Universal responsibilities and challenges towards to change the landscape of knowledge access in higher education

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I. INTRODUCTION

Knowledge access happens in two ways at the digital knowledge society which are *"open for all"* and *"open for select"* as a result, there are two knowledge access executives are remain. Prensky (2001) urges they are as digital natives (DN) and digital immigrants (DI). Digital natives are more familiar with an advanced technology in contrast digital immigrants are new to the technology. However, at the digital knowledge society notwithstanding technology orient or not has to face competitive advantage and anyhow engage with knowledge economy. Therefore, knowledge is identified as currency so one of the key responsibilities of the intellectuals becomes to evaluate critically ways in which identify their roles to promote competitive advantage and enhance knowledge competence. Therefore, it believes that there are lots of opportunities are available to create sufficient paths both digital natives and digital immigrants to gain require skills if universally has measured their requirements of access to knowledge instead of marginalizing. So, it is important creating of more opportunities widely to access to knowledge in universally with broader understanding and critical analyzing of what knowledge assets need for the 21st century and how to identify unique approaches to create positive environments to promote skills on access to knowledge in higher education. Therefore, to achieve intend outcomes to promote on access to knowledge and identify universal responsibilities the most important thing is that to critically evaluate prevailing obstacles on access to knowledge in higher education.

The 21st century society, the society with flourish knowledge capitals, identifies as knowledge contents base society therefore benefits and beneficiaries and also requirements are various. Of that, key roles and functions on access to knowledge in higher education has been drastically changed however, universal mechanisms to promote access to knowledge in higher education in globally are remaining unchanged than other service sectors. Many occasions of service sectors except in higher education are keen on competitors because perceptions are changing the knowledge economy than set goals and mission of individual organizations. It further critically indicates the said situation because of higher education is not merely into return on investment on capital benefits instead of consider on knowledge capturing, sharing and storing. However, higher education sector has to critically think of ways in which to engage in knowledge competitive advantage because it thrive return on investments in various perspectives at the knowledge asymmetry economy and an advance information and communication technology environment. So, to achieve said goals ways in which to engage critically with knowledge competitive advantage on access to knowledge the second challenge is to identify an efficient and effective system to access knowledge without any obstacles on technologically and geographically. The system which going to identify is very important keep balance working in corporative and collaborative enthusiasm because any system is going to cope with knowledge competitive advantage has to maintain impacts of knowledge ecology effectively.

Given the facts highlighted that higher education sector is more vulnerable and under pressure to engage with competitive advantage than other service sectors because of continuous developments in knowledge management and their subfields like knowledge creating, knowledge sharing and knowledge communication. As a result of that managing of knowledge in institutions of higher education with limited resources are becoming a very complex task. Negative impacts are vary and most encounter two issues are; often changes in software and hardware of information and communication technology and vigorous competition among institutions to offer heavy knowledge contents without considering of audience that whom to contents are written for and included knowledge within the contents that how many minutes will it takes to download. The first issue is more attentive by most of the higher educational institutions than on knowledge contents writers however key commodities are of course those in the knowledge competitive advantage because decision takers often in higher education believe that technology creates and brings prosperous than human. However, fortunately, there is a trend nowadays to critically think on human's knowledge capacities instead of mostly for on complex and sophisticated technologies on that urging humans are able to influence knowledge competitive advantage by promoting on access to knowledge than technologies. At the same incidence, intellectuals at the higher education are able to find that technology components of the knowledge society do experiments ways in which to promote knowledge communication however, knowledge holders hinder to control the knowledge access through information politics of the individuals and organizations. Therefore, technology becomes very handsome enough to influence knowledge competitive advantage of the 21st century society without shaking badly the position of the knowledge assets in knowledge communication and knowledge sharing. So, how this has done by technology can simply see in digital repositories of knowledge and knowledge consortiums where human knowledge capitals and technological knowledge capitals are working together to

enhance access to knowledge in a healthy and friendly environment.

