁵ <https://my.redlink.io/#/apps/DEMO/playground>

⁶⁶ <https://lists.w3.org/Archives/Public/public-webpayments/2014Jul/0043.html>

⁶⁷ https://docs.google.com/presentation/d/1rGzu_IAYNZONL16xOGeYqYeNHGNbeIK0ja0AL5SoftO/edit?usp=sharing

⁶⁸ <https://lod-cloud.net/>

By: Timothy Charles Holborn

The implication becomes associated with the means through which AI is made able to function; as the only way to 'script' 'inferencing' capabilities in software, is in relation to data that exists; it can't process information that isn't available, even if it is of vital consequence as to causally impact derivative effects.

In-effect - part of the means through which this problem is addressed - seeks to ensure that anyone is able to be a verifiable claim or credential issuer; whether it simply be for a 'party invite' (that may have IoT support to provide access to the building); or something more complex - the types of Verifiable Claims & Credentials that are likely to exist; include, but are not exclusive to:

- Credentials that relate to Clubs, Skills, Social and Sporting activities⁶⁹.
- Smart Cities, IoT infrastructure & property ownership (inc. their 'digital twins')⁷⁰.
- Receipts, Payslips, Loyalty Cards, Trade Qualifications, insurances and licenses⁷¹.
- Citizenry Information - which electorate does an eligible voter live in; for the purposes of engaging in issues that they may raise with their representative⁷².
 - Are the claims made by constituents in any complaint - 'trustworthy'?
- Academic Achievements (credentials & Microcredentials).
- Employment related credentials (proof of employment, building access, supply of identifiers, etc.)
- Civic Credentials (Police Checks, Working with Children Checks, Drivers Licenses, Pet Licenses, parking permits (linked to vehicles), Library Cards, etc.
- Specialised AI Scripts & applications & API Credentials; Functional Software that does what it says it does. The means to produce authoritative 'data sharing'.
- Banking Instruments, licenses, subscriptions.
- Legal 'informatics' requests - such as law-enforcement, courts and Statistical requests made in the form of an inspectable query framework from an Authority.
- Medical Information; including imaging, pharmaceutical scripts, disability credentials (which may also be attached to vehicles).
- Ownership and/or rightful use 'credentials' for Property (Incl. AR Law⁷³) and Chattels (INC: IoT)
- Emergency scalability of informatics federation between multiple actors. For example; if a state of emergency is called, information is automatically federated between the various systems that are governed via various response participants.

When considering the volume of data; this should underscore the importance of 'dignity'; yet also, part of the implicit notions embodied by the broader-ecosystem - is that claims have relations to societal infrastructure.

There are material implications to 'claims' that people make, sense-making capacities of observers in relation to any claims; and in-turn also, obfuscations, casualties and the *spirit of 'rule of law'*.

False claims have meaningful impacts; often employed for 'short-term gains', the hope is to render infrastructure means for those who are better entitled, on a basis of facts - to be trust-worthy.

If there are no repercussive effects for willfully distorting socio-economic processes; there's 'causality' implications, premised upon the basics of incentivised behavioral structures - in what defines 'success'.

Socio-Technical considerations

'Artificial Intelligence'

The approach seeks to employ and improve the engineering of an array of multi-modal, multimedia, artificial intelligence infrastructure apparatus as to form infrastructure that is built upon standards; and equipped to support the needs of various tenants (inc. gov/mil). Providing a societal option, as an alternative to other platform based alternatives. The hope is that an option can be made available.

⁶⁹ <https://medium.com/webcivics/skills-social-activities-2124e52bd877>

⁷⁰ <https://medium.com/webcivics/wot-smart-cities-engineering-digital-twin-things-ecosystems-78341f911ab2>

⁷¹ <https://medium.com/webcivics/small-to-medium-business-webpayments-knowledge-banking-6b0e15c7e71d>

⁷² <https://medium.com/webcivics/tooling-for-democracies-5c9b837a68a3>

⁷³ <https://www.sciencedirect.com/book/9780128002087/augmented-reality-law-privacy-and-ethics>

By: Timothy Charles Holborn

'Permissive Commons'

The approach seeks to couple relations between the intended beneficiaries of informatics assets providing a means for the use of informatics in a manner that supports privacy; and the means to support custodianship, stewardship and asserted property / moral rights in relation to an informatics assets; as to support safety and security relations to & with AI.

Economic Instruments

There are an enumerate number of tangible economic instruments that exist and are in-turn expected to be encoded via some methodology for 'online' (networked) use.

The basic principle / premise, is that the real-world civil / legal tenant that is responsible for whatever 'economic instrument' that exists and is used in a non-cyber manner; is the same legal tenant who should be equipped to assert the same governance role, online.

With respect to financial instruments; the online world illustrates many societal differences to the socio-economic activity of persons as was the case historically, whilst it has indeed 'evolved' somewhat radically (from a historical context) in living memory.

The industrial era brought about changes that geographically broadened participatory groups due to the changes in 'transportation' infrastructure. Cyber has a socio-economic 'globalisation' effect.

There are an array of implications brought about by introducing standardised methods for economic tooling in particular; these include, but are not limited to - those that relate more specifically to law.

Transactions require both a financial and transactional 'receipt'.

It is vitally important this capability continues to be supported, whilst resolving the lowest possible energy cost that may be made possible technically as to support the lowest possible floor-price for 'micropayment based' economic infrastructure support.

The Trust Factory - An Options Statement

'Trust Factory' was registered as a trading name in 2015 as a means to support ecosystems R&D.

The Business concept of 'Trust Factory' is in its seeking to have built a viable business systems opportunity to establish critical infrastructure in a particular way for liberalised democracies. The primary issue is that there needs to be a 'trust factory' to build whitelabel infrastructure for industry.

Some of the underlying problems that need to be addressed incorporate considerations with respect to functionality that needs to be 'built into the network', that has high-stakes use-cases; relating to media, KYC/AML and other matters of importance to sovereign states. Projects such as MicroProject⁷⁴ provide a means to illustrate functional 'proof of concept' examples; for infrastructure that's part of an ecosystem.

Our human family maintains stewardship over the future of our natural world. We take care of this most vital role both for our species & that of many others, through knowledge.

In the 20th century, mankind developed information technologies, as to form an information age. In the 21st century, we have only just commenced the build of a knowledge age. A knowledge age is different to an information age in many ways.

It is still unclear who and/or how the most pervasive national leads will establish their position; and what cultural implications that may bring with it; including, some consideration as to how and/or if 'liberalised democracies' remain at all, or if global 'cyber' alternatives that provide better material support for the notions embodied by 'rule of law', to most rapidly grow.

⁷⁴ <https://www.mico-project.eu/technology/>

By: Timothy Charles Holborn

In-order to substantively fund a body of work considered to be of instrumental international importance; a nuanced 'public private partnership' model; is considered.

Other terms i've seen about these sorts of frameworks include;

- Model Project Alliance.
- Build Operate Transfer or design Build Operate Transfer; and/or similar.

The purpose of 'trust factory' has been to produce and refine an ecosystems approach designed to support exactly that; A 'Trust Factory', to execute works to deliver white-label solutions via a 'brains trust' curating - multi-stakeholder organisational activities. As a consequence of information age infrastructure, there are emergent alternatives that are increasingly found to have an array of systemic characteristics that are a cause for concern. As there is also 'pervasive surveillance', choices have consequences. As a means to establish baseline expectations; the United Nations Universal Declaration of Human Rights sets out an array of principles; In its preamble, the UDHR notes:

"Whereas it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law,"

alongside;

Article 27.

(1) Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.

(2) Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.

Therein - the inferred consequence is that if mankind has a means to discern the true nature of a circumstance that is cause to harmful consequences; particularly those that breach human rights principles, then it is incumbent upon the sovereign state to ensure adequate support for 'rule of law'.

The means to achieve this becomes vastly more difficult and/or expensive, if 'evidence' is stored, globally and not in a manner that supports domestic societal requirements by way of accessible infrastructure.

Elsewhere in the world, the underlying notions are part of the considerations for the UN Sustainable development goals⁷⁵ (SDGs); whereby SDG 16.9 refers to 'legal identity'⁷⁶ which is closely linked to financial inclusion⁷⁷ and global means to address the issue world-wide of our global unbanked population. Whilst it is reported that Facebook hopes to address this issue with Libra⁷⁸; the implications, whilst different to those in Australia (although perhaps more functional than gov examples⁷⁹), lend themselves to an array of potentially characteristics that may be contrary to the interests of liberalisation and the material sovereignty of states; including, 'consent of the governed'⁸⁰.

More Recently, the term 'digital twin' has emerged; which provides an invariably simplified concept of an otherwise highly sophisticated series of considerations. The world upon which the many attributes to how it is our society is governed, inclusive to its socioeconomic structures; are built upon cyber infrastructure, associated to 'digital twins'. So the engineering of this alliance-project concept; has been the subject of a series of design works, that have sought to build infrastructure to establish a regulated market-place that is designed to work with governments; and that Trust Factory, is not an 'operator'.

The means through which any assessment of a legal entity is carried out is upon its 'digital twin'; if a system that is relied upon makes a statement, considered defensibly employed for any subsequent act/s by another entity - then that forms part of our 'common-sense' approaches to what it is we do in life.

⁷⁵ <https://sustainabledevelopment.un.org/?menu=1300>

⁷⁶ <https://indicators.report/targets/16-9/>

⁷⁷ <http://blogs.worldbank.org/developmenttalk/financial-inclusion-has-big-role-play-reaching-sdgs>

⁷⁸ <https://www.abc.net.au/news/science/2019-06-26/facebook-says-libra-crypto-will-help-the-unbanked-but-will-it/11244534>

⁷⁹ <https://www.servicesaustralia.gov.au/individuals/services/centrelink/cashless-debit-card>

⁸⁰ https://en.wikipedia.org/wiki/Consent_of_the_governed

By: Timothy Charles Holborn

'AI' now reads - how we treat one-another & how 'rule of law' is made to work; The nature of the senate's enquiry gets to the heart of seeking permission for making policies about how our 'digital twins' shall be governed. The problem that exists one way or another, is that the infrastructure for alternatives doesn't exist. When making that infrastructure, it's vitally important no 'monopoly provider' or 'king' emerges.

Human beings, with respect to 'today's infrastructure'; are not provided 'infrastructure' to be 'principles'; rather, today's infrastructure delegates human beings as to be 'consumers'.

The vast majority of online services seek to consume 'our attention', whilst retail receipts are still provided to 'consumers' on thermally printed paper; with inherently basic functionality.

We don't really have a 'safe space' to store the information that may improve how we are provided medical and/or legal services; there's so much that's consuming us, whilst apparently it's still all too difficult to make use of this infrastructure, to help mankind and our biosphere. Apparently it's too hard to ensure that someone with a life-altering problem is equipped with all the 'digital emissions' that relate to their lives - to seek timely lawful remedy; and that, whilst there's an enormous number of 'jobs to do', the difficulties people have in looking for gainful work - are the problems of the job-seeker.

This sort of supposition has been an on-going problem, and is today generally solved when international alternatives come into our Australian Market and 'take off our hands' any responsibility for solving a real-world problem, that was seemingly considered unimportant.

But the bigger problem is; that it is actually quite important, and inherently within this request for submission - traditionally only a few participants will be delegated opportunity.

The purpose of Trust Factory is for the derivatives of 'creative works' to fix this problem. The primary barrier to the creation of this infrastructure solution on a global basis; is moreover about knowhow.

By forming an alliance structure in a manner that supports 'moral grammar', as is sought to be 'fit for purpose' for the task of engineering the availability of infrastructure to serve humanity & support our democracies; as an option, to other 'stuff' that's been made by societal members already, overtime, the belief is (I think it's science) that there's enormous scalability benefits brought about by 'fair dealings'.

The critical problem that is becoming unwieldy, is the nature through which it is becoming increasingly prolific that the most basic moral principles embodied by humanity are now under-attack using ever increasingly sophisticated tooling, without concern or negative consequence, for its impacts.

Whether it be statements that are made illustrating wrongs that have been committed in reality; the tactical method employed, is to eradicate that person's ability to have a voice - there are safety issues.

Compliance is increasingly required; and the 'puppet masters' ain't here in Australia, not really.

The problem is that we are consuming the core tenants for our 'liberalised democracy' because it is 'cheaper' and 'easier', that taking 'bold' steps to do otherwise. As a country of ~25 million souls, in a world that seeks to support those of the residual 7.5Bn people; our society, has many compelling opportunities that I believe are worthy of support by a federation of international stakeholders, looking for a solution and a country to take the lead as a real-world base, to how a solution may be brought about. Our society harbours the oldest living culture in the world; and in many (if not most) ways, it's a knowledge economy.

Our people have come to Australia from many places around the world; as our rich multicultural heritage has led to an environment that is made-up of people from around the world.

We are part of high-level security relationships both with the US, Europe and as a member of the common-wealth; and, we exist in a continent that provides a great deal of opportunity to work during the day, with people in Asia; to re-forge instruments that both suit our domestic means and those of others in liberalised democracies; whilst working through the complex issues linked to how to unite cyber-infrastructure with other regions, elsewhere - that are defined in a manner that means they operate quite differently. It would be fair to argue that there are few experts internationally who would not welcome the opportunity to come to Australia; and get stuck into a project like this for humanity.

By: Timothy Charles Holborn

Our multicultural environment means we're not only equipped to work with such people here; but also, extend our means of supportively constructing 21st century socio-economic (cyber) infrastructure with them, and those through whom their concepts of cultural wealth and patriotism when they return home.

Yet the challenge - that is far greater than my capacity to remediate - is about 'market forces' and I am fear that it is a willful choice. Economically, the infrastructure that manages socio-economic activity is not something that should be questioned on a basis of whether or not it's considered valuable.

Technically, now after 20 years for me (and some others, in different ways); it's clearly a viable option.

In consideration of this being a choice, my submission should provide an option to be built upon.

Infrastructure Alliance - Project Partnership Structure

In-order to provide a workable alternative to pre-existing infrastructure solutions that are today made available in a manner that shares an array of similar ideologically defined functional constraints;

which is in-turn the underlying object purpose of an enterprise undertaking that could and/or should be brought about - as to ensure an alternative,

There are an array of considerations that relate to the formation of a fit for purpose entity.

It is important that an ecosystem of participants be involved as to cooperatively form an international solution that has a viable opportunity of being made able to work effectively.

Considerations include; that,

- This critical infrastructure is required by many sovereign nations world-wide.
- The means to support both domestic and international environments is required to deliver an outcome that provides migratability and interoperability between nations
- The instigation of critical cyber apparatus with functional characteristics that are different to pre-existing globally managed commercial infrastructure alternatives; requires a great deal of diplomacy and legal / policy innovation works; with citizenry.
- The means to support nation states whose system of government is built upon the core tenants of a 'liberalised democracy' and support for UN Charters and related human rights instruments; means that there are specified qualities that are distinct to regions that are governed differently.
- Human Agency is determinate by 'digital twins' and the policy frameworks that lead to their design characteristics are determined on whether and how a society is designed to work; and what problems it is designed by infrastructure, to support.
- There are an array of existing infrastructure sectors whose roles are expected to evolve as a consequence of the implications brought about by cyber-infrastructure.

Just as money is no longer about gold, socioeconomics is no-longer just about a database record that links a numeric 'wealth' value; to a person as to adequately support their 'banking interests'.

No-matter what the trust-worthy 'hosting framework' is called; there are design implications based upon whether its intended to tell the truth, be equipped & engendered to support alternatives that are designed to be relied upon by a court of law.

The role of technologists in this pragmatic process is in-effect dutiful. Technologists are members of society whose dutiful role as stewards is linked to our ability to serve others.

The role of the government is to form a socially cohesive infrastructure to serve the governed. Alternatives do exist, where historical examples centred upon service to monarchy in a framework that de-coupled responsibility of a ruler or ruling class upon the governed.

As a representative 'liberalised' democracy is not based upon this principle; there are an array of instrumental societal assets of vital importance for maintaining human agency. Presently, this infrastructure is not available; and/or features an array of artificially distorted characteristics that are sub-optimal for societal growth in liberalised democracies.

By: Timothy Charles Holborn

Technical Approach

There is an ecosystem of technological tools, broadly software based, that have been designed, refined and appended to; as to form a cohesive ecosystems environment, that is,

- a. Made available upon a basis of 'standards' that are made to be 'royalty free' as a consequence of patent pools by a vast number of global stakeholders participation.
- b. Produced into an array of existing implementations in various component forms.
- c. Interoperable, able to work in sophisticated and dynamically federated manners.
- d. Largely compatible with the underlying technology ecosystems employed by many of the world's leading websites, web-services and related infrastructure assets.
- e. Seeking to define 'white label' infrastructure, to support our societal values; whilst serving to deliver functional requirements for humanity and our many different cultural requirements that are both different for different regions, and people.
- f. Able to deliver a modal means to ensure 'Artificial Intelligence' is constrained to be societally maintained as an assistive capability; rather than a prescriptive one, that may in-turn be provided legal impunity with consequential problems of mass effect. Considerations thereby extend beyond the ramifications of the tools; as to consider also, the importance of legally binding responsibility upon tool makers.
- g. Conducive to rapid advancement of the useful arts and sciences; whereby considerations include, but are not limited to, those of productivity benefits.
- h. Support for universally accessibility to 'rule of law' as a manifest functional quality.
- i. Means to identify unauthorised 'change' events (ie: quantum compute security modals)

Societal Approach

Technically the proposed apparatus is thought to be made able to identify and alert parties in a timeframe similar to the functional characteristics of a search query via a search-engine, the means to engage in a multi-party conversation; and/or similar.

Considerations with respect to security extend to the manifest capacity to ensure the protection of human rights with particular regard to those of children. The results of this infrastructure apparatus would ensure any limitation of means to prosecute violations is made solely to be that of business systems; rather than any would-be technical limitation.

The methodology for so doing is considered to be fairly pervasive in nature; as such, the underlying concept is that if citizens seek to exist in a society that harbours values of significant importance to be materially and prescriptively upheld; then there is no technical limitation, as may otherwise exist due to software failings, that prevents that from being the case. As such, there is a means to live by way of social-contract built upon rule of law.

The problem many may have with this is most certainly linked to the 'rule of law' concept. Which many may consider to be inconvenient for their needs. Where this is the case, such persons are already equipped to use cyber-infrastructure the way it works today.

The benefit of providing an alternative, is that societal burdens that are linked to both the economic and societal costs for having to produce tools to address bad actors; need not disaffect those who seek a meaningful alternative that preserves their agency/personhood.

The modelling is built upon the concept of a series of domestic 'knowledge banking industries' that are designed to work interoperably. Therein; should a domestic law-enforcement agency seek to make a proportionate request to the 'knowledge bank', they're able to do so. Other than via this modality, the environment is made to be secure.

The legal approach to how this would work requires regulatory considerations, alongside the provision of practical support by government/s to ensure 'identity instrument' issuance by government is electronically provided in a manner that technically supports this alternative ecosystems environment. As Government is one of the many pre-existing users of the underlying technology ecosystems; this is technically & regulatorily achievable.

By: Timothy Charles Holborn

Part 4: Governmental Considerations

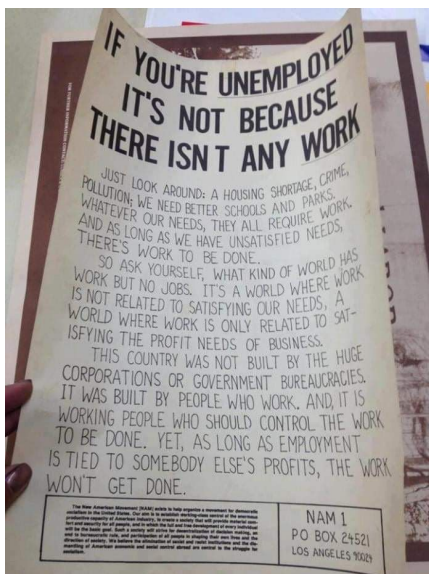
Governments cannot do it all themselves; there is no way this ecosystem is able to work effectively in the interests of maintaining a liberalised democracy - but simply delivering infrastructure via the public sector; that said, the role of the government is of instrumental importance for any "good" outcome.

As an Australian my considerations of the sorts of things that may best be considered prior to rendering global enterprise support for 'legislation as law', 'digital identity & AI' & FinTech; centres upon ensuring our domestic capabilities are equipped for the journey.

There to; It's of vital importance that our innovation capability is provided a jurisdictional environment that supports both exponential growth of productivity (in a relatively short time frame); and, a defensible cyber-physical ecological ecosystem, that maintains our capacity to make our liberalised democracy grow, flourish and thrive; as a means to support the well being of all Australians. Delivering opportunity via pursuits towards many goals; the underlying promise for our society is that the nature of these complex and sophisticated works, seeks to ensure that all people who have a go, get a go', ASAP.

Yet, there is a problem linked to the topic before the senate; one that both impacts Australians, alongside others overseas, in other liberalised democracies.

Today's 'systems' aren't working. We have pervasive surveillance but there is increasingly nominal support for 'Rule of Law'. The amount of 'free labour' required to seek justice, increasingly punitive.



Throughout Australia today, a significant volume of the population who are considered to be 'unemployed 'consumers'', whose lives are bound more broadly - to the internet. This model concept of 'unemployment' doesn't distinguish someone who works on useful outcomes; but is unpaid, to someone else who may simply be 'entertained'.

Linked closely to the term 'consumer', WWW is now socially aligned with an internationally perpetuated idea that they have 'no job'; that they do nothing useful for society - nothing that usefully contributes. Nothing worth acknowledgement. Whilst the effective cost of being online - is certainly not free.

So why is it that some types of legal entities are considered to be entirely reasonable in expecting that they be paid for services; whilst so many represented by a different sort of legal entity, are told that they should not only consider themselves lucky to be a 'consumer', but also discouraged from considering the full and thorough implications of international servitude.

Why is it, that its the case that most people could relatively quickly outline an array of good and important jobs to do; but that;

- the amount of effort involved if they wanted to get paid for it - effectively invalidates the case of thinking 'optimistically' in such a way, after all even if they did put in the effort, what's the probability they'd get paid; as opposed to;
- Someone else as a consequence of seeking to formulate a solution with some stakeholder, who then sends it off somewhere else highlighting whilst doing it that they're looking for the 'cheapest solution' which is a fairly problematic position statement, given the way economics works; and that;
- The very high barriers to employment which is most easily characterised by evaluating the cost and process brought about by the recruitment industry; which isn't equipped to respond to a variety of broader productivity issues, as increasingly more international solutions come to market as a replacement to local industry.

