Democracy of Things (DoT) Vol. 1: A progressive cybernetics eco-system & interaction model concept

Final Assignment Part 2: Research Essay & Presentation
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Abstract: New age cybernetics are on the horizon. There is an imminent need to disambiguate exactly the role that cyber, or specifically, the role that computers and technology such as IoT will play on our collective evolution and ethos. The challenge is that much of what we're faced with today in terms of emerging capabilities in technology and progressive governance is still being rationalized, but that's not to say that these opportunities are being ignored. Quite the opposite is occurring. We're seeing what can possibly be an underground movement in civic / municipal infrastructure playing a key role in defining new shared desires that are driving the pooling of objectives and resources rapidly, not only at domestic demographic scale but quite possible, globally, by solutions without borders. Smart city initiatives are on the rise. They embody the very essence of what can be considered progressive [socio]cybernetics, with accelerators popping up left and right meant to propagate the rapid adoption of shared desired outcomes, opportunities that will ultimately drive the reduction of operational expenditures at the civic level of government; possibly serving as a model for federal government(s) to consider adopting. What's clear though, while's there's a lot of talk about the elements that make up such an eco-system, there have been little to no attempts at conceptualizing what the design of such an eco-system could look like. This paper intends to take stab at proposing such a conceptual paradigm, as the **Democracy of Things (DoT)**.

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1 INTRODUCTION

Recent developments and emerging technologies such as Internet of Things, Smart Cities, BlockChain and Decentralized Autonomous Organizations suggest a new age in governance is on the horizon. One that banks heavily on a proper combination of new (open and transparent) progressive governance techniques fused with Information Communications Technology (ICT) capabilities.
Cyber, today, is defined as "related to or characteristic of the culture of computers, information technology, and virtual reality." (Oxford English Dictionary, 2017)

Given today's advances in Information Communications Technology, cyber is at the very tip of our tongue; inside of that may lie an age-old misconception. This research paper intends to clarify the root and history of the context of cybernetics before exploring the role of Information Communications Technology in progressive governance models, including analysis of current case studies to ascertain a holistic understanding of the ethical, legal and societal impact of opportunities and challenges posed by these transformative initiatives in an attempt to define what could be a new democracy paradigm.

The motivation for what follows, in its own right, is an inspired attempt to indirectly contribute to the philosophical spirit of projects such as "Principia Cybernetica", an online community, and rabbit hole of intelligence that "tries to tackle age-old philosophical questions with the help of the most recent cybernetic theories and technologies." (Principia Cybernetica, 2002)

- *The [Principia Cybernetica] Project aims to develop a complete philosophy or "world-view", based on the principles of evolutionary cybernetics, and supported by collaborative computer technologies. (Principia Cybernetica, 2002)*

This research paper is structured as to provide a brief background and augment our perception of cyber and cybernetics, it then identifies current illustrations of modern and progressive cybernetics in the form of smart city initiatives and accelerators. It follows by exploring the elements of the ICT framework that facilitate the realization of current smart initiatives, the Internet of Things, before touching on potential for future state capabilities that could be made possible by such emerging technologies such as Artificial Intelligence & Decentralized Autonomous Organizations (DAOs) as well as crowd sourcing methodologies. It then proceeds to discuss these findings by describing and explaining the proposed elements of a Democracy of Things (DoT) eco-system.

2 LITERATURE REVIEW & ANALYSIS

2.1 Key Concepts: Elements of progressive cybernetics

What is progressive cybernetics? A careful combination of some concepts and history sheds light on the various dimensions and dynamics of what makes up progressive cybernetics.

