Theories of Open Access

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"One person gives freely, yet gains even more; another withholds unduly, but comes to poverty. A generous person will prosper; whoever refreshes others will be refreshed".[2]

Abstract. This article is an acknowledgement of the gap and frustrations created by a legal regime, which has provided the requisite legal covering for the exclusion of the generality from access to knowledge. It provides a theoretical analysis of open access from a multi-dimensional perspective inclusive of socio-economic, legal and political dimensions and explores the rationale for providing free, immediate, open and unrestricted access to the output of research. It seeks to identify and demonstrate the potential benefits of the open access movement to national and global development.

Keywords: Open Access, Internet, Knowledge, Copyright, Ubuntu & Law.

1. Introduction

The provision of access to knowledge through the platform of the internet and the cooperation of scholars can be conceived as a legal revolution against the current legal structure restricting access to knowledge. This revolution is not about merely putting any material up online, it is not vanity publishing, it does not honour fragrant disregard for the legal system, rather it is a revolution working within legitimate rules against structures that have permitted and enabled business models which erects and facilitates legal, price and technical restrictions against users.

This dynamic revolution is built essentially on a shift from egocentrism and self-centredness that has become the norm in the society and is re-engineering a sharing structure that would bring about a balanced knowledge society. Open access is about a revolutionary change in how peer-reviewed literature and all other information is accessed, used, reused and generally exploited[3]. It seeks a shift in the publication process from

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[2] THE HOLY BIBLE: NEW INTERNATIONAL VERSION (NIV) (Tyndale House Publishers. 1978).

[3] He Calls it the Commons "a new paradigm for creating value and organizing a community of shared interest" See DAVID BOLLIER, VIRAL SPIRAL: HOW THE COMMONERS BUILT A

closed to *open, restricted* to *unrestricted, payment* to *free, all rights reserved* to *some rights reserved* or better still *no rights reserved*.

Aristotle the Greek philosopher told us over 2300 years ago that "Man is a social animal. He who lives without a society is either a beast or a God."[4] We all exist as a result of a combined effort. Development has brought about an increase in man's standard of living but has also caused a strain on social values. Values such as dependency and inter-dependence, sharing, caring and helping have gradually gravitated towards a culture of self-aggrandizement, self-acquisition and self-dependency to the exclusion of others. The reality is that we are who we are because of who we all are[5]. No man is an island, we need each other. The wise book teaches that two are better than one, because they have a good reward for their labour,[6] that how good and pleasant it is for brethren to dwell together in unity[7] and that Iron sharpens Iron.[8] It is in sharing, giving, caring and helping that life finds its true expression, meaning and fulfilment. As aptly captured by Viktor Frankl in his book Man's Search for Meaning, "Ultimately, man should not ask what the meaning of his life is, but rather he must recognise that it is he who is asked".[9] Life is not about "me" it is not about "you", it is about "us."

This article is an acknowledgement of the gap and frustrations created by a legal regime which has provided the requisite legal covering for the exclusion of the generality from access to knowledge. It provides a theoretical analysis of open access from a multi-dimensional perspective inclusive of socio-economic, legal and political dimensions and explores the rationale for providing free, immediate, open and unrestricted access to the output of research. It seeks to identify and demonstrate the potential benefits of the open access movement to national and global development.

DIGITAL REPUBLIC OF THEIR OWN 6 (New Press. 2008). "A commons arises whenever a given community decides that it wishes to manage a given resources in a collective manner with special regard for equitable access, use and sustainability."

[4] G. Catt, MAN THE SOCIAL ANIMAL, 29 THE WESTERN SOCIALIST 20(1962). See also, LUNTLEY MICHAEL, THE MEANING OF SOCIALISM 78 (Open Court. 1990). See also, Bharat Kumar, *1333 words essay on Man is a social animal* Preserve Articles *at* http://www.preservearticles.com/201102184074/man-is-a-social-animal-essay.html.

[5] Relando Thompkins, *Ubuntu: A Humanitarian Philosophy, available at* http://www.relandothompkins.com/philosophy/.

[6] See Ecclesiastes 4:9, THE HOLY BIBLE : AUTHORIZED KING JAMES VERSION, CONTAINING THE OLD AND NEW TESTAMENTS (Holman Bible Publishers Read-to-me ed. 1984).

[7] See Psalm 133:1 id. at.

[8] See Proverbs 27:17 id. at.

[9] V.E. FRANKL, MAN'S SEARCH FOR MEANING 99 (Beacon Press. 1992).

2. Knowledge Development Process

Information dissemination within the knowledge management framework falls within the exclusive right of copyright owners and is therefore restricted unless permission is granted or it falls under some form of limitation, exception or compulsory licensing system[10]. Knowledge/Information development within the academic and research community has a practice of peer-review for purposes of ascertaining and maintaining quality[11]. The practice is for academics to write and for publishers to take care of the peer-review, publication and marketing aspects. The practice of Journal publishing dates back to 1665 when the first journal "Le Journal des Scavan" later renamed "Les Journal Savants" was published by Jean Cusson, rue S. Jacques[12]. In the same year the first scientific journal printed in the English language and edited by Henry Oldenburg titled "Philosophical Transactions of the Royal Society of London" was also published[13]. Henry Oldenburg had the practice of sending out submitted manuscripts for independent evaluation by competent referees and has been recognised as the initiator of the peer-review process.[14]

2.1. THE PUBLISHING INDUSTRY

The duo of the printing press and peer-review process has developed into what today is the publishing industry and has become a major player in determining how knowledge, particularly peer-reviewed knowledge is disseminated. This influence by the publishing industry on knowledge dissemination can be traced to the strategic role of publishers as the door way to the output of research and to the introduction of subscription payment. Payments which users, mostly libraries have to pay before they are able to access published peer-reviewed information.

