Good and evil and systems

- The main and basically only benchmark that we have to address in hacking into a zone of normality when the arguments to do so are not shared by a majority, is to prove that such a systematic approach would potentially lead to less evil.

- We can not prove that it will lead to a better distribution of wealth and value per se, or that Climate Change could be harnessed by full traceability of energy from consumer to industry to resource gathering, nor that direct democracy on all local decisions would lead to better resource allocation, nor that full traceability will eradicate corruption, nor that the IoT as a new ontology will bring out more naturally the talents in people and the resources for them to develop them.

John Kekes defines evil as follows:

- “The evil of an action consists in the combination of three components: the malevolent motivation of evildoers; the serious, excessive harm caused by their actions, and the lack of morally acceptable excuse for the actions. “ (Roots of Evil, John Kekes, Cornell University Press, Ithaca and London, 2005, p. 2)
- He continues to say that the explanation of evil has the following general characteristics: it is
- “Mixed because it involves the combination of internal-active, internal-passive, external-active and external-passive conditions;
- Multi-causal because the conditions that jointly cause it vary with individuals, societies, times and places;
- Particular because it involves the detailed consideration of conditions that differ from case to case”

Given this explanation, coping with evil has the following requirements:

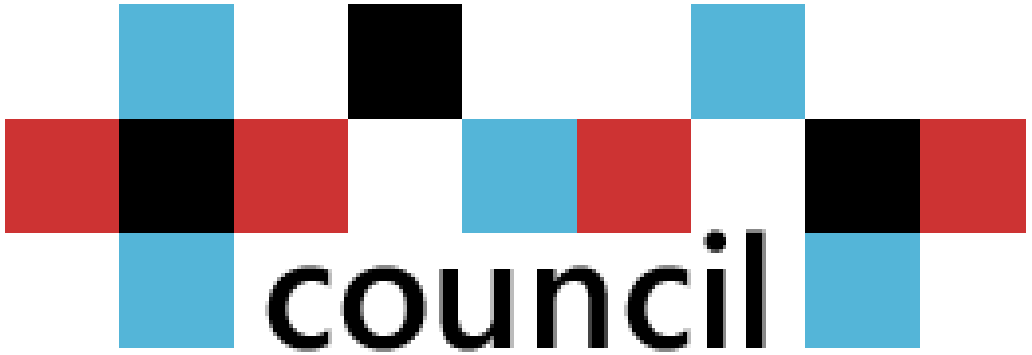
- The cultivation of moral imagination because it changes the internal conditions and makes evildoing less likely
- The enforcement of strong prohibitions because it changes the external conditions and may deter evildoing;
- Enforecement by threatened or actual punishment for violations;
- Holding evildoers responsible for both their intentional and unintentional violations, provided they have the capacity to foresee the readily foreseeable consequences of their actions; or excusing them if they lack the capacity." (242-244)

So: Literature and Internet of Things together

- The very nature of the drivers of IoT, RFID and Ipv6 embody authentication, friend-foe, traceability and accountability.
- We can then safely state that IoT and a proposed cybernetic system meets three out of four requirements that Kekes holds to be crucial to cope with evil: enforcement of strong prohibitions, enforcement by threatened or actual punishment for violation, and holding evildoers responsible.