Therefore, the purpose of this chapter is to introduce a new concept ways in which how to promote equal opportunities on to gain skills by enhancing access to knowledge in higher education based on "*the concept of one world one dream"* in an autonomous approach. The autonomous approach the researcher believes that will contribute in various perspectives towards to global prosperous that frontiers economic and social well-being of the nation. That, frontiers of knowledge progress involve with knowledge competitive advantage and it leads to gain require skills for the knowledge economy. And also, at the final stage of this concept, it may enhance to work together with knowledge commodities; knowledge economy and knowledge dominate age to promote in access to knowledge in collaboratively by abiding to responsibilities of every stakeholder in higher education.

II. Overview of Access to Knowledge in Higher Education

At present, the asymmetry situation of information and knowledge in digital forms make an access to knowledge in higher education is complex. The complex situation is further developing at a greater level because of advance tools in information and communication technologies and societal changes of knowledge communication. However, an impact on knowledge communication due to above two reasons, on access to knowledge becomes a puzzle because of an instance access to immeasurable information. Consequently, at the present scenario on access to knowledge, it has seen that a human's knowledge component is given minor importance but in contrast a component of technology has been given more values. But, continuous processes on information creating, information consumption and information sharing are invisibly belonging to the human component however technology is basically controlling on access to knowledge. As a result, technology is influencing on access to knowledge in various perspectives. Of that, performance on digital knowledge natives and digital knowledge immigrants are very vague so right to know and access to current and accurate knowledge is diverging. And, similarly, analysts in the usage of diverse knowledge reduce revenue on positive engagements in economic and social development. Therefore, to increase on access to knowledge in higher education is a challenge and that can discuss mainly in three headings which are; Knowledge Competitive Economy (KCE), Knowledge Dominates Age (KDA) and Digital Knowledge Ecology (DKE) respectively.

Main Challenges in HEs in access to knowledge

It has shown that to take critical actions collectively to overcome those challenges in access to knowledge in higher education; having a broader understand on ways in which the present landscape of knowledge management in higher education is very crucial and to implement a positive mechanism to find suitable and sustainable solutions as collective responsibilities are also equally important. Knowledge management in competitive economy of higher education is a turning point to promote on access to knowledge because, at the knowledge society that knowledge contents are divergent therefore platforms on access to those knowledge are differ. The situation is further getting complex as a result of advance technologies because, knowledge begins to control world's economy and at the same time technology influences for knowledge management and on competence of the economy. So, it highly indicates that knowledge management and knowledge economy influence at a higher degree to control on access to knowledge in education. Of that, intellectuals in higher education face a greater challenge than other service sectors. Competitive economy is a turning points in the knowledge society that merely calculating knowledge contents into knowledge economy. The situation further thrives with today's technology controlled economy including for higher education because of that most of the universities in the world that facing new challenges to cope with knowledge competitive economy. Of that basically, students have to gain not only subject knowledge, but also to arm with the skills and knowledge require to leverage technology effectively in the world of work (WoW).

The activities of contemporary society, more on digital devices and apps generation, are changing whole consumptions of information and knowledge. At the same time, it is important to notice that the contemporary society is more focusing on an intangible knowledge. For that, one of the main reasons is that the intangible knowledge of the contemporary society turns the society for knowledge dominates age. That knowledge dominates age enhances enjoyment of consumers' engagement with knowledge and experience sharing. So, the ongoing rapid changes in the buzzing arena of knowledge management and its assets in the contemporary society Goldstein (1969) states as knowledge assets are referring as sensor technologies, big data with 3D generation, and voice recognition. Therefore, it is obvious that key factors of knowledge management are influencing to the knowledge dominates age society which is mainly base on digital networking hardware and software. Those digitally born knowledge contents in contrast manipulate knowledge dominates age significantly differs to the traditional ways in engaging in knowledge consumptions.

However, knowledge contents which are base on digital devices stand for up-down access to knowledge process and their task with merging various digital technologies together to promote collaborative efforts. The results on collaborative efforts in knowledge management and knowledge sharing are significant however; these processes act accordingly to maintain the hindering facts of information politics through roles and functions of digital knowledge assets. Information politics runs every segment of the knowledge assets as Davenport (1992) points, technocratic utopianism, anarchy, feudalism, monarchy and feudalism. Therefore, information politics of an organization directly influences to the creating and sharing process of knowledge assts while demarcate further open for all and open for selected. This scenario is growing widely every continent of the world, despite of developed, developing or under developing nations. If so, ways in which to develop access to knowledge in higher education, the concept of information politics plays a vital role invisibly in an organization with other components such as technology and environment of the knowledge dominates age. As a result, nowadays, techno utopians in information politics urge openly to promote access to knowledge in higher education is the most important things is to introduce and implement advance and