"Cyber" is a "common prefix" (Wikipedia, 2017) as stated by Wikipedia's splash page on it. Cybernetics, the essential root of everything cyber is the first item on the list of extended references, and this implies a double-edged sword given how we currently perceive everything cyber as part of an "emergent culture based on the use of computer networks". (Wikipedia, 2017) Drill down to "Cybernetics", and you'll discover rich content that attempts to disambiguate its meaning so that it becomes ever more relevant to the present and future state of democracy as we know it. Wikipedia nails the evolving concept up front by defining it as "a transdisciplinary approach for exploring regulatory systems – their structures, constraints, and possibilities." (Wikipedia, 2017) The entry continues to bring to light some key contextual and historical concepts relevant to the context at hand, including noting the 1948 definition from Norbert Wiener as "the scientific study of control and communication in the animal and the machine." (Wikipedia, 2017) To further disambiguate its more contemporary meaning from its ancient (yet current) root:

- *The word cybernetics was first used in the context of "the study of self-governance" by Plato in The Alcibiades to signify the governance of people.*
- The word cybernetics comes from Greek *κυβερνητική (cybernētic*é), meaning *"governance", i.e., all that are pertinent to κυβερνάω (cybernáō*), the latter meaning "to steer, navigate or govern*" (Wikipedia, 2017)*

In Greece, the word cybernetics still retains the essence of its ancient roots and is de facto for describing everything governance. What's becoming inherently clear though is that the more progressive definitions such as Norbert Wiener's, and or Wikipedia's more recent kick at a high-level definition➔ exploring the possibilities of regulatory systems, is starting to materialize as a new governance paradigm, immersed in the possibilities that emerging technologies and computer culture will have on modern and future state government and governance, thus blurring the lines of our attempt to disambiguate concrete meanings. There-in lies the opportunity to explore what a DoT paradigm could conceptually look like.

Lastly for consideration, "Sociocybernetics is an independent chapter of science in sociology based upon the general systems theory of cybernetics. The basic goal for which sociocybernetics was created, is the production of a theoretical framework as well as information technology tools for responding to the basic challenges individuals, couples, families, groups, companies, organizations, countries, international affairs are facing today." (Wikipedia, 2017)

It seems that a combination of cyber, cybernetics as a root/parent and socio-cybernetics as an extension/child, make up some of the tenets of progressive cybernetics that this paper will be exploring and are ultimately important concepts in understanding the foreseeable need of a 'Democracy of Things' ecosystem and interaction model.

2.2 Current Illustrations of Progressive Cybernetics

The following illustrations provide applied examples of smart city initiatives, ideal for understanding the context of 'progressive cybernetics'.

- *"Smartness" in city government and governance stands for a progressive, future-ready, innovation, transformation, quality of life, and sustainability-oriented approaches to governing with modern information and communications technology (ICT) at its very core."* (Scholl & AlAwadhi, 2016)

Two case studies a white paper and an opinion piece make up the bulk of the literature review; the analysis into these perspectives demonstrate that common and shared desires are very relevant to this topic, the context of what was reviewed includes:

- The activities of an individual municipality in Munich, Germany
- An industry perspective offered by Cisco
- The impact of civic network accelerators in Spain, Greece & Canada; and
- A white paper and opinion piece on the potential of Decentralized Autonomous Organizations

2.2.1 The City of Munich: Standards, People & Process

The Munich case study is an isolated, yet intimate view of a municipality's smart city journey. A digital transformation initiative to migrate from Windows to Linux was the initiator of "an even deeper and more fundamental overhaul of organizational structures and processes extending to the overall ICT governance structure and its processes was seen necessary in order to build a future ready city-wide organizational and technological infrastructure, which would ultimately enable smart government operations and services". (Scholl & AlAwadhi, 2016) The journey wasn't a build and they shall come initiative, rather the program focused on solving problems in micro-increments into a larger holistic solution. By cause, "smart" was at the heart of the program. This case study provides for an inside out view of the drivers and experience a municipality experiences stepping into the smart city paradigm.