So: Literature and Internet of Things together

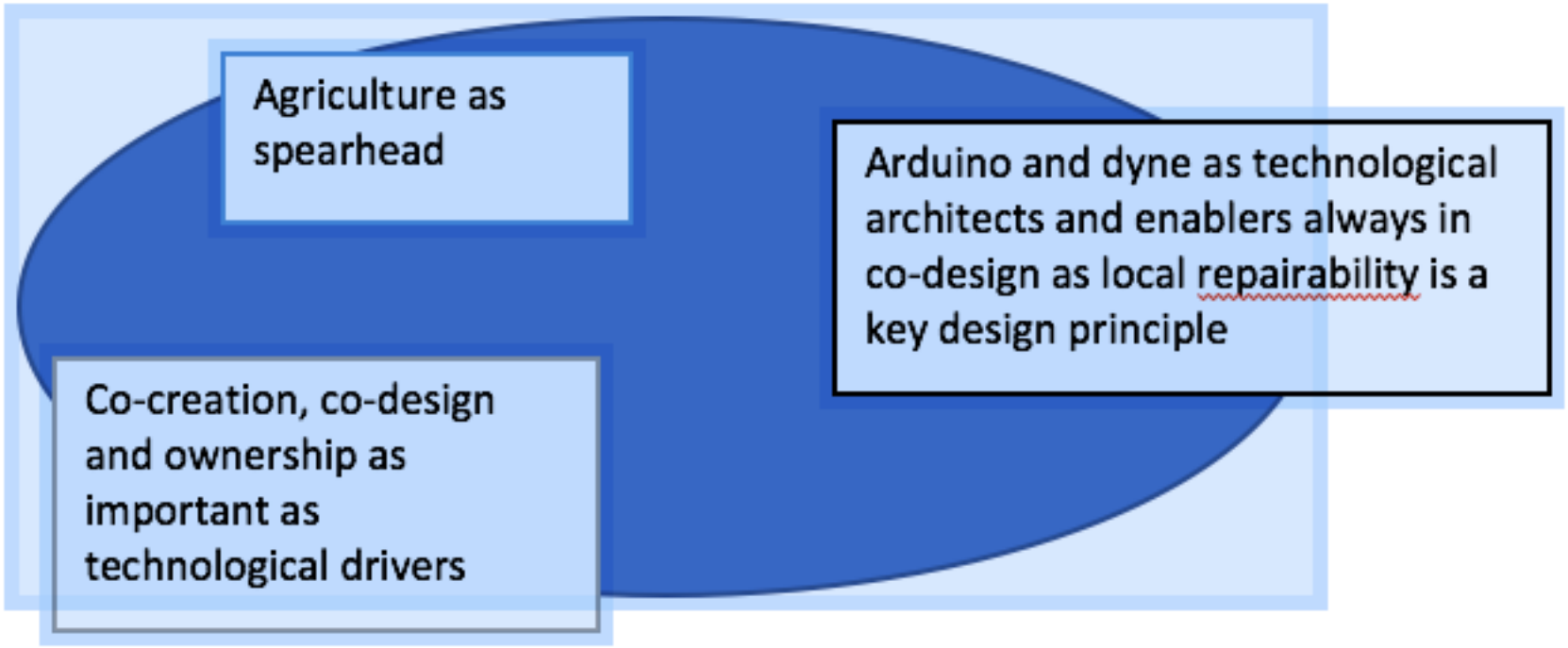
- If we can argue positively that IoT and the proposed scheme is instrumental in identifying personal talent as well as offering potential assistance in nurturing these talents, in giving feedback on physical and mental health in a way that is unmatched by current medical facilities, and in creating social cohesion because of the transparency and balance in providing resources, then we also have a positive match with the first requirement: the “cultivation of moral imagination because it changes the internal conditions and makes evildoing less likely.”