complex technological components to the education. Same times, with gigantic bandwidth for the Internet connectivity and with sophisticated other technological facilities to engage in 4Gs or beyond. Concerning this, Schmidt and Cohen (2013) explain that most of the people in the world will be online very soon because, expecting knowledge communication will mostly run in digital formats tomorrow with human to digital devices and digital devices to human. Consequently, digital technology intervenes in disruptive manner to the ecology of knowledge as Hoorens et.al. (2013) identify especially in knowledge creating and knowledge sharing processes because both processes smoothly assist to upgrade access to knowledge by assigning multi-task and multi-purpose goals to develop resources and service to knowledge proliferation. As a result of knowledge proliferation, knowledge dominates age thrives into skyrocketing as Peper and Garrity (2014) indicate a single day 2.5 quintillion bytes of knowledge assets are being released to the open knowledge economy. This indicates eventually how world of work and the Internet marginalize access to knowledge.

Therefore, the characteristics of exclusive have been increased blocking opportunities to gain skills in digital literacy and to navigate the require knowledge and practices effectively and efficiently. However, by promoting access to require knowledge in ecologically acceptable and friendly it indicates that excessive linkages in attributes of knowledge ecology is creating opportunities to work closely and identify engagements in digital knowledge ecology. Consequently, one of the influencing factors to knowledge sharing in conjunction with ecology in digital knowledge for knowledge proliferation is significant. Of the critical process, both in roles and functions of knowledge ecology that engagement in knowledge proliferation is high because attributes of knowledge ecology which are humans, knowledge, resources, environment and technologies are increasing collaborative efforts to form digital access for most resources and services. Such an effort shows that align in digital knowledge is to maintain accuracy and accountability of the knowledge contents. The Internet is the simplest example domain for digital knowledge ecology because it holds a variety of knowledge contents and platforms to perform well with assistance of other digital devices with the characteristics of as Sterling (2002) studies the Internet has no curriculum, moral values and philosophy.

Therefore, components of knowledge ecology as Mallawaarachchi (2013) studies human, knowledge, resources, environment and technology evolve together to perform values of knowledge. So, knowledge ecology and knowledge dominates and their subordinate domains connective relationship can identify as following in figure 1;