Publishers are responsible for the investments put into publishing the written works of authors and have a business model based on subscription payments by users to recoup their investments. Initially these fees were minimal but with time, the consistent rise in subscription fees has turned

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[10] BRIAN FITZGERALD, et al., OAK LAW PROJECT NO.1: CREATING A LEGAL FRAMEWORK FOR COPYRIGHT MANAGEMENT OF OPEN ACCESS WITHIN THE AUSTRALIAN ACADEMIC AND RESEARCH SECTOR (REPORT FOR THE DEPARTMENT OF EDUCATION AND SCIENCE AND TRAINING (DEST) 21 (2006).

[11] Richard Smith, *Peer-Review: A Flawed Process at the Heart of Science and Journals*, 99 J R SOC MED (2006).

[12] *Le Journal des Sçavans*(1665), *available at* http://gallica.bnf.fr/ark:/12148/bpt6k56523g.

[13] *Philosophical Transactions of the Royal Society of London (or Phil. Trans.)*(1665), *available at* http://gallica.bnf.fr/ark:/12148/bpt6k55806g.

[14] WHO, *About HINARI*(2014), *available at* http://www.who.int/hinari/about/en/.

the publishing industry into knowledge barricades instead of knowledge access gates. Even the wealthiest of universities are not able to keep up with the rising cost of journal subscriptions[15]. It has been reported that the rate of increase in journal subscription prices is second to none.[16] Increase in student loan indebtedness has also been reported and may not be unconnected to the high subscription rates which directly or indirectly affect students' ability to pay for the kind of education they desire[17]. Elliot Harmon in the Creative Commons News reported that "Earlier this year, the Federal Reserve Bank of New York announced that student loan debt had surpassed auto loans and credit debt, coming in at an estimated $1 trillion. And a not-insignificant contribution to this burden has been the rising cost of textbooks.[18]"

If all libraries and research institutions in the world are able to afford the cost of journal subscriptions and are therefore able to pay and subscribe continually to all journals, universal access to peer-reviewed literatures would be attained. If that was a dream or an expectation, it unfortunately is one that is unlikely to come true, considering the continued rise in subscription cost. Libraries and research institutions all over the world are cancelling subscriptions due to its ever rising cost and worse still, most libraries and research institutions in developing countries are not able to maintain subscriptions with journals[19]. Where such subscriptions are maintained they are usually not in the fields that are most relevant to their research needs and this is directly connected to the inability of these institutions to keep up with the increase in subscription fees.[20]

The high cost of journal subscriptions, the frustrations experienced by user's due to an inability to access information, the need to explore new business models for publishing as well as the moral sensitivity of the human soul to share knowledge has precipitated the emergence of the

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[15] Justin Norrie, *Harvard Decries The High Cost of Journal Subscription, http://theconversation.edu.au/harvard-journal-subscription-fees-are-prohibitive-6659*, THE CONVERSATION, 24 April 2012. 2012.

[16] University of Illinois at Urbana-Champaign University Library, *The Cost of Journals, available at* http://www.library.illinois.edu/scholcomm/journalcosts.html.

[17] Greg Edwards, *Fed: Student Loan Debt Surpasses Auto, Credit card debt.*, ST. LOUIS BUSINESS JOURNAL (2013).

[18] Elliot Harmon, *U.S. News and World Report Examines the Growth of Open Education*(2013), *available at* http://creativecommons.org/weblog/entry/36366?utm_campaign=newsletter_1301&utm_medium=blog&utm_source=newsletter.

[19] University Library.

[20] JOHN WILLINSKY, THE ACCESS PRINCIPLE: THE CASE FOR OPEN ACCESS TO RESEARCH AND SCHOLARSHIP (The MIT Press. 2006). See the introduction where he noted that "the final five subscriptions which they could barely afford, did not include the leading journals on the institute's principal research interest,"

movement advocating for free unrestricted access to use and reuse peer-reviewed literature off the internet. Other precipitating factors include the academic culture of publish or perish,[21] the eagerness to increase impact factor on the side of authors in respect of their works,[22] the goal of sharing the knowledge of the poor with the rich and that of the rich with the poor,[23] as well as the pursuit to provide available platforms for the visibility, impact and accessibility of works originating in developing countries. Also included is the need by governments to be seen to be providing access to knowledge,[24] education for all and freedom of information in compliance with international best practices and probably one of the most compelling reasons is the desire to maximize the internet as a platform for knowledge dissemination. Regardless of the thoughts underpinning the idea to promote an open culture, a culture where peer-reviewed literature is freely and immediately available upon publication and in the broadest and most effective way, free from price, legal and technical restrictions, such thoughts have a bearing on four factors which I have identified with the acronym "SELP" referring to 'S' for Social, 'E' for Economic, L for Legal and P for Political. All four factors work hand in hand but the legal factor provides legality for what may be termed social inequality or social injustice. The frustration this breeds has been captured in most of the open access initiatives but particularly in the Guerrilla manifesto.

2.2. GUERRILLA

The philosophical basis for the pursuit of open access provides the rationale and the underpinnings of the movement which can be seen from the outcome of several meetings and initiatives that have moulded the way the movement has developed since the Budapest open access initiative in 2002.

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[21] Phil Davis, *Publish-or-Perish Culture Promotes Scientific Narcissism*, The Scholarly Kitchen, *available at* http://scholarlykitchen.sspnet.org/2012/05/07/publish-or-perish-culture-promotes-scientific-narcissism/.
[22] Stevan Harnad, et al., *The Access/Impact Problem and the Green and Gold Roads to Open Access*, 34 SERIAL REVIEW (2008).
[23] *Budapest Open Access Initiative at* www.opensocietyfoundations.org/openaccess/read
[24] See the following case studies which signify the effort of governments to enable access to knowledge in their respective countries. Ireland: The Transition to Open Access, available at http://www.pasteur4oa.eu/sites/pasteur4oa/files/resource/Ireland%20Case%20Study.pdf.
(2014);Education, Research and Open Access in Norway available at http://www.pasteur4oa.eu/sites/pasteur4oa/files/resource/Norway%20Case%20Study_0.pdf.
(2014);Hungary Open Access Case Study, available at http://www.pasteur4oa.eu/sites/pasteur4oa/files/resource/Hungary%20Case%20Study.pdf.
(2014);UK Open Access Case Study, available at http://www.pasteur4oa.eu/sites/pasteur4oa/files/resource/UK%20Case%20Study.pdf.
(2014);PASTEUR4OA/Case Study: Potugal Open Access Policy Landscape available at http://www.pasteur4oa.eu/sites/pasteur4oa/files/resource/Portugal%20Case%20Study.pdf.
(2014).