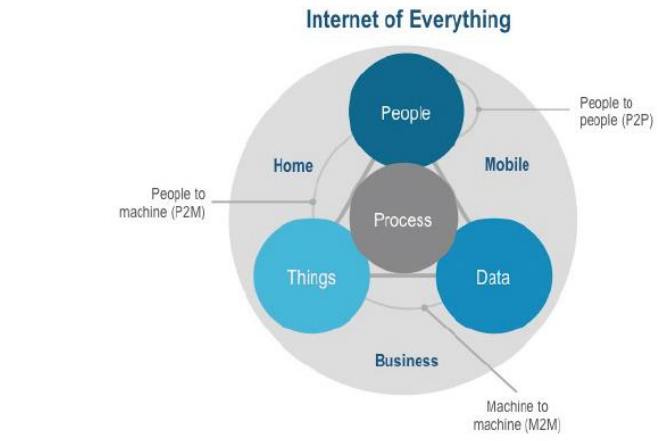
While Munich provides for insight into the organics of such initiatives, according the study, "its findings and lessons cannot be considered transferable" (Scholl & AlAwadhi, 2016). Simply put, this is wrong and is without a doubt, an isolationist, or even worse, ignorant assessment. That being said, the case offers insight into fundamental principles that make up this type of journey, mainly:

- **The adoption of process orientation, standards and change management (i.e. ITIL) being critical success factors in order to overcome some of the complexity and key challenges:**
    - *"While the political sponsors and other proponents of the program were essential in helping create and maintain an overall vision of where the program should be leading and what its ultimate results would be, it was the program office and the supporting ICT leaders who established the overall process perspective and the detailed shape and directions of practices and procedures underneath the umbrella of ITIL v.3/IREB/ITMA." (Scholl & AlAwadhi, 2016)*
- **A People => Process => Technology framework and execution approach being essential to such a transformation's success and sustainability:**
    - *"The program's most influential proponents and much respected ICT leaders in their own units had devised a new core competency oriented and process-focused ICT governance structure with three "houses" or pillars, which would distribute clusters of tasks, resources, and personnel across departmental and central functions in novel ways." (Scholl & AlAwadhi, 2016)*
- **The emphasis on shared vision and desires, coupled with internal collaboration and an emphasis on internal governance to realize the final outcome being essential:**
    - *"Sponsors, program leaders, project managers, and other stakeholders continuously maintained a conversation about the program's aims and objectives and developed the vision further in this way, which helped stay course despite the program's complexity and its numerous inherent challenges." (Scholl & AlAwadhi, 2016)*

2.2.2 Smart City Technology: Internet of Things & More

An area where the Munich case study falls short (even though quite recent) is little mention of the underlying technological ICT framework that is a key connector for all things smart city, and that is the Internet of Things(IOT). A white paper by Cisco, "The Internet of Everything" (Mitchell, Villa, Stewart-Weeks, & Lange, 2013) provides an ICT service provider's view and creates a more holistic picture by elaborating on the People, Process, Technology framework being core to success.

- *"As microcosms of the Internet of Everything (IoE), cities stand to benefit the most from connecting people, process, data, and things." (Mitchell, Villa, Stewart-Weeks, & Lange, 2013). See Figure 1 & Table 1.*



Source: Cisco, 2012

Figure 1. (Mitchell, Villa, Stewart-Weeks, & Lange, 2013)

People	In IoE, people will be able to connect to the Internet in innumerable ways. Today, most people connect to the Internet through their use of devices (such as PCs, tablets, TVs, and smartphones) and social networks… According to Gartner, people themselves will become nodes on the Internet, with both static information and a constantly emitting activity system.
Data	With IoT, devices typically gather data and stream it over the Internet to a central source, where it is analyzed and processed. As the capabilities of things connected to the Internet continue to advance, they will become more intelligent by combining data into more useful information. This transformation from data to information in IoE is important because it will allow us to make faster, more intelligent decisions, as well as control our environment more effectively.
Things [IoT]	This group is made up of physical items such as sensors, consumer devices, and enterprise assets that are connected to both the Internet and each other. In IoE, these things will sense more data, become context-aware, and provide more experiential information to help people and machines make more relevant and valuable decisions.
Process	Process plays an important role in how each of these entities — people, data, and things — works with the others to deliver value in the connected world of IoE. With the correct process, connections become relevant and add value because the right information is delivered to the right person at the right time in the most appropriate way.