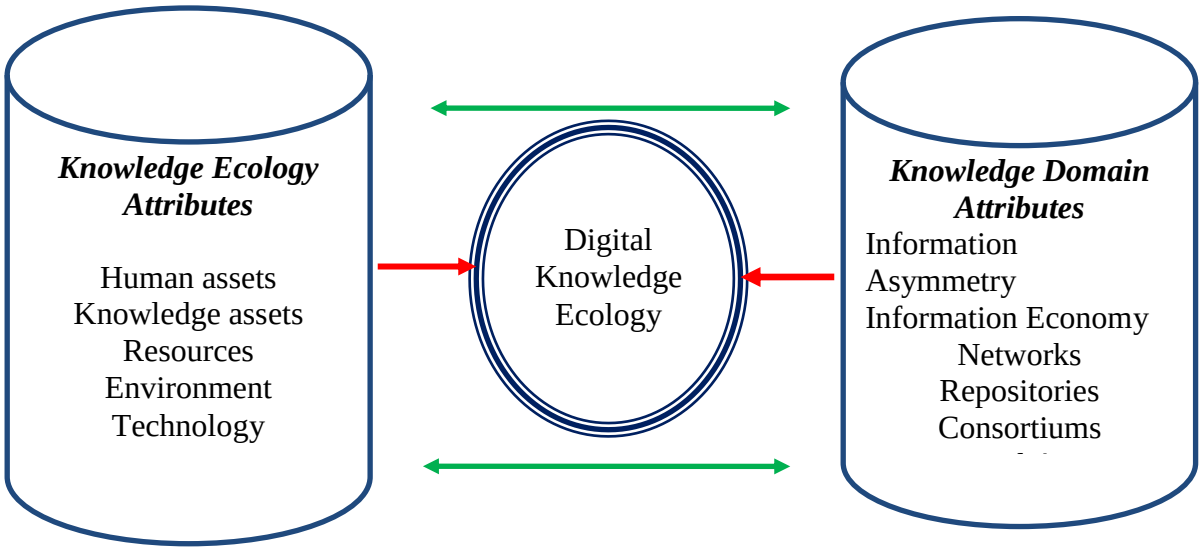

Figure 1: Key attributes of Digital Knowledge Ecology

The process of digital knowledge ecology happens mainly with the combination of two components which are knowledge ecology and knowledge domain. Therefore, two areas are very important to promote access to knowledge in higher education because in the knowledge ecology attributes such as human, knowledge, resources, environment and technology assist to promote and create information, networks, knowledge repositories etc. Contributions in numerous ways from both attributes perform well with its subordinate attributes without any obstacles can discuss in details as following.

The component of human capital which is holders of an implicit knowledge is with ambition to create and share knowledge is very important where access to knowledge is concerned. Therefore, human capacities and their holding implicit knowledge have be audit carefully and continuously, failure of that is a unproductive because in the 21st century society more attention should give human's knowledge instead of other components of the knowledge ecology. So, inclusive processes to strengthen collaborate and participate atmosphere in digital knowledge ecology will blossom the concept of *One World One Dream* in access to knowledge in higher education. It

has mentioned in several forums in higher education that intellectuals who engage in teaching and learning have great opportunities to change and influence the world in various scenarios because of their highly engagement in competitive knowledge backgrounds. Some of the reasons for that are continuous development processes in teaching and learning expanding in the world. In globally, most of higher educational institutions are implementing accreditation courses in teaching and learning through staff development and educational programs for their teaching faculties. With that, facilitation is given to enhance resources in various viewpoints to promote knowledge sharing, knowledge creating, collaborative efforts of innovative tasks, scholarship programs, networking of organizations and intellectuals are few efforts. Of that, with knowledge enhancing mechanisms that human attribute has to work with very closely to create an appropriate and sufficient environment to promote access to education to decrease marginalize opportunities. Marginalize on access to knowledge has to be annihilate completely to promote communication episodes of the environment of information and communication technologies because, technology attribute sparks the whole combination of knowledge into one platform which can identify as digital knowledge ecology. Digital knowledge ecology represents itself that ecological attributes' combination with knowledge that the society enjoys now. Knowledge domain attributes information asymmetry, information economy, digital networks, repositories and consortium and digital apps contribute as segments of knowledge commodities to digital knowledge ecology.

Competitions in education and knowledge domain conventions increased information consumptions at the same time more invest on education at the recent past. That phenomena convert knowledge into digital apps and become an essential tools in education to access to knowledge as an educational tool. Further, digital apps influence most of the service sectors in the world including medicine, engineering, telecommunication, and library and information science as a competitive advantage tool. Jain (2014) mentions digital tools become most required tool on access to resources of teaching and learning in education because, in 21st century society, teaching and learning processes happen in various formats such as visualizing of data to analysis complex synthesis, data mining tasks to maximum reflections and digital apps engage in online lessons and communications. As a result of these digital base conventions in knowledge management that most of printed reference resources start to convert into digital whist communication tools become to communication chips. Of that, roles and functions of agents in digital repositories enact and influence critically to control access to knowledge in varies perspectives with complex and sophisticate knowledge systems. Pinfield (2009) explains agents in digital repositories control whole resources in knowledge ecology through set of systems to facilitate storage, retrieval, display, and reuse resources that include on articles of peer reviewed journals, book and book chapters, dissertations and theses, and media files. However, the biggest concern is that the controversial bureaucracy of digital repositories does not facilitate access to require knowledge without any hazels even for cost. On that, simultaneously as Xia (2012) urges inequality in resource sharing, lack of skills and knowledge, poor infrastructure, language literacy and cultural barriers exist.