At this meeting held in Budapest on the 14th of February, 2002, the words *open access* was coined and it was agreed amongst other things that peer-reviewed literatures be made freely available via the internet through self-archiving or open access journals[25]. The Bethesda statement which came out of a meeting held on the 11th of April at the headquarters of Howards Hughes in Chevy, Maryland noted the need to promote the rapid and efficient transition to open access[26]. Similarly, the Berlin declaration which was the result of a meeting held on the 22nd of October 2003 in Berlin, noted that "Our mission of disseminating knowledge is only half complete if the information is not made widely and readily available to society"[27]. In a more radically inclined declaration, the Guerrilla Open Access Manifesto noted the power of information and that those with access to information must do something about sharing this information to those who do not have access. The manifesto decried the greed of corporations and calls on everyone to oppose the privatization of knowledge. The manifesto noted that "Information is power. But like all power, there are those who want to keep it for themselves…There are those struggling to change this. The Open Access Movement has fought valiantly to ensure that scientists do not sign their copyrights away but instead ensure their work is published on the Internet, under terms that allow anyone to access it… Those with access to these resources, students, librarians, scientists, you have been given a privilege. You have a duty to share it with the world.[28]"

Looking at all of these meetings it is clear that the stakeholders supporting and driving the movement are diverse including authors, researchers, funding agencies, universities, libraries, publishers, research institutions, other interested organisations and the user publics. The fact that there are many supporters and drivers is an indication that these different groups may approach the goal of free, immediate, broad and effective dissemination of knowledge to the general public from different perspectives. The goal may be the same but the rationale for the goal often differs and therefore the approach by the different groups to achieving the goal may also differ. Some supporters and drivers come to the table from an economic perspective[29], that is for reasons bordering on finances, others

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[25] Budapest Open Access Initiative. 2002.
[26] Bethesda Statement on Open Access Publishing, www.earlham.edu/~peters/fos/bethesda.htm. (2003).
[27] Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, http://oa.mpg.de/files/2010/04/berlin_declaration.pdf. (2003).
[28] Aaron Swartz, *Guerilla Open Access Manifesto*, Internet Archive(2008), *available at* http://archive.org/stream/GuerillaOpenAccessManifesto/Goamjuly2008_djvu.txt.
[29] John Willinsky, *The Stratified Economics of Open Access*, 39 ECONOMIC ANALYSIS & POLICY 53(2009).

come for social reasons[30], that is to promote the common good and respect for the dignity of the human person by providing the opportunity for all of mankind not only the right of access to knowledge but the actual access to knowledge via the platform of the internet. Others join the movement due to the frustrations the current legal regime allows and are working to either align the laws to current realities or to work around the laws using other mechanism for example licensing[31]. For some others, they come for political reasons that is, to achieve political ambitions by using such initiatives as tools for scoring political points and making promises to would-be voters[32]. Whatever the underpinnings of the supporters or drivers be it social, economic, legal or political, the end-user is happy to have immediate, broad, effective, free and unrestricted access to use and reuse peer-reviewed literature without the barriers of price, legal and technical restrictions.

This article examines these underpinnings in the minds of the varied supporters and drivers from a social, economic, legal and political perspective. An understanding of these underpinnings would enable better appreciation of the role open access can play in national development and would enable constructive engagements with these different groups in developing and re-developing strategies for the realisation of open access at all levels.

3. Social

3.1. UBUNTU

At the burial ceremony of Nelson Mandela, the President of the United States while giving his speech referred to an African word which he says encapsulates the life and person of Mandela. He said "There is a word in South Africa -- Ubuntu -- a word that captures Mandela's greatest gift: his recognition that we are all bound together in ways that are invisible to the eye; that there is a oneness to humanity; that we achieve ourselves by sharing ourselves with others, and caring for those around us".[33]

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[30] T. MASSARO, LIVING JUSTICE: CATHOLIC SOCIAL TEACHING IN ACTION 79-119 (Rowman & Littlefield Publishers. 2008). See chapter 5 on the 9 key themes of Catholic Social Teachings and the table of the nine keys at page 80.

[31] Jessica Litman, *Copyright Non-compliance (Or Why We Cant "Just Say Yes" to Licensing")*, 29 N.Y.U. J. INT'L L. & POL (1997).

[32] Cable Green, *British Columbia Government Lends Support to Open Textbooks at* http://creativecommons.org/weblog/entry/34566?utm_campaign=newsletter_1210&utm_medium=blog&utm_source=newsletter.

[33] EDWIN RUTSCH, OBAMA SPEAKS ABOUT UBUNTU & EMPATHY AT NELSON MANDELA MEMO (2013). Accessed on 23/01/2014 and available at http://www.youtube.com/watch?v=jiebOGRPPxg

The word "Ubuntu" means "humanity to others" the more popular meaning is "I am what I am because of who we all are".[34] It depicts that "your pain is my pain, my wealth is your wealth, your salvation is my salvation".[35] We are all intertwined through our humanity and as the word Ubuntu depicts, humans are interdependent. We are who and what we are because of who we all are. The African culture although very diverse is basically community based and has celebrated mutuality and connectedness for centuries.[36] No man is an island; man thrives best when he works in cooperation with others.[37] The spirit of the Ubuntu ideology was aptly captured by David Cameron when he said It's time we admitted that there's more to life than money, and it's time we focused not just on GDP, but on GWB - general well-being," … "Well-being can't be measured by money or traded in markets. It's about the beauty of our surroundings, the quality of our culture and, above all, the strength of our relationships… Improving our society's sense of well-being is, I believe, the central political challenge of our times.[38]

The essence of Ubuntu is exemplified in Amy Biehl's story.[39] Amy was a promising lady who graduate from Stanford University and had extensive work experience in the different continents of the world. Amy was the winner of a 1993 Fulbright scholarship which she dedicated to the establishment of a multiracial democracy in South Africa. She was an active member of the ANC and helped in registering voters for South Africa's first free elections. On the 25th of August 1993, Amy was killed in an act of political mob violence in Guguletu, a town outside of Cape Town. Four young men were arrested and sentenced to 18 years imprisonment. In honour of Amy's values for peace and reconciliation and in the spirit of Ubuntu, Amy's parent's supported the grant of amnesty to all four of the convicted killers. Today two of the four young men (Ntobeko Peni and Easy Nofemela) work at the Amy Biehl Foundation which was set up to address the challenges of violence. In the words of the Managing Director

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[34] Ubuntu, *The Ubuntu Story, available at* http://www.ubuntu.com/about/about-ubuntu/.