(Mitchell, Villa, Stewart-Weeks, & Lange, 2013) **Table 1.**

It's a comprehensive report that includes a breadth of applied smart city examples that reinforce the need for an eco-system based view when conceptualizing, designing and building the infrastructure for such solutions. It goes as far, by its title alone, to stretch the concept of the Internet of Things as "The Internet of Everything", very close, even competitively close to the concept of 'Democracy of Things' as it touches on most if not all of the key elements that make up a healthy smart city eco-system, stating quite directly in its emphasis that "Design Is Central":

- *"Design considerations include the operating model, technology architecture, collaborative and dynamic ecosystem, and social engagement. " (Mitchell, Villa, Stewart-Weeks, & Lange, 2013)*

But because it is service-centric in its purpose, it falls short of pulling together a lot of what it lays out to conceptualize what a designed eco-system could look like. Rather, it's significance is in strengthening the argument that IoT technology is not the sole saving grace and more importantly, it raises the importance of "cross-fertilization" [pollination].

- *"The implications of data "cross-fertilization" and cross-collaboration go beyond technological feasibility because they also impact the decisions of city managers, cross-departmental collaboration, and back-office operations. " (Mitchell, Villa, Stewart-Weeks, & Lange, 2013)*

2.2.3 Accelerators to drive shared desires and cross-pollination

Throughout this research and analysis, it becomes evidently clear that there is a significant amount of consistency among these illustrations. Simply put, that sets the ground for substantial cross-pollination, transferability and reusability of knowledge and where possible assets, all driven by shared desires. Shared desires and cross pollination, especially in the form of centralizing services as well as pooling objectives and desires is proving to be rudimentary, "they promote the appearance of new knowledge functions and business models relying on collective intelligence" as demonstrated by "Smart City Networks' Governance: The Spanish Smart City Network" case study. This case study reviews the value and impact of networking smart cities by way of an accelerator as a governance mechanism for multiple cities with shared desires to evolve into smart cities, specifically by way of the "Spanish Network of Smart Cities (RECI)." (Palomo-Navarro & Navio-Marco, 2017)

- *"The network activities aided by the technological push (e.g. its online document sharing platform for knowledge exchange, or web-based meeting platforms) produces a broad input of knowledge, creativity and collective intelligence; leading to further knowledge creation and enhanced innovativeness, multi-perspective of the city's problems and delivery of new and improved services." (Palomo-Navarro & Navio-Marco, 2017)*

The study outlines RECI's impacts as:

- ***Political*** *by promoting "replication and standardisation among smart cities"; (Palomo-Navarro & Navio-Marco, 2017) take note of the Munich connection here and exactly where Munich misses the 'smart' boat*
- ***Economic*** *driving "expenses reduction based on shared knowledge and staff training, stimulation of the national investment on smart city projects" (Palomo-Navarro & Navio-Marco, 2017)*
- ***Social*** *"in alignment with the importance of building a smart society integrated within a smart city...particularly focused on the areas of accessibility…citizen involvement, e-Health, emergency and security management…education and open data" (Palomo-Navarro & Navio-Marco, 2017)*
- ***Technological*** *"From the work carried out by RECI it is well understood that many cities share the changes and decisions involved in their individual challenge to become a smart city… In this context, normalization bodies play an extremely important role in the development of common norms which should be adopted by all smart cities." (Palomo-Navarro & Navio-Marco, 2017)*