These parallel issues - are seemingly not strongly linked or coupled, with responsive and responsible policies.

By: Timothy Charles Holborn

The underlying narrative that is more generally employed - relates better, moreover to concepts that were meaningfully engineered as to be applied in an era that we now call the industrial age; yet we've progressed. Whilst the Australian Public Service has a clear 'code of conduct'⁸¹ the recent APS review⁸² has highlighted an array of recommendations; which in-turn, have some inherent implications.

I suspect there are many within the public service who hold contrarian views to those employed in their jobs.

From a technological point of view, whilst our society has progressed, our economic infrastructure is old.

- Modern issues mean that 'consumers' may not be entitled to rely upon being provided material evidence, they don't need to be 'acknowledged' for many new types of work; and certainly also,
- they don't need to be paid; and if they are,
- there is such limited levels of support for the civil tenant, even many of Australian's largest corporations have only recently been found to be underpaying workers⁸³ who have jobs in traditional employment markets; whilst others still,
- caused punitive harm⁸⁴ by their government due to the apparent lack of hygiene at great expense to all involved; and,
- amongst the greatest of ideological illustrations now therefore brought about is an implicit supposition that it is fairly levied upon unpaid 'free labour' to fix these problems that are operated with complicit negligence; by those who have a job.

It simply doesn't make sense that this is truly due to ideological differences.

Is it reasonable to be unsure what personal attributes, AI Personality Tests will be looking for.

These exhibits; whilst nuanced, is one that includes too many examples of wrong-doing, some incorporating issues that may be considered to be 'crimes against humanity'; others, which if evaluated may be considered new forms of slavery that is only now made possible due to world-wide-web / cyber failings. The underlying & implicit consideration is that the way these systems work, doesn't help anyone.

There are of course, indeed the vast majority of persons who undertake important roles and positions who seemingly seek an opportunity to change the way things work, but feel its not available to them.

This pervasively systemic problem appears to have remarkably negative effects, at great cost to us all.

Objective based policy making

The concept of 'objective based policy making' is to render economic stimulus as to support the manufacture of various socioeconomic outcomes preferentially to others.

There is today, presently, significant 'globalist' infrastructure; which by manifest to some-degree, appear to form characteristically qualities of a new type of 'nationhood', a 'cyber nationhood'; whereby - it's fairly hard to just leave facebook.

There are many who 'pick on' facebook, when there's so many worse practice examples.

"My goal for the next decade isn't to be liked but to be understood," Zuckerberg said.⁸⁵

The point here is not to 'pick on facebook', or others like it; but rather, seek to instil a level of confidence upon which senate members may better review what options, what alternatives - how could a more diverse marketplace be brought about both domestically and abroad; if there were more options.

Even Zuckerberg has an array of legal responsibilities that are linked to his role, market-forces likely help.

⁸¹ <https://www.apsc.gov.au/code-conduct>

⁸² <https://www.apsreview.gov.au/>

⁸³ <https://www.sbs.com.au/news/the-feed/here-s-a-running-list-of-australian-businesses-that-have-underpaid-staff-in-2019>

⁸⁴ <https://www.abc.net.au/news/2019-11-19/robodebt-scheme-human-services-department-halts-existing-debts/11717188>

⁸⁵ <https://www.businessinsider.com.au/facebook-mark-zuckerberg-says-wants-be-understood-but-not-liked-2020-1>

By: Timothy Charles Holborn

Today, decision makers by law are still all human; as members of our human family, we have an array of things generally that we care about and the greatest of scarce resources, is our time and as is a part of the new paradigms brought about - the attention economy⁸⁶, has a productivity and economic impact.

Whilst law in connection to the corporations act and other instruments like it; may put upon decision makers an array of constraints, the purpose of this was not to undermine law. There is an array of critical differences between private economic instruments; and those of an elected, representative governments sovereign issuance.

There is also a difference between application of domestic law on domestic legal personalities; vs. those that may both be 'head-quartered' internationally, and have billions of users - which has an influence on the means for an advocate for less than 25m to have a meaningful, regulatory impact.

The implications brought about by Cyber means that many of our economic instruments; which includes but is not limited to,

- Credentials
- Fiat Currency
- Permits and Licenses

now all require an 'upgrade' as to ensure continuance of the dutiful roles relevant institutions have played over many years, using instruments that were not cyber, as to not privatise these instruments.

in doing so; the methodology needs to form an ecosystem that can be flexibly applied to participants.

Technology does not require informed decision makers to change societal systems in a manner that could otherwise act as to undermine the 'core tenants' of the underlying ecosystems, mandatorily.

Technology is equipped to support transference and-or multi-constituency embodiment of both non-cyber and cyber roles; indeed also, vastly enhance both functionality and accountability in so doing.

Yet, there is a problem about the practicalities; responsibility. *it may be easier to pick on facebook.*

I think that there is a significant problem brought about by cultural issues that have led to higher acceptance of behaviours that exhibit irresponsible behaviours, whilst solutions have developed now over quite a long period of time (comparatively) and whilst there's been complaints about the impacts, there hasn't really been a need to take a great deal of responsibility for it. yet if we want to 'take responsibility' and build domestic market alternatives in a manner that would hopefully not only be evolutionary for our domestic market / economy / society; but also, supportively those of others throughout the world - then we'll have grow societally.

The problem becomes one where; no-matter how 'pervasive', 'surveillance' actually is; when a civilian has a real-world problem - for some reason, they're on their own. Whereas today; there are very limited means to employ this 'capability' to seek lawful remedy; and as such, institutional actors are becoming increasingly blatant in their behaviours on the basis that its not economically viable for any disaffected person - to do anything about it.

Imagine if; callers who presently call, and ask to perform an 'identity check' from a private number, were amongst the many agents who could be subject to a mutually accessible recording (and entity process) relating to the interactions that were had; the statements, agreements made - on that phone call.

that's just one very simple example - there's so many, yet that's the type of thing that's far easier for others to do outside of Australia - whether or not, the only application of it is to improve search-results.

This has an array of very significant social and productivity impacts, which must be addressed; save circumstances where there's some sort of agenda to revoke rule of law, which cannot be the case.

It is of vital importance the senate / our parliament, be best equipped to address these wide-ranging issues as to give us the best opportunity for a better future.

For all but the most dissociative, our world is tangibly made-up of living beings; whereby humanity is the core 'economic tenant' for whom our system of democracy is most required to serve. The first principle linked to the notions that surrounds the idea of a 'digital twin' of a citizen, which is of vital importance to that citizen; their agency, their means for personhood. Else, its just 'make-believe'..

⁸⁶ <https://www.forbes.com/sites/cognitiveworld/2019/11/24/sick-of-the-attention-economy-its-time-to-rebel/>

By: Timothy Charles Holborn

Artefacts related to that 'digital twin', should be linked with its owner - the 'physical twin' constituent; of what is instrumentally, an artificial apparatus vended as a socio-economically enhanceive - communications environment. The point about this is to ensure support for 'reality check. tech'.

Importance of Governmental 'ecosystems' roles

There is a significant level of importance with respect to this eco-systems framework; for governments to play a pivotal role as to support an array of functional requirements.

For these reasons; the standing belief of how to bring it about, is to form an international cyber-infrastructure; whether that be evaluated before or after global solutions become available; where I expect to see Libra emerge, alongside an alternative ecosystem via China and elsewhere..

When domestic capabilities; on an international basis, are considered - the governmental requirements are envisaged to include;

- 'Digital Currencies' that support micropayments; and related ecosystems tooling
- Cryptography and critical 'digital identity' (identifier) infrastructure.
- Law to support the means to deploy dignity enhancing, privacy frameworks.
- Support & leadership for international diplomacy and cooperation; to build infrastructure that can be made to work in many jurisdiction, interoperably.
- Means for Government to support its role in managing various Commons Assets.

The means through which this is envisaged to be required would necessitate international interoperability, relevant regulatory considerations; and in-turn, international settlements and support for law-enforcement requirements; which are envisaged to be primarily supported by way of an issuance of a law-enforcement request; and assuming this is a proportionate and appropriate request, the 'domestic knowledge bank' would approve it.

This is in-turn illustrative of a series of opportunities that are different to international alternatives. In Australia, cryptographic decryption is said to be required for international problems that may in-turn technically resolve to any country in the world (not *just* the USA).

Regulatory Opportunities?

Should regulatory considerations - tax differently - sites that elect to use 'choice of law Australia' vs. 'choice of law [somewhere else in the world]'; then an array of potential benefits could be brought about both socio-economically and with respect to sovereign protection of our democracy, and its stakeholders. Different mechanisms can be used domestically than is the case for off-shore services.

Whilst it is deemed acceptable that this has been deemed 'too hard', with respect to the governance of the data about citizens linked to international products; and,

Irrespective of the likely reality that the data is actually made accessible from Australian based servers in any-case; the broader point, is that forming an array of economic stimulus measures may well lead to the emergence of useful alternatives alongside the means to review impacts beyond simply GST.

Part of the implication is to consider how local means may be developed to foster the growth of domestic creative industries including but not limited to; those that relate to 'intellectual property' & knowledge assets.

Related to this series of considerations; is that there is also merit, in ensuring there are legislatively bonded regulated alternatives that are 'fit for purpose' for storage, use and reliance upon - sophisticated data-services, that may in-turn be equipped to support all forms of highly sensitive datasets, which may be used collectively to garnish insights; in a manner that is 'fit for use' for parliamentarians, defence members, etc. As we are all firstly human - this is a universal requirement for actors & their loved ones.

This is in-turn both technically bonded to a series of 'linked' considerations; alongside an array of legal ones, which are bonded to economic models; that appear to 'sit upon' the idea of a 'hosting environment', with economic tooling; that supports that legal concept of 'principal' and 'principal agent', in a manner that may do such things as to include; relocating the 'mandatory data retention' assets, to

By: Timothy Charles Holborn

this type of provider. These providers are envisaged to be like banks; although different policies must apply to those employed currently (as defined to protect solely 'money' in 'vaults'); and, be domestic.

If there is someone collecting a copy of whatever it is you're doing at any time; why is it reasonable to suggest that the moral owner should not be the legal actor involved. The idea that the legal actor (particularly natural persons) should be consumed; is an underlying driver to enormous productivity hardship,

An unnecessarily impactful to 'knowledge capital' & innovation - timelines & pipelines.

I would like to see a future where IF it is the case that a person has a problem that requires immediate attention; they're able to walk into a court-room with the capabilities of our 'pervasive surveillance' infrastructure, identify themselves; and have the computers do the work as that citizen seek from a court, timely, lawful remedy. I am particularly dismayed by past impacts on children.

I do understand that there are a lot of people who don't want this; but who stands up for those vulnerable Australians whose lives may be very different if our ICT systems acted as to support a careful approach that did not purposefully consume, our liberalised democracy, the basis upon which it exists; and its means to thrive and drive productivity.

I would argue that ICT systems are responsible for a sizeable portion of the recently announced mental health costs upon our society; certainly I find, poorly behaving actors in the public service if pursued to at least acknowledge wrong-doing, even if there's nothing that can be tangibly done about it; to illustrate palpably, sometimes by breaking down in tears - how costly the 'status quo' is for us all.

Residual considerations and recommendations

The means to produce infrastructure for many nations, requires a cyber-civic infrastructure build.

The means to do it with other nations, means interoperability, trade and transportability.

If you want a world where the role of a parental guardian in an age of AI is still meaningful; it's important to ensure those parental guardians have some form of 'cyber-agency'. It's been remarked upon that there is a 'war on sense making'; the senate can make choices to make that too expensive.

In-order to get 'micropayments' to work, the energy floor price must be as low as possible. In-order to make the rest of the ecosystems work; the only known method is to uplift the use of 'Linked-Data'.



Clive Palmer
@ClivePalmer

If we can use it we will. #operahouse



2:30 PM · Oct 9, 2018 · Twitter Web Client

There are meaningful distinctions that are wedded with technology selection. The methods that may incur the greatest 'contract revenue' for vendors; may not scale, or be 'fit for purpose' should a more inclusively considered outlook be lent support, for this incredible time of high-speed global change.

There is critical, underlying infrastructure that needs to form part of how our system of democracy is made to work; much as is now the case with our system of banking (where people have bank accounts), financial instruments; where there's a thing called the 'Australian Dollar', not 'murdoch / news-corp bucks' or 'palmer party bucks'. Whilst it was a bit of fun to make the suggestion to Mr Palmer respond to the debate that was occurring at the time with respect to the opera house and its use for advertising a horse-race⁸⁷ the implications of a policy that may lead to a new type of political currency - is truly worrying; and as the means for undertaking work in an effort to do something useful in an economically recognised

manner is now vastly different to 'horse and cart' days; it's also important that there is a means to support micropayments, as some types of work, even within the field of civics; might provide the 'worker' a 'wage' on the basis of thousands if not millions of small payments; much as is already the case with 'youtube views' as another proprietary example.

To power this infrastructure; there is an enormous 'job' that's involved in forming linked-data vocabularies as to support an approach that retains the means for personhood to be meaningful.

To achieve this outcome; an array of 'civics works' need to be undertaken, on the basis that civic infrastructure is designed in such a way to work as part of an ecosystem, rather than as a silo.

⁸⁷ <https://www.bbc.com/news/world-australia-45780351>

By: Timothy Charles Holborn

Some may believe Australians will make a choice to use a federal government data-silo framework, stored and operated by and in the interests of the governmental entities involved in making it; over, seeking to make use of international alternatives from the likes of Apple, Google and the many others; including, most likely soon, some from Asia that may well have very different 'qualities'; but,

My belief is that these otherwise purported views illustrate naivety with respect to how it is that a liberalised democracy is made to be equipped to work at all; and that a solely gov system is not a real choice to the international 'cyber nations' whose AI would like to consume as many 'ideas' as they can get; particularly so, when they can make money whilst telling you, as a 'consumer', its all 'free'.

In terms of the economic proportionately of how it is i think a response may be brought about,

There's an array of really significant 'real-world problems', simply noting 'concrete doesn't catch on fire' or similar isn't the best, nor is the long-term evolution of underlying problems that got leads to it.

If we had been more responsive, earlier, there may have been a way to make use of micropayments and electronic contract infrastructure; to get unemployed young people out into the bush to sort out the problems, long before such a devastating loss of biodiversity, of fauna, of life.

With respect to 'start-ups', and/or 'smart-ups',

The employment environment for this and any other 'innovative areas' of employment should be considered in terms of equitable value distribution; as is linked or linkable; to underlying drivers.

There's an array of new ways to exploit 'workers', and the older methods to address this won't work.

What may well work, is ensuring there are means to support electronic contracts, projects that may be governed via ledgers; the means to ensure civilians / workers, have an account of what it is they've been doing; which may in-turn be employed by a 'knowledge bank' (or similar) who may in-turn have the lawyers and the vested 'economic interest' to go ask those companies who've got involved, but say there's no value in the field of endeavour; just to illustrate to them, where they got their provenance if found to be releasing a competitive product; on a basis that may well take into consideration the fact that poor people, such as those who are not paid for their work, can't get 'legal aid' for commercial issues... increasingly its the case for poor people, that they'd have to both break a law and be charged with a crime prior to having any meaningful access to a legal professional for help.

Whilst one pathway may well lead down a track where those vulnerable people are increasingly prayed upon; that systems, recording, transcribing, using AI to analyse records that relate to them - are not at all made available in a timely manner for issues that are of significant concern to them.

Another possible alternative is that the opposite is the case.

There are many reports about the rapid growth of an ICT empowered society in China. Some of the media i review present a fairly remarkable story, with enormous implications.

China is similar in a way to the globally applied 'click yes' terms of service associated to Cyber-nations from the USA, for Non-US Citizens in particular. China is not a democracy. Their capabilities seemingly bring all the data together to form useful insights has a different regulatory environment; whilst we're selling 'fake news' for the benefit of a few shareholders; other examples, are truly remarkable.

None really support a framework based upon, built upon, a liberalised democracy. If the effect of how systems are made to operate results in significant humanitarian advancements, ie: cure for cancer, or the ability to successfully support one's capacity to obtain legal remedy due to the traits of a particular solution - i don't think people will really care where any such form of solution comes from.

We increasingly engage in our system of democracy via online platforms; that's not really their fault, nor will it be those of emergent alternatives; if they're modelling is that much better than ours, as to deliver enormous productivity results in a way that gives us cause for concern; like that of aboriginal people in 1788; Treaty makes sense, but it's our fault if it doesn't work out because no one stood up for humanity & our democracy. by the time a child travels to the UN to be heard⁸⁸, the canary in the mine is dead.

I think it is long-past due for our elected members to stand-up and make a clear and decisive decision; to build critical infrastructure for our modern age; it's time to build a new industry, build critical infrastructure for a knowledge age; in a manner that supports our natural world and its tenants.

⁸⁸ <https://www.youtube.com/watch?v=KAJsdgTPJpU>

By: Timothy Charles Holborn

It's time to build that infrastructure that means, no child shall be subjected to abuse without legal consequence; particularly by any person whose role is funded by Australia's 'public sector' or our funds.

There is a critical role for our Parliament to stand for the needs of Civilians.

To do so, the staffing levels of elected parliamentary may well be far too low; as there are demands upon our society to rapidly drive inclusively supportive, sophisticated social policy for a purposeful and materially beneficial - socio-economic outcomes - its of vital importance the needs of citizens are heard.

The underlying body of consideration about 'legislation as code' and all such related object factors; is whether or not policy is supportive of 'reality check. tech' or is the outcome sought, something else. If it is something else, then has an evaluation been done on the impact that may have upon our liberalised democracy and its means to yield any form of productivity outcome.

Electoral representation

There is a broad-ranging issue where there is a lack of 'civil tenant' and/or representation of human beings as members of our 'civil tenancy'. The environment is changing both radically and rapidly and there are new influences of enormous significance inherent in the nature of our global communications mediums; their multi-level intricacies and implications.

In our system of democracy the representative tenant whose job it is to represent the views of the people and to both investigate and respond to; in a studious and informed manner, systemic and emerging issues; is our local members of state and federal government. Layered on top of this most important role is also party affiliations, alongside any ministerial and/or committee roles.

It appears to be the case that 'party affairs' have a fairly good sponsorship base that supports the means for the parties to express their views; as is the case generally with lobbyists, the private and public sectors. The tenant without capacity, as is required for chorus to be achieved - needs to improve how citizens are represented. Part of this also relates to dual-income *fulltime+* households.

"In the 1800s, most Victorians worked up to 14 hours a day, six days a week. There was no sick leave, no holiday leave, and employers could sack employees at any time, without giving a reason." Origins of the 8-hour day⁸⁹

It seems to me that clarity of decision making and improved operations of parliament; as to in-turn seek to render an opportunity to significantly uplift the quality of parliamentary debates, could be achieved for enormous civil benefit - if staffing numbers, were reviewed.

It appears that many parliamentary electoral offices currently support fewer than 4 staff; and this in-turn may well impinge upon their ability to perform their role effectively. How, other than by way of parties, is the current frameworks for engaging in civil affairs provided enough capacity to do so, properly?

If this were to be reviewed as to ensure their capacity to do justice to their responsibilities; then it is envisaged that the mechanics of government to deliver productivity outcomes would improve drastically; as would be expected to be seen in the results. Such results are in-turn a constituent of responsibility that is put upon elected members, as to be reelected. Presently, there are very high levels of our society who are not aware of how our system of democracy works; nor are they meaningfully engaged as to be part of how it works.

Online Systems today that provide the vast majority of support for Australian Citizens to engage with our system of democracy as contributors; are today provided for by US Companies.

⁸⁹ <http://ergo.slv.vic.gov.au/explore-history/fight-rights/workers-rights/origins-8-hour-day>

By: Timothy Charles Holborn

Rule of Law

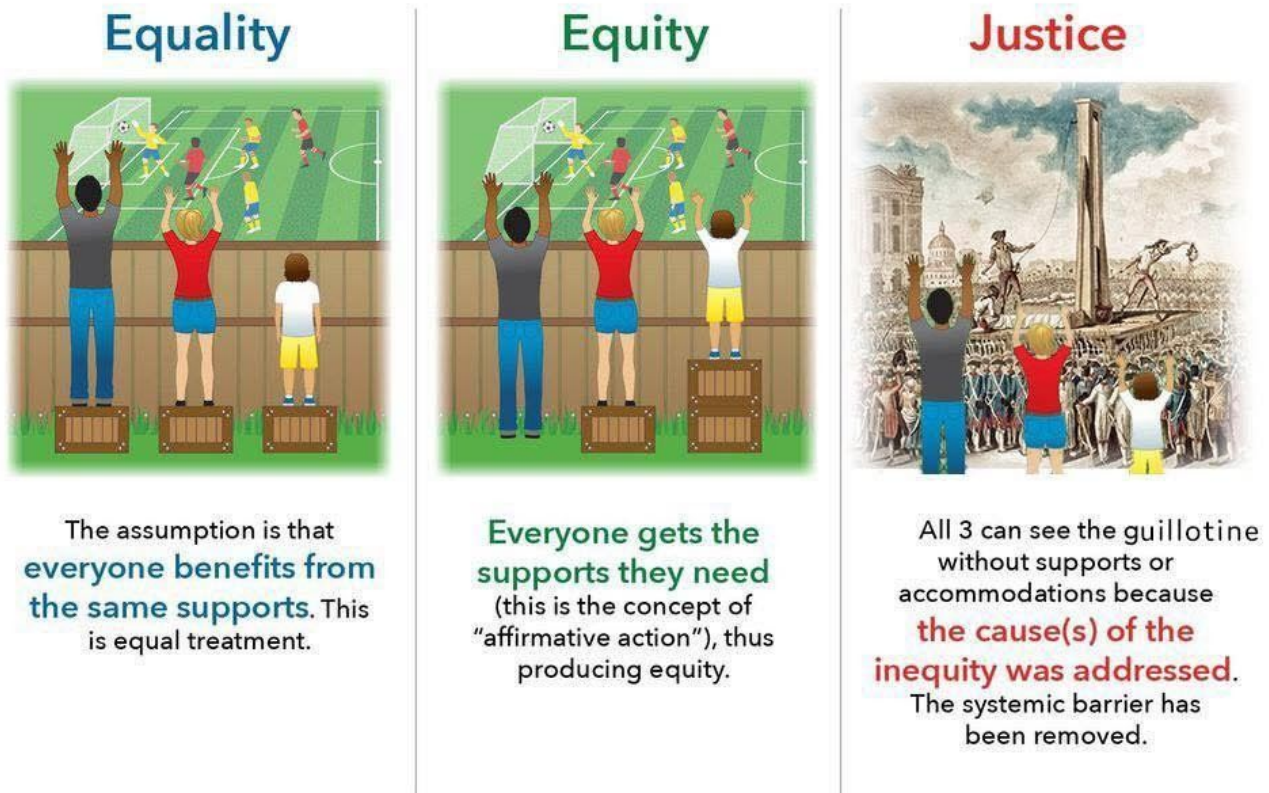


image source: facebook⁹⁰

Sadly, there is a trend where citizens seem to 'miss out' on the opportunities of our technological advancements. Part of the rationale as to why this may be occurring is thought to be about representation; as laws could be made, whether it be the thermally printed receipts or many other causal effects brought about.