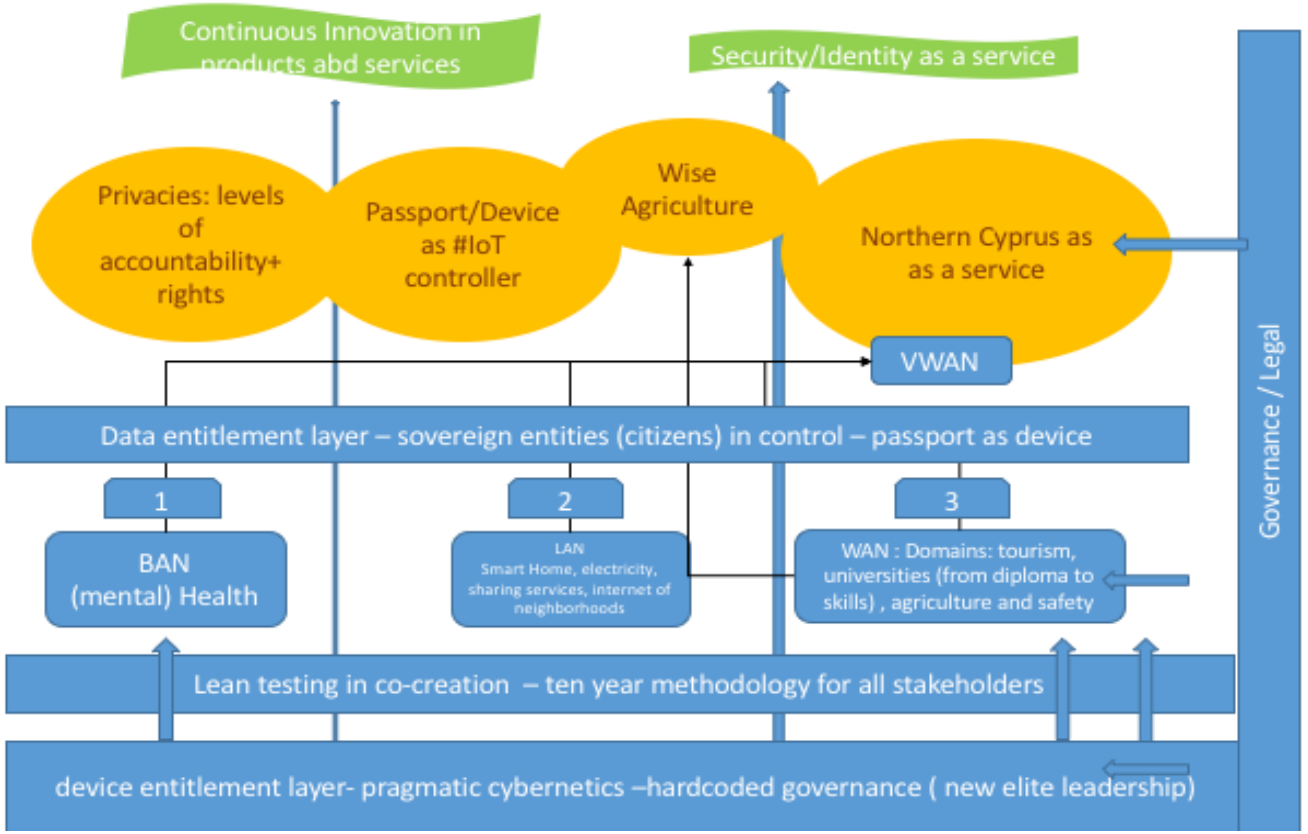
The Internet of Things in Northern Cyprus:

a dashboard for all stakeholders

How we begin


Agriculture as spearhead
Arduino and dyne as technological architects and enablers always in co-design as local repairability is a key design principle
Co-creation, co-design and ownership as important as technological drivers