Spain and RECI is not alone. Civic accelerators are becoming a growing trend and play a key role as enablers and cross-pollinators of socio-cybernetic principles and solutions in the form of "Open Government, Open Innovation" and can be described as "[pilot] projects that enables cities [the City of Guelph] to engage in open innovation with entrepreneurs, startups, students and companies to create solutions for complex municipal problems." (City of Guelph, 2017) In addition to Spain's RECI and Guelph's Civic Accelerator, other up and coming examples include KEDE, "The Central Union of Municipalities in Greece" (KEDE: The Central Union of Municipalities in Greece, 2017) whose early journey mirrors that of the city of Munich, with digital transformation at its core, and similar to RECI's journey is aiming to centralize digital and municipal service capabilities for Greek municipalities. Delegated to the task of shaping the accelerator for KEDE is an avant-garde boutique consulting firm "CrowdPolicy", based out of Athens, Greece. CrowdPolicy's mission is to "bridge the gap between Organisations and the Crowd in order to Co-Create the Future", with a vision to "design, develop, implement and commercialize a consistent series of crowdsourcing methodologies, information systems and tools on a global basis, aiming to enhance two-way collaboration between organizations and the crowd, as a means of generating value for our customers and their stakeholders." (CrowdPolicy, 2017)

2.2.4 Automation & The Decentralized Autonomous Organization

The KEDE/CrowdPolicy example is important because it reveals early use of emerging technology such as artificial intelligence (AI) for social engagement, what can be perceived as a step towards automation opportunities for management and governance. KEDE, during its December 2017 conference, just launched its own "KEDE-BOT" (Fouka, 2017). In a nutshell, the KEDE-BOT does the following (Fouka, 2017):

- *"The word bot comes from chatbot which is an international technical term and means automated software to interact with anyone who asks for information"*
- *it "inform[s] stakeholders about the activities and initiatives of KEDE"*
- *"several…organizations use chatbots for…customer support, eGovernment, tourist guides and information, financial transactions and more"*
- *"It can give you information about the conference, the program, the speakers, the registered participants, the municipalities and KEDE"*

With emerging socio-cybernetic tech such as smart contracts and Decentralized Autonomous Organizations (DAOs), an extension of Blockchain Technology, we're starting to see tools and capabilities that will complement the combination of crowdsourcing, the Internet of Things (the underlying ICT infrastructure for smart cities) and Artificial Intelligence in ways that we have not yet imagined, especially when it comes to opportunities for automation. You'd be mistaken to believe that this sounds like a but a pipe dream. Allen and Overy LLP, do a comprehensive job in defining DAOs as

- *"a computer program, running on a peer-to-peer network, incorporating governance and decision-making rules. DAOs can be programmed to operate autonomously, without human involvement, or the code can provide for direct, real-time control of the DAO and funds controlled by it.1 The earliest DAOs are software controlled community organization experiments which seek to re-implement certain aspects of traditional corporate governance, replacing voluntary compliance with a corporation's charter with actual compliance with pre-agreed computer code. " (Allen & Overy LLP, 2016)*

Early perceptions of the possibilities and challenges of DAOs being part of the solution are well discussed inside of another opinion piece that takes a rather dystopian look at DAOs as "Decentralized Autonomous Societies"; on automation:

- *"…automation has not lessened our working day, but rather, increased it. And furthermore, the increasing use of this technology in the production and service sectors means greater unemployment for the majority of the people on earth, or—perhaps more likely—the further proliferation of what David Graeber (as cited in Jeffries, 2015) refers to as "bullshit jobs" (see also, Dyer-Witheford, 2015). In such a world where "code is law" (Lessig 2000), it is not clear how automation will help liberate the world's subordinate classes. Instead, it appears that it will chain us ever tighter to capital's grip, subject to new forms of rentier activity." (Garrod, 2016)*