[35] Barbara Nussbaum, *African Culture and Ubuntu: Reflections of a South African in America*, 17 WORLD BUSINESS ACADEMY, PERSPECTIVES 1(2003).

[36] Kimmerle Heinz, *Ubuntu and Communalism in African Philosophy and Art*, ROZENBERG QUARTERLY MAGAZINE. See also, Barbara Nussbaum, *Reflections of a South African on our Common Humanity*, 4 REFLECTIONS 21(2003).

[37] See, Roy Jackson, *Aristotle on What it Means To Be Happy*, RICHMOND JOURNAL OF PHILOSOPHY, 2 (2007). "Aristotle is pointing out that man is not a solitary animal; he defines his happiness in terms of his relationships with others, that is his family, friends and fellow countrymen."

[38] Allegra Stratton, *David Cameron aims to make happiness the new GDP* theguardian *at* http://www.theguardian.com/politics/2010/nov/14/david-cameron-wellbeing-inquiry.

[39] Amy Biehl Foundation, *Amy's life and legacy, available at* http://www.amybiehl.org/amy.php.

of the foundation "They are a living embodiment of values, such as forgiveness, reconciliation and tolerance, which we strive to teach the youth of Cape Town through our work."[40] The spirit of Ubuntu is not one that condones violence or fragrant disregard of the law, rather it is one that is alive to the realities of violence and instead of responding to violence with violence or hatred, it stretches out the hand of forgiveness, love and sharing. It is this hand open access seeks to stretch out in the information hemisphere, the hand that shares instead of keeps, that opens instead of closes. A prayer offered over 800 years ago titled "make me an instrument of your peace" by Saint Francis reflects the Ubuntu spirit and goes to the root of what open access is.[41]

"Lord, make me an instrument of your peace. Where there is hatred, let me sow love; where there is injury, pardon; where there is doubt, faith; where there is despair, hope; where there is darkness, light; where there is sadness, joy.

O, Divine Master, grant that I may not so much seek to be consoled as to console; to be understood as to understand; to be loved as to love; For it is in giving that we receive; it is in pardoning that we are pardoned; it is in dying that we are born again to eternal life."

3.2. KOINONIA

Human flourishing is actually dependent in many ways on the quality of our relationships with one another. This is what the Greek word "Koinonia" connotes. It "is the selfless emersion into each other lives…It means to be a sharer, a companion, one who is a partaker, a participant in communion."[42] Life is best lived when it is shared. That is why the open movement advocates a sharing culture. A culture of koinonia, where participants selflessly immerse themselves into each other as sharers, companions and partakers. The Android technology which is an open source project led by Google is a living proof of the benefits, efficiency and effectiveness of sharing.[43] Interestingly, knowledge is given a tangible form because man decides to reveal what was hitherto hidden in the mind. The whole essence of revealing the unseen ideas in the mind is for others to appreciate and

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[40] Kevin Chaplin, *The Ubuntu Spirit in African Communities.*
[41] Christian Renoux, *The Origin of the Peace Prayer of St Francis by Dr. C. Renous, Associate Professr of the University of Orleans, Frances*(2001), *available at* http://www.franciscan-archive.org/franciscana/peace.html.
[42] Dan Grubbs, *More than Fellowship: Understanding Koinonia*, SermonCentral(2004), *available at* http://www.sermoncentral.com/sermons/more-than-fellowship-understanding-koinonia-dan-grubbs-sermon-on-discipleship-84103.asp.
[43] Android, *Welcome to the Android Open Source Project*, *available at* http://source.android.com/.

benefit from them. It is for it to be shared; otherwise, it could and indeed should have been left hidden from all others, locked up in the mind.

3.3. SHARING: A SOCIAL RESPONSIBILITY

Sharing the output of research findings can be the difference between life and death to somebody. Accessing a freely downloadable article or getting some open educational resources to help with a class assignment can be the difference between success and failure. Access to public sector information has the tendencies to bring about good governance, responsibility and accountability.[44] Sharing knowledge is paramount to development.[45] No other living being on earth has the privilege that man enjoys when it comes to knowledge creation and dissemination. We therefore owe it to ourselves as a social responsibility to share knowledge with one another, more so that knowledge is power[46]. The holy bible stressing the importance of knowledge tells us that people are destroyed for lack of knowledge[47]. Knowledge provides the requisite know-how and access is key to knowledge acquisition. Aaron Swartz captured this social responsibility succinctly in the Guerrilla open access manifesto when he said ""Those with access to these resources — students, librarians, scientists — you have been given a privilege. You get to feed at this banquet of knowledge while the rest of the world is locked out. But you need not — indeed, morally; you cannot — keep this privilege for yourselves. You have a duty to share it with the world."[48]

Aaron understood that we all have a duty, a responsibility to share knowledge because of the potential power it carries, because of its potency as a change agent and because of its revolutionary abilities. This was what motivated him to challenge everyone with access to information to share it with the rest of the world.

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[44] Judge Elizabeth, *Enabling Access to Public Sector Information in Canada*, *in* FROM RADICAL EXTREMISM TO BALANCE COPYRIGHT: CANADIAN COPYRIGHT AND THE DIGITAL AGENDA. 598, 601 & 603, (Michael Geist ed. 2010). "Public sector information, which is information created by government in the course of governing, is essential for transparency, accountability, democratic participation, and citizen engagement."