How we end

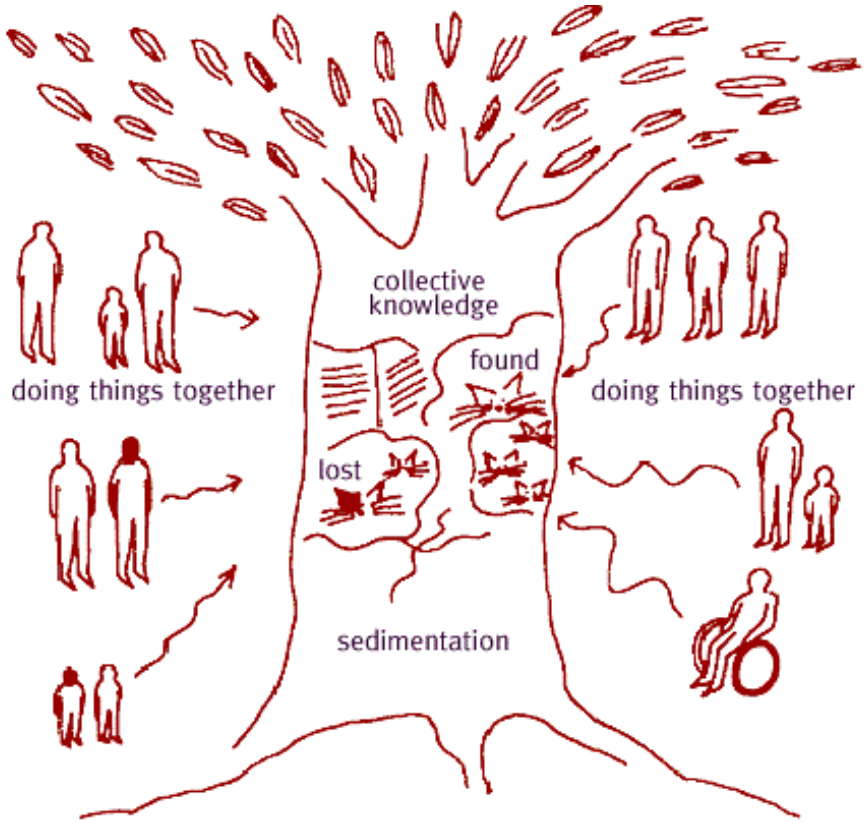

Continuous Innovation in products abd services
Security/Identity as a service
Privacies: levels of accountability+ rights
Passport/Device as #IoT controller
Wise Agriculture
Northern Cyprus as as a service
VWAN
Data entitlement layer – sovereign entities (citizens) in control – passport as device
1
2
3
BAN (mental) Health
LAN Smart Home, electricity, sharing services, internet of neighborhoods
WAN : Domains: tourism, universities (from diploma to skills) , agriculture and safety
Lean testing in co-creation – ten year methodology for all stakeholders
device entitlement layer- pragmatic cybernetics –hardcoded governance (new elite leadership)
Governance / Legal

But ah, yes the middle, where all the work is!

Without a vision, a common purpose there is no middle.
A common purpose must grow over time.

But the KPI's are clear:

- Prosperity and organic growth
- Developing the talents of all
- Fairness
- Leapfrogging into a new reality in order not to become colonized after possible reunification/integration



The future is digital, iterative and flexible

In *Accelerationist* thinking: "quantification is not an evil to be eliminated, but a tool to be used in the most effective manner possible. Economic modelling is – simply put – a necessity for making intelligible a complex world. The tools to be found in social network analysis, agent-based modelling, big data analytics, and non-equilibrium economic models, are necessary cognitive mediators for understanding complex systems like the modern economy."

The future is circular

- *Intelligent Assets: Unlocking the circular economy potential*, finds that "pairing circular economy principles with the information generated by intelligent devices creates a fertile ground for innovation that could enable this decoupling, and lead to broad social benefits." "With up to 50 billion connected devices predicted by 2020, a pervasive digital transformation is reshaping the economy. Will this 'fourth industrial revolution' lead to an acceleration of the extractive, 'linear' economy of today, or will it enable the transition towards a society in which value creation is increasingly decoupled from finite resource consumption?" "Products will communicate with users, collectors and remanufacturers to ensure they are returned and reused after their first life cycle. Additionally, condition monitoring of sensitive goods during transport, storage and use will expand product lifetime, says Frank Appel, CEO of Deutsche Post DHL." Intelligent Assets establishes an interplay between the 'value drivers' of a circular model, and the potential benefits offered by a network of connected devices and information....
- Circular economy meets the IoT, February 11, 2016 in Innovation http://brand-e.biz/economy-goes-circular-as-products-become-smart-and-connected-to-internet-of-things_37126.html
- Intelligent assets are a key building block of a system capable of ushering in a new era of growth and development, increasingly decoupled from resource constraints."– Dame Ellen MacArthur, Founder, Ellen MacArthur Foundation

The UK Government Transformation strategy.

- “There are 3 key areas of opportunity that we need to grasp:

- *first, improving the experience of the citizen*
- *second, making government more efficient*
- *third, boosting business and the wider economy.*

- The impact of data analytics and big data in our lives – for example the way online retailers tailor their recommendations for the food, books and music we buy - is quite familiar.
- Less has been said about the transformative power of this technology for the delivery of high-quality public services. And it’s time that changed.”