Garrod bases the majority of his views on a perplex combination of references synthesized to create a dystopian view founded on the conspiracy of the power of the 1% capital over the 99%. What he fails to note though is that BlockChain (and Bitcoin) is proving something interesting. Where the 1% are considered the power/holders of capital as we know it today, a recent story as of Dec 8, 2017 by the Business Insider raises a very interesting contradiction in distribution when it comes to Bitcoin as a currency, just the headline alone speaks volumes ➔ "40% of the world's bitcoins are held by just 1000 people." (Shen, 2017). Now that might sound dismal, but it's an improvement over the %1 vs %99 percent spread that our current state wealth distribution is all about. It's a move in the right direction. Ultimately, Garrod's opinion piece is actually a great read for anyone that wants to figure out what to expect in terms of resistance on the BlockChain front for ideas on what to prep for; but most important, the piece ends on the right note, pointing out that the focus should be:

- *"To make certain that Bitcoin 2.0 tech provides the basis for progressive human development, we must ensure that it is used to secure our social rights, as opposed to a means of avoiding the state by escaping to digitally-mediated private spaces." (Garrod, 2016)*

This is actually indirectly implied by an observation inside of the Cisco white paper highlighting the value of cross pollination, re-use or the overall value that progressive cybernetics brings to the table:

- *"The advantages of a collaborative and dynamic ecosystem include… Ability for cities to respond flexibly to new needs and service complexities with a business model that focuses on OpEx rather than CapEx." (Mitchell, Villa, Stewart-Weeks, & Lange, 2013)*

3 DISCUSSION

3.1 Democracy of Things (DoT): A Proposed Constellation

The focus of the constellation map below is to initiate discussion and conceptualise an eco-system view of what we'll start to coin as the "Democracy of Things (DoT) and specifically how services (process areas) and capabilities can potentially interact.

Firstly, what's missing here is the structure of pillars; specifically, a people => process => technology view that the Munich case and Cisco paper emphasize. To ascertain how each element aligns to a pillar framework, the boxes are coloured to align to each pillar, per the legend at the bottom of the figure. The proposed eco-system structure is inspired by CMMI constellations, defined by CMMI as "a particular collection of process areas specifically chosen to help improve a given business need." (CMMI, 2014)

See Figure 2 below. The left side of the constellation is representative of municipalities functions and capabilities/services (process areas), where the right side is representative of projects that may be initiated either by a municipality, accelerator and or both. The top side is representative of elements that are closest to social or citizen engagement vs the bottom side being representative of the more intimate operations of a municipality or accelerator(s). The service function(s) and capabilities loosely mirror the elements discussed inside of the literature that's been reviewed, for example, there are influences from how the RECI (Spain) accelerator structured its working groups, i.e. RECI is made up of the following working groups: " [1] Social Innovation, [2] Energy, [3] Environment, Infrastructures and Liveability, [4] Urban Mobility, [5] Governance, Economy and Business" (Palomo-Navarro & Navio-Marco, 2017) Central to all of the service/process areas is a proposed Decentralized Autonomous Organization, to automate streamline and optimize, where possible, the structure of portfolios, programs and project activities. The proposed flow is simply a take on what feels natural and organic for typical interactions, whether direct or bi-directional, nothing's written in stone; the assumption is that if one service area needs to interact with another, it simply can engage and proceed to do so, functionally and or by sharing of information/knowledge.