[45] See, Kunle Ola, *Evolution and Future Trends of Copyright In Nigeria*, 2 JOURNAL OF OPEN ACCESS TO LAW (JOAL) 1, 30 (2014). "Acquiring knowledge is therefore imperative for development and the currency to acquiring knowledge is access. No knowledge no development, no access, no knowledge."

[46] The World Bank, *World Bank Announces Open Access Policy for Research and Knowledge, Launches Open Knowledge Repository*(2012), *available at* http://www.worldbank.org/en/news/press-release/2012/04/10/world-bank-announces-open-access-policy-for-research-and-knowledge-launches-open-knowledge-repository.

[47] Hosea Chapter 4 Verse 6The Holy Bible : Authorized King James Version, containing the Old and New Testaments. 1984.

[48] Swartz. 2008.

Aristotle explaining the meaning and essence to life noted that "all men by nature desire knowledge"[49] and that the good life is what we all should aim for and that it is all about flourishing. He called it "Eudaimonia" a life that fulfils man's natural drive, (a drive which he identified as the search for knowledge), and drives them to the highest end[50]. In essence Aristotle advocates that we should live not just for ourselves but we should live in pursuit of the common good and "to speak of the common good is to recognise that there are numerous proper goals in life beyond our own private benefits. Responsible people look for opportunities to contribute to worthy causes and to improve society however possible, even when the benefits of this progress will go primarily to others.... Everyone has an obligation to promote the common good by making whatever contributions are necessary to improve the lives of all".**[51]**

This obligation may not be compellable or enforceable under the law but is a social responsibility which all well- meaning individuals must strive to meet. It must be focused on planning for the community as a whole and not for a limited class.[52] This is probably what was behind the minds of those gathered at the Bethesda meeting when they said "Our organizations sponsor and nurture scientific research to promote the creation and dissemination of new ideas and knowledge for the public benefit… This mission is only half-completed if the work is not made as widely available and as useful to society as possible…We adopt these policies in the expectation that the publishers of scientific works share our desire to maximize public benefit from scientific knowledge and will view these new policies as they are intended —an opportunity to work together for the benefit of the scientific community and the public".[53]

The wordings of the statement made at the Budapest open access initiative meeting also provides insightful knowledge when it says that one of the objectives of the open access movement is to provide a platform that would enable the sharing of the knowledge of the rich with the poor and the poor with the rich.[54] The interesting part of meeting this social obligation to share, and in this instance, sharing knowledge, is that it provides justification for the 'idea/expression dichotomy' (ideas do not enjoy

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[49] Aristotle, ((384 BC - 322 BC)), *available at* http://www.quotationspage.com/subjects/knowledge/.

[50] Jules Evans, *ARISTOTELIANS: What is Aristotle's Theory of Human Nature?*, *available at* http://philosophyforlife.org/philosophies-for-life/aristotelians/.

[51] THOMAS MASSARO, LIVING JUSTICE: CATHOLIC SOCIAL TEACHING IN ACTION 84 (Rowman & Littlefield. 2012).

[52] A.C PIGOU, SOCIALISM VERSUS CAPITALISM 9 (Macmillan and Co. Limited. 1937).

[53] Bethesda Statement on Open Access Publishing, www.earlham.edu/~peters/fos/bethesda.htm. 2003.

[54] Budapest Open Access Initiative. 2002.

copyright protection. It is the expression of those ideas that copyright protects) by reinforcing the fact that ideas are expressed to be shared[55].

3.4. GIVE AND IT SHALL BE GIVEN UNTO YOU

In the book of Luke at the sixth chapter and thirtieth verse (Luke 6:38) it says, "Give, and it shall be given unto you; good measure, pressed down, and shaken together, and running over, shall men give into your bosom. For with the same measure that ye mete withal it shall be measured to you again."[56] King Solomon in the book of wisdom at Proverbs 11:24-25 emphasizes the wisdom of sharing freely above undue restrictions and says that "One person gives freely, yet gains even more; another withholds unduly, but comes to poverty. A generous person will prosper; whoever refreshes others will be refreshed".[57] It is in sharing that humanity finds true fulfilment and development. Margaret Wheatley corroborates this point in "The Paradox and Promise of Community" a chapter in her book "Finding Our Way, Leadership for an Uncertain Time."[58]

The open access movement builds on the above principles by encouraging the sharing of scholarly works. The greater the works shared the higher its visibility, citation and impact.[59] Therefore the author who gives out a work for free will definitely receive some form of reward. The work will come back but this time it may have been reused, modified or adapted (*pressed down, shaken together and running over*). Ken Smith in Free is Cheaper discusses the inhumanity of man to man but however notes that the "urge to co-operate freely is as old as the human race."[60] Isaac Newton appreciated the essence and importance of sharing and expressed it this way, "if l have seen further it is by standing on the shoulders of giants".[61] He could stand

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[55] FITZGERALD, et al., 80. 2006.

[56] THE HOLY BIBLE : KING JAMES VERSION (Hendrickson Bibles. 2011).

[57] The Holy Bible: New International Version (NIV). 1978.

[58] M.J. WHEATLEY, FINDING OUR WAY: LEADERSHIP FOR AN UNCERTAIN TIME (LARGE PRINT 16PT) (ReadHowYouWant.com, Limited. 2010). "We human beings have a great need for one another...Our great task is to rethink our understandings of community so that we can move from the closed protectionism of current forms to an openness and embrace of the plenetary community...This cooperation is spawned from a fundamental recognition that nothing can exist without the other, that it is only in relationship that one can be fully one's self. The instinct of community is everywhere in life"

[59] Tim Brody, et al., *Incentivizing the Open Access Research Web. Publication-Archiving, Data Archiving and Scientometrics*, 3 CTWATCH QUARTERLY 42(2007). "It has now been repeatedly demonstrated that making publications OA by self-archiving them in an OA IR dramatically enhances their research impact."