- https://www.gov.uk/government/speeches/big-data-in-government-the-challenges-and-opportunities

The future is new forms of decision making

- At a speech to the Pittsburgh Technology Council in 2009, Google's CEO, Eric Schmidt focused on the negative effects on innovation and integration of (what he called) institutional fragmentation and wondered if governments - and the very process of policy and policymaking itself - could not benefit from the iterative cycles of measuring success and failure that characterize the engineering and design prototyping cycles. He argued that with this amount of real-time tracking, aggregated data and information - not heuristics, governing itself could benefit. In essence, particular laws can be effective for three months and evaluated, adjusted and on the basis of real data - not estimates, adjusted again.

Figure 1. Business and government dataset attributes compared.

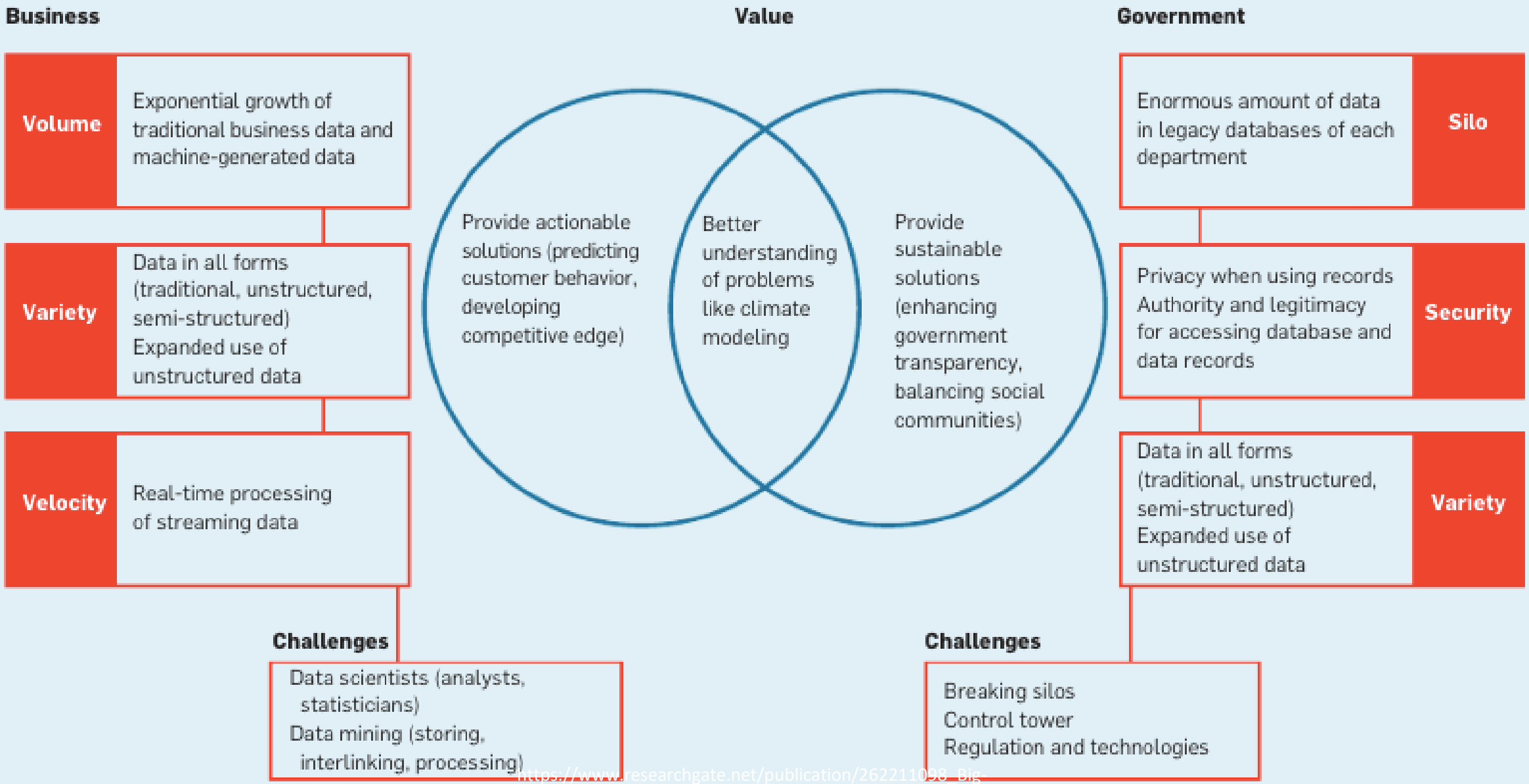


Table 2
Big data application types

Application type	Object evaluation	Research	Continuous monitoring
Prominent big data use characteristics	- Internal & external datasets	- Internal & external datasets	- Real-time or near real-time
	- Innovative use of existing data	- Structured & unstructured data	- Advanced analytics & algorithms
	- Advanced analytics & algorithms	- Advanced Analytics & Algorithms	- Innovative use of existing data
Initial big data activity	Combination	Analytics	Collection
Added value	Decision support information	New insights	Enriched view of reality
Examples of relevant articles	Chen and Hsieh 2014; Ferro et al. 2013; Margetts and Sutcliffe 2013	Agarwal and Dhar 2014; Janssen and Kuk 2016	Bharosa et al. 2013; Chen and Hsieh 2014; Klievink and Zomer 2015

http://link.springer.com/article/10.1007/s10796-016-9686-2

Why Big Data Use Cases in the Manufacturing Industry?1.

- **Improving Manufacturing Processes**
- “McKinsey and Company offers a big data use case in pharmaceutical manufacturing. A biopharmaceutical company was using live, genetically engineered cells and tracking 200 variables to track the purity of its manufacturing process for vaccines and blood components. However, two batches of the same substance manufactured using identical processes showed a yield variation from 50 to 100 percent.
- Using big data analytics the team assessed process interdependencies and identified nine parameters that had a direct impact on vaccine yield. By modifying target processes the company was able to increase vaccine production by 50 percent resulting in savings between $5 and $10 million annually.”