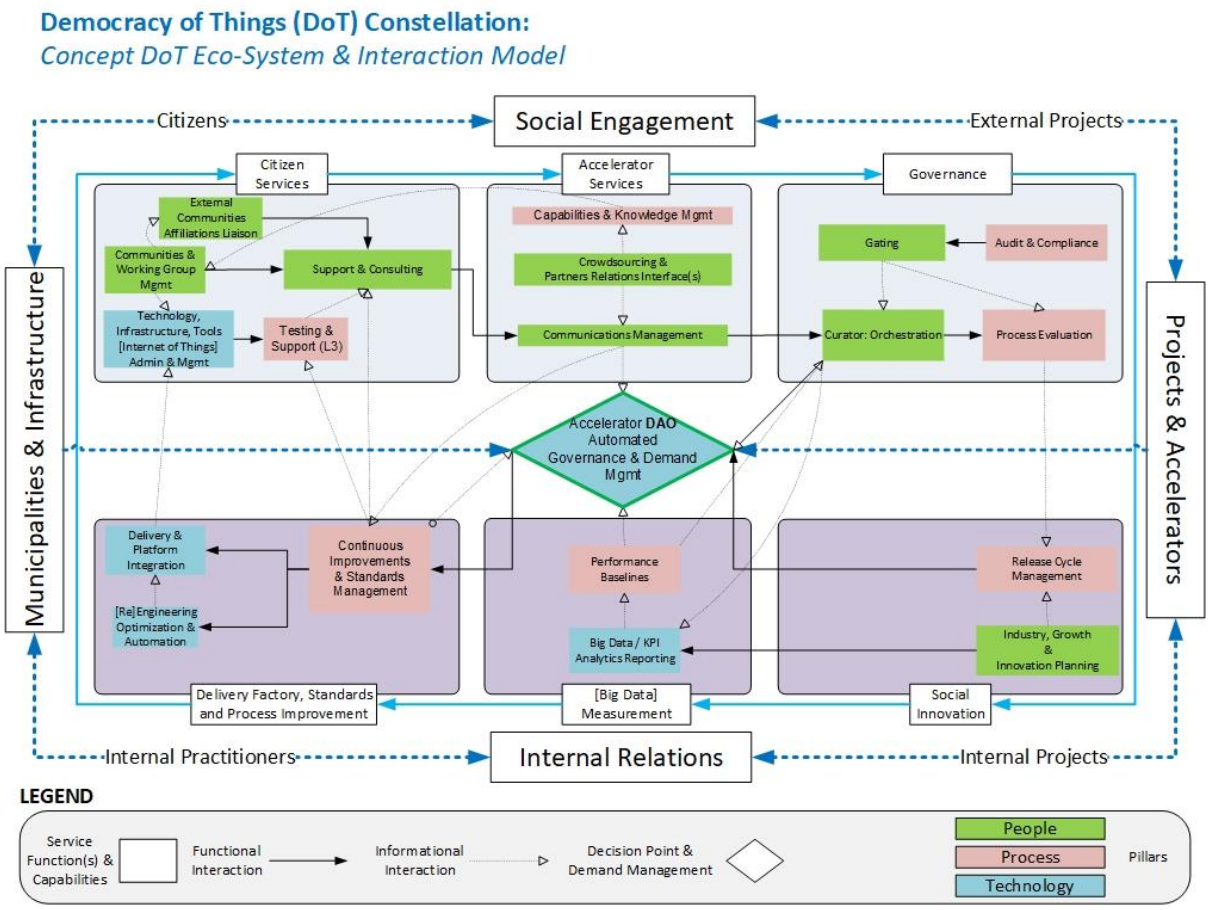


Figure 2.

Starting with a conceptual stab at describing the service/process areas that are most intimate with the operational aspects of civic services, a.k.a. the back office/end.

3.1.1 Social Innovation

The placement of this service area is aligned with internal aspects of a municipality and project/accelerators, assuming desire for social innovation occurs intrapreneurially at the municipal level and is then, where appropriate, incubated by the capabilities of the Accelerator Services. Remember Munich, their story started from the inside out.

- *Intrapreneurs is defined as "dreamers who do. Those who take hands-on responsibility for creating innovation of any kind, within a business" (Pinchot, 2017)*

3.1.2 [Big Data] & Measurement

From social innovation to big data and measurement, the idea is that cross reference should occur with the data that backs up the needs, where any effort or innovation should go through the process of being measurable as to ensure ROI benefits and a positive business case for society, considering both any initial investment and ensuring sustainable benefits over time. The business case and KPIs are critical elements that are leveraged by the DAO in optimizing portfolios, projects and 'Accelerator Services'. This is, for example, where opportunities for reduction in operational expenditures would be analysed for.