However, digital knowledge domain has created new scenarios on access to knowledge and resources. It can be seen especially with the attribute of knowledge domain as Calhoun (2014) contributes as content central systems which support and provide access to various collections of knowledge. Therefore, combination of access to knowledge and creating of knowledge in 21st century society can show as in figure 2:

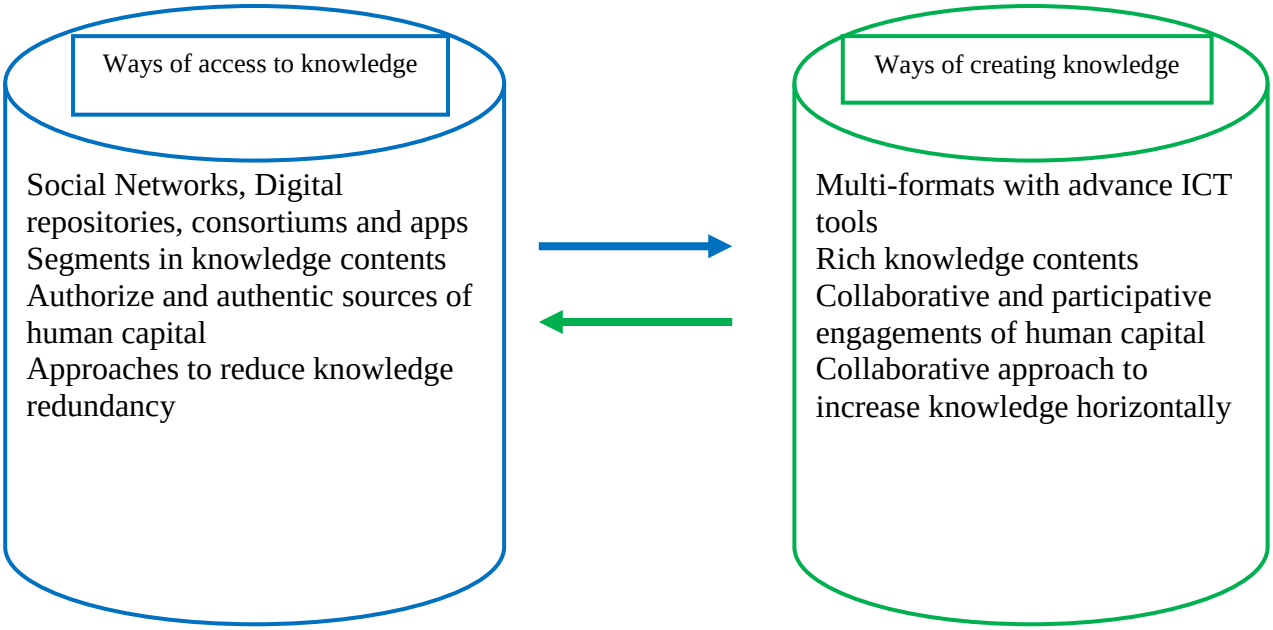

Figure 2: access to knowledge and creating of knowledge

Knowledge creating and knowledge access are equally important at the knowledge domain economy because having available reliable and valuable knowledge is ineffective if there is not feasible and convenient mechanisms to access them. Given the scenarios further coined that conventional systems and tools used for knowledge creation and knowledge access are far behind with newly born advance technologies. Therefore, rich contents with ample formats demonstrate that there are opportunities to share knowledge contents more easily than before with desire audience. The ongoing situation Davies (2013) highlights as open data portals therefore if absence of laws in right to information and insufficient skills and also awareness on digital knowledge assets may marginalize access to knowledge.

Opportunities and challenges in knowledge asymmetry to build concept of One World One dream

Behavioral characteristics on knowledge asymmetry indicates that have massive and credible opportunities to cope with existing challenges that facing for access to knowledge in higher education for marginalized nations in the world. The following table 1 showcases available opportunities against the challenges encounter to strengthen on access to knowledge in higher education.

Opportunities	Challenges
tremendous knowledge segments in various formats which compatible with ever growing digital apps	Uneven changes in infrastructure especially in software and hardware in ICTs and influencing information politics to govern them.
open access portals with savvy knowledge contents in many subjects together	Enact policies and regulations on knowledge sharing kept away knowledge consumers hence invaluable knowledge vain without any positive produce for that mainly impact information politics on sharing knowledge, inappropriate censorship in various perspectives, and attend to control fully even open access knowledge contents.
Authoritative knowledge contents thrive knowledge frameworks in positively	Inappropriate censorship and tools to control access knowledge contents.
Static facilities are given to benefits from services and products continuously	Uneven changes in infrastructure especially in software and hardware in ICTs and influencing information politics to govern tem.
Accurate and updated knowledge databases on requirements of stakeholders	Information and knowledge asymmetry buzz the competitive advantage
Digital repositories, digital libraries, electronic resources portals and globalized consortiums on knowledge gathering and sharing	Models on digital repositories are uneven thus to take park in an existing system/s questionable.
New governmental policies on “right to information” and “access to information for all” are motivating mechanism.	Information Ecology and Knowledge Ecology of the organizations and individuals impact on freely access to information and knowledge