There is an underlying question about whose role it is to protect the interests of Australian Citizens (natural persons); and in-turn, protect the foundations of our liberalised democracy; My evaluations lead me to believe that this role is fundamental, 'colourless' part of a parliamentary electoral representative responsibility.

Therein; my studies have led to a series of considerations; and thereafter questions, which i believe must overall have some sort of legal basis upon which parliamentarians depend.

- **What is the legal basis upon which a parliamentarian is firstly responsible for representing their electorate?**

I speculate that some may seek to build 'artificial intelligent agents' that are said to be a good replacement for our parliamentarians.

For the time-being at least, their still human, we're still human; and as productivity is desirable,

- **whose role it is in our system of democracy defensibly to stand-up for the needs of citizens, and upon what legal basis?**

As such; the means to ensure 'sense making apparatus' is rendered a 'best efforts' 'contest of ideas', an underlying question that exists at this time of great disruption; is whose role is it to defend human agency?

⁹⁰ <https://www.facebook.com/photo.php?fbid=2423211294457277&set=a.259926124119149&type=1&theater>

By: Timothy Charles Holborn

To draw a comparison; what if, the idea of a bank was now being discussed and there were an array of very well funded voices suggesting humans should only be granted bank-accounts from their employers; or that women were not allowed to have one in independence to a man.

This is in-turn quite similar to the 'principle' / 'principal agent' issue (or lack thereof) re: cyber, and in terms of procedural considerations - whose role is it to bring to effect representation of the needs of citizens?

As is in-turn distinct from the various 'needs' of 'desirable characteristics' that may be considered redeemably elected by other ecosystem participants; such as, market participants, public service sectors, etc.

Government is generally not in the business of providing a meaningful opportunity to provide a means for it to be sued and/or prosecuted (either as an entity and/or its agents); which in-turn gets to the heart of ICT design, methods, attributes, use-cases and whether/how; it's designed to function.

Where this investigative process thereby goes; is in seeking to figure out how to process a complex environment where many have various 'limitations' placed upon their 'role'; which in-turn means that there needs to be an ecosystems method to respond (should technology be otherwise able to materially deliver results, which is the case); as to ensure procedural fairness overall. In simple terms; it's unfair to ask an employee / agent, to do something they just can't do.

It's also wrong to have a pervasive capability to uphold 'rule of law' / human agency; then not do so, for indefensible reasons.

Therefore; in consideration of 'good faith', here are some considerations that are linked to the basis upon which I ask the question about the application of any such 'dutiful role'. The consideration being; that i can imagine how it may be the case that many 'tenants' may seek to reduce potential liability.

As such, whose role is it to stand-up and say - why is it we're still only using 'thermally printed' receipts?

or the very broad-ranging array of other similar sorts of considerations; that may in-turn have the effect of providing material resources domestically for our citizenry in a manner that may be uncomfortable; and perhaps also, be a cause for significant 'behavioural change'. Equally; an increasing volume of small transactions flowing overseas; isn't the only option for our economy. The gross impact of these tiny transactions is significant; rather than 'dodgy funnels', we could be building better economic ecologies.

Research on History of democracy, common-law & banking

As far as I am aware, our systems of democracy historically developed from greek and roman heritage. Londinium's records go back to the first century AD, governed by roman law.

The term 'corporation' is noted to be *derived from corpus, 'the latin word for body, or a 'body of people'; and therein it is also noted that roman law recognised a range of corporate entities under the names universitas, corpus or collegium.*

"Such bodies commonly had the right to own property and make contracts, to receive gifts and legacies, to sue and be sued, and, in general, to perform legal acts through representatives."

Fast-forwarding to 1067 the william charter set-out an agreement between the city and the 'encampment' at westminster; leading in-turn to the production of the doomsday book which undertook surveys to the extent that it excluded the city.

Knights Templar and one would assume also; canon law played a role, as 'common law' evolved, leading to magna carta and the migration of law from the city of london to a "*prohibition of the teaching of civil law within the city of london*", in-turn influencing the basis upon which core constituents parts of sovereignty and rule of law was in-turn brought about; whilst different, to the methods employed by the city that still today illustrate various legacies, such as worshipful companies, 'freedom of the city', etc.

(Learning more about the relationships to 'holborn' was certainly a surprise to me... The basis of this study was about an investigatory process looking into the history of banking; in anycase...)

Fast forward some centuries since this time, the frameworks defining 'how a liberalised democracy works, evolved in many ways; some of this was also influenced by the advent of US Constitution, heritage of the british empire, world-war I, the league of nations, world-war II and subsequently 'commonwealth of nations' providing more inclusive definitions of 'shared values' upon which the basis, or foundations of shared goals and values in our pursuits to maintain and build-upon our societal means

By: Timothy Charles Holborn

to advance our 'Australian way' as a liberalised democracy. These shared values, are built upon an array of notable underlying considerations; that include, but are not exclusive to;

- Use of 'english' as an 'international trade language', amongst other things.
- Support and cooperative investment into various United Nations considerations & instruments.
- Rule of Law, built upon both stead-fast underlying 'enablement' principles; and, the means for sovereignty to be cooperatively supported in relation to international affairs of state, trade, economics and more broadly otherwise.

This model developed over this very long period of time prior to 'the internet' (cyber).

With respect to rendering material care for civilians, an array of social frameworks seemingly linked to the eight-hour day movement were evolved, as to both consider the importance of protecting (industrial era) workers - rights and responsibilities; which in-turn led to an evolution of the middle class, alongside many significant policy changes that bring cause to many virtues, we are still so very proud of today.

Yet, the consequential nature of both issues and the means in which we seek to address those issues; as were exhibited pre-internet, to those 'built on cyber' are quite different.

Paper, as a medium, is not dynamic; and correspondence was generally hand delivered. It is said that there was a problem with couriers getting shot, rather than paid for delivering correspondence; as such, the pony express and the royal mail responded to this issue by ensuing the sender was expected to make payment, not the recipient - improving the reliability of correspondence, although the amount of time it took for this to occur became much shorter overtime; the underlying principle quality of paper based 'evidence' is that the material do not change.

Another critical quality linked to the governance of a 'liberalised democracy' then, as is different to the case today; is that there was no capability to perform infrastructure based 'pervasive surveillance' as is now part of a 'global capability', woven with AI.

Manifestly, there's now an instrumental involvement of international entities in everyday life.

This was not possible prior to cyber-infrastructure & it brings with it influence.

So, when seeking to form means to address any critically systemic issues;

- that may disproportionately disaffect natural legal entities in Australia, Australian members of our human family and/or citizens;
- as may be made distinct from legal personalities and any particular role persons have otherwise to first protect the interests of a 'company' as a legal actor (re: corporate personhood); and
- being mindful of the principles unto rule of law which incorporates the entitlement to 'remain silent' and are not required to incriminate themselves'
 - *Which would seemingly apply both to legal personalities and in-turn also, their agents (in a coupled manner)*

and that the implications of these pre-cyber principles may well lead to cyber-infrastructure design implications; now therefore,

Upon what legal basis are those whom are responsible to represent and protect the needs of the civil tenant; may legally equipped to do so?

In Considerations; a few remarks include the following,

Clause 5 of the Commonwealth of Australia Constitution Act states:

"This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth."

As is otherwise referred to elsewhere - with respect to 'rule of law'

Therein - the inference becomes one about 'informed decision' making, which in-turn links to 'sense making'. The merriam-webster dictionary online defines 'informed decision' as *"a decision based on facts*

By: Timothy Charles Holborn

or information // voters making informed decisions" whereas another source illustrates '**informed decision** (= one based on evidence)'.

As is seemingly considered in the 'Independent Parliamentary Entitlements System review Feb 2016' it states many objectively similar considerations including,

2.10 The parliamentarian's role has evolved continuously since Federation, in line with political, social, economic and technological developments. Originally conceived as a part-time occupation, it is now full-time. The number and complexity of issues on which constituents expect their parliamentarians to be informed and have a view has increased, extending well beyond the electorate, to encompass regional, national and international interests.

- What if any consideration has been made about how well equipped elected members are to support the responsibilities of their role;
 - *in a manner that is made to be distinct from any party related donations and/or which party they may be affiliated with;*
 - *as to make-up the concept of 'opposition' and 'government'.*
- Are there any easily consumable resources available to describe these affordances;
 - *as are applied to appropriately equip our liberalised democracy upon the basis that (rapidly) changes supports representation of the governed?*

Australian Government - Linked Data Working Group (AGLDWG)

The Australian Government has a 'linked data working group' which is presently set-up by way of an MOU; for activities of vital importance, that some describe as a 'hobby'.

Other structural problems of this 'space harbouring tenant' includes the problem that those who do not have a role in the Australian Public Service are said to be observers; but are moreover participants, should they seek our Government to have critical AI infrastructure available.

The subject matter that is said to be governed by this poorly constructed vehicle concerns critical infrastructure that must be rapidly equipped to produce vital domestic ecosystems tooling. Part of how this pre-existing framework could be improved upon; is by ensuring it is appropriately and proportionately equipped to support both civic and civics engagement and use cases.

Semantic Web / Linked Data - incorporates underlying 'ontological scaffold' which is of vital importance for any 'regtech' supply /distribution chain - ecosystem.

Some of the implications include;

- International standards bodies (ie: SnoMed-CT - our medical records),
- international community works (ie: WikiData, dbPedia - general commons),
- international governments & Agencies (critical tooling required by them)
- International Vendors (ie: Schemaorg - search, including interop with SnoMed-CT).

The standardised methodology for how machine-readable 'code' is done over the web is via semantic web ecosystems tooling. Sadly, Semantic Web tooling remains a specialised skill set where many do not comprehend the importance and widespread use of it.

Ontologies are used to describe most things on the internet in a manner that is machine-readable; and therefore also, able to be consumed by AI / 'intelligent software agents'. The applications are as vast as the use of any natural language itself.

The vital and shared characteristic for both; is that for the vast majority of use cases, the use of 'vocabulary' must be made to be freely available; and, in-turn - standardised.

This is similar to the means for most people to acknowledge english as the international 'trade language'. Without it, the implications across every part of our world would be significant. Therein as a derivative; the consequential 'framework based' opportunity is to go about producing both the opportunity and the

By: Timothy Charles Holborn

tools; for intrinsically important industry segments to uplift their operational capacities to make use of; and form business practices that incorporate the use of, structured data - for various purposes.

This includes;

- The legal industry; whose interpretation of legal considerations on a case-by-case and temporal basis - is not able to be defined by AI other than does occur through the practice of its use as an assistive device; in much the same way as should be the case in the field of medicine. In law, assessments are made by lawyers whose reputations are linked to their assessments, and in-turn - the outcomes.
 - Should AI systems seek to impune this important role;
 - *How is accessible legal redress for perceived wrongs made available to for issues they'd like to dispute.*
 - *International legal fabrics are different to those in Australia.*
 - *There is in-turn an enormous volume of work that would need to be undertaken to assess and form meaningful inferences between jurisdictional considerations.*

Which are in-turn required to be reviewed and maintained overtime.

Credentials, Government Entities and "Permissive Commons"

There are of course an array of government (and related) entities by whom various custodial relationships exist for various functional needs; supported for our society.

Assuming government equips itself to take-control over the technical tooling required to ensure it is involved in some way with the discoverability and use of civil infrastructure provided by it; whether that be the discoverability of a public toilet or other civic amenity, or the means for a person to have available to them a means to form a meaningful reliance upon various forms of credentials, ranging from proof of age to 'working with children' & police checks; court orders, identity instruments and identifiers, and many others; then, there is a need to ensure the relevant governmental agencies are equipped to publish and manage the availability of online instruments that link to their civic roles & infrastructure. Credentials and/or verifiable claims; require both, ontologies and issuance relationships; which can in-turn be employed to perform various 'reg tech' related functional activities.

It could be the management of the 'augmented reality space' in relation to a property, or freeway; it could be a pet or party registration, or the means to support parking systems. There are an array of use-cases that may needlessly be made dependent on international commercial vendors should it become the case that our government is unable to do civics.

The implications of forming governmental infrastructure to support verifiable claims / credentials, in a particular way (using semantic web tooling, incorporating the use of DIDs) is fundamentally about privacy, security / safety; and the means to furnish 'dignity enhancing' solutions to problematic ecosystems challenges; ranging from the implications of online 'dating services', through to law-enforcement & 'rule of law' linked requirements.

Present-day 'open data' strategies are not sufficiently equipped to support various attributes needed for 'peace of mind' (safety) & usefulness for AI & RegTech.

For Example,

- Its important that the 'semantics' can rely upon a series of assumed 'facts'; such as,
 - That the assumed issuer is in-fact the issuer
 - That the issuer provided a rendition of the resource that is an exact match to the consumed and/or relied upon variant; in a manner that is temporally aware.
 - That the resource be equipped as to provide variations on a near real-time basis (ie: emergency management, hazards, closures, etc.)
 - That the issuer has a formal responsibility to be the source provider (ie: informatics providing the location of nearby neighbourhood safety houses)

By: Timothy Charles Holborn

- That the informatics assets need to be made to be easily available, everywhere
 - Platforms do not need to write specialised APIs for each artifact.
 - That data-publishing infrastructure works with most major platforms, apps, etc. (ie: finding an amenity via a navigation system, phone or AR glasses).

There are an array of informational artifacts that are considered to be constituents of our modern day 'commons'. Building the infrastructure on a global basis via silos is not the only option. I suggest using DLT technology to support cyber-physical roles with DID based URIs.

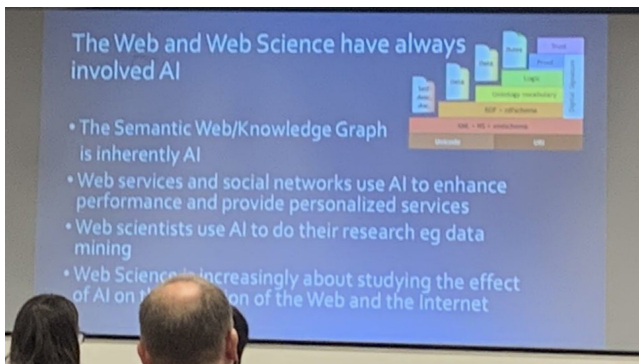
'Code as Law'

In what appears to be an emergent 'rebranding' of a fairly old idea / concept; there is presently an evolving undertaking to produce Legislation-as-code; which is something i've actively been involved in discussing - with respect to the transference of human rights conventions, articles and related instruments into a machine-readable format; but the broader problem may well be one of honesty, integrity, ideology and practice methods.

I have a very specific methodology / modality; about how to forge an ecosystem, that is not only being developed with incredible individuals globally, in a manner that is pragmatic; but also, in a manner that is not 'adapting' 'new shiny things', to old dysfunctional platforms.

The entire Semantic Web Ecosystem is fundamentally - Artificial Intelligence Apparatus.

The image below was sourced from a tweet made about a lecture being provided by Dame Wendy Hall⁹¹. one of the many problems is; that actors who are not accountable for their actions or the ripple effects



they have - seek to suggest some sort of different definition as to exclude Semantic Web from consideration by others via ridicule.

This is, as defined by experts - not based upon fact but rather other problems, that are sadly prolific generally.

The broader problem is that where this continues to be the case others, internationally, gain competitive advantage by being better equipped to do the work - given the absence of 'sense making' apparatus domestically.

This incurs other flow-on effects; such as significant productivity losses as investments are made in out-moded systems - which are first deployed; then redeveloped, Increasing cost (and budgets), undermining productivity and bringing cause to an array of causally disadvantages economic impacts .

With this in mind; the 'code as law' or 'legislation-as-code' projects currently being undertaken seemingly do not use semantic web ecosystems (noting; for instance, that our medical systems are amongst many other systems - that use semantic web ecosystems).

The Consequently concern is that it may not be equipped to scale vertically or horizontally; and, that there are moral & ethical nuances involved in the designs, which i thought to be disheartening.

Notwithstanding the specified topic of 'regtech' and 'fintech'; there is no getting around the AI ethics incumbent within the subject matter; and historical operational failings, dictating the pre-requisite requirements to do better - which means in-turn new methodologies.

As to illustrate this complex issue; i'll try to break it down into a few coupled parts; as to dissect the Moral and Ethical Responsibility set upon senior members of our system of democracy; in a manner that

⁹¹ <https://twitter.com/DameWendyDBE/status/1172470883610431489>

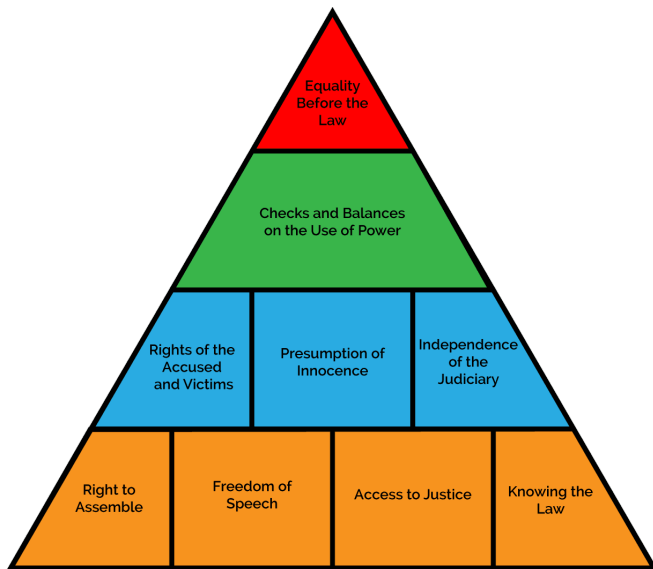
By: Timothy Charles Holborn

i hope may be a useful modality as to resource respondent considerations about how we may better equip, sense making - in a manner that supports the principle responsibilities for the role of parliamentary representatives, assuming i am indeed correct that it is part of the job of a honorable, elected member of parliament; to both ensure they are equipped to do so and moreover made able to discharge any such dutiful commitment to the very best of their ability.

Rule of Law: What it is we need to maintain for Liberalised Democracies

The Rule of Law website provides a couple of simplified illustrations. The first being The Rule of Law Pyramid⁹².

Therein; the higher-level principle of 'equality before the law' in-turn relies upon 'checks and balances' on the use of power, rights of the accused and victims, presumption of innocence, independence of the judiciary, right to assemble, freedom of speech, access to justice and knowing the law.



Herein; there is a vital difference in the manifest circumstances through which every constituent object to this pyramid is supported; depending on whether or not there's a 'knowledge banking industry' or not.

If the only records are stored by government or the incorporated entity for which human beings are engaged as 'consumers'; there's an array of ripple effects that are brought about that are difficult to identify; given, there is a high-probability domestic systems would be disincentive to provide accessibility to meaningfully useful insights.

The principles outlined by this explanation of what the core tenants to 'rule of law' are states that,

"The relevance of the Rule of Law is demonstrated by application of the following principles in practice."

- The [separation of powers](#) between the legislature, the executive and the judiciary.
- The law is made by representatives of the people in an open and transparent way.
- The law and its administration is subject to open and [free criticism by the people](#), who may assemble without fear.
- The law is [applied equally and fairly](#), so that no one is above the law.
- The law is capable of being known to everyone, so that everyone can comply.
- No one is subject to any action by any government agency other than in accordance with the law and the [model litigant rules](#), no one is subject to any torture.
- The judicial system is independent, impartial, open and transparent and provides a fair and prompt trial.
- All people are [presumed to be innocent until proven otherwise](#) and are entitled to remain silent and are not required to incriminate themselves.
- No one can be prosecuted, civilly or criminally, for any offence not known to the law when committed.
- No one is subject adversely to a retrospective change of the law.

⁹² <https://www.ruleoflaw.org.au/principles/>

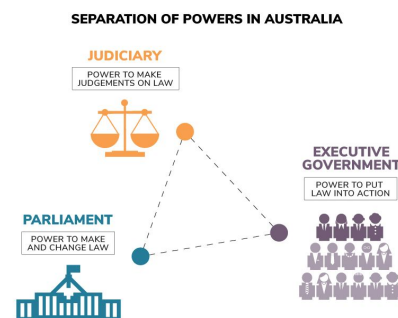
By: Timothy Charles Holborn

As is described by the Parliamentary Education Office⁹³ a critical tenant is 'separation of powers'.

Yet in-order for this to work; any complaint or enquiry in-turn requires evidence.

The first problem is that without appropriate infrastructure to support the needs of civilians;

- the means to have evidence could be revoked;
 - if a party involved in a dispute holds and perhaps changes a record as to pervert access to justice for a person who may otherwise be shown to have a valid claim; then,
 - upon what basis is infrastructure provided to ensure civilians always have a copy of a tamper evident record?
- *Is there any law that protects the right for citizens to retain access to a copy of legally important 'data'?*
- *In the 'pre-cyber era', both parties needed to be given a copy of any contract; alongside other similar considerations that were applied to tax receipts, and other events; is this being rescinded via Cyber?*



It is therefore quite concerning that initiatives, not unlike some that i've sought to explore, are being undertaken in a manner that musters the significant capabilities of government to present their articulated views on the legality and validity of all activities; seemingly without considering the merits of ensuring civilians are provided 'fit for purpose' infrastructure to substantiate their own position.

Today, many of the better tools to support a civil tenants position on being able to present evidence to support a testimonial related to their 'lived experience' in some way, is now provided by global giants whose services operate on an international basis. Whilst these platforms are better equipped to support 'sense making'; they also intentionally, negligently or malfescently perverted 'reality' for profit⁹⁴.

The likely reality is that these organisations are not able to solve this problem alone. Much as is it the case with governmental representation related issues; there needs to be industries of professionals from many different places, in many different places - to support local cultural & societal affairs.