- http://www.ingrammicroadvisor.com/data-center/4-big-data-use-cases-in-the-manufacturing-industry

Why Big Data Use Cases in the Manufacturing Industry?2.

- **Custom Product Design**
- “Tata Consultancy Services cites the case of a $2 billion company that generates most of its revenue by manufacturing products to order. Using big data analytics this company was able to analyze the behavior of *repeat customers*. The outcome is critical to understanding how to deliver goods in a timely and profitable manner. Much of the analyses centered on how to make sure strong contracts were in place.
- The company also was able to shift to l*ean manufacturing* to determine which products were viable and which ones needed to be scrapped.”

- http://www.ingrammicroadvisor.com/data-center/4-big-data-use-cases-in-the-manufacturing-industry

Why Big Data Use Cases in the Manufacturing Industry?3.

- **Better Quality Assurance**
- “Intel has been harnessing big data for its processor manufacturing for some time. The chipmaker has to test every chip that comes off its production line. That normally means running each chip through 19,000 tests. Using big data for predictive analytics Intel was able to significantly reduce the number of tests required for quality assurance. Starting at the wafer level, Intel analyzed data from the manufacturing process to cut down test time and focus on specific tests.T he result was a savings of $3 million in manufacturing costs for a single line of Intel Core processors. By expanding big data use in its chip manufacturing, the company expects to save an additional $30 million.”

- http://www.ingrammicroadvisor.com/data-center/4-big-data-use-cases-in-the-manufacturing-industry

Why Big Data Use Cases in the Manufacturing Industry?4.

- **Managing Supply Chain Risk**
- “One manufacturer is using big data to reduce risk in delivery of raw materials, no matter what happens in the supply chain.
- Using big data analytics, the company has overlaid potential delays on a map, analyzing weather statistics for tornadoes, earthquakes, hurricanes, etc. Predictive analytics allow the company to calculate the probabilities of delays. The company uses the analytics findings to identify backup suppliers and develop contingency plans to make sure production isn’t interrupted by natural disaster.”

