

Inter-Org Sys

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Abstract - Inter-Org Sys is an electronic data interchange of information work flow that allows for flexibility in the use of resources within an organization to facilitate the development of synergy capabilities, all fuelled by the Organizational *Internet of Things (OIoT)*. The evolving synergies can create new revenue streams from the emerging real-time end-user data and improve the consumer experience. Internet access everywhere depends on usage traffic and price affordability to connect all devices for delivering excellent performance with rated speed and range. Socio-technical change to consumerism can result in 24x7 access to OIoT going beyond digital and including the evolution of *IorgS* for the following components:

1. Interoperability of Systems and Social Networking for Consumers,
2. Remote Access Technologies Affecting Socio-Technical Change,
3. Anytime-Everywhere Internet and Flexible Learning Environments,
4. Affordances to Technology enabled Quality of Life,
5. Business - Markets and Organizational Technological Capacity, and
6. Innovative People Networks.

Mobile Technology can be utilised in its best form when the equipment possesses inter-gadgetry applications of good branch predictability, which is faster with less response time for executing commands. Less response (less or equal to 1 ms) will be one of the key items for faster implementation of IoT/IIoT and this item will be one of the basic settings in 5G mobile networks.

Key Words – Inter-organizational system, data exchange, workflow, resources, IoT, IIoT, 5G, Li-Fi technology, Vision 2020 in ICT, Internet access, Internet affordability, technology business, intelligent automation, customer expectations, Sync gadgets, Product collaborations, animation

I. INTRODUCTION

Consumer Demand Task

Consumer Demand Tasks (CDT) are common requirements of human beings (Bakker *et.al.*, 2003; Robert *et.al.*, 2007) in their day-to-day activities. The following illustration depicts the task-technology-consumerisation: “You are at work, being a tired day, you want to go home, fresh up, have a good cup of coffee and watch a favourite channel show before having your dinner and rest “

This scenario is one example of a general consumer demand string that requires the following to accomplish: a manual, gadgetry, transport and commercial coordination. This task can be technologically facilitated through: "Pick up your mobile > click an app > Input "home reach time"> Gyser ON > Coffee Maker ON > Television ON > Air conditioning ON > Favorite Menu Order place"These services are (and many others those were not mentioned above) what you can expect.

The consumer demand task (CDT) needs to be synchronized with gadgets (Brueninghaus *et al.*, 2005; Bhatia *et al.*, 2006; Junyi, 2013) on a real time so that consumerism is a delight.

II. INTER-ORG SYS (IORGS)

Inter-Org Sys (IorgS) means Inter-Organizational Systems, which is a cooperative process among connected gadgets for a competitive advantage to overcome the limitations of restricted rationality. The IorgS has more scope and is limited only by creativity (creativity is key word for creating new products and services based on IoT). The interoperability of products and services will bring social cohesiveness among products and services with dependability, sustenance, inclusiveness and durability for increased prosperity among products, services and their organizations.

Products and services based on new generations of mobile technologies (4G, 4G+ and 5G) have brought in a lot of sophistication to modern living, despite of the needs for human living being the same. This is particularly true for 5G mobile networks that is still in the process of standardization (this year's standardization is expected) - this kind of mobile network will be the locomotive for the entire economy within Vision 2020 in the ICT sector (which is the basis for the fourth industrial revolution). In fact, today we cannot observe IoT and IIoT (comparison: wagons in the railway composition) without observing the overall Vision 2020 and thus the 5G mobile network (comparison: locomotive in the railway composition) as the basis for the mass implementation of IoT / IIoT.

Time is an indicator which has surpassed all other qualitative resources. The business economy wants to leap over time at its base in all the product and service innovations. The product/service is expected to perform at the fastest possible time, so that the individual reaps more time at their disposal. Therefore, the product qualitative productivity affects competitiveness in its very existence.