Domestically, if a company controls a majority of a market regulators step in; noting Australia, is only 25m people total (including elderly, children, etc.); facebook, and those like it, are global platforms.

They weren't started with 'organic revenue' that created a global competitor without investment; meanwhile some fairly dissociative actors suggest that someone should be able to make an alternative - for free!

Systems that are designed in this *ideological form* have built-in incentive that provides impunity to those who seek to obtain organisational benefits for knowingly doing the wrong thing, as there's no means for accountability; and/or, any effort to prosecute 'justice' (or law) for wrong-doing; would be (on average) more expensive to the victim of wrong-doing, than simply submitting; whether or not longer-term considerations are made and/or considered with respect to knowledge graphs. This does in-turn have a marked impact particularly on the poor and vulnerable.

I argue that these designs have a great deal of impact on our capacity to exponentially advance our societal capabilities.

In effect what i'm highlighting - is that these problems are slowing our socioeconomic growth right down, beyond already unsustainable levels. Today, there's lots of empty houses and alot of homeless people; but that's not actually 'the problem'. The problem is, we don't have the infrastructure we need locally to successfully innovate. There's a few actors, who are likely coupled to international commercialisation pathways; whilst there's a great deal of additional capability, that's increasingly led down a 'web slavery' pathway. Which doesn't just affect the world-be 'targets'...

Children - being amongst the constituencies of our society that leads me to be most concerned.

⁹³ <https://peo.gov.au/understand-our-parliament/how-parliament-works/system-of-government/separation-of-powers/>

⁹⁴ <https://www.bbc.com/future/article/20190528-i-was-a-macedonian-fake-news-writer>

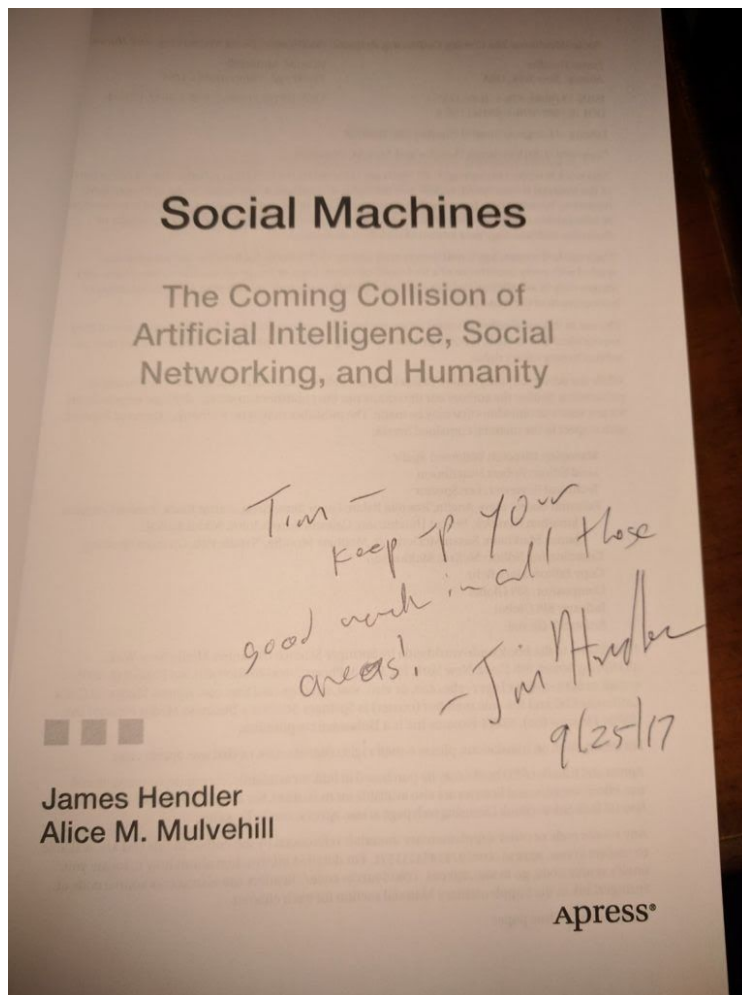
By: Timothy Charles Holborn

As such, in consideration of how 'regtech' for 'law' and/or courts; should or could be better equipped - as there's an illustration about 'truth telling' that's important; and it's not a purely *technological sciences* problem. Those that suggest it is; may be confused for not having made a distinction such as, whether or not there's a technological sciences capacity to write software and/or a webpage; which is distinct, to whether someone has produced one in a way that has an array of particular qualities.

Therein also - there's an 're:inventing davinci' problem; in that, it's very common today for people to review a derivative creative work (aka - art) and to task an employee to go make something better, or to advance it - 'make it happen', etc.

There's no known way of getting one human being to have the same creative capacities, conscious outlook - personhood - as another person. Neuralink⁹⁵ is working on a product (i think is scary), and it may well end-up being a far cheaper approach to the creation of quantum computational infrastructure, depending on what it is we want to employ economically as 'resources'; Therein - might even work with the afore-mentioned satellites... Or perhaps it'll be another actor who is a cause for concern.

What is moreover important as a resonant point; is overall about the importance of '*sense making*'.



The inscription in a copy of James Hendler⁹⁶'s book, sent to me freely following on from the causal outcomes brought about by his works⁹⁷, with Tim-Berners-lee⁹⁸ and lesser known others, now so many years ago.

⁹⁵ <https://en.wikipedia.org/wiki/Neuralink>

⁹⁶ https://en.wikipedia.org/wiki/James_Hendler

⁹⁷ <https://www.scientificamerican.com/article/the-semantic-web/>

⁹⁸ <https://www.youtube.com/watch?v=gZB6d-4klmU>

By: Timothy Charles Holborn

Part 5: Response to Questions in issues paper

Response to Questions raised in FinTech Issues Paper

Within the supplied issues paper⁹⁹, there were a number of questions that were raised. I am now therefore responding to those questions, prior to getting into more detail.

1. What area of technological innovation does your company specialise in?

Due to an array of implications with respect to the field of endeavour, i have not incorporated an entity; and am therefore equipped to respond on a basis that promotes virtues for human beings; rather than those better supported by the form and framework of Australian Corporations Act; and therefore also, the duties upon which directors are bound.

The methodology i've employed links to an ABN and trading names. Should the consequence of long-term works be useful, 'fit for purpose' (incorporated) organisations would be set-up; however, there is a difficult question about how to support the means for directors to support the underlying nature of human rights, emergent 'ai implications', and other things.

This is in some ways not unlike the challenges faced by the early ISP industry innovators, but different.

The field of endeavour I specialise in; is in the creation of an international 'knowledge banking industry'; & moreover, how to build cyber-physical systems that are usefully employable to support biosphere tenants.

I first conceived of the underpinnings of this 'idea' back in 2000; and have been working on it since then. Yet more broadly, i've been working on many projects in areas supportive of the 'civil tenant'; and prior to that, i had developed an array of skills and insights, being involved with an array of projects.

During the 00's a great deal of work was successfully undertaken in the field of digital media in particular (including digital cinema & hybrid TV); whilst works on the core foundations to an overall 'ecosystems' solution have radically improved upon since 2010. The implicit implications with respect to these works that have been materially focused upon 'technological innovation outcomes' moreover engendered towards 'societal innovation' outcomes; as the 'tools' are designed to improve 'our world'.

What I mean by 'our world' is that all the 'stuff' that's artificial, that's made by mankind; is moreover about how it is mankind is able to improve the future of biosphere tenants.

The first time I was knowingly exposed to various international 'intellectual property' commercialities was very early on; and later, during the 00's when seeking to form a meaningful approach to the architectural construction of tooling for the tv sector, alongside other projects which incrementally helped me refine my understanding of how to form an approach; as to ensure derivatives that I felt were instrumental for the protection of 'freedom of thought' were not able to be 'captured' for royalties.

So my journey led to the world-wide-web consortia, W3C, where works were performed publicly as to obtain the beneficial use (and defensibility) of the patents from the world's largest companies around the world to deliver an outcome that would have otherwise cost billions (if not more) to deliver a result that is of more consequence, than unobtainium¹⁰⁰.

What I'd never thought to have ever been possible; as was brought about by my methodology, was that I found myself being able to benefit from the time, input and insights of a great many international leaders. Indeed, when considering the number of human beings on the planet; the consequence upon our world these people have had; and the amount of seconds (hours/days) from their life that's they've

⁹⁹ https://www.aph.gov.au/-/media/Committees/fintech_cttee/Issues_Paper_-_FinTech.pdf

¹⁰⁰ <https://en.wikipedia.org/wiki/Unobtainium>

By: Timothy Charles Holborn

willfully committed to their time with me; and/or, in relation to the subject of those discussions, their own additional works overtime.... My thoughts about it; 'walking with footsteps, in the presence of god'

The reality of the situation is that Australia could never, ever have formed itself a position where one of its citizens were able to communicate an opportunity landscape of this type; if I had not have struggled through that historical time. Whilst the consequence today is that there is no commercial entity; there is also no shareholders and no debt. The derivative outcome is that there's an ability to make use of tooling that's been produced world-wide with an unknown total amount of expenditure; and the vast majority, if not all of the core constituent components - are available to be used on a royalty free basis.

Furthermore; the patent pool holders federate the world's largest companies into a defensible position that means that all but the most sophisticated entities are adequately equipped to undertake some form of commercial attack based on some patent; and consequently thereafter, there's a global fora that's been established, which has values.

Whilst the underlying landscape issues have made things hard; it's also been the basis through which I've had an array of remarkable experiences. The reason why I know so many of our world leaders have an array of shared values, shared opinions; is because I've had the opportunity to work through issues in relation to those core values, with them. With respect to Cyber Infrastructure - these values are firmly grounded upon the idea that our world is operated by humans; who are in-turn involved in activity of various forms.

"The word "corporation" derives from corpus, the [Latin](#) word for body, or a "body of people"¹⁰¹

So overall; it's been fairly hard to go through and get to a point where I've played an instrumental role in the development of an ecosystem that is built in a manner equipped to become a viable opportunity to form something that is globally scalable (and beyond); but for the most part, this has largely been achieved and is now ready for next steps.

The final note would be that whilst my journey led me to a position where I was equipped to do this work in this way; many others involved have not been equipped in a similar way.

As such, there are an array of instances where I have been able to perform tasks relating to a means to take a personable role (about mankind / human condition) which has helped others whose roles have been as employees and/or directors of companies; who were in-turn able to act upon a stated opinion by someone who is acting as a human being.

In simple terms; people who have shared privately their thanks for saying what they couldn't say themselves, as was considered to be a limitation to their role as an agent.

From a trading name point of view; the strategic approach taken with respect to trading names has incorporated;

Web Civics was established in 2013-4 following cessation of my role supporting 'AusCivics', for the purpose of undertaking projects that stimulated 'civics' works (as distinct to 'civic); noting;

- a. There is a great deal of 'commons' infrastructure required to solve the 'web silo' problem.
- b. It was considered that there was a gap in the internet governance landscape, which acted to limit the means through which 'civics activities' could produce software.

Trust Factory was established in 2014 for the purpose of producing and providing instrumental support for the creation of critical economic infrastructure; that incorporated;

- Credentials / Verifiable Claims.
- Knowledge Banking Ecosystems requirements.

Part of what has in-turn occurred, is that an array of work has been undertaken to foster growth; both here, and abroad.

¹⁰¹ <https://en.wikipedia.org/wiki/Corporation#History>

By: Timothy Charles Holborn

The intention of Trust Factory has been to forge an alliance and/or public private partnership and/or BOT model; to build and make available 'white label' infrastructure that could be employed by future 'knowledge banking fiduciary' participants as to forge and foster the development of an international industry of them. The implication being; that there is a need to produce technology that supports an array of special needs for sovereign nations; and is produced, to be interoperably standardised. Whilst consideration of a future requirement for something of this kind was not well known at the time; the trust factory works have been underway, developing over a long-period of time in response to the belief that this would in-fact become a practical, future need requiring something 'fit for purpose'.

The intended purpose of Trust Factory is for it to be turned into an incorporated structure; once and/or if, the merits of my approach warranted the belief that this should be done.

The intended consequence being; that I'd no-longer maintain carriage of stewardship. Yet more broadly, it is important to understand that in reality; the 'stewardship' of 'our works', is actually held with dignity mindfully implied, with those who were involved in doing it.

The remarkable Jason Silva made a short video called "Captains of Spaceship Earth¹⁰²" which has the line in it that says that the new definition of billionaire '*he or she who will positively affect the lives of a billion people*'. I'm in that business. If economics provides a means for me to be paid a very small fraction of a cent each; i wouldn't need to worry about money; as that's not the case; i work to solve those problems.

2. In general terms, how would you describe the operating environment for FinTech and RegTech start-ups in Australia?

Fairly hostile. Yet, my considerations about the problems are not simply domestic in nature.

There are very significant differences for citizens of the United States of America who like many others around the world are increasingly dependent upon platforms from the USA; there are an array of critical traits that disproportionately disaffect some 'ideological stances' with respect to ICT activities considered worthy of gainful employment; over others.

Whilst I may be misinterpreting the words of US President Trump in his address to the United Nations in 2019¹⁰³ when speaking about our free world; amongst his many remarks, some responded to the significant distinction between the derivatives produced in alliance with an ideological stance that is supportive of 'globalists' than those produced by 'patriots'.

I think this may speak to non-governmental influences. As an Australian Observer; it's interesting...

*"The future does not belong to globalists. The future belongs to patriots. The future belongs to sovereign and independent nations who protect their citizens, respect their neighbors, and honour the differences that make each country special and unique."*¹⁰⁴

I would describe the object concern of our local industry to be about a lack of consideration for the implications of these remarks made and its implications both here and abroad. The derivative consideration is that the term patriot should necessarily be coupled to some idea that may suggest that persons from a different place should have fewer human rights than others; rather, an illustration of a difficult agenda, seeking the opposite. Also that, domestic settings seem to have an influx of internationally motivated actors; where retaining domestic knowledge capital seems to be discouraged.

Q: What are the biggest opportunities and challenges for your business in the short-to-medium term?

I must retort - due to pre-existing lack of leadership by the public sector; due to very complex issues, my opportunities as does reflect upon the use of my time in my life; is moreover about purpose. I am not in a situation of being in a trench, during WW1; yet i hope this analogy is not lost upon the committee.

¹⁰² <https://vimeo.com/130884499>

¹⁰³ <http://webtv.un.org/search/united-states-president-addresses-general-debate-74th-session/6089079269001/>

¹⁰⁴ <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-74th-session-united-nations-general-assembly/>

By: Timothy Charles Holborn

There is such an expansive reality of wrong-doing in a broader environment of pervasive surveillance, cyber affairs are different. yet the answer is not to build infrastructure to usurp the role of government.

Now, some years on, the pragmatic capacity should interest be galvanised into a workable structure to ensure the future of human rights, the basis upon which productivity may then yield its more eloquent capacities to advance societal capacities to improve the circumstances as may become part of the lived experience for members of our human family; and through that sort of lens, our means to moreover amend and improve biosphere conditions.

Looking towards a future where the core tenants of human agency, of personhood; are maintained and in that;

- The core tenants of human rights as is described by various United Nations instruments; are not only rendered infrastructure support as to be enforceable.
- The knowledge produced as a consequence of humanity's advancement of information communications technology; be made employable as to not subvert rule of law, human agency, personhood; and that.
- These faculties of our joint future are not contingent upon any one corporation.

The biggest challenge is in making best attempts to ensure my government is aware of an opportunity in which it must take part; in-order to fulfil a longer-term version, far more qualified than it was 20 years ago.

In-Effect, if (I can help) our society be equipped to support an informatics ecosystem that preserves human agency and at the core - human identity; although, with a nuanced interpretation from an implementation point of view,

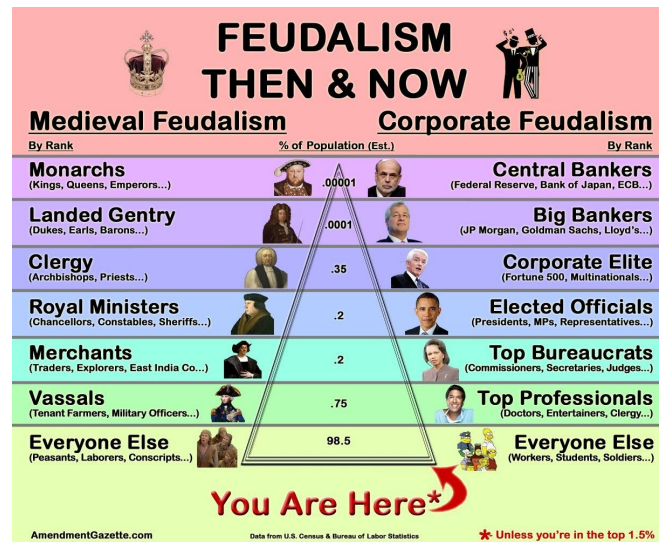
in a manner that does not require me to make decisions like a 'king' nor empower any other person to be warranted any similarly means; but rather, ensure means to render systemic support for the underlying core tenants upon which rule of law be reliant.

Then, after (or perhaps as part of) that, there are so many enormous financially beneficial opportunities; it's not worth talking about.

The consequence of an effective globally cohesive socio-economic platform; from an economic and productivity point of view, delivers a means to keep us all very busy in generating great (real-world) wealth. *and/or - To respond to this question in a slightly different way; here is a different 'scoping method'.*

So, imagine if there's an entirely different way communications networks are used; whilst still built upon the underlying 'internet protocol' infrastructure coupled to most systems.

- Imagine if the impending disruption of communications providers, banks, trust providers and related ecosystem participants; were able to have the 'cyber advancement' of their functional role coupled to the otherwise physical / real-world characteristics of their role.
- Imagine if there's a bunch of economic tooling designed to work domestically and internationally for socio-economic activities in connection to cyber-linked activities.
- Imagine if there was a 'bank' that provided an array of services infrastructure; that both enabled you to retain and make use of all the information collected / created about you (which is presently stored all over the planet, made useful in a variety of ways - unavailable to you whilst still impactful to you); and
- that this ecosystem was in-turn equipped to be made use of by incorporated entities as to support what it is that those entities did generally.



By: Timothy Charles Holborn

In this model; the role of being an entity that manages money or financial flows; shifts to include a capacity to understand the contextual relationship between that, and what people do. If people are behaving badly; the means to seek help, extends through the useful employment of the 'data infrastructure' that exists - but is otherwise made 'unavailable'; which in-turn means, the ability to illustrate facts becomes far cheaper.

There is quite likely, many people out there that have been doing some sort of long-term work; who'll never be paid for their efforts? How are their lives supported?

So economically; what happens, is a massive (economic) productivity boost. People who '*have a go, get a go*', and its able to be supported by the same 'pervasive surveillance infrastructure' that already recording everything, the main difference is democratisation - its about addressing 'web slavery' and any modern efforts to remake old systems, like that of fudelaism or far worse.

With this high-level architectural consideration in mind; economic opportunities include,

1. Opportunities to expand into overseas markets.

There is an underpinning opportunity to forge an international alliance to build an ecosystem that is equipped to serve the needs of billions of people. Should Australia continue to build upon works i considered to have been 'useful'; I think Australia can play an important international role in getting this vitally important job done. Yet i do not think the world will wait for Australia, we've got to be proactive.

I believe whoever goes and gets it done, will reap the rewards of having built a domestic 'knowledge economy industry' equipped to go about solving an on-going list of 'jobs to do', throughout the world.

2. Capital and financing arrangements (including access to venture capital and other forms of finance)

As has been illustrated; there is a structural problem with traditional financing mechanisms as they are not intended to be employed for projects of instrumental importance for the structural capacities required by sovereign states to retain operational compliances with human rights.

Commercial Enterprise traditionally requires critical infrastructure to be in place.

The problem in this instance is that both are ideally, rapidly produced cooperatively. The way this is generally done in the real-world is via public private partnerships which assist in the establishment of both equity and scalability in terms of how a response (outcome) is brought about. I am unsure of many prior examples where such models have been applied to Cyber Infrastructure. Without fostering this type of innovative approach; neither a more purely public sector approach; nor a purely commercial approach, is deemed appropriate for critical infrastructure.

Once 'fit for purpose' critical infrastructure is in place; enormous productivity outcomes are considered to be plausible in the interest of our nation and that of many others.

3. Staffing, recruitment and talent retention.

With respect to my ventures in relation to the content provided in this document; there's an array of considerations that relate both to whether or not i have the means to 'commercialise' the work, which moreover - i believe - likely means, if anything (despite my former role with it) would be a consultant.

More broadly however; there's an array of means, consequently, to form meaningful enterprises that exploit the opportunities exhibited by the lack of sophistication of entities today; and employ lots of people in those tasks. The most important difference, is about the relationship between ethics and the way human beings are rendered meaningful service by other human beings - is considered 'commercially viable'. In many ways, its better for me to be a 'moral custodian', with international influence. Australia has only 25m citizens, the underlying topics are of international significance.

The means to retain agency as to 'stand-up for' the needs of citizens, is today most-often affiliated with an expectation that the work that must be done to do so, is unpaid. This is an economic problem, rather

By: Timothy Charles Holborn

than more simply something that may be laden upon me to suggest it is more squarely that it is solely of my own. Yet in a broader consideration of the question; the supposition that is brought about is,

How can we rapidly deliver an age of abundance by fair reward...

This may sound counterintuitive at a time where human labour has become so 'expensive' that we rather seek to deploy AI and robotics than to harness human talents and crafts well. Whilst noting, that the introduction of technological solutions often results in more labour rather than less; the simple fact is that our current economics are designed for legal persons and not for persons and personhood.

Those who are more readily considered employable today, are those who most help this agenda.

Consequently, personhood is in moral jeopardy in liberalised democracies; some may say, is about to disappear when applied to non-commodifiable instances, of an entities lived experiences; which is both economically unsustainable, and a disaster for any liberalised democracy. Moreover, simply not useful for any market that depends on the ability for others within a healthy and/or safe community, to be able to make purchases.

One of the most impactful examples of this; would be discovered by investigating the economic benefits gained by an array of engaged participants; by comparison to the outcomes for children, due to 'divorce'.

There is an overwhelming mandate to bring about both FinTech and RegTech tooling; to radically change the nature of our workforce, and what it is people to to 'make a buck'. Ideally a 'zuck-buck' isn't better.