[60] K. SMITH, FREE IS CHEAPER {Introduction page] (John Ball Press. 1988). See the Introduction of Chapter 1

[61] Isaac Newton, *From a letter written by Isaac Newton to Robert Hooke, 5 Feb. 1676*, (1676).

on their shoulders because they provided the needed access. The open access movement is advocating that this generation of giants provide the needed access and not hide their shoulders but should allow, permit, authorise and provide the needed platforms and opportunities for others to see further by sharing the use of their shoulders.

4. Economic

4.1. GLOBAL INEQUALITY-GREED

The scale of global inequality is staggering. It was reported that 48% of global wealth was owned by the richest 1%. $1.9 trillion wealth of 80 top billionaires is equal to the bottom 50% of the rest of the world. There has been a $600bn increase in wealth for 80 top billionaires in 4 years, comprising a 50% rise and there has been a $750 billion drop in wealth for the poorest 50% of the world in 4 years.[62] The above report reveals that the financial purchasing capacity of the average global citizen is on the decline and this is affecting every kind of commodity inclusive of knowledge products which are vital to development. This global economic inequality is depriving many of a fundamental right, the right to access knowledge and as pointed out by the Guerrila open access manifesto, "Only those blinded by greed would refuse to let a friend make a copy… Large corporations, of course, are blinded by greed. The laws under which they operate require it, their shareholders would revolt at anything less."[63] The above words reflect the mind of certain proponents of open access who believe that greed is one of the underlying factors that have enabled the continued lock up of access to knowledge.

There is the capitalist argument that people need to be incentivized for hard work and individual initiative and that competition brings out the best in people.[64] This postulation has brought about great innovations, creativity, employment and great opportunities but at the same time it as widened the divided between the rich and poor, between those who have access and those who are unable to obtain access. It is not always about gain, about money, about how much one acquires. If the meaning of life were tied to

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[62] BBC News Business, *Richest 1% to won more than rest of the world, Oxfam says*(2015), *available at* http://www.bbc.com/news/business-30875633.

[63] Swartz. 2008.

[64] B.R. SCOTT, CAPITALISM: ITS ORIGINS AND EVOLUTION AS A SYSTEM OF GOVERNANCE (Springer. 2011).

The extraordinary capacity of capitalism to facilitate the mobilization of human energy through a process of organised competition within markets is a prime force in the improvement in incomes and human welfare, and supportive of democracy. But the motivational power of competition depends upon the fact that consumers reward preferred suppliers with their business and, accordingly, reward the winning suppliers more than the losers.

wealth, King Solomon in Ecclesiastics 5:10 with all his wealth would not have said "those who love money will never have enough. How meaningless to think that wealth brings true happiness". Steve McKnight reinforcing Solomon's statement noted that "I have more money than most you will ever make in our lifetime. So trust me when I say to you, money will never meet the deepest need or your soul."[65] As noted earlier while discussing Ubuntu, meaning is found in sharing and that is why the open community is making great strides through sharing and are yet able to find business models which run concurrently. The examples of Android,[66] Apache,[67] Ubuntu,[68] Linux,[69] SUSE,[70] and Creative Commons licences[71] are all examples of knowledge products that are developed based on communal cooperation and are shared freely yet the organisations behind managing these products have been able to work out business models for the effective running of their organisations.

4.2. ADAM SMITH (1723-1790)

In his book the Wealth of Nations had postulated "the invisible hands"[72] and noted that individual self-interest constitutes a major motivating factor for the production and acquisition of goods and services. He referred to butchers and bakers who use their discretion in determining the amount to produce and points out that this power of discretion is made possible because of a free market economy which he relates to his classical economics theory.[73] The theory postulates that a "laissez-faire attitude by government toward the market place will allow the invisible hand to guide everyone in their economic endeavors, create the greatest good for the greatest number of people, and generate economic growth."[74] This capitalist theory is what prevails in the global economy today.

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[65] Steve McKnight, The Futility of Wealth available at https://www.propertyinvesting.com/wealth/.

[66] Android, *The Android Source Code*, *available at* https://source.android.com/source/index.html.

[67] Apache, *The Apache Software Foundation: Community-led development since 1999, available at* http://www.apache.org/.

[68] Ubuntu.

[69] Linux, *Introduction to Linux, Free Software and Open Source*, *available at* http://linux.org.au/introduction-linux-free-software-and-open-source.

[70] SUSE, *About SUSE*, *available at* https://www.suse.com/company/open-source/.

[71] (CC) Creative Commons, *About the Licenses*, *available at* http://creativecommons.org/licenses/.

[72] A. SMITH, WEALTH OF NATIONS 288 (Hayes Barton Press. 2001).

[73] Infoplease, *Overview of Economics*, *available at* http://www.infoplease.com/cig/economics/three-economists-their-theories.html.

[74] T. GORMAN, THE COMPLETE IDIOT'S GUIDE TO ECONOMICS 58 (Alpha. 2003).

4.3. KARL MARX (1818-1883)

Karl Marx did not share Smith's theory on capitalism. Whereas Smith saw capitalism as a motivating agent in individuals, Marx saw it as exploitation. In his 1867 Das Kapital, he noted that capitalist's derive their gains from an exploitative system and explained that they under pay workers for the value of work done.[75] Marx posited that capitalism breeds exploitation and leads to class struggle.[76] He predicted that this same struggle will lead to the demise of capitalism.[77] He noted that as business entities increase production capacity and profit margins rise, the rich get richer and poor poorer thus breeding dissatisfaction, oppression and exploitation. This underscores today's situation where 1% of the wealthiest control about 50% of the global wealth.

4.4. ECONOMIC REALITIES VERSUS IMPERATIVES FOR FREE

The publishing cycle costs money and entails multiple processes consisting of peer-review by editors, typesetting, printing, distribution and marketing.[78] This process can be cost intensive and most authors and researchers may not be in the position to fund the actual publication of their works.[79] When the practice of journal publication began, it served as the major avenue for disseminating literary scholarly works and this system for knowledge dissemination has grown through the years.[80] Technological development has however enabled easier and faster publication of copyright protected content and the structure that has existed where authors write and publishers invest in publishing was effective until two issues began to raise their heads. The first was the continuous rise in journal subscription fees and the other was the emergence of the Internet.[81]

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[75] K. MARX, et al., DAS KAPITAL: A CRITIQUE OF POLITICAL ECONOMY 174, 178 & 190 (Regnery Gateway. 1996).