3.1.3 Delivery Factory, Standards and Process Improvement

Assuming a positive business case, project/initiatives would then flow through continuous process improvement for definition and alignment with standards, before being engineered and designed for technology capabilities, including automation followed by delivery (development) and integration with any technological platforms. In essence, this is the delivery factory.

Stepping into the service/process areas that are closest to the citizen and social engagement.

3.1.4 Citizen Services

The services themselves, upon delivery, are assumed to live closest to the citizen, after all, municipal services are all about keeping the lights on for the citizen, and are now evolving into actively improving lifestyle and living standards for the citizen by way of smart services. The technology and infrastructure, especially the Internet of Things is the window and connector to the citizen (people), i.e. the KEDE-BOT. Even more importantly, this is where shared desires are identified and validated before consideration for acceleration and cross pollination.

3.1.5 Accelerator Services

The keystone to cross pollination and re-use of assets, essentially their transformation into accessible currency, are 'Accelerator Services'; meant to manage the propagation of capabilities and knowledge management through effective communication(s) management including enablement, empowerment and involvement of third parties with crowdsourcing methodologies and partnership(s) building activities, resulting in the realization of shared desires via the pooling of objectives and resources in an effort to reduce municipal (smart city) capital investment and operational expenditures.

3.1.6 Governance

Ensuring effective gating and orchestration is a function of governance, including audit and process evaluation. While this conceptualized eco-system envisions capabilities such as BlockChain and Decentralised Autonomous Organizations being leveraged as core opportunities, it is expected that curator or orchestrator type roles will steer and manage the nuanced configuration of the smart tech that will complement and support efficient use of artificial intelligence to crunch the details and numbers in ways that no single human can.

4 CONCLUSIONS

Democracy of Things (DoT), and the described eco-system, is by no means a stated paradigm. It is an effort to identify the elements that would play into a comprehensive eco-system, the first step, a design concept, towards negotiating a dynamic paradigm by the people and for the people, the foundations for discussion and further elaboration. Right of the bat, DoT can use a people, process, technology pillar view and further drill down to create a complementary business and technology reference architecture as a great next step.

DoT touches on untested waters in its proposal, and until the waters clear and we learn more about tools such as IoT, AI, BlockChain and DAOs, through continued experimentation

and application, DoT will always be an evolving and progressive paradigm to say the least ➔ it's going to be the nature of the beast.

Technology is becoming ever more easy and affordable to implement and adopt, more importantly, any investment in technology is unforgivingly beginning to ensure the citizen is at the heart of that investment, giving way to IoT's real bearing of fruit which is affording society capital expenditures that will be forcefully and by nature more people and process centric with the reduction of operational expenditures at the heart of the objectives and shared desires. A quintessence combination of people, process and technology.

Embracing the value of centralizing and empowering the citizen as a key operator and contributor by way of increased direct engagement, crowdsourcing for innovation and partnerships as well as ensuring the accelerators are in place to propagate these values, techniques and frameworks rapidly, means we're on the right footing.

Furthermore, by enabling Artificial Intelligence and tech such as Blockchain, smart contracts and Decentralized Autonomous Organizations to systematize capabilities and processes, we will be championing a faster pace of realizing opportunities and shared desires.

These days, it's hard to keep our eyes above the horizon, with all of the cyber tech stuff that keeps us heads down busy. As technology evolves to be more hands free, and self-sustainable via capabilities such as AI, Deep Learning and Machine Learning, coupled with taking some time to appreciate and expand one's own knowledge of the root of what cyber really means, we can start to raise our eyes and meet the horizon. Still having trouble? See Ethereum's take on democracy (https://www.ethereum.org/dao). Step by step instructions on "How to build a DEMOCRACY on the blockchain" (Ethereum, 2017); sometimes, seeing is believing. Yet, let's not get lost in the technology of things, and rather, let's focus on the democracy of things. We can start by being engaged citizens.

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