It is impossible to support a persons human rights whilst seeking their attention to undertake significant and complicated work 'for free', which isn't actually 'free' (nor should it be). There are distortions that are widely accepted; without sufficient bravery for those who harbour significant societal responsibility to spend the time involved in forming a solution that is actually sustainable; rather than simply seeking the 'cheapest approach'; ie: it may be cheaper to have all calls to APH outsourced offshore; but that's not an appropriate way of handling the activities undertaken by APH; its important not to 'oversimplify'.

There are means to resolve these sorts of problems, but its quite difficult to establish; indeed where associated to natural persons in particular - there's an array of 'digital identity' related implications.

Should proposed infrastructure come about; or perhaps otherwise, if and/or when similar functionality is built into facebook - i envisage a future 'gig economy' where people find stuff to do, and does it.

The implications of the ecosystem i'm describing; means, there's a wealth of opportunity to reunite the concept of 'work', with intended practicalities of 'gainful 'employment'' inclusive to 'self-employment'.

Yet say, for instance, there's a worker whose income is flowing in from thousands of sources; how is it that the person income, is verified (ie: AML), packaged, processed for superannuation, Tax, etc...

Part of the point of a knowledge-bank is the straight-forward means to support this type of functionality.

Also, if a worker works on something for a long-time; presents it to a large entity who may ordinarily say 'oh thanks, great to meet you - we'll get back to you, we've actually been working on something similar'.

Then the knowledge bank may have other services, such as a means to have a lawyer call that firm and ask to get some information about provenance. This may impact employee traits, but its for the good.

When there is a lack of support for 'fair terms', there's an array of consequential problems. The first part of a rational approach; is that, if a corporation of a bunch of nation states invest - then there's likely thousands who get involved; so, even 20 years of work pales by comparison - but its not worth nothing.

When provenance isn't supported; corporations (and large projects) risk an inability to deliver ROI. Simultaneously, the 'web slave', needs to survive somehow; and is incentivised to help others, even if it is simply free. The problem for any dishonest recipients; is that they may not know how to make it, and there's additional risk brought about as a consequence of any dishonest conduct; consequently, whilst a

By: Timothy Charles Holborn

more sophisticated actor may be able to acquire a lack volume of funding (debt) they're not necessarily able to deliver; particularly in cases, where there's a lot of underlying complexity.

By fixing this issue; one of the benefits i imagine would likely positively impact our Australian economy is the means to vastly improve the performance and risk-profile for working capital; and in-turn also, remedy some of; what appears to be, underlying factors that bring cause for our poor historical performance with respect to successful commercialisation of new technology. Part of this also; should be reviewing how poor 'innovators' can get access to justice as is a new type of requirement for what was, with historic trades - considered to be part of workplace protection, imho, a 'knowledge bank' should both be able to handle that sort of thing; and due to their income method, have a vested interest.

4. Collaboration and partnerships with other nascent firms and traditional financial services firms

There needs to be formulated a new regulation to ensure the legal powers the possibility to excel in their efforts through this new cyber infrastructure in order for it to work optimally and do the job well. A new 'Cyber Law' that is internationally and intentionally equipped to support the alliance of partners involved to harness human rights.

As to prevent issues such as 'Robo-debt deaths', the misuse of AI for non-sustainable purposes and artificial goals that undermine the wellbeing of the planet, people, life by means of artificial 'legal persons' needs for only profit.

This intention is possibly 180 degrees opposite of the current underlying intention of global cyber infrastructure that was created as a defense mechanism for times of war. And not to communicate the core principles of being human on a sustainable planet fully as well as to create and harness abundance and the rights that we now think of as universal that come along with being human.

This is not a separate journey from the creation of cyber infrastructure and also could this infrastructure not just be made for one country or one continent. We are speaking of a radical revisioning and reshaping of what is and the creation of something new that will harness human identity, the future of work, safety and democracy as well as media usage. This all is circling around the concept of 'human identity' and ties in to international relations, geopolitics, practical 'things' such as passports, money, credit cards and web payments.

In a holistic approach such endeavours should coopt in the values underlying this cyber infrastructure to be democratically chosen (human centric, human rights, democracy in itself and the ability to be 'cyber present' as a nation). This is fitting with the 'jump' we are about to make fully making use of the possibilities of the internet and with the current theories of development of organizational systems going from industrial to organic to post-industrial.

In this we embarge into a new age of intentional creation, holistic endeavours and a conscious approach of the systemic problems that are underlying our present day state of multifaceted crisis; economically, sustainably, geopolitically, cyber technically, socially and such.

A siloed approach of law and regulation making, creating new markets and the future of the planet is no longer apt to cope with the current state. Also and moreover it will not make a new banking system possible. Earlier tries of i.e. Facebook's Calibra to do a similar thing partially have shown to have great criticism as well as many questions from the US Senate around the future of finance, the planet, democracy, humanity, identity, privacy.

These are not separate issues that can be dealt with only in part as it used to be in history.

5. Issues affecting your business that may be specific to your product niche or area of specialisation (rather than affecting the FinTech and RegTech sectors as a whole)

The issue affecting my field of endeavour is that systems relating to human identity are critically required for any form of intelligence capability. If they don't have more knowledge in a field of my

By: Timothy Charles Holborn

expertise; the 'idea' is dismissed, and I'm better off sending them to experts internationally - at which point, I'm not actually addressing the underlying problem.

We live in a world of pervasive surveillance whilst some public servants and other professionals employed by public funds; are clocking-in at the start of the day, and knowingly assaulting the human rights of children; then claiming victim, with impunity.

The traditional answer to this problem has been to ensure its not brought to a court of law. There are much higher stakes at play; and it's time for people to wake up and to do their job. If this means a select group of 'approved thinkers' must do it - so be it, don't harm children.

So long as the situation is maintained that senior people can only go home and have a beverage to settle their own emotional responses about things they believe they cannot fix; rather than going about sorting the underlying problems out; no amount of money can fix it. As the problem is ideological, not technical. It is not that 'the world doesn't know'; it's about some sort of very problematic game that's betting upon our 'liberalised democracy'.

Q: What are your views on recent and forthcoming changes to policy settings and regulatory initiatives affecting the sector (e.g. implementation of the new Open Banking framework; introduction of the NPP in 2018; and ASIC's FinTech regulatory sandbox)?

Whilst I am watching with interest. I have concerns that the energy floor-price to perform a transaction is higher than could otherwise be the case; and that, the reason why this is the case is not scientific in nature - but rather 'political'.

Areas of activity that are of greater concern; I fear may be subject to undue international interference, and aside from the concern being part of my mindscape due to an array of personal considerations (private and in relation to life generally); I am also unsure of how these sorts of issues may be adequately attended to, given the lack of 'situational awareness' that appears to be endemic generally.

Q: Do you have any suggestions on how the Australian Government can best facilitate the continuing growth of the FinTech and RegTech industries in Australia?

My approach will most likely be considered adjunct to the views of the vast majority for whom it is beset upon; to prosecute their pre-existing group-ware position; whilst changes will in-turn cause disruption and an array of behaviours that seek to gain competitive advantage; and/or opportunity.

It is my strongly held view; that our ICT industry must migrate to a 'human centric' infrastructure paradigm. We've tried trusting corporations with our 'reality', it hasn't worked. International jurisdiction; that are not 'liberalised democracies', have already surmised a similar point of view and are now executing a pathway that is likely to be incredibly disruptive very soon.

What we need is 'reality. Check Tech.' if people have 'no evidence', what is the problem?

If the problem is that government has not adequately stood up and done its most important role in a representative democracy; as to ensure, such things as a 'machine readable receipt or payslip' is rendered the civic infrastructure required to exist; then the repercussive effects of not having that sort of infrastructure in place, is not commercial.

The coupled problem; is that the timespan in which these societal implications have been brought about by ICT has been so very rapid, that our senior leaders have reasonably found it difficult to grapple with the consequential implications, for which it is not alone.

Q: Do current regulatory settings support the growth of local FinTech and RegTech companies in Australia?

The purpose of the regulatory environment is moreover about productivity. There are an array of productivity benefits that could be brought about if more effective 'sense making' were more ubiquitously made possible - as to mobilise and support our citizenry.

By: Timothy Charles Holborn

Whilst I am not a legal expert, it does appear to me - that there is a lack of regulatory support for the maintenance and/or retention of human agency, as is vital for democracies.

Q: What are the key reform priorities that will enable FinTech and RegTech innovations to flourish in Australia?

In-order for Human Beings to be functional members of our socio-economic environment, we both have a need and moral right to retain evidentiary records that link their presence and lived experiences; as is an underlying consideration that is linked to human agency, personhood and the nature of causality.

Today,

- we do not have machine readable receipts;
- we do not have machine readable payslips,
- we do not have micropayments infrastructure; or other economic infrastructure.

It is of vital importance; both here and abroad that this oversight, be meaningfully corrected. From a productivity point of view, the implications include such object benefits as to ensure that those who could otherwise be employed to do work, and are now due to systemic and economic changes part of a gig economy or not even considered to have done work (ghost work, commons, all sorts of participation in society that are now not considered part of 'contribution'), are equipped by society to get paid and at a basic minimum; acknowledged for having done useful work.

This requirement in-turn informs as a predicate the need to ensure a capacity for citizens to store electronic artifacts relating to their 'lived experiences' is provided a 'safe space' to put it; make use of it.

In the absence of this (domestic) infrastructure; i expect the problems will only worsen. Fake news, web slavery are amongst the array of broad-ranging problems that have emerged and continue to cause undue harm to economies, society and our means to maintain and develop our liberalised democracies.

What is required is a means to ensure regulated infrastructure is able to be provided for those who seek to participate in society, in life - upon a basis of differentiated 'terms'.

The implication of doing so changes the 'risk paradigm' for existing beneficiaries which in-turn forms the basis through which flow-on effects are able to be realised.

The R&D derivatives seemingly deliver a mandate upon governments to render support for critical infrastructure required to realise the potential of a market space that is able to support the availability of a 'knowledge banking' industry. This is not simply a domestic issue but more broadly one that is featured in the problems of many nation states abroad.

Q: To what extent should government encourage or incentivise the disruption of existing financial services business models by new market entrants, as opposed to promoting partnerships between new and incumbent players? Are these goals mutually exclusive?

The answer is built-into the terms upon which our corporations law defines fiduciary boundaries. To suggest that directors, or public servants seek to harm children - is wrong. In the pre-internet era (pre-cyber) there were an array of basic expectations put upon contracting participants. These included a requirement to supply a tax receipt, copies of important documents that were pertinent to the affairs of legal consequence; etc.

As systems are replaced by online alternatives, these underlying principles should not be stripped from the manner through which we manage our society and its 'terms of service'. When considering the responsibilities of the role of a high-ranging official for any incorporated entity; amongst their responsibilities is to protect that entity from liability.

By: Timothy Charles Holborn

This principle is in-turn reinforced by that of a principle illustrated in relation to 'rule of law' which states that; All people are **presumed to be innocent until proven otherwise**¹⁰⁵ and are entitled to remain silent and are not required to incriminate themselves.¹⁰⁶

By enabling at a time whereby society transitions between a 'print era' which has many different characteristics; and our 'cyber era', the means to table in a court of law evidence, there are marked impacts which are as yet unaddressed. As a means to establish baseline expectations; the United Nations Universal Declaration of Human Rights sets out an array of principles; that include, but are not limited to,

Article 27.

(1) Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.

(2) Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.

Our society, our communities have developed a 'pervasive surveillance' capability that extends through the application of computing systems and software functionality that provides an array of capabilities for legal personalities.

These capabilities are not 'shared' in the vast majority of cases with humanity, with natural legal entities.

This problem - must be addressed by way of regulatory mandates; which in-turn need to be informed by way of technical works that assist law-makers to understand the 'possibilities'.

Q: How should Australia take a prominent role in supporting and developing international blockchain standards?

Firstly, it's not 'blockchain', The broader category is 'decentralised ledger technologies' whereby 'blockchain' technology is only of partial constituency.

One of the earliest decentralised ledger technologies is DNS (Domain Name System) and that existed long-before all sorts of stories were brought about as a consequence of 'satoshi'. It is quite important that 'spin' be framed in association to science, not the other way around; and I firstly felt that it is imperative that this distinction be made overall.

Whilst the framing of this question leads me to be concerned about the authorship of it; the underlying question is about the advancements of emergent protocols that aim to be coupled, contributory and/or competitive to existing internet protocols such as HTTP.

In terms of 'international block-chain standards', or international decentralised ledger technology standards; as may be developed in conjunction with IETF, W3C, IEEE and similar; having now been alerted to the concept - i've now found work being carried out via ISO, which seemingly appears to be the basis upon which this question has been fashioned.

While aware of the value proposition for commercial models in the protocol layer, the primary means in which I've sought to respond to emerging issues; from some years ago, *has been* to assist in the design of an agnostic 'informatics tool' that provides sufficient bandwidth for what is expected to be medium term, innovation in this area. Due to the lack of 'fit for purpose' (royalty free) 'standards'; efforts have formed a modal to support various techniques via the development of Decentralised Identifier URI schemas as a means to address the underlying problem of no standards being present.

At a protocol level the methodology seeks to ensure information sourced from 'ledgers' is encoded in a standardised manner (using 'Semantic Web' or RDF frameworks); whilst providing flexibility for how and what ledger technique / product and/or provider - made to be 'universally' employable. Consequentially

¹⁰⁵ <https://www.ruleoflaw.org.au/priorities/common-law/>

¹⁰⁶ <https://www.ruleoflaw.org.au/principles/>

By: Timothy Charles Holborn

triaging the variety of competing requirements at this early stage; whereby tooling is being produced on a commercially competitive basis.

Technically; some,

- Ledger technologies support private information systems, others are public;
- Consume vast amounts of energy, others use alternative techniques to support 'trust'.
- have cryptographic tooling that's providing a solution on a global basis from an international HQ; others, provide more 'uniform' means to decentralise cryptographic instruments, and therefore also - custodianship frameworks.
- Have different intellectual property ownership structures; than others. This is not simply about the protocol layer, but also any designated cryptographic layers.

The use of DLTs are not only about financial transactions (currency) but also the means to decentralise both the custodial governance and discovery / use of commons¹⁰⁷ informatics.

Q: How can the FinTech and RegTech sectors link into the Australian digital identity ecosystem reforms?

The 'Reality Check. Tech' establishes a foundation that is built upon the idea that the augmented and/or artificial realm is built upon purposeful real-world foundations; where productivity becomes the real-world measure of success.

The means to establish 'fit for purpose' digital identity fabric; requires international cooperation and interoperability.

While it is assumed that there will be an array of dynamic market participants commercialising various alternatives based upon various views of how solutions fit into *how the world of persons* is made to work;

There is an underlying consideration that governments must consider about the future of human agency, citizenship, personhood - and how we might support works for current global dynamics which requires a series of activities to be performed, somehow.

The term 'identity' in a social-sciences context is illustrated by wikipedia to be said to mean;

The image shows a screenshot of a dictionary entry for the word 'identity'. The entry includes the word 'identity' with its phonetic transcription /ɪˈdɛntɪti/, the part of speech 'noun', and several numbered definitions. Definition 1 is 'the fact of being who or what a person or thing is', with an example 'he knows the identity of the bombers' and similar terms like 'name', 'specification', 'identification', 'recognition', and 'naming'. Definition 2 is 'the characteristics determining who or what a person or thing is', with an example 'he wanted to develop a more distinctive Scottish Tory identity' and similar terms like 'individuality', 'self', 'selfhood', 'ego', 'personality', and 'character'. Definition 3 is 'a close similarity or affinity', with an example 'an identity between the company's own interests and those of the local community' and similar terms like 'identicalness', 'sameness', 'selfsameness', 'oneness', and 'congruity'. Definition 4 is a mathematical definition: 'a transformation that leaves an object unchanged', 'an element of a set which, if combined with another element by a specified binary operation, leaves that element unchanged', and 'the equality of two expressions for all values of the quantities expressed by letters, or an equation expressing this, e.g. $(x + 1)^2 = x^2 + 2x + 1$ '.

Identity is the qualities, beliefs, personality, looks and/or expressions that make a person (self-**identity**) or group (collective **identity**), in psychology¹⁰⁸. The google definition¹⁰⁹ is as follows.

The linguistic implication being that the employment of the use of 'identity', digital or otherwise; is contextual.

This is in-turn a cause for potential legislative hazard as the definition made use of in connection to the context of 'digital identity' may seek to serve one or more providers without cognisance for the 'subject' & related implications.

Therein broader considerations for the definition of 'identity' lend astute eyes a means to better reflect upon the implications. The most parjorative of which is about the 'linkage' of a person to a specified social concept; and reality.

¹⁰⁷ <https://en.wikipedia.org/wiki/Commons>

¹⁰⁸ [https://en.wikipedia.org/wiki/Identity_\(social_science\)](https://en.wikipedia.org/wiki/Identity_(social_science))

¹⁰⁹ <https://www.google.com/search?q=define+identity>

By: Timothy Charles Holborn

Q: Can Australian regulators do more to support FinTech and RegTech companies to develop digital advice services? How can the Australian digital advice sector be supported to grow?

Given accountancy for the representations made by 'data' in association to a person's real-world lived experiences - is currently 'malformed', i am unsure how it can work in its current form as to best yield the underlying productivity outcome moreover sought.

Well made Software agents are only useful if they're provided reliable, and optimally complete datasets for processing some form of evaluatory model; as to form derivatives 'inferences' that are built upon reality, rather than some machine-distorted version of it.

Without 'machine readable payslips' and other related informatics resources, this is made more difficult. Privacy and related considerations are part of a 'fit for purpose' solution.

Q: Are there any impediments to ensuring that the benefits Open Banking offers for consumers and FinTech firms are maximised?

An old story is that people stored their money under their mattress.

A similar consideration is that people stored their important documents with banks for 'safe keeping'.

As these systems are being replaced by online alternatives - how are citizens or consumers (depending on how the senate committee seeks to look at it) protected?

Therein - it seemingly depends on the intended goals, and linked cost/benefit analysis associated to the overarching vision of what it is that is sought to be achieved domestically, as a nation. 'Open Banking' alongside the emergence of 'neo banking' seemingly provides the means to diversify and stimulate innovation within retail banking. Yet the raw ingredients that are of meaningful even vital importance, is data & AI. I also believe it is of express importance to note my concern of what appears to be sophisticated attacks upon 'early innovators' in this sector, that 'doesn't make sense'. In that, i make particular note of the fairly remarkable upon the character and reputation of iSignThis¹¹⁰ whose works, as far as i'm aware (from very early 'games101' times) isn't consistent with that of media *intimations*. There are other examples linked to Westpac of a personal nature, which also leads me to concerns.

Q: Following the implementation of the CDR in the banking sector, how quickly should the government seek to implement CDR reforms in related financial sectors such as superannuation?

CDR or Consumer Data Rights seems to be ideologically bound to a particular ideology which is seemingly an important and instrumental development of a strategy that seeks to be 'fit for purpose' for international infrastructure linked to international law; but that's not the only method for the governance of the digital extension of personhood; that could apply. There are significant differences between the legislative and systemic differences of how problems can be solved on a domestic basis; than is the case internationally.

The orientation of a 'knowledge banking industry' leads to a very different informatics governance outcome; which means, that for those who seek the benefits of such an ecosystem - there is an ability to apply domestic law as to support an array of very different controls; that are otherwise not able to be applied on a universally international basis.

These include; The capacity to improve support for 'rule of law' by,

- Instilling a method whereby a principle / principal agent relationship may be forged with a domestically regulated industry; that means many would-be forced 'inspection events' may be parsed by way of a fiduciary entity, required to ensure any such request is both proportionate and legally defensible by domestic law.
- That 'separation of powers' be granted improved support, consequently.
- That there be means to preserve the sanctity of 'secret' intelligence operations without sacrificing 'rule of law' as a symptom of otherwise inexorable problems.

¹¹⁰ <https://www.google.com/search?q=isignthis&tbn=nws>

By: Timothy Charles Holborn

Principally, these differences are about a 'principle' (the human) and 'principal agent' (the knowledge bank) relationship; which in-turn changes the way 'data economics' is equipped.

Q: What specific considerations need to be given to the implementation of CDR in the superannuation sector?

My modelling provides a mechanism through which there is a capacity to aggregate potentially millions, if not more, micropayments; through to the formation of a calculated aggregate; that may in-turn be articulated as a taxable wage. Consequently, amongst the many benefits - the means to in-turn support superannuation contributions is improved.

The secondary consideration; is that superannuation funds have a capacity to provide low-cost investment monies for projects deemed to be 'low risk'.

Q: Is the New Payments Platform accessible enough for FinTech start-ups and scale-ups? If not, how should this issue be addressed?

It is my view that there are several problems with the functional characteristics of the NPP.

The first problem, is that there is a lack of support for 'identifiers' which has many characteristics. These problems stem from the underlying issue that there is a lack of support to provide human beings identifiers on the web other than as a 'content function'.

The additional problem brought about is the issue of VoIP Spoofing; and other types of attacks on telephony system identifiers, which cause further reliability / reliance problems.

The way the internet works today; human beings are in-effect considered to be a 'content problem'; this ideological framework has now become more pervasive across other IdPs.

In prior works we have modelled the idea of paying someone on the basis that they are able to prove that they are the owner of a URI, of some form. The means to ensure citizens are provided both the availability of URI predicates that are safely protected for their needs; and, pseudo-anonymous identifiers, that are 'routable', is envisaged to be part of a workable solution.

Therein; beyond the 'identity problems', there is also an array of considerations relating to the usefulness of the NPP or similar; and/or the appropriateness of its modal framework.

One of the bigger issues is about ensuring the outcome provides the series of economic instruments that are required / demanded; by the evolution of communications tech. Today, 'work activities' don't just happen in a geographic town solely in association to those who live there. Today, people who have a shared belief in some sort of useful outcome; make use of 'the internet' to cooperatively and collaboratively work towards a solution.

Whilst this is able to be done for 'free', reality is life ain't free and we don't have economic instruments that provide a basic level of human dignity for doing useful work; with others.

Should it be considered meritorious to make an international 'knowledge banking industry' there are a number of functional requirements that may be worthy of consideration.

1. The 'identifiers' in-use to support payments are not necessarily linked to a specified email address or mobile phone number. The Identifier would use a WebID. There are a number of ways these identifiers could be provisioned; some being associated to a legal entity; whilst others, requiring a law enforcement request to do so. To support the latter, regulatory considerations are functionally involved.
2. Micropayments are vitally important for (international) scalability; which is in-turn 'informed' to some-degree, by the cost incurred to perform the transaction.