[76] Woods Alan, *The Ideas of Karl Marx* International Marxist Tendency (IMT) *at* http://www.marxist.com/karl-marx-130-years.htm.

[77] MARX, et al., xvi. 1996.

[78] See Page 12, The STM Report, An overview of scientific and scholarly publishing. (2012)."Here research information, created by an author from a particular research community, passes through the journal editorial office of the author's chosen journal to its journal publisher, subscribing institutional libraries – often via a subscription agent – before ending up back in the hands of the readers of that research community as a published paper in a journal.

[79] University Library.

[80] See, Philosophical Transactions of the Royal Society of London (or Phil. Trans.). 1665. See also, Le Journal des Sçavans. 1665. See also, *The History of Journal Publication, available at* http://www.journal.au.edu/au_techno/2008/jan08/journal113_editorial.pdf.

[81] BRIAN FITZGERALD, et al., INTERNET AND E-COMMERCE LAW BUSINESS AND POLICY 5 (Thomson Reuters. 2011).

4.5. HIGHER SUBSCRIPTION FEES & THE INTERNET

The publishing industry has grown to become one of the most successful lines of businesses.[82] What started out as an activity for the promotion of learning has now turned into a capitalist venture and a business empire with the central theme being that of generating the highest possible revenue.[83] In one breathe, it can be explained that, that is the focus of all business enterprises but on the other hand, it is pertinent to note that the commodity in which the industry trades is a commodity they receive at no cost and those who provide the expertise to improve and analysis the quality of these products do it also at no cost.[84] The peer-review process which authenticates the quality of the work is made possible by the duo effort of authors and editors both of whom are from the academic and research community and both of whom render such services at virtually no cost[85]. This came to the fore when those providing the content for the development of the publishing industry began finding it difficult to access needed research materials due to high cost of journal subscriptions and technical restriction that had been placed on contents through the aid of technologically protected measures and electronic rights management.[86] The challenges of inability to access requisite materials to expand the scope of research had become a matter of concern. There was therefore the need to work out a modality for effective access to needed research materials.

At the heel of all these, the Internet with its many potentials became a viable alternative to the current structure that was already a monopolistic monster. The preprint service ArXiv[87], started by Paul Ginsparg in 1991, in the field of Physics and the Education Policy Analysis Archives started in 1993[88], by the Statistician, Gene Glass are examples of how the internet even back then was not only considered but actually deplored as a one stop

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[82] Livres Hebdo, *The Global Ranking of the Publishing Industry 2014*, Rüdiger Wischenbart Content and Consulting(2014), *available at* http://wischenbart.com/upload/Global-Ranking-of-the-Publishing-Industry_2014_Analysis.pdf.

[83] International Publishers Association IPA, *Annual Report October 2013|October 2014*(2014), *available at* http://www.internationalpublishers.org/images/stories/news/AnnualReport.pdf.

[84] PETER SUBER, OPEN ACCESS 17, 19 (MIT Press. 2012).

[85] David Solomon, *The Role of Peer Review for Scholarly Journals in the Information Age*, 10 THE JOURNAL OF ELECTRONIC PUBLISHING (JEP) (2007).

[86] WIPO, *WIPO Internet Treaties*, *available at* http://www.wipo.int/copyright/en/activities/wct_wppt/wct_wppt.html. See also, Brian Gutterman, Internet as a catalyst for change: access, development, freedoms and innovation. (Internet Governance Forum (IGF) 2011).

[87] Cornell University Library, *arXiv.org*, *available at* http://arxiv.org/.

[88] *Education Policy Analysis Archive*, University of Arizona, *available at* http://asu.academia.edu/EPAAAAPE.

shop for knowledge development, dissemination and preservation. They are both still functioning as at the time of this writing.

The meeting held at Budapest captures the thoughts of open access promoters. At the meeting, it was noted that "An old tradition and a new technology have converged to make possible an unprecedented public good. The old tradition is the willingness of scientists and scholars to publish the fruits of their research in scholarly journals without payment, for the sake of inquiry and knowledge. The new technology is the internet."

So, we see the frustration within the research community met by the possibilities offered by a new invention to resolve in no small way the said frustration. However, an industry that had thrived for hundreds of years would not seat back and allow herself to be relegated or displaced. The hundreds of people employed in that sector, the investors who profit from its continued existence and the structures that are in place would not fold their hands and go into oblivion. It therefore is only reasonable to consider that, if this new technology is able to enable global online distribution of peer-reviewed literature free of charge and without any form of access restriction to the user public, how will this new initiative built on the shoulders of this new invention called the internet, affect the economic well-being of the traditional publishing industry? As can be imagined, the economic factor, the capitalist spirit, the invisible hand referred to by Adam Smith will rise up to protect its territory and even annex more.

It is important to give some thoughts to these economic concerns, considering the high returns on investment that has been recorded in the publishing industry. These high financial returns imply that, there are interests to be protected. This is why the open access movement provides for Article Processing Charges (APC) to cover the cost of publication production in the open access environment.[89] The CEO of Springers in an interview put it this way "our policy is very simple: as long as the cost of the value-added services provided by publishers is recognized and covered, Springer is happy to provide the research community with an open access publishing option".[90] The need to find a balance between the quest for profit and the provision of access to knowledge underscores an economic rationale for open access.

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[89] BioMed Central, *Article-Processing Charge*, BioMed Central, *available at* http://www.biomedcentral.com/authors/apc.
[90] Springer, *Interview with Derk Haank on Open Access*, *available at* http://www.springer.com/societies+%26+publishing+partners/society+%26+partner+zone?SGWID=0-173202-12-489299-0.

4.6. OA WILL ADVERSELY AFFECT TRADITIONAL PUBLISHING

The fears however, that freedom to access peer-reviewed literature at no cost or restriction to the users would adversely affect the publishing industry has been proved wrong. It is now 23 years since Arxiv was established and it has not adversely affected the revenues of journals publishing in the field of physics[91].