Table 1: opportunities and challenges to access to knowledge education

It is very difficult to predict that thought abundant services and resources are available for education however have create an equal opportunities to use those resources and services as need and require by the stakeholders of higher education. To promote access to resources and services are highly demanding voyage of digital knowledge and competitive advantage as a whole. But, to achieve that dream, however is not easy because one of the most important fact is to setting up of a democratic concept on access to knowledge in higher education that universally might be able to accept. Therefore, the researcher is tabling in figure 3, that the concept of one world one dream to change existing landscape on access to knowledge in education based on two concepts which are knowledge management and knowledge ecology.

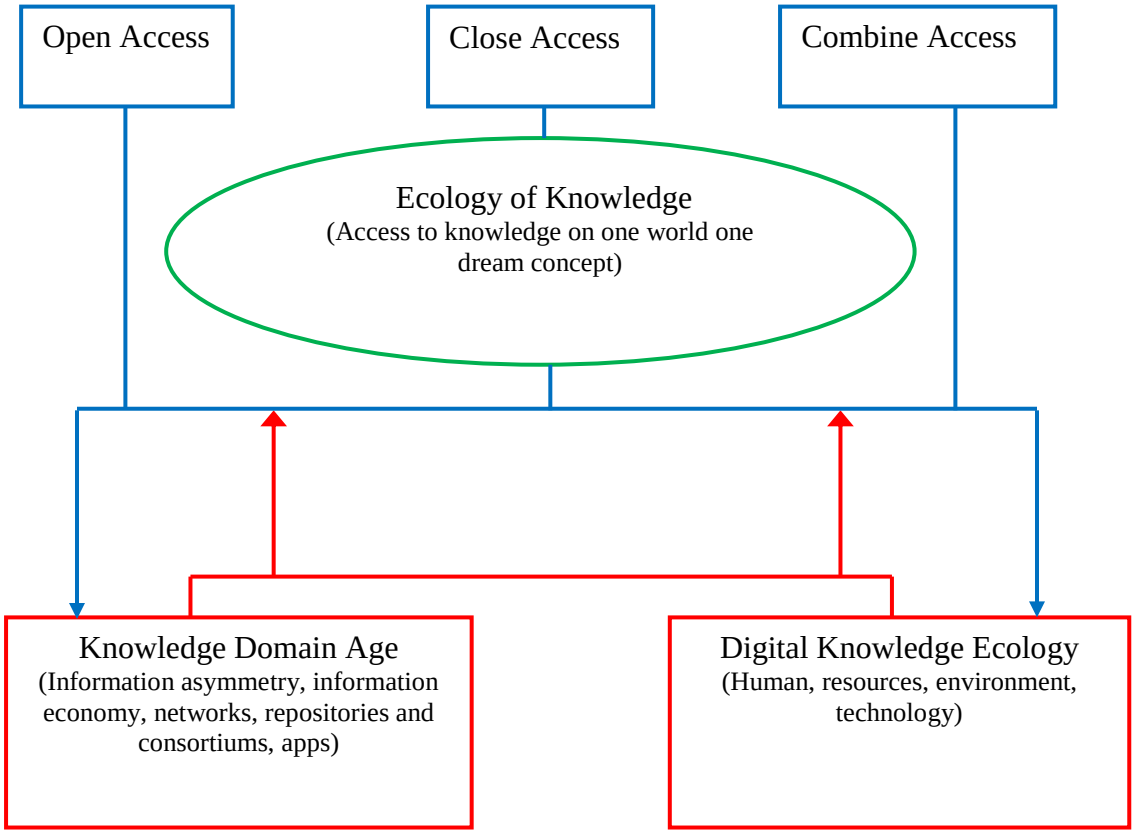

Figure 3: access to knowledge in one world one dream concept

To change the education landscape towards on access to knowledge, policies on access to knowledge which are an open access, close access and combine access should enact in democratic manner. Consequently, to meet require desire on access to abundant data, information, and knowledge on services and products has to encourage whist ensuring improvements in skills and wisdom of the stakeholders. That assist in various ways to gain and share new knowledge with peers in knowledge domain and knowledge ecology paradigm. As a result of that in the occurrence of knowledge sharing with peers openly that impact pondering of new knowledge effectively and efficiently. For an example, the governing bodies may set open or close access polities as require to protect and maintain privacy of access to knowledge so, it may fine until given privileges to act upon to engage with new knowledge to gain and share while accessing.

The element of open access creates positive engagements to gain knowledge freely even in sophisticate and complex information and communication environments because as experiencing most of the knowledge sharing systems are not given democratic freedom to access require knowledge even for cost. However, once created ample opportunities of this element, benefits are vary and facilitate to track knowledge productions and their demands. Also, most of the knowledge contents centralize, open and free to access. Those attributes emphasis to develop collaborative efforts to organize and to build positive communication paradigms. In contrast, the close access takes every effort to control and manage knowledge assets and knowledge contents both in knowledge domain and digital knowledge ecology. It indicates that in the close access environment the concept of information politics as Davenport et.al (1992) mention is trying to control the developing process of access to knowledge in horizontally and vertically. As a result of high processes of controlling and managing of knowledge, knowledge scarcity becomes visible evident and competitiveness thrive further. To meet existing concerns on access to knowledge, the paradigm of combine access smoothly can operate to harvest all stakeholders' requirements because, in the 21st century skills in education vary. Therefore, skills in information literacy should expand to media literacy, visual literacy, language literacy, cultural literacy, networking literacy and communication literacy. So, appropriate and relevant mechanisms have to identify to enhance skills in various perspectives. Also, equally important to introduce democratic policies on access to knowledge in education if stakeholders