Gauging the thread behavior of the browser to the event typed in web-browsers is generally obscured but can be looped for a reasonable conclusion (Milad *et al.*, 2016). The networked Organizational Internet of Things (OIoT) is for the flexible use of a consumer who can secure economic efficiency with reduced transaction costs and realize transaction stability from opportunistic threats (Kyung *et al.*, 2010). Data link (raw and synthesized) of information work-flow combines all resources of an organization to facilitate the development for synergy capabilities. This Organizational Internet of Things will improve the end user experience and create new revenue streams with real-time end-user data. This revenue will be huge (estimated at \$ 1.7-3 trillion in the period up to 2021) and the implementation of IoT / IIoT will lead to creation of new job positions in each business segment. In fact, there will no be branch of the economy that will not be affected by the application of IoT / IIoT – or in other words "resistance is futile".

Interoperability brings more inter-dependence among gadgets and human interactions with them. These interactions and interoperability set pre-conditions generally for Vision 2020 and for 5G mobile networks (Nokia Networks, Technology Vision 2020):

- 100 times more devices connected on mobile networks than today
- more traffic capacity in following years than now
- 10.000 times more data traffic in 2020+ period than now.

The technological string to connect IorgS is the Internet. And as the ICT world becomes more and more mobile, technological string to connect IorgS will be more and more - mobile Internet. The access continuity and reliability depends on traffic and price affordability to connect all devices for delivering excellent performance with rated speed and range. Aside from the fact that the ICT segment is becoming more and more mobile, another important feature is that it becomes FLAT. It is expected that very soon (and especially after massive implementation and commercialization of 5G mobile networks), many providers will offer packages in which for a certain amount of money, customers will have a certain Internet access speed. So, one of the most important conclusions for telecommunication industry and for telecommunication operators is that “customers will only buy Internet access speed in very near future” (Jurčić, 2016).

A critical success factor in the initial run of IorgS is to ensure that there is round-the-clock assistance for handling consumer issues. For individuals, smart devices and cloud services will have far-reaching effects and become an essential part of daily life and work. Hyper-connectivity Internet (based on Vision 2020 and 5G mobile networks and other fast mobile technologies such as Li-Fi technology) will enable every device to work faster and better while delivering an improved user experience. Smart devices (smartphones, tablets, phablets, notebooks, wearable clothes, etc.) will integrate a number of additional concepts that are particularly important over the longer-term relationship, overcoming competitiveness and winning sustainability. This vertical alliance motivates commitment and effectiveness of security by cooperation, exchange, and quick swapping options (Perry et al., 2004).

III. CONVERGENCE OF ICT FACTORS

The convergence of information technology (IT) and communications technology (CT) is driven by several factors, including the proliferation of web-enabled mobile devices that allow access to cloud computing services. Information communication technology (ICT = IT + CT) has already brought in governance with prudence, taking perspectives from users and developers. The rapid integration of gadgets is possible with the rising availability and quality of software applications to accomplish this specific purpose as illustrated in Figure 1.