- http://www.ingrammicroadvisor.com/data-center/4-big-data-use-cases-in-the-manufacturing-industry

The future is not only innovation

- Lee Vinsel & Andrew Russell claim in *Hail the maintainers*: "Innovation is a dominant ideology of our era, embraced in America by Silicon Valley, Wall Street, and the Washington DC political elite. As the pursuit of innovation has inspired technologists and capitalists, it has also provoked critics who suspect that the peddlers of innovation radically overvalue innovation.

- What happens after innovation, they argue, is more important. Maintenance and repair, the building of infrastructures, the mundane labour that goes into sustaining functioning and efficient infrastructures, simply has more impact on people's daily lives than the vast majority of technological innovations." They emphasize a shift "from means, including the technologies that underpin our everyday actions, to ends, including the many kinds of social beneficence and improvement that technology can offer." https://aeon.co/essays/innovation-is-overvalued-maintenance-often-matters-more
- Hail the maintainers Capitalism excels at innovation but is failing at maintenance, and for most lives it is maintenance that matters more by Lee Vinsel & Andrew Russell https://aeon.co/essays/innovation-is-overvalued-maintenance-often-matters-more

The future is human

- We are people.
- We want friends, families, we want to say hello to neighbours in our streets.
- We want to be loved and we want to love.
- We need basic decency and respect for each other and what surrounds us.
- We need a cultural position We need work.
- We want fair, open, and inclusive leadership.
- For contrary to machines, we are aware that we have limitations and limited time.

Can we have both?

- The best of what is human and the best of what is digital?
- What kind of a society would that be?
- What is needed to bring this about?

- The first thing is to realize it is no longer territory or printed money that is the new gold but…data.
- NC thus should first of all become one single *datalake* combing input from sensors, from people and from machines.

Reciprocity

- Reciprocity requires thinking beyond the short term into longer-term repercussions of decisions that are made now. Reciprocity means that every object, process, person, can be a stakeholder and must be 'heard'.
- In order for it to be 'heard' it may need to be made visible first to all stakeholders involved.
- The role of design is to make that what is made visible actionable as a set of qualities that the engineers can translate as capabilities.

Co-creation with a variety of stakeholders

- In the commercial #IoT world of today platform wars are not so much on actual performance and capabilities of systems as they are all more or less of the same functionality.
- Key focus is on building long lasting and deep relations with developers and facilitating impact on real communities.
- An example is Living memory: agent-based information management for connected local communities: Living Memory aimed "to provide the members of a given community who live and work in a particular locality with a means to capture, share and explore their collective memory, with the aim to preserve and interpret the richness of local culture."

Community Building: inclusivity+ granularity of data

- Creating an all inclusive shared experience of the actual content of and in the pilots and use cases that can and the results that have to be exploited.
- Granularity of data quality is one of the most important factors in bridging the best of the digital and human to all the stakeholders.
- We do not only rely on data that can be read and transmitted by sensors, as the real value lies in interpersonal relationships, continuous education and satisfaction.
- *We are not planning to make machines happy. The end goal is always to ask what kind of society we – you – really want.*

Blockchain applications in urban governence

Posted on September 9, 2016 by Matt Chwierut

Cities are very complex systems. They are communities of people, flows of money, and allocation of physical land. They are in perpetual movement. Local governance is a critical element in these systems. Many aspects of cities are begging for reform; local governance (City Hall) is one of them.

There are exciting experiments in local governance today. The Urban Hackathon and City Governance 2.0 movements have helped open up city data, integrate new technologies into city operations, and involve citizens in urban decision-making in new ways. Apps are letting citizens interact with their local governments in more persistent, light-touch ways.

But there are bolder experiments and more disruptive technologies on the horizon. Blockchains and distributed ledgers have tremendous potential for improving city government.

- Transparent record keeping and public archives
- Fraud-free voting
- Distributed, tamper-free registries
- Smart contract administration
- Grant distribution and tracking
- Distributed decision-making