really mean into enhance and lead to one world one dream voyage.

Universal Responsibilities to promote on access to knowledge

In universally, to promote on access to knowledge that initially has to identify an appropriate and an acceptable responsibilities. Of that, the researcher has identified mainly four areas which are practically can achieve by any nation of the world if insisting to promote access to knowledge. Those areas are; to introduce and implement of norms on access to knowledge as the governmental policies; to identify and establish environment to cope with require receptive knowledge with periodically can be change; to acknowledge intellectual values appreciating knowledge holder's empathy towards to share knowledge; and to implement policies to eliminate information politics on access to knowledge at the maximum level to benefits for all.

The first responsibility, to introduce and implement of norms on access to knowledge as the governmental policies, is crucial because setting up of norms to keep and secure ownership of the knowledge, privacy on sensitive and value added cognitive knowledge segments, and security to protect knowledge stealing without marginalize any stakeholders. These core responsibilities have to implement for safeguard of knowledge because knowledge capital is value added and difficulty to regain once lost. Also very expensive than most of the stakeholders thought. On the other hand, to enforce regulations should review continuously and timely also there should be room to re-define roles and functions to promote equal opportunities for all in the ever-changing digital knowledge domain. Available of opportunities to use meta-cognitive knowledge for all should maintain in democratic way. Then, taken actions as governmental policies to achieve on access to knowledge as norms at the international level that quite enough to understand time has already arisen to invest in education to promote knowledge access.

Whilst, implementing of legislation on access to knowledge as norms, the next step is to identify and establish environment to cope with require receptive knowledge with periodically can be change has deeper insights on the attributes of knowledge ecology because that assists the process more smooth and professional. Also, to identify and establish receptive knowledge environment the comprehensive knowledge in visual literacy, digital literacy, media literacy, computer literacy and network literacy, language literacy, cultural literacy and information literacy must and also sufficient infrastructure in all aspects enrich receptive knowledge environment. To see reflective outcomes of this principle to set up governing body to give advocacy on why is it important to promote on access to knowledge and facilitate stakeholders how to transform knowledge are important. It has already seen that most of the educational institutional equip with digital libraries and repository systems for their own usage within their territory however, there is less possibilities to measure how important of building of a federal repository system instead of thousand systems to share knowledge through one common platform for all because if can achieve this benefits can distinguish.