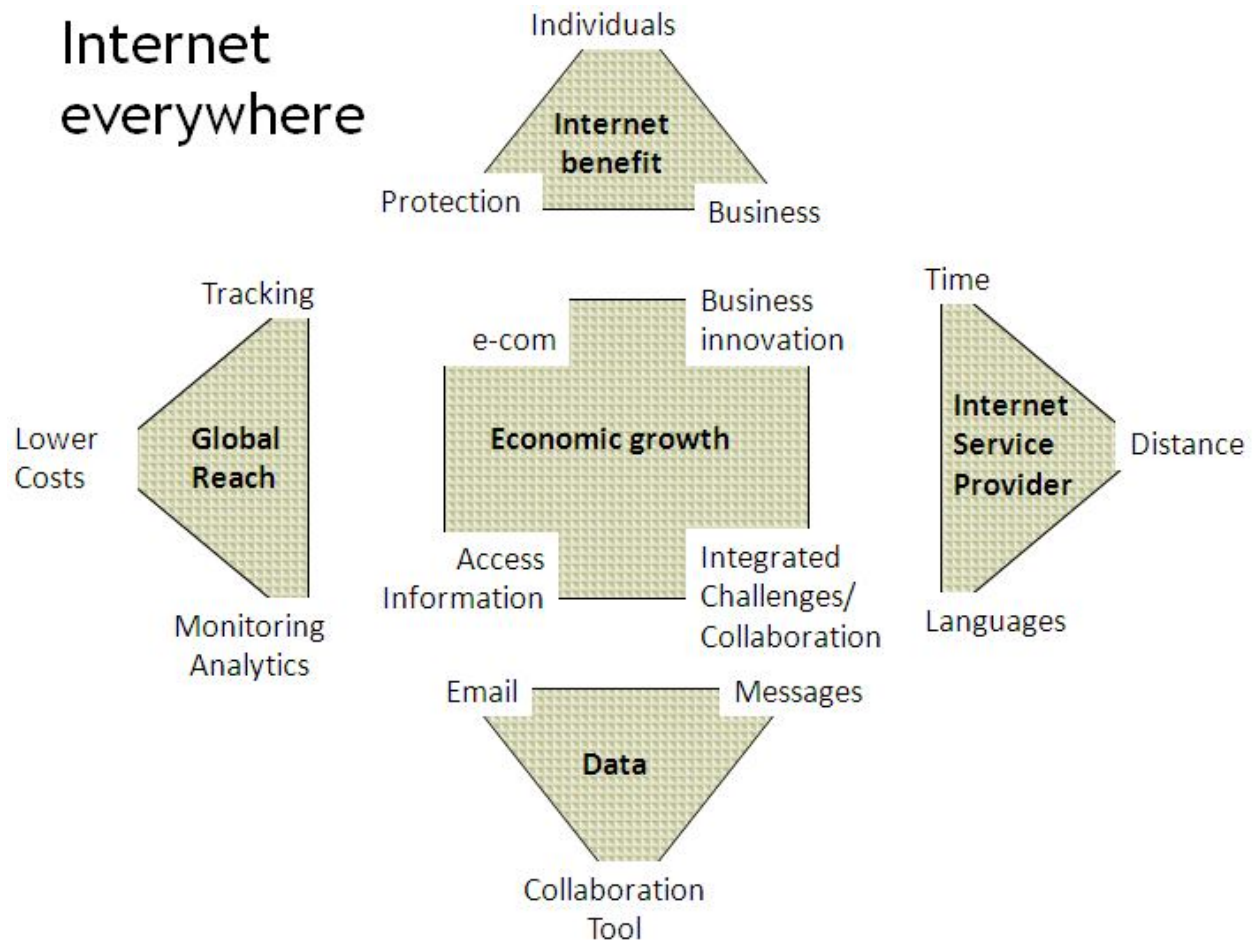


Figure 1. Internet Everywhere – Convergence of ICT Factors (Umachandran, 2017)

Hence, to have easy access of Information in an environment, it requires quick and easy access to connected information within and outside the system. Therefore, each gadget as a system needs to be LOOPED – intra/inter/multiple for input, process, output and feedback. Systems that which process necessary information at adequate speed shall bring in confidence to accept, new age technology equipment's and gadgets among users. The Internet connecting with minimum resources can benefit and help individuals to live more independently and support innovative solutions to improve their quality of life and life styles. Increased access can bring the best out of the consumers. On the other hand, in a business scenario, an interlinked and integrated enterprise with clustered gadgets can sufficiently position ahead of the competition and venture into a new age of consumerisation.

Within such business organizations, the demand on employees to learn new skills (Krishnan, 2010) will be greater. The market sets high expectations and demands employees to be more equipped with requisite technology and interdisciplinary orientations rather than narrow-skilled as of now. Therefore, learning is continuously on demand anywhere: at home or at work. Otherwise, performance can suffer with an impact on the economy. As such, organizations have to meet this demand, migrate their communications controls through the cloud, so that common access to information opens the system of interactions and facilitates more choices. The Internet has already covered Agriculture and Food, Production and Processing, Extractions and Separations, Energy and Environment, Services (Life and Non-life), (Smart) Cities and (Smart) Homes, E-health and Tourism, etc. Self-driving cars (as one of the most important items for faster implementation of IoT) will be covered soon – with implementation and

commercialization of 5G mobile networks. Countries in the transition towards development of clean energy and other climate-smart paths are building on only local capacity skills (Zhang, 2006), all the while linking businesses to global technology and expertise without investing in the human resource needed to support future evolution.