With respect to 'micropayments' the expense is not simply in supporting the payment itself; but moreover, in building a fabric that can ensure systems are defensible from bad actors.

By: Timothy Charles Holborn

Q: Do the tax incentives offered for ESVCLP and VCLP support growing FinTech start-ups? Should the government consider further work to support VC investment in FinTech start-ups?

In 2011 Jeff Sayre wrote a series of blog articles about 'smart-ups'¹¹¹ and even though there has been a great deal of progress - significant misunderstandings of what matters remain an impediment to the health of our national innovation infrastructure..

I have found the Australian venture capital market to feature various limitations; that have not been effectively equipped to support a 'fit for purpose' financing model, historically.

While changes were implemented (CSF) and offer some hope; the supply ecosystem seems to be fraught with inefficiencies and up-front capital expense.

The ability to start a project with others; that may be managed via a ledger, would be simpler - but this in-turn requires the availability of 'digital identity infrastructure'.

The critical 'missing piece' is about human agency, which should not be commercially owned by any private operator.

Where attempts to do so do exist, international capabilities providing infrastructure outcomes such as built around AppleID, FacebookID, MicrosoftID, GoogleID & similar, become the only viable option; particularly given their 'free' support tools. These activities, even by way of citizens from one of our closest alliance partners; are still representative of undue international influence on matters of sovereignty and national security. As has been noted previously the considerations made by the US President do not support globalists.

Q: Is the R&D Tax Incentive adequately assisting companies in the FinTech and RegTech space? If not, how should it be reformed to encourage innovation in these sectors?

There is no R&D tax benefit for those who have been working on something useful for 'free'. The R&D Tax Incentive only helps those without time or intellectual freedom. It is exceedingly rare for an employee structurally to be able to innovate without their employer able to claim ownership. The R&D tax benefits do not support genuine innovation outside of existing commercial structures - which disincentivises away from genuine innovation and drives to behaviour towards an appearance of Innovation where a principal goal can be incentivised more towards tax avoidance rather than value creation.

Innovators who are keenly focused on making something new are ordinarily sacrificing their earning potential, to invest. The incentive better benefits investors than innovators.

If investors 'don't get it', then the innovator design of an investable solution is influenced. Structurally the system biases towards holders of capital and dampens the ability to pursue genuine innovation.

It is recommended that a survey be undertaken to establish a comprehension as to the industry characteristics linking innovators with income, by comparison to minimum wages.

I suspect there are many innovators involved in the start-up community without workplace productions; as has been manifested through focused ignorance, in setting aside their needs. As is quite different to traditional trade workers, whose rights were hard-won through industrial activities - including, but not limited to the 8 hour movement; the 'new age' knowledge workers - are now subject to 'web slavery', where neither acknowledgement for their works; nor equitable financial consideration be deemed at all necessary, in this emergent international marketsphere.

Where this does not work for 'investors', is with respect to provenance and broader global capabilities for 'scale-ups' linked to due-diligence. Therein - the problem is that without the means to provide accounting for 'knowledge workers' significant investment can go into the wrong agents, debilitating ROI.

¹¹¹ <http://jeffsayre.com/2010/09/13/web-3-0-powering-startups-to-become-smartups/>

By: Timothy Charles Holborn

Q: Are the existing visa settings for entrepreneurs and workers in the tech industry succeeding in attracting overseas talent into Australian FinTech and RegTech companies?

Are changes needed to make this process more straightforward?

A: Yes. It was entirely unclear to me how to accommodate the visa requirements of a dutch national who traveled to Australia to assist on the global - 'knowledge banking' project. Similarly, the means to communicate to other exceptional persons how they may relocate to Australia as a place to undertake complementary works; was entirely opaque.

It appeared to be the case that select institutions had an opportunity to employ persons should they understand the merits of potentially doing so; which means, diluting IP.

In my experience, the world's most capable innovators in this space have undertaken works as to have been instrumental actors in the creation of it; for more than a decade, and they did so not because there was a large paycheck to do so from the time they started, but because they cared about human agency, personhood - the future of humanity.

If you want to attract those people, it cannot be at the expense of sacrificing those values. If you do not want those people; the offerings from Australia will be shaped to reflect those decisions.

Perhaps moreover, the reason why that is a fooling position to maintain; is that, whilst many want to get involved in emerging industries once underlying works have been done over many years - as to get 'innovation' to a juncture where high-paying jobs are brought about; those, who only then get involved, weren't involved in making the foundations to it.

The lived experiences of those who were involved; are irreplaceable, its lived experience.

If Australia wants to commit to the delivery of internationally valued solutions as an innovator; rather than as a 'fast follower', then it is those people that we most want to know are encouraged to come to Australia, Enjoy our beaches, get their kids into good and safe schools; and that Australia, is a place to follow their dreams, that create have been instrumental to the creation of new industries; and the future of, liberalised democracies..

Q: Is the FinTech Advisory Group meeting its goals? Could the group be doing more to assist the development of the industry?

A: I am unaware of the 'FinTech Advisory Group', and doubt they are either aware of my work or have explored it with those I have worked with internationally to define 'emergent alternatives';

So, No. I guess not.

Q: How can public sector data be made more accessible and useful for FinTech and RegTech companies seeking to deliver innovative products and services?

A: From my point of view, there is a critical requirement for 'civic' / 'civics' work, which includes but is not limited to; the creation and development of RDF (link data) vocabulary.

Q: In addition to traditional financial services, which sectors of the Australian economy could benefit most from the integration of innovative FinTech and RegTech technologies?

A: Should the raw subject matter implicitly embodied by the underlying foundations to this enquiry - be appropriately 'sorted out', humanity can be uplifted from an 'information age' to a 'knowledge age' which is critical infrastructure for the future of our world.

Today, there is an almost limitless volume of 'jobs to do', things that could be done - to improve our lives, our surroundings, the lives of others - our means to address real-world-problems (in addition to our

By: Timothy Charles Holborn

means to solve those built upon 'fantasies'); and of course, moreover - improve our means to attend to our responsibilities for our biosphere.

The artificial limitation is not preventing humanity from forming meaningful solutions to address these sorts of (well known) issues; the limitation is preventing our system of democracy from being a competitive, compassionate and valued international leader in the doing of creating and delivering of these solutions.

When comparing the evolutionary outcomes forged in Australia vs. those in China; a media that seeks a response by audiences to be frightened of the implications of their remarkable illustration of progress - isn't helpful. What we need is to figure out how to support 'liberalised democracies' both here, and cooperatively also - those abroad; and to ensure our system of government and society are able to meet the challenges and excel, as to demonstrate how it is that the solutions we define, to improve the lived experiences of Australians; adequately or indeed optimally, deliver outcomes that lead by example, not fear of something we have no experience, no real-world understanding of - that exists, elsewhere. The principle framework, from the age of the league of nations, through the UN and beyond - is about China, being in China. The United States, being in the USA. People are from different places, different regions - different cultures, we are all different.

Australia has a lot 'going for it', as a multicultural society - somewhere that international activities to engineer effective 'knowledge banking industrial capabilities' could be made; for liberalised democracies, both here - and for those abroad.

Yet it seems all too often, that the idea of making investments at least comparable to the cost of a major feature film, much less an international event - like an olympics, is set aside. In Australia, even though our society operates technology that is equipped to support 'pervasive surveillance' - there are issues that exist, like public servants assaulting the human rights of children; and their natural parents, whether or not they retain that role.

We have recently experienced catastrophic ecological events; as we have failed to maintain our natural world, environmental needs; irrespective of the significant proportion of unemployed persons who could have otherwise been doing something that might have led to better outcomes; including but not limited to the complaints about too many donations for food & clothing, whilst people survived on beaches, eventually relocated elsewhere.

There is opportunity to form an economic framework that not only supports; but encourages people to find something useful to do, and go do it - in the knowledge that any good works - can be acknowledged and may well end-up providing income. Achievement unlocked. The means to transform the definition of a billionaire into someone positively impacts the lives of a billion people - or perhaps that should be reframed, to include animals.

We shouldn't be 'fear mongering' or supporting a media that seeks to do so - about systems that exist overseas - our responsibility, our mandate - is to ensure our systems are better, better suited to providing meaningful and reliable support for the values we care about.

Q: Are there current examples of innovations in this area that the committee could explore during its inquiry?

Innovation in the area is widespread world-wide, whilst also highly specialised. The underpinnings (linked data) is an important part of how many systems work; however, the means to support human agency by way of 'knowledge banking systems', or similar, is still emergent. UK Based firm - The ODI, supply an array of materials that incorporates considerations of 'data trusts'¹¹². Widespread community initiatives such as mydata¹¹³ also provide reinforcing support for the underlying considerations. W3C community driven works have resulted in a long-developed news catalogue represented as Tim Berners-Lee's works on what is now called solid¹¹⁴ (noting, the heritage of it, is actually more complex); and, the article from 2016 about 'information fiduciaries' in the atlantic¹¹⁵ links to a UC Davis Law review

¹¹² <https://theodi.org/topic/banking-and-finance/>

¹¹³ <https://mydata.org/>

¹¹⁴ <https://www.google.com/search?q=%22tim+berners+lee%22+solid>

¹¹⁵ <https://www.theatlantic.com/technology/archive/2016/10/information-fiduciary/502346/>

By: Timothy Charles Holborn

on Information Fiduciaries and the First Amendment by Jack M. Balkin¹¹⁶. Related issues have been raised in various US Senate Enquiries overtime; alongside similar examinations, elsewhere.

There are some aspects that are more difficult to illustrate. The means through which AI is made to work, as to, for example, decide what content and/or advertisements should be presented, is at a different 'layer' to 'data'.. Therein, whilst i use the term 'knowledge' which seeks to provide inference about how the management of 'wisdom' is performed with respect to ICT systems design, for agency; is not easily example otherwise, as the vast majority of market participants see this as their commercial IP.

Q: What changes are required in order to create a better enabling environment for the transfer of technological innovations across sectors of the economy?

A: The emergence of a 'knowledge fabric' of socio-economic activities requires new business models. There is an important and necessary role to be carried out by governments as members of a broader ecosystem. Should 'commons infrastructure' be established, which is in some ways similar to the creation of other types of software; providers should be able to support widespread take-up. Just as the creation of word-processing and spreadsheet programs had; this commons infrastructure has implications across all sectors of the economy. 21st century economic infrastructure is knowledge infrastructure and has this quality by its fundamental nature.

As the vast majority of useful derivatives are made available in relation to copyright law; there are an array of importantly supported legal-economic tools; inclusive to, electronic contracts, credentials and micropayments infrastructure - which is envisaged to have a diversifying effect with impactful benefits.

One of the more important considerations is that the idea of a polarised method for engagement being either; unpaid, freely distributed open-source work; and commercial, proprietary and attributable to royalty related payments in perpetuity; appears to me to be a false dichotomy. If someone does useful work, they have a right to be paid for their work. On the basis that there is a means to attribute an equitable fee for that work, technology should be equipped to ensure those persons who did the work can be paid; and then, make the derivative free.

The analogy I like to use to illustrate this concept is the construction of former-era infrastructure; such as public libraries, people were paid to build them - but they don't own them, nor do they control what books are available in them, charge a fee at the door to use them; or otherwise 'control' them.

Whilst distinct to other social-infrastructure like churches - the point is, there's an economic relationship between 'work activities' and human dignity. If income is stripped from work, it impacts human dignity.

Q: Noting the lengthy sales cycle (approximately 2 years) for RegTech products to be adopted by companies, how can government assist emerging RegTech providers to ensure that this time lag does not preclude innovative technology solutions from being brought to market?

A: there are 'big use cases', and 'small use cases'. Some areas of innovation could be applied in the first instance to sub-sections of Australian Society, such as universities, student unions & communities.

Q: How can technology solutions be used to improve access to financial and other services for geographically isolated or other marginalised groups in Australia?

A: the creation of a 'knowledge banking industry', changes the economic dynamics. Often remote communities require localised infrastructure; to support shared comms to the broader world. Most 'places' have a nearby post-office and/or service; and whilst there's an array of problems that could be brought about should a poorly considered tactical strategy be employed, those such as the elderly who are increasingly required to maintain long-term relationships (ie: getting newspapers delivered) to have some relationship to 'online infrastructure', Post offices could provide support; including web2print.

There's also an array of 'connectivity' and related issues experienced; in particular, by elderly people. An approach was considered to form some sort of 'tech social worker' type program with local councils; to help ensure people now reliant upon internet connectivity (inc. home phones) are supported and not left

¹¹⁶ https://lawreview.law.ucdavis.edu/issues/49/4/Lecture/49-4_Balkin.pdf

By: Timothy Charles Holborn

behind. Another part of how these sorts of problems may be more productively solved, is by improving available knowledge management systems. As a consequence of recent fires, for instance, it became really clear that there was a lack of infrastructure to support an effective response. One of the elements to this problem appeared to be a lack of an issues tracking system¹¹⁷ to manage the lifecycle of responding to issues; that in-turn, implicitly involved an array of ecosystem participants (multiple agencies, organisations).

Another, linked to that problem - was that <http://emergency.gov.au/> doesn't exist. In-turn, part of the benefit of forming an informatics fabric is in its means to be applied to these sorts of applications as to ensure every Australian is equipped, by systems, to be able to be part the solution - that is never able to be fully understood ahead of time, it's about how fast we can effectively respond, impacting productivity.

This is amongst the broader types of considerations linked to the example provided earlier re: hospitals.

Q: What learnings and opportunities can Australia glean from international FinTech and RegTech industries?

A: I think the most significant emergent capability, is coming out of China. Their societal systems are very different; yet it appears to be the case that the growth of solutions in that region is delivering remarkable capabilities. The other thing to note; is that alternatives we use, such as those produced and globally made available from the USA (particularly California) aren't actually that different from the functional frameworks provided via China. Equally, we're not Citizens of the United States, The US Constitution benefits US Citizens. By US Law - we're aliens¹¹⁸; or moreover, 'consumers'.

The EU has for a long-time funded projects to build software made to be open-source¹¹⁹, and new examples are emerging such as Government 3.0¹²⁰ which creates competitions for those located in the EU to "The scope of the competition is to find the best new apps or technological ideas that we can help scale into businesses."¹²¹ Without these programs, the means for many EU capabilities would not have been fostered and consequentially, would not exist today. These are long-term investments.

The consequence of these programs has not only led to an enormous volume of usable derivative software, but also an array of newly founded businesses, improved means to make use of citizenry to form 'situational awareness', build option-statements; economic innovation and capability development.

Q: What innovations from other countries could have a positive impact on the Australian FinTech industry?

The vast majority of collaborators I have been involved with, are based in the EU, US & Commonwealth. This is likely due to an array of shared cultural associations to our shared view towards a future that continues to support liberalised democracies and rule of law. However, it is difficult to limit my conclusions to any one area. I think there is a greater threat presented, by vastly limiting a list of preferred countries; where particular relationships to the USA, UK, Canada and Israel come to mind...

The usefulness of Australian productivity is made most-beneficial when applied to GDP enhancing goals.

There are an array of 'digital identity' related issues of importance in many developing nations. In many cases, we've also got a lot to gain from learning and improving our own domestic capabilities as a result of insights we may benefit from - by seeing how it is they've done such things as turn deserts into food.

Q: Are there any pitfalls Australia can avoid in growing its FinTech industry by learning from international experience?

A: I think the substance of a more usefully employed answer to this question isn't so much about 'pitfalls', whilst studying, recognising, acknowledging and responding to problems is of vital importance; the broader 'opportunity' is in considering how we might 'leap-frog' from the 'status quo' to become a

¹¹⁷ https://en.wikipedia.org/wiki/Issue_tracking_system

¹¹⁸ [https://en.wikipedia.org/wiki/Alien_\(law\)](https://en.wikipedia.org/wiki/Alien_(law))

¹¹⁹ https://en.wikipedia.org/wiki/Framework_Programmes_for_Research_and_Technological_Development

¹²⁰ <https://www.gov30.eu/>

¹²¹ https://twitter.com/Government_30/status/1205438678757249025?s=20

By: Timothy Charles Holborn

valued contributor to the next generation of instrumental, socio-economics infrastructure and normative foundations.

Whilst there should not be a legal prohibition on otherwise legal fintech initiatives and toolsets; an enormous amount of energy is consumed by some solutions, which may need consumer labelling considerations to help ensure holistic considerations are made about how and what our society grows to depend upon.

Q: How can Australia take advantage of its geographical proximity to the rapidly growing markets in the Asia-Pacific and increase its financial services exports in the region?

A: Australia is a close ally of the United States. We are a member of the Commonwealth, obligated to uphold its charter. We are a multicultural nation, within an enormous land-mass that exhibits many different socio-ecological environments; and most of all, our Australian Way is built upon the principles of seeking to develop, maintain and improve upon the ideals of a liberalised democracy.

We should be seeking to both defend our sovereignty, and build useful cyber-economic bridges.

Australia has the potential capacity; to work closely with other members of our human family who are located throughout Asia, on the same timeline (zone); whilst being capable of navigating complex issues with the United States, G8, 5 (9 & 14) Eyes¹²² alongside other, instrumental, international fora.

1 Indonesian Rupiah equals
0.00011
Australian Dollar
6 Feb, 5:24 am UTC · Disclaimer Yet this conceptual opportunity is solely built upon the principle idea that Australia is sufficiently equipped (and/or interested) in engaging in an international undertaking; as required, to provide alternatives to the 'status quo'. Part of the design implications, incorporates also; considerations about how to support the most nominal amount of international currency; the example given being an indonesian rupiah¹²³ whilst effective 'cost of living' considerations relate more broadly to other areas.

How could programs be developed to encourage Australians who are otherwise living in poverty in Australia; be supported by government, to undertake R&D activities in areas that have a lower-cost of living environment; where useful innovation that could support real-terms growth for Australia whilst improved relations and the means for people to understand how to do business in Asia. I hear Thailand is becoming an international innovation hotspot due to the difference in cost of living pressures, with many from many parts of the world now spending a great deal more time doing global work from there.

Whilst the intention would be to form a means to help innovators get from zero to hero, it is harder here.

Q: What measures can the Australian Government take to directly support FinTech businesses seeking to expand internationally?

A: I link my considerations with respect to this question; to that of the former. Australia is a very large landmass with relatively few people. Work being done here should generally be undertaken in a manner that considers the fact that there's 7.5Bn people on the planet, and useful work should help more of them. To do this from Australia, is different to other regions. We're fairly isolated domestically, let alone internationally. When this is considered in combination to various emergent 'terms of work', only a very small proportion of Australians can afford to go visit and spend time with others overseas; as to foster relations, trust and in-turn shared interests, the basis upon which - business is then made possible.

Improving the distribution of Australians internationally would help foster relations.

Working with international regions to create international solutions, built on shared values, to improve the capacity to make, support and rely upon inter-domestic cyber-socio-economic infrastructure, would also be of great use. Usually, people know their own areas. rapid growth relies upon the means to ensure infrastructure exists for meaningful collaboration, cooperation and trade on fair terms.

Rules were developed in the age of ships and later shipping containers; now we need it for cyber-trade.

¹²² https://en.wikipedia.org/wiki/Five_Eyes

¹²³ <https://www.google.com/search?q=indonesian+rupiah+to+aud>

By: Timothy Charles Holborn

Q: Should Australia seek more formal international FinTech agreements? Are there particular countries that Australia should look to for partnership?

yes. But the problematic underlying question is about the nature of what those agreements should be designed to seek to achieve, as a goal; and how are the options currently able to be 'informed'.

There is a heightened risk that fading industries (ie: like video shops) may seek to use 'market might' to protect an outmoded position; in some way, that may have very damaging consequential effects.

As an advanced nation, which is built liberalised democracy; alongside other aforementioned attributes, Australia is well positioned to undertake cooperative international works with a multitude of international sovereign nations; seeking to tackle these shared problems. Indeed the only means through which any long-term & scalable solution can be forged; is considered most likely to occur only as a result of comprehensively supported international collaboration, cooperation and facilitative engagement. Yet innovators do need to be paid. A situation where 'free workers' are relied upon to inform 'authorised representatives', who are not independently equipped to do the work (without the 'free workers') isn't a sustainable approach. One example of this, is that Blockchain, is a subset of DLT technologies. Therein, amongst the critical distinctions; is in-part, the physics of energy consumption.

If we build a society that is equipped to defensibly support tyranny; and the proposed solution to that is 'blockchain' - how can a 'private key' be protected? ideology is quite different to science, whilst coupled.

As is part of the media-derived messaging about the emergence of china's 'blockchain technologies', discussions illustrate notes about vast patent-pools that have apparently been produced as part of their efforts. Internet Pioneer Pindar Wong recently spoke about 'The TAO of Web3' in NL¹²⁴ which flows on from longer-term works; that means i can note a historical example from having worked on W3C web-payment standards at their emergent stages (although the record, misspells my surname!)¹²⁵

Whilst its so very difficult to demonstrate well; i do believe Australia has an array of innate qualities that provide a basis upon which international works can be carried out from here; but to achieve that, we're going to have to demonstrate our commitment to universal human dignity. We need to be equipped to engage at many levels in very difficult debates, where there are an array of very distinct cultural qualities that form part of the interplay, in rapid technological and social advancement built upon ICT infrastructure; that in-turn, is coupled with our 'rule of law' capacities, and commitment to ensuring 'fit and proper' maintenance of our liberalised democracy, as to promote reality and not just 'fake news'.



Image Source, www.aph.gov.au¹²⁶

¹²⁴ <https://www.youtube.com/watch?v=FPjEpWw-2J8>

¹²⁵ <https://web-payments.org/minutes/2014-09-04-igf/>

¹²⁶ https://www.aph.gov.au/Visit_Parliament/Things_to_Do/Take_in_some_history

By: Timothy Charles Holborn

Part 6: Globally Shared Considerations

Biosphere Sustainability

Whilst such forms of considerations by those who have not considered causal links; may be considered superfluous to questions about FinTech and RegTech; I disagree.

There is of course some history with the idea of various 'carbon economy' frameworks; yet it is my view that the underlying driver is moreover about life-cycle energy economics.

"Coal & Oil may be cheap to consume, but it takes a very long time to make."

The means to effectively perform knowledge engineering tasks on 'fit for purpose' apparatus; can have a remarkable impact on our capacity as a species to attend to; and respond to, various biosphere based challenges, at almost every level.