Characteristics of receptive knowledge reflect that bound to protect and respect intellectual_values are very high because knowledge holder's empathy on to share knowledge appreciate broadly. Of that, another responsibility is to evaluate and construct proactive situation to interact with knowledge holders to receive maximum benefits from their knowledge. The cognitive knowledge from those human capitals has to be review to enhance and promote benefits of junior academia. As a result, human capitals in knowledge harvesting, knowledge auditing, knowledge architecture, data mining, beyond conventional areas in library and information science is very much identical to develop in junior academia. So, knowledge access wants to be smoothly functioning well, there has to create new carder positions alike Chief Information Officer in Digital Knowledge (CIODK) and/or Chief Executive Officer in Digital Knowledge (CEODK), Digital Resources Cataloger and/or Digital Resources Classifier (DRC) instead of conventional Library Assistants and/or Assistant Librarians. However, it is prominent that continuous skills development in various subject perspectives may strengthen contextual knowledge of education and assist capacity building in many ways.

Above responsibilities may rely on memorial where policies and procedures are lacking to eliminate information politics on access to knowledge. Therefore, while implementing of regulations not to control information politics without value reasons that would be massive impact on right to knowledge in democratic process. However, in collaborative efforts with resources sharing including humans and technology hinder to some extend can try to manage influencing factors of information politics into developing process of promote access to knowledge. Therefore, democratic practices on knowledge creating, sharing and managing may influence to eradicate various attributes in information politics of organizations and people. If not as it has seen in most of educational institutions in the world that to make a minor change of the knowledge managing system that various hurdles have to pass because of hierarchy in information politics.

III. Conclusion

Commodities of digital knowledge in competitive advantage society are importance because knowledge turns into asymmetries in various forms. The phenomenon of digital knowledge thrives tremendous developments in information and communication technologies, however the sphere of that creates magnetization on access to the knowledge. However, importance of access to knowledge especially in higher education is a key scenario therefore to increase inclusive access to knowledge, two components that digital knowledge assets and knowledge ecology have to address.

References

[1] Calhoun, K. (2014) Exploring Digital Libraries: Foundations, Practice, Prospects, London: Facet

[2] Davies, T. (2013) *Open Data Barometer: 2013 Global Report*, Open Data Institute/World Wide Web Foundation.

[3] Davenport, Thomes; H, Eccles, R.G; Pausak, L (1992), Information Politics, Solan Management Review, Fall /1992

[4] Hoorens, S.; Guerin, B.; Ghez, J.J.; Schweppenstedde, D.; Hellgren, T.; Horvath, V.; Graf, M.; Janta, B.; Drabble, S. and Kobzar, S. (2013) *Europe's Societal Challenges: An Analysis of Global Societal Trends to*

2030 and their Impact on the EU, European Union/RAND Corporation research report.

[5] Goldstein, K. (1969) *The World of Tomorrow*, New York: McGraw Hill

[6] Jain, P. (2014) 'Open Access Publishing and Digital Scholarship', in *Proceedings of the 2nd Open Access National Conference, 6–7 November*, Gaborone: Botswana Library Consortium

[7] Mallawaarachchi, Chammika (2013) University' Role in Exploring New Knowledge in the Global Knowledge Society: Knowledge Ecology Perspective, IGI: Pennsylvania.

[8] Pepper, R. and Garrity, J. (2014) 'The Internet of Everything: How the Network Unleashes the Benefits of Big Data', in *Global Information Technology Report 2014*, Geneva: World Economic Forum.

[9] Pinfield, S. (2009) 'Journals and Repositories: An Evolving Relationship?' *Learned Publishing* 22.3

[10] Prensky, M. (2001). Digital natives, digital immigrants, part 1. On the Horizon 9(5)

[11] Schmidt, E. and Cohen, J. (2013) The New Digital Age: Reshaping the Future of People, Nations and Businesses, New York: Random House

[12] Sterling, B. (2002) Tomorrow Now: Envisioning the Next Fifty Years, New York: Random House

[13] Xia, J. (2012) 'Diffusionism and Open Access', *Journal of Documentation* 68.1

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