IV. INTELLIGENT AUTOMATION INTERFACES

At the same time, new innovations such as drone parcel delivery, android humanoid, digital transactions, virtual expositions, real-time light-fast transactions, and global connections of people etc. have radically changed the outlook, which fascinates more of an imagination drive.

The rising retirement ages and increase workforce participation rates of women have benefitted from technology with an increasingly wage-earning capability (Yang, 2008). The now rapidly changing environment requires skills and attributes to evolve and vary in their relative importance. The people network has started to collect and share data which links entities across boundaries to facilitate seamless transfer of information as illustrated in Figure 2. Intelligent Automation.

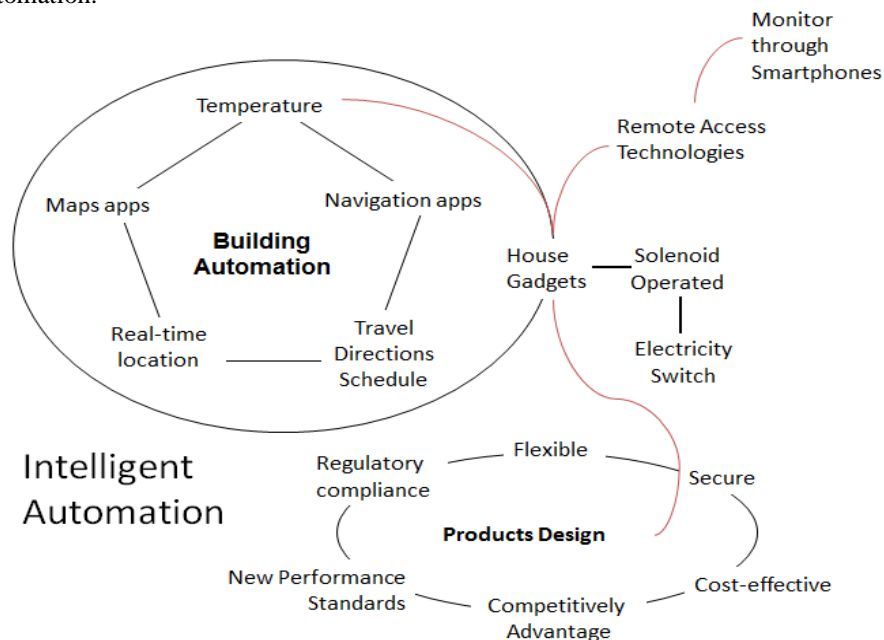


Figure 2. Intelligent Automation (Umachandran, 2017)

It is a big challenge to integrate interfaces with time and distance, negotiating through languages and regions. Technology development is an extractive relationship between the manufacturer and the user. Therefore, the organization needs to protect the rights of users from vulnerability and exploitation as many may not be aware of drawbacks. For example, digital natives spend a lot of time on social networking sites, communicating with others and sharing information which was of great difficulty and expense, at times impossible, in past centuries. But, there are protections to devise and people as well to counter emerging misuses. Ideally, technology has brought in transparency and traceability in the systems. Flexibility of use, monitoring of visuals and signals, including remote access to control, have made interoperability of systems possible, even when on travel through Internet CCTV network and solenoid switching of electrical gadgets.

Therefore, the IorgS is a Big Data application that shifts the power to act on services from gadgets; through datasets towards data controllers, the IorgS improves QWL (Sirgy, 2002), operating efficiently and truthfully for its intended

purpose. Interactive Smartphone applications in mobile CPUs are well-equipped to handle the data caching demands of the interactive applications, and these applications exhibit small footprints and good locality comparable or more favorable than SPEC. Mobile phones have even overtaken PCs as the primary consumer computing device with better data cache and translation lookaside buffer (TLB) performance behavior, far better than the most memory-intensive applications (Anthony et al., 2011). While using mobile phones, the hurdle would be minimal even during multiprocessing when background tasks are minimal.

V. CONCLUSION

In the future, human gestures as a means of interaction with computing devices would become the norm of the day. The recognition framework will be structured around transducer sense input connected with wireless signals networked around the gadgets. The organizations of new age economies have many uncertainties such as competencies and capability limits. Optimum required resources will produce unique capabilities than ideal performances with people buy-in.

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