There are hazards made by man, and those made naturally; both have the capacity to be incredibly dangerous. 'sense making', advancement of the useful arts and sciences; and the means to resolve critical economic problems linked to 'work' activities is part of an evolutionary solution, for development.

Whilst special attention is being provided to works that are intended to provide the means for mankind to live on Mars; there's an array of earthen considerations, that we could radically improve our means to attend / respond to, and this is considered important for sovereign governmental policies. The means for humanity to thrive, is obviously one part of it.

Another, is biodiversity, environmental sustainability; means to govern bio-threats and hazards, means to protect our civilisations from the impacts of natural hazards; and to support long-term plans that provide means to rapidly respond when natural disasters occur.

There are an array of health and wellbeing challenges that are yet to be met; there are an array of emerging challenges, particularly with respect to the development of intellectual property frameworks - which threaten to undo the good, whilst styming societal abilities to evolve.

The means to ensure 'freedom of knowledge' is essential for the advancement of the useful arts and sciences; in any societal governance environment, particularly liberalised democracies. Today, there are challenges about how to legally make use of knowledge; as knowledge, becomes locked away in expensive online environments, without better tools.

Our means to address bio-sphere challenges gets to the heart of 'FinTech & RegTech' Ethics. The tooling required to support both 'FinTech & RegTech' can (and should) materially assist in ensuring 'freedom of thought' remains a pervasive quality; and with that, the means to discover, interpret, reference and form associations to and with biosphere artifacts; should be deployed using semantic web notation ecosystems; on decentralised ledger technologies.

This in-turn means that various custodians can be applied to the governance of some form of critical informatics resource; which can then be processed privately, by a 'knowledge bank' and its underlying AI functionality; in a standardised, interoperable way. Uplifting the concept of a 'public library' with cyber tools; is envisaged to deliver an array of socio-economic benefits. Yet therein, is an underlying challenge given that today; many organisations are considering 'data' to be the 'new oil'; and with that, seeking to establish commercial business models built upon the idea that it is theirs - to sell, commercially.

The belief is; that should an opposing, ideologically derived consideration - be evaluated; the benefits for humanity, productivity, our capacity to address problems and grow our 'human potential' throughout the many spheres of useful arts and sciences; the means to ensure that every person, has the capacity to make use of 'human knowledge' for works of incremental development, benefit, exploration, discovery and solutions delivery - is of far greater value than could possibly otherwise be the case, if 'knowledge' was unavailable. There is a risk that the sale of 'reality check' 'sense making' informatics; may cause long-term and systemic problems; where the poor, will not have any opportunities.

By: Timothy Charles Holborn

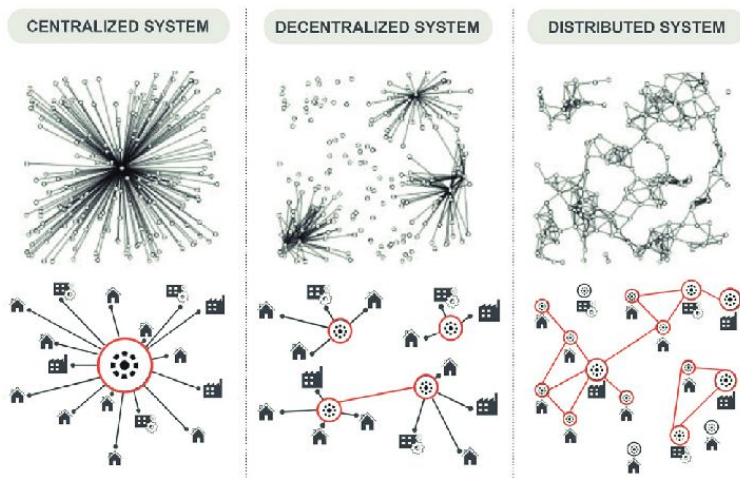
The means to support 'cost recovery' and indeed also 'wages' the consideration is similar to that of associating the economic practices involved in building public libraries; where those who do the work to build the building, get paid for doing it - but they don't own it and they are not paid in perpetuity for having done so; nor do they select the books.

Therein - with respect to 'biosphere sustainability', of which our human family is a part; there is a need to tactically address the means to make distinct; that which is considered to be commercial in nature; and does not pose any existential threat to mankind if made unaffordable and/or monetised in perpetuity; vs. that which should be treated differently.

International Considerations

As has been referred to previously; the means to respond to the rapid technological advancements throughout the world, particularly in sovereign states that are operated as liberalised democracies; features an array of different traits, to states such as China whose radical and rapid ecosystems development scope of works - have been widely reported. What is not so well reported or seemingly made understandable; is the impact of global business systems, from the USA and in particular, California. With the advancements in AI, no-matter the modal interaction with these systems - by the time it's been verbalised or written about in some way; these online systems increasingly have the capacity to 'learn' & lodge a patent. There is a critical difference between the ecology of a sovereign nation; and the means through which it may only then, play a useful productive role internationally.

The most significant instigator and commercial vendor; that has brought about the opportunity to now deal with new issues, has been made possible by the distribution of products and infrastructure from the USA. These ecosystems purport to offer 'free services'; after the cost of equipment (devices), services (connectivity) and the implications (influences). The problem is - whilst these systems may be a better alternative to a poorly operated liberalised democracy and its internal means to 'be competitive'; and that there is a built-in benefit in suggesting that's all that exists (even when it doesn't); it's hard to compete with 'free'; when in fact, it's not free. The reality is - that they're not operating a system of democracy via international platforms. The only persons who have the benefits of the US Constitution are US Citizens, much as it is only Australians who benefit from our Medicare - universal public health system, for all Australians. We have different values.



The 'catch-cry' then most-often used calls for 'decentralisation'. The reality is that even though the brands, corporations and their business systems are centralised; the software systems themselves are fully distributed across the planet; often at a cost, that makes it difficult for local alternatives (inclusive to entire industries) to compete. The result becomes an evolving problem where it becomes increasingly difficult to not use these globally 'centralised services', which in actual fact - means that a few corporations impact, billions.

When the term 'centralisation' is used, it is not talking about where the data is located - as there is infrastructure across the planet, nearby to most; that is employed to distribute 'data' to consumers, located world-wide. The infrastructure that is linked to the term 'centralisation' moreover relates to the critical tooling required to produce and maintain something that i've called a 'cyber nation'; which means that the 'rules' become centrally managed from an IdP (identity provider) and globally operational business systems level.

In-Effect, these global 'cyber nations', many with billions of users; that are coupled & engaged via them; for several hours a day; do not operate as 'liberalised democracies'.

By: Timothy Charles Holborn

This in-turn brings about a few problems;

1. If we do not address these challenges - we will not be equipped to compete in a future that is all about STEM and the ability for creative workers to engage productively in new forms of work.
2. Our society may make attempts to form a governance framework to support our 'liberalised democracy'; but this may be in competition to our vital communications infrastructure and related medium.

"As is illustrated by the concept of STEAM; and that earth, without art, is eh..."

It is widely known and able to be exhaustively referenced; that our economy doesn't care much for those engaged in creative works, those whose minds produce 'art'. The Advent of Cyber Infrastructure has formed a new global medium; it is different to books, land, sea and the traditional contexts of both law; governance, contracts and monetary systems.

The most hostile acts, as is in-effect a crime against humanity; includes issues such as the widespread exploitation of vulnerable people, particularly children - for economic gains. In a world that is so pervasively influenced by surveillance capabilities, the government seemingly finds it impossible to manage its own affairs as to ensure they're not paying for child-abuse to be committed as to cause intergenerational harms, for monetary gains.

It is upon the comprehension of being subjected to this behaviour; by public servants and those employed by government, that I have spent the last decade building apparatus for a knowledge banking industry that is now able to be produced, delivered and made operational; both on a domestic basis, and by reasonable practices - via a union of nations.

The underlying works are consequently - enormously sophisticated, and more than is merely considered in a rudimentary form as 'fintech' or 'regtech', it's about 'sense making'.

At some stage in the not-so-distant future; if our system of democracy cannot internally 'deal with' those employed by government who are abusing children on the public dime; it is entirely likely to be the case, that the illustration of wrongdoings will come from overseas. As there is not one parliamentarian in this country who could endorse such forms of reprehensible behaviour; it becomes kinda important to materially address it.

The importance of 'sense making' for defensible FinTech/RegTech Ecosystems

There are emergent ICT capabilities that are *interpretively normalised* by the terms 'quantum physics' and 'AI'; which in-turn, forms meaningful relationships to cryptography, intelligence, intellectual property law (both domestically and internationally - extending to trade law) and what is moreover considered in the context or pretext of what is termed 'moral grammar'.

The problem of dissociative actors is that 'causality', as is defined to be true by way of physics (and quantum physics may be 'set aside' as to operate monetary flows; without productivity benefits, which in-turn acts to destabilize and distort economies.

This in-turn forms the basis through which productivity and GDP is thereby strained.

In-order to address this problem, the means to supply 'sense making' to our historical, institutional artifacts / entities - is in-effect, what is pragmatically required.

This infrastructure is not in place; the transition is considered to be something of discomfort, inconvenience and substantially without accessible inter-governmental coordination, leadership and values-based support.

The total population of the world is around 7.5Bn people. In the USA, Commonwealth and Europe; only a small portion of this total (global) population exists and many are unhappy.

The problems that have emerged in developed Western economies where liberalised democracies have evolved, flourished and are now under exponential attack; do not exist in other regions, whilst the desire

By: Timothy Charles Holborn

to improve circumstances and opportunity for all members of our human family; leads to enormous and shared opportunities, on earth.

Meanwhile some seek growth by employing global capabilities to support the 'unbanked population' - yet, the question must be asked - how these strategies improve liberalised democracies.

If there is critical infrastructure supplied by a foreign nation, where and how is sovereignty maintained?

In Australia, political engagement is generally via commercial platforms that are governed under the laws of the United States of America; should similar global infrastructure be built, using more modern paradigms - from Asia; how is the methods employed considered to be illustrative of any significant differences?

- Do we vote on the policies employed by major international platforms?
- Can we employ the data they have to rapidly illustrate a problem to a judge in a court of law?
- Why is it that we still have thermally printed point of sale receipts?

The opportunity for Australia is not to support an exclusivity of continuance for the 'status quo' but rather; to form an internationally united effort, towards addressing real-world problems - based upon reality - not hidden or entirely unpublished real-world statistics.

As such; the body of my response about a vision for the future of 'FinTech', 'RegTech' and what it is that my Australian Government should be considering will now focus on the solutions framework I've been working on over many, many years.

Defining rationale for a future built upon Solid Foundations

The focus of what the 'high-stakes issues are' changed from medicine (and diagnostics processes, etc.) to protecting children.

The underlying litmus test should at a minimum include the means to ensure no public servant is gainfully equipped to assist and/or act in a manner that assaults and/or causes irreparable damage to a child's human rights - purposefully, negligently and with any form of organisationally assisted acts of malfeasance and today, this is not the case.

There are a series of universal values which all leaders of all nation states should universally support.

Should appropriately equipped attempts be made to seek-out joint commitments towards resolving our cyber-infrastructure issues that disable our capacity to reliably respond to these indefensible behaviours. Australia should be able - to internationally curate, innovate and deliver leadership support.

Whilst specialised professionals are all across the world, most wouldn't mind spending a few months or years in Australia; doing something that's important to them, important for their home region; and important for the future, of humanity.

Therein - there are an array of policy settings that have a direct impact on Australia's capacity to maintain its commitments with respect to international agreements and the UN.

For some reason, we live in an environment of pervasive surveillance without the capacity to make use of trustworthy data-sources - as evidence.

Problem that are developing throughout many parts of the world; are in-turn acting to distort our capacity to deliver upon productivity goals; and engenders new issues such as 'web slavery'.

Web Slavery: where neither acknowledgement nor payment or support for 'living costs' need be furnished; for the beneficiary entities, to harvest & exploit 'free' resources.

The complex engineering of solutions to form a coherent ecosystem to address these problems; both here and abroad, is in my view called a 'knowledge banking system'.

By: Timothy Charles Holborn

Ideological considerations

- What are our 'shared values' principles that are of greatest importance? how are they supported and made accessible/enforceable by way of our system of government (and rule of law).
- What are the considerations relating to 'shared values' that are vital to our national identity; as Australians and as a sovereign jurisdiction, a valued international friend?

The key points that will be made herein; bring consideration to the following object terms;

1. There is a choice between an 'information age' and a 'knowledge age'. The latter is less distortive.
2. Whilst our society has been built upon the basis of it being a liberalised democracy; our online environments have not yet been enfranchised with tooling to support this societal foundation.
3. Our economic woes are not due to a lack of work activity; it's due to a lack of economic instruments, that pairs work - with (taxed) remunerative benefits.
4. Modern day 'payments infrastructure' is no-longer just about 'coins & notes', nor dollars/cents.
 - a. Global socioeconomic activity changes the nature of how and what types of economic instruments are now both possible, and usefully required.
 - b. Micropayments infrastructure needs to work globally;
 - i. At the lowest possible energy cost per transaction (all inclusive).
 - ii. There is physics involved in how this can technically be achieved.
 - c. Electronic contracts; loosely coupled to the trade of 'knowledge assets' do in-turn form a mandate to produce an array of functional capabilities; including, but not exclusive to vocabulary resources and inter-jurisdictionally supportive infrastructure.
5. Historically there has been a very old principle that 'money must serve, and not govern'.
 - a. In today's environment the essence of this principle should be considered again; both,
 - i. in the essence of the original intent of its meaning; and,
 - ii. in terms of what that in-turn means for policy making about ICT & AI.
6. During the industrial era; societal policy innovation was highly 'linked' to the progress made with workplace relations law and the labour movement. Societal developments stemming from the 8 hour work movement led to the development of middle class Australian society & many other achievements of great pride, as exemplars for our system of democracy and its many successes.
 - a. In our present-day context - we are faced with many 'emerging challenges' where 'FinTech', 'RegTech' and related 'ecosystem counterparts' will be impactful both in Australia; and elsewhere. If these challenges are poorly responded to;
 - i. the impact may cause artificial productivity limitations limiting our societal capacity to function, grow and excel domestically and internationally,
 - ii. may be a cause of new and emergent risks; negatively affecting terms of trade.
7. How is the 'civil tenant' reliably provided material support for any matter they may need to attend to that may occur as a consequence of 'truth' or 'reality'? How does ICT provide;
 - i. The ability for citizens to look to the law as a source of peace.
 - ii. Preservation of our societal foundations of importance to our democracy.
 - iii. The means to ensure that any Australian who engages in works of value; may depend upon our regulatory / public policy environment to protect the basis upon which any rights and responsibilities are then able to be applied.
8. ICT will continue to develop a functional capability that innately supports 'pervasive surveillance' for the most sophisticated actors in the world to make use of. For reasons of 'national security' it is of vital importance relevant and accountable agents of certain actors are best equipped to make use of these capacities domestically; and with others overseas.

Yet it shouldn't matter what job a person has, no one is above the law. Accountability support is critical.

By: Timothy Charles Holborn

Part 7: Summaries

Whilst the tooling has been produced, with patent-pools, royalties (royalty freedom) international considerations and all sorts of other 'seemingly' important factors in mind; technology itself is ideologically agnostic;

If employed poorly, undesirable and/or exploitative opportunities could be leveraged to negative effect.

In the present day, some 20 years after I first started on the body of this project; a much sought after global debate has been developing; as efforts to align in the direction of our cyber-physical infrastructure properties; to a '*human centric*', biosphere focused sustainable pathway; now goes far beyond the average way of organizing and computing societal and economical logic.

What is at stake here, is not 'simple' or 'well known'. The journey that was involved in having done this work - was not, in any way '*average*'. Whilst some seek to normalise; no matter the real-world costs, without economic context, there is little that can be done or made sustainable.

Conversely, every great shift in the capabilities of mankind, our capacity to evolve; is built upon knowledge. Every disaster that occurs on our planet requires knowledge, to ensure the best possible outcomes.

Mankind has a capacity to make use of globally interconnected infrastructure to radically change the way we live, are equipped to solve (any) problem(s); our means to thrive, and of course - moreover, our means to ensure that our biosphere benefits, as a consequence of our existence; That the problems we most struggled with, are not made to be those of our children and that if there are issues that affect those to whom we harbour a duty; we do so.

For several reasons such an analysis may be hard to consume and transmute into a contributing action.

It is pragmatically reasonable to confer that it is most likely the case that the vast majority have been conditioned to accept the problems, made to be disabled. This is not unlike the idea that without a solution for curing cancer; it would be pointless to form a social movement, a march - a series of democratic protests to demand that one exists. Therein - is the underlying problem.

This body of work provides a solution, it not only provides the underlying framework required to support our socio-economic needs, both domestically and abroad; but also, provides a progressively beneficial cyber ecosystems environment; to do such things as to improve the means for scientists - to cure cancer.

Does this mean I'm offering a cure for cancer? No. But before rocket-science can be done, scientists need tools.

What I'm talking about in this submission about 'RegTech' and 'FinTech' is what governments might want to think about if they want to ensure the best possible means for scientists to do so; which ain't 'fake news'.

The underlying goal and purpose of my submission, is to comprehensively illustrate an option, that is well-founded in science; to address the innate questions raised for the purpose of consideration, upon a basis of 'situational awareness' by the beneficiaries of this document; its writings, insights and capacity to both support the means for recipients to more fully investigate; and in-turn also, the means to apply industrial resourcing in a manner that should equip decision makers to consider the merits of ensuring the future possibilities are not overly limited; as may otherwise have been the case.

Herein - the thing about 'reality', causality and its relationship to socio-economics; is directly linked to the means through which we, as human beings, process information, form derivative 'insights' and declarative choices; built upon knowledge, and the more effective we are made able to do this, in one or more fields of expertise; is considered to be part of what it is, we call 'wisdom'. The Latin definition of humanity is said to mean 'wise man'.

By: Timothy Charles Holborn

If this infrastructure is poorly made; we may artificially make that concept redundant. Conversely; As is considered by the FUNDAMENTAL CHARTER OF CHRISTIAN ETHICAL FINANCE¹²⁷ in its opening statements:

"The participants, Christians and non-Christians, animated by the same spirit and ethics based on a common spiritual heritage,

Considering, primarily, the texts of the Bible, the Social Doctrine of the Roman Catholic Church, its catechism and, in the alternative, in particular the statement "An Interfaith Declaration: A Code of Ethics on International Business for Christians, Muslims, and Jews"(1994); the guide "Ethischnachhaltig investieren: Eine für Orientierungshilfe Finanzverantwortliche katholischer Einrichtungen in Deutschland" (2015);

Considering that "Money must serve and not govern" (Evangelii gaudium, Nr. 58) and that the seeking of material well-being cannot adversely affect dignity inherent to the members of the human family;

Considering that the professionals from the banking, insurance, and financial sectors should consider, without delay, the human, ethical, social and ecological consequences of their activities;"

And whilst further ensuring that it is clearly noted that people from different parts of our world; have an array of different needs that should respectfully be made available for them; as to ensure their means to participate fully and unencumbered in society,

For this reason upfront to reading this I'd like to attend the reader to the following:

1. It may be very confronting to realize that systems that we all worked on to harness a healthy economy and human rights situation may still have so many undesirable side effects. This document is not written to accuse or misalign anyone or any stakeholder as may be misinterpreted as an primary intended purpose; rather, such 'real world' examples are required for persons to consider facts, reality - rather than disassociative alternatives, that may otherwise act to limit any means for triage.
2. My intended purpose is about communicating an opportunity and a clear 'call to action' for all of us: if we are to harness a sustainable outcome and future cyber-ecosystem that may best serve mankind; this form of 'purpose statement' provides a clear mission and pathway, that has previously been missed for several reasons.

Mostly because we were thinking from 'information systems' and not (yet) how and what it is our liberalised democracies require from our cyber-based 'knowledge systems'; let alone, undertaking unambiguous economic evaluation into its merits.

3. When the document is speaking of 'bad actors', is it then accusing us as institutions or government bodies or even us personally as a reader? Well, respectfully, the answer to this likely question is closely aligned with whether or not, my work is useful. There are technical means to support 'provenance' & Reality Check Tech.

Where there are the technological means that is known to be something that can be made; it becomes an important consideration to decide what to do about it.

Similarly, from a medical point of view - if a surgeon identifies a problem, what is it you expect them to do about it, at the time? What if, policy said - it's easier to leave it - no matter the cost, upon the patient.

What if the policy says - you get a copy of the recordings that were made in relation to the surgery and have access to any imaging or other artifacts that relate to your body and its history?

In this way, whilst it may be reasonable to assume that it was the case, back in 2000, my ideas for an 'information bank' didn't have sufficient means to be evaluated for its merits; now, some 20 years down the track - In a time of accelerating consequences on the socio-economic level, it has never been more promising as well as hard to choose well. And the impact of missing out on fundamentally important principles of organizing society and the economy can be unprecedented. The critical ingredients to the formation of an 'informatics solution' for RegTech and FinTech relates directly - to identity systems, that are vital for Personhood.

¹²⁷ https://drive.google.com/file/d/0Bz_os8GdvH2nUGR3TERGMzJnNVU/view

By: Timothy Charles Holborn

No matter what 'reality' may be, for a person and their lived experiences; decisions made about how these systems operate, will be a determinant factor, like surgeons.

On an enduring basis of 'good faith'; and a commitment to address 'reality' systemically,

*"The distinction between reality and our knowledge of reality,
between reality and information, cannot be made."*

*Anton Zeilinger*¹²⁸

The best that I have been able to do; is to provide an opportunity for those who are endorsed by society to do the 'important work', to consider the implications of their decisions upon others.

Whether it be our biosphere, children, those with disability, the elderly; or more simply the means for a person, no-matter their professional role - to be safe, to sleep well at night; there is an instrumental difference between an 'information age' and a 'knowledge age', which in-turn requires critical cyber-infrastructure which (no matter how its done) will have characteristics. My view of the most important 'tenants' coupled to 'RegTech' and 'FinTech' is about how human beings are equipped, by this infrastructure to support their lives, ability to thrive, with 'sense making' that supports human agency.

The supposition built into the 'rules' for how our system of government, our society, is designed to function - as does hinge-upon the means for the governed to be equipped; no matter how that occurs, the infrastructure to serve natural persons - is of the most, equitable value. Reality Check Tech.

The Big Win; what I've learned

Irrespective of whether economic attribution is appropriately, proportionately; and in a manner consistent with reality - associated to the various workers involved in any project; information systems issues, that give rise to systemic exploitation of 'knowledge workers' - does not alter the realities of how something has been produced; nor does it, provide greater capacities for return on investment and market exploitation of derivatives.