4.7. OA IS NOT A VIABLE PUBLISHING BUSINESS MODEL

The fears that open access publishing cannot be economically viable has been disproved by the successes of BioMed Central, its acquisition by the second largest commercial publishers Springer[92], and the continued establishment of more open access publishing outfits. The concept of free, unrestricted and immediate access to the peer-review literature is not merely a social oriented ideology but also a new business model running on the possibilities enabled by the Internet and now asserted by the successes of several open access publishers.[93]

4.8. RIVALROUS AGAINST NON-RIVALROUS

In the pre-digital era, printed materials such as peer reviewed literatures became books, articles, pamphlets and were basically printed on materials which became visible and tangible objects. These objects could only be used one at a time. It would be impossible for the same book to be in two places at the same time or for two persons to use it at the same time. In that sense they were rivalrous goods, that is, goods that can only be consumed or enjoyed one at a time, or goods which when used reduces in value, quantity or quality. The digital era has altered this position and has enabled the simultaneous production, reproduction, usage and enjoyment of printed materials, thus moving such works into the category of non-rivalrous goods, which are goods which when simultaneously utilised do not diminish in value.[94] Examples of non-rivalrous goods are air, public roads,

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[91] See Willinsky, ECONOMIC ANALYSIS & POLICY, 59 (2009).noting that "the publishers of the relevant physics journals reports that after more than a decade of a substantial portion of their content being archived, they have no greater decline in journal subscriptions than they are experiencing more generally"

[92] See Springer, *Springer Acquires BioMed Central Group*, *available at* http://www.springer.com/authors/author+zone?SGWID=0-168002-12-563100-0.Where
Derek Haank, CEO of Springer said "This acquisition reinforces the fact that we see open access publishing as a sustainable part of STM publishing, and not an ideological crusade" and also where matthew Cockerill noted that " …BioMed Central has demonstrated that the open access business model can work…"

[93] Willinsky, ECONOMIC ANALYSIS & POLICY, (2009).

[94] Peter Suber, *Knowledge as a Public Good*, SPARC(2009), *available at* http://www.sparc.arl.org/resources/articles/knowledge#sthash.R1nBSlQF.dpuf. Where he

public libraries and water in the sea. These goods can be utilised simultaneously without reducing its value or quantity; the use of such goods by Mr. A would not deprive Mr. B from utilising the same good.

From an economic perspective, goods that are rivalrous in nature are depletable and therefore require replacement with cost implications and other cost effects. On the other-hand non-rivalrous goods are generally non-depletable and thus regardless of the number of users or the quantum of usage, the goods are still available. If regardless of the quantum of use of a good, such goods will still be available and it is clear that such goods are important, it is not only a social responsibility to make such goods available but there is also an economic imperative to make it accessible at a zero cost or a cost closest to zero and just as the CEO of Springer noted, that so long as the costs associated with the added value on the goods have been taken care of, then open access can be provided to the general public.[95] The cost associated with the added value mentioned above is what those at the BOAI committed to defray within reasonable standards. The Article Processing Charges business model has been introduced to cover the costs of production. These charges basically move the onus of payment from the user publics to other sources of payment such as universities, funding agencies and in very few occasions' individual authors.

There is no doubt that there will be economic implications as a result of open access. The implications are just not that of the non-feasibility of an open access publishing model neither is it that open access will adversely affect the subscription base of journal articles. These fears have been addressed by the continued successes of BioMed Central and the parallel

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noted that "a public good is non-rivalrous and non-excludable. A good is non-rivalrous when it's undiminished by consumption. We can all consume it without depleting it or becoming "rivals". Radio broadcasts are non-rivalrous; my reception doesn't block yours or vice versa…Knowledge is non-rivalrous. Your knowledge of a fact or idea does not block mine, and mine does not block yours."

See also, Bill cope & Mary Kalantzis, *Signs of epistemic disruption: Transformations in the knowledge system of the academic journal at* http://www.firstmonday.dk/ojs/index.php/fm/article/view/2309/2163. Where it was noted that: "And on the distinction between rivalrous and non–rivalrous goods, the key theoretical problem is to base one's case on the circumstantial aspects of knowledge consumption rather than the practical logistics of knowledge production. Rivalrous and non–rivalrous goods equally need to be made. They cost their makers labour time, time which otherwise could be spent making buildings or food. Ostensibly non–rivalrous goods also need physical spaces and tools and storage devices and distribution networks, and these all have to be made by people who need buildings and food. In these fundamental respects, knowledge or cultural goods are not so different from any other goods. In fact, knowledge and material domains are not so neatly separable. Buildings and food have design in them (and when we go to architects and restaurants we are in part purchasing intellectual property). Equally, all cultural products have to be made, delivered and rendered materially."

[95] Springer, Interview with Derk Haank on Open Access.

existence of Arxiv and other journals in the field of physics. Derk Haank captured it succinctly when he opined that "Personally, I do not believe that open access will ever totally replace the subscription model, but I am more than happy to be proved wrong. I do believe, however, that STM publishers will continue to play a vital role as partners to the research community, as long as we make every effort to give the scientific community what it wants, rather than simply telling it what we are willing to provide.[96]" The effort he referred to is where the economic implication comes in, the implications associated with finding a new business model and committing to human resource development to satisfy the scientific and research community rather than holding to old models which are now obsolete and non-desirable by the user publics.

5. Legal

No society is static…When the behaviour of people has moved away from the law with a sufficient degree of permanence, tensions arise with varying results. The law itself may be stretched to take account of the development, or it may be ignored until it becomes a dead letter, or it may be repealed and a new law substituted. In these ways evolution gives direction to future development[97]

Change is inevitable. The tools of communication available in this generation exemplified by social media platforms such as Skype, Facebook, WhatsApp, YouTube, Twitter, Instagram and many others have changed the landscape of society and has brought in new dimensions to human relationships. Technological changes appear to be way ahead of the law and the law is not responding promptly to these changes, thereby leaving gaps between the law and societally accepted practices.[98] Many of today's global citizens are not ready to sit back and wait