The problem is, that those who design 'stuff' know why they did it; those who only consume them, do not.

Whilst the idea of listening to a person who may lead others to believe a story about how they gave birth to another person's child would be easily understood to be illustrative of problematic mental health issues; when this type of behaviour is employed in this sector, there's not the same sort of response...

This underlying concept; that relates in-turn to causality and temporal complex systems 'interference patterns'; is particularly difficult for younger persons to comprehend; as the lack of lived experience for those in the temporal position of having engaged in topical work activities for fewer years, which generally means fewer opportunities for nuanced 'lifecycle' experiences. Yet the same process plays a vital role in what it is that becomes 'identity development', now so poorly influenced by *politics*.

Pragmatically, the innovation cycle itself for large-scale projects often takes longer than a decade to witness, which young people haven't had the opportunity to do; and that's only one, of a multitude of examples...

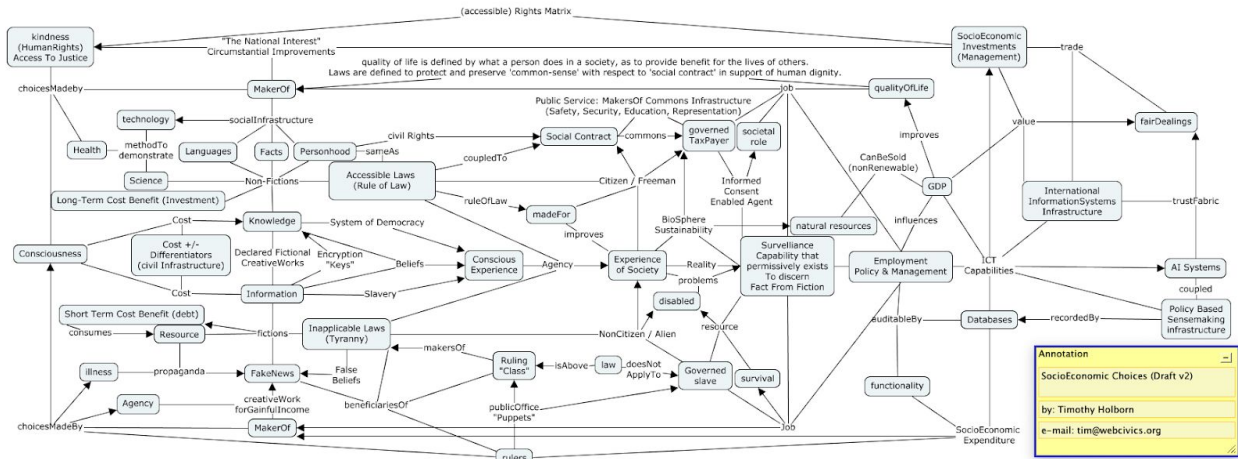
Where socio-economic infrastructure settings are misaligned with societal needs, the repercussive ripple effects form a causal link between industrial scale practices and dissociative¹²⁹ behaviours; which have the effect of undermining the capacity to engineer knowledge apparatus and moreover - the capacity for a jurisdictional territory to optimally perform activities that in-turn yield the best productivity outcomes, overall. The problem becomes; one of 'information economics', whereby productivity must yield to the cost of rendering societal support for wrong-doing, 'fake news' and comparatively impaired capital having a diminishing effect on productivity whilst incurring exposure to higher cost imports.

¹²⁸ <https://www.nature.com/articles/438743a>

¹²⁹ https://en.wikipedia.org/wiki/Dissociative_disorder

By: Timothy Charles Holborn

As a means to simplify, what is otherwise a complex concept; the derivative consideration is that of differentiating an 'information age' and an envisaged opportunity to form a 'knowledge age', which is arguably already occurring overseas.



Socio-economic choices - 'knowledge' vs 'information', conceptualisation diagram¹³⁰

This high-level concept illustrates two very different and fundamental ecosystems frameworks; one is far better equipped to render meaningful support for 'bad actors'; than is the case for the other. Yet, the decisions about what it is a system should be designed to support; must be made in the creation of those systems, as they're operationally bound. There is more effort involved in 'fostering fake news', but it also incurs the direct expense of meaningful productivity; as STEM cannot be built, on pure fantasy.

The V Model and the three worlds of IS research and development: Technical (Weber 1997), social (Checkland and Holwell 1998) and personal (Mingers 2001)

PROCESS	Developing Intentions about	Developing Outcomes for
FOCUS		
Establishing validity of <i>personal</i> , social and technical concerns (the <i>hardest</i> system?) Subjectivist/Critical	Step 1 Knowledge	Step 6 Knowledge
The <i>social</i> system that is served (the <i>soft</i> system) Constructivist/Interpretive	Step 2 Concepts	Step 5 Concepts
The <i>technical</i> system that serves (the <i>hard</i> system) Objectivist/Positivist	Step 3 Information	Step 4 Information

With 'informational systems'; in either case, the incentive for activities by 'bad actors' is about money; in a knowledge age, the incentive structure is about doing good things, as the core tenants of how it is a system of government for a liberalised democracy is works; is supported.

If there's a problem, it should be as simple as walking into a court of law, providing access to the electronic artifacts cumulatively produced as a consequence of 'reality' - telling the truth; and subject to the view of the court, a dispute may be settled.

In an 'information age', with 'information systems', this isn't the case. Rather, what may start-off as a small problem - can be employed as a resource to accumulate fees / incomes; as problems may overtime snowball until the

person has no more money; which becomes the problem of the government; all due to a system that supports 'pervasive surveillance' whilst being delegated in a manner that is committed to hiding serious mistakes.

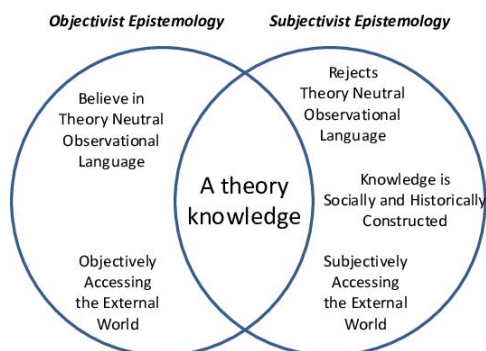
In reality; whomsoever harbours the underlying 'knowledge equity' that is garnished as a derivative consequence of having done the work; harbours those derivatives as a manifest implication of reality.

These sorts of underlying 'real-world facts', are distinct from any engineered dissociative agenda (i.e.: 'fake news');, which in-turn form ripple-effects across any liberalised democracy impacting, amongst other things; productivity, and the means to equip a society to address (real-world) issues as to make meaningful improvements to quality of life and advancements in the fields of the useful arts and

By: Timothy Charles Holborn

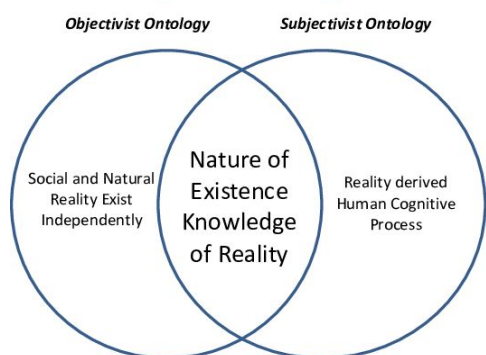
sciences; which render the underpinning resources required to build equitable, export ready opportunities.

Today, there is an enormous amount of ever increasingly complex forms of propaganda; indeed today there is so much demand for it, energy and computational capabilities to power highly sophisticated 'artificial intelligence' programs - are being deployed to share in the financial benefits within this rapidly developing commercial market.



This is off the back of an underlying series of economic frameworks that are built upon the concept that natural world artifacts are 'freely' consumable. Yet the costs incur impacts upon our means to advance useful arts and sciences and our system of democracy. Persons who are not equipped to consider an informed opinion about a topic; are in-turn made mute with respect to their ability to meaningfully contribute towards a solution.

At no stage does the inception of an 'idea' have a means to deliver ROI. in a world operated by software, which is by its nature dynamic; all embodied representations made are 'ideas'.



Where this is applied to innovation capital;

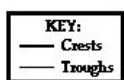
Should persons identify an emerging requirement for the betterment of society; that is not understood by that society at the time, it is most likely that any work done on it - would be at the cost of the innovation producer.

From experience, working through the various problems that are incumbent upon an initial idea through to a practical design framework, both takes time; and can often be labelled an 'idea' - which in-turn associates to an array of productivity issues. Unlike the former industrial era, where an 'idea' may have been an unfinished house or physical 'thing', knowledge work - does not

deliver outcomes in the same way.

Fintech & Regtech ecosystems tooling SHOULD be geared towards resolving these sorts of problems that are of instrumental importance. A solution that works properly; should be equipped to adequately limit risks linked to provenance evaluations.

To put this in a far more complex; yet straight-forward manner (like $E = mc^2$ but different)



'FinTech' and 'RegTech' embody the regulatory framework that is ideologically defined via a series of ecosystem mechanics that are wedded to the availability of economic instruments; whether or not they are fit for purpose.

The realm of the cyber-domain, is fundamentally different to tangible biosphere based types of work activities and subsequent derivatives; whilst also forming 'interference patterns' between the real world, and socioeconomic activity online.

The Concept of 'interference' is moreover used in relation to 'quantum physics', and the double slit test; illustrating phenomena that is employed to support 'quantum cryptography'.

The purpose of using this concept is to illustrate the idea of 'causality'; actors who engage in improper conduct and/or wrong-doing; have a material impact - temporally, overtime.

The manifest circumstance that has now been engendered by choices; is that natural people do not have critical rudimentary economic infrastructure, to support human agency. As such, choices that are being made

By: Timothy Charles Holborn

by institutional actors - are equipped, on this basis. Economically, if 'consumers' have no capacity to enforce 'rights', where's the economic risk? well, the unmalleable facts are very many, all very harmful to productivity.

Making matters more complex; is the broad-ranging repercussive reality that there are sophisticated actors seeking to privately own this 'sense making' infrastructure, globally.

What this means socio-economically; is that,

- The ability to maintain the underpinnings for a liberalised democracy; as to;
- Reliably support a defensible position for the economic benefit of work activities that positively contribute towards productivity outcomes; and;
- The means through which economic structures inclusive to taxation and 'sense making'; are now easily shown to be under great strain.
- There are pragmatic underpinnings embodied within the subtext of your enquiry that have meaningful implications; yet I fully expect the 'scope', to be 'attacked'.

The idea of 'indentured servitude', modal frameworks akin to 'slavery' and more broadly; wrong-doings that are knowingly afforded upon a basis that 'secrecy provisions shall prevail' limits; if not extinguishes, any underlying 'reputational risk' by would be participants.

Equally, and perhaps most importantly; should wholesale changes come about, then the rules themselves are influenced in a different way; and a moratorium upon the past, is in-turn a consideration that has retained long-term support in legal principles.

'A person shall not be guilty of an offense that is defined in law after the act occurred.'

Or something of that type... Yet there should be limits; much as the world recoils even today by consideration as to the circumstances Human Rights doctrine sought to extinguish the possibility - of lived experiences to ever be afforded any possible means to ever, institutionally occur again - forever.

The problem is now, in-turn coupled to the fact that the world of AI brings with it an array of new and extraordinary challenges; that should boggle the mind, but not in such a way that seeks to subvert dignity.

Whether it be bio-engineering and the application of patents upon life (engineered or otherwise); or the means to ensure 'sense making' about biosecurity risks / attacks, There are enormous, globally dynamic problems; that cannot be addressed if we do not have 'sense making' apparatus that ensures our capacity to deal with problems, in reality.

Therein - amongst the most vital of underlying requirements, is the means to ensure there is appropriate, internationally scalable and 'fit for purpose' cyber-economic instruments; that ensure those who engage in useful forms of work - can do so safely, fairly & flexibly.

'FinTech' & 'RegTech' environments are critical components to these 'digital identity' linked goals.

Digital Identity Ecosystems

What is 'digital identity'?

Every person who knows you has a different definition of you.

The term 'Identity' has a number of different meanings; which can be applied in different ways.

As Australians; what attributes do our national 'FinTech' 'sectoral identity' intend to deliver. What are the characteristics of what our (industry) leaders believe are of importance?

How does this extend the representation of our 'national identity' via 'Facebook's AI Graph'?

Whilst I find it impossible not to make note of my dissatisfaction as to the status of development as of the end of 2019; the reality today is that an international initiative entitled 'Libra' is well underway; and whilst it entirely makes sense to ensure that there are standardised alternatives to international 'platforms' such as 'Facebook'; and that there is, what the US Senate called a 'digital (US) dollar' - the implication isn't just about the 'money'.

By: Timothy Charles Holborn

What is less clear; is the effective cost for performing a transaction, as to support the lowest possible cost which must be put upon a 'micropayment' which in-turn informs the floor-price.

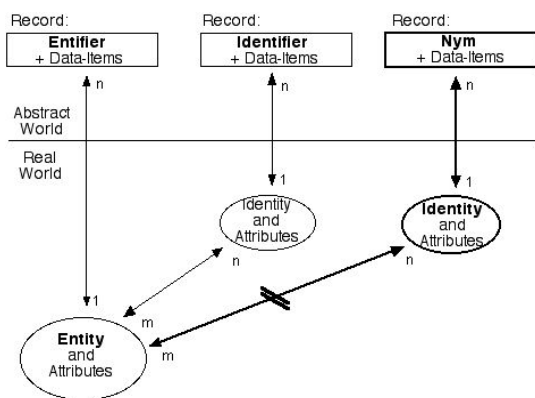
This problem is not just about the money - but also 'the graph' linked to it.

In Australia; it is my experience, and that of many of my peers that few understand the fact that an ecosystem of software based tooling known as 'semantic web'¹³¹, & DAML¹³² exists at all; let alone then expecting people to understand how 'the web of data' exists & works; which in-turn acts to entirely invalidate any discussion with government about the importance of domestic vocabularies, how to engineer them; and how, not to be a consumer or 'fast follower' - which is made to be undignified, when expected to do all that - for free.

The practical realities of activities and time; incorporate with importance considerations that are vital to any 'intelligence capability' that is built to consider;

- Provenance - the means to identify who did what when;
- Identity and identifiers - which are essential ingredients to 'identifying actors', agents and relations in contract related scenarios; and,
- The means to support the needs of a court of law, law enforcement, governmental policies and any other inter-jurisdictional intelligence capacity; and related facilities.

The works of Australia's own Roger Clarke illustrate some exceptional work in the area of digital ID¹³³, amongst many other examples of his prior-art.



In his diagram, Clarke illustrates a relationship between the 'abstract' world; and the real-one.

These 'calculations' are in-turn influenced by what information is available as trusted constituents to a body of 'actionable intelligence' that relates to any entity and their relationships, to others.

In my 'lived experience'; what has been CONTINUALLY purported to be the 'best practice method' since (before) 2000 - has been to provide a 'log-in' to a 3rd party system; which has in-turn formed global 'sense making' silos; distorting reality and perverting the means for desirably sovereign states to grow & thrive.

This is in-turn coupled with limited economic functionality, which moreover acts as a syphon; than it does to support domestic, economic productivity. The underlying possible alternative is for ecosystems support infrastructure to be produced to couple, the now fairly well developed technical capacities; with the vital socioeconomic support requirements of; regulatory and ecosystems governance tenants, as required to provide a possibility that an alternative framework for humanity can be brought about - safely. In considering the implications of this enquiry; the broader area of risk, would include the problem that a significant investment in some specified group of operatives, considered to be 'politically marketable' (on an international basis) - but whom have no capacity to deliver ROI for a scope of works, they don't understand; but that will nonetheless take time, is something I am concerned about.

Historically; what has been sought to occur is that those who have had pre-existing enterprise roles have been sought and have in-turn perpetuated a schema of 'authorised thinkers'; that has not not passed the material 'requirements analysis', as to deliver meaningful outcomes domestically, via the curated implementation of innovation capital.

¹³¹ https://en.wikipedia.org/wiki/Semantic_Web

¹³² https://en.wikipedia.org/wiki/DARPA_Agent_Markup_Language

¹³³ <http://www.rogerclarke.com/EC/IdMngt-0804.html>

By: Timothy Charles Holborn

Dismantling the dissociative 'status-quo' in Western liberalised democracies

The manifest circumstances exhibited in our economic framework alongside many others in the 'Western world' on a global basis; seemingly manifests a situation of disassociativism. Consequently, whilst systemic issues are understood to exist; even some that are very, very bad - not much is 'able to be done' to solve it; instead, a lot of effort goes into 'covering (bad stuff) up'.

For some reason, we live in an environment of pervasive surveillance without the capacity to make use of trustworthy data-sources - as evidence.

When considering the economic cost/benefit analysis for a circumstance whereby FinTech / RegTech industry policy; may seek to retain a lack of 'clarity', via technological decisions; a number of economic factors should be taken into account.

1. Cost of energy (as a baseline factor related to net productivity gains).
2. Lifecycle cost of governmentally funded activities linked to 'problems' and consequential lack of productivity from relevant 'consumers'.
3. Should the 'resource based economy' be removed from forward looking economic productions (revenue);
 - a. What is the economic goal for replacing that revenue; via,
 - b. knowledge economy - socio-economic activity, on a domestic (and international) basis?
 - c. What is the 'per capita' net-revenue assumption?
 - d. What gains could be made; in association to, cost-of-living / cost-of-life, healthcare, 'insurable risk' (& exposure), life-cycle costs in relation to governmentally funded 'life events', improvements to outcomes; capacity, useful arts/sciences (tech), improvements to workforce participation, etc?
4. What are the 'outflows' that are now occurring as a consequence of an ever increasing volume of subscription and 'gig linked' services; being supported via O/S providers?
 - a. What are the economic gains - should 'a cash equivalent' (i.e.: pay someone \$5, they get \$5) be brought about?
 - b. Should the underlying 'smart data' services be decoupled from the 'app / interfaces' - what is the potential economic yield for 'choice of law, Australia'?

It is my firm belief that the 'status quo' is not only terrible for those who've been subjected to harms with enduring effect; that could be resolved should 'truth' via data be provided, & beyond the underlying humanitarian considerations; it isn't even economically positive.

It's just outright dissociative and whilst many may believe no public servant smokes marijuana; the problem becomes - that the implications put upon 'consumers' can't be dealt with, until the circumstances of fact - are able to be considered as a 'health issue' first and foremost.

The consequential problem is that we have a dire need for modern, economic instruments and supportive infrastructure as to repair the problems that have been empowered by systems to have undermined our capacity to maintain 'rule of law', even as we live in a world without privacy.

This remarkable situation sadly exhibits a significant lack of capacity to affordably seek legal remedy - notwithstanding the pervasive nature of 'surveillance capitalism', woven on an international basis; as domestic affairs are notated legally, here and overseas.

This 'status quo', I'll define with the label - 'information age', noting that there's a lot of information; but the means through which it is employed can often be deceptive & misleading; alongside broader issues relating to a lack of safety (security), which is helpful to bad actors - forming an array of 'ripple-effects' that change incentive structures.

By: Timothy Charles Holborn

Closing Notes

When seeking to 'get past' this disabling economic structure; the means to validate and respond to many parts of the underlying questions posed by the committee - in-turn relate to institutional identifiers being provided for consumers; whose activities form an economic fabric to support legal personalities; and, the constituent of human identity employed to act in compliance via corporate law.

Whilst there are a lot of problems with the present-day 'cyber' ideological frame; the greatest is the question of how dependents are served; children, those with disability and the elderly.

The essentially complex addendum and constituent of inextricable importance, is about the 'digital identity' ecosystems; as to be appended to economic instruments that require 'identification infrastructure'. Moreover, as an ecosystem - I use the broader term 'economic instruments'. Such tooling supports the means to make financial transactions (monetary systems), electronic contracts & links-with underlying 'commons infrastructure'. The concept of;

- Commons being something akin to 'resources belonging to or affecting the whole of a community' (and/or communities).
- 'Economic instruments' are used in concert to perform various tasks.

Cyber is different to print-era (pre-cyber era) frameworks, environments, trends and medium qualities.

There is no real-tangible requirement to consider the energy consumed by trading cash; whereas, this sort of consideration has an array of complex considerations, online. Moreover, upon more sophisticated assessments procedures; the broader problem becomes one of how to form internationally interoperable apparatus, rather than more simply and solely considering domestic activities as an 'island'; when in-fact there are enumerate supply-chain and distribution-chain factors that are global. The implication of the design paradigm; now brought about, is to achieve both outcomes.

These broad-ranging & pervasive problems do not simply impact Australians; but rather the vast majority of liberalised democracies throughout the world. Should solutions be forged cooperatively with our Western world; our joint capacity to improve 'terms of trade' advance the 'useful arts and sciences' and support the means for developing nations to address the unbanked population; becomes part of an overall spectrum of progress, that can be part of an outcome that is fostered through the development of a reality based - strategic approach.

Further reading¹³⁴¹³⁵¹³⁶ noting that the Silicon Valley¹³⁷ show, shares many narratives that have meaningful links with the reality of this journey, and it's fun to watch ;)

- Others available upon request (inclusive to internationally provided links, contacts, etc.).

If there is anyone in the world related to these works, who an appropriately 'qualified' decision maker may want to communicate with, in association to these works - on an international basis, let me know.

This isn't something that was just done for 'selfish reasons', moreover, it's been an incredible experience.

We all deserve the opportunity to socioeconomically build a dignified life, perhaps my work on this - isn't how that'll be achieved for me. Regardless, the purpose of it - was about '*human rights*'. As my grandfather once noted at Christmas, one doesn't go into a surgical event as a surgeon, pathologist or company director - without hope.

To which, now many decades on, I hope to help ensure all such people are served by our rule of law, legislation, technology and the infrastructure designed to serve us; so that as to go into situations, upon which we unconsciously depend, we have a defensible 'common-sense' means to support the position - that with every confidence; those persons, can on an informed basis do their best & nothing less.

Our infrastructure can be made to serve our means to develop as a species, and that's the greatest challenge.

¹³⁴ <https://www.webizen.net.au/about/executive-summary/preserving-the-freedom-to-think/>

¹³⁵ <https://www.webizen.net.au/about/references/social-informatics-design-concept-and-principles/>

¹³⁶ <https://medium.com/webcivics/humancentricwebecosystems/home>

¹³⁷ [https://en.wikipedia.org/wiki/Silicon_Valley_\(TV_series\)](https://en.wikipedia.org/wiki/Silicon_Valley_(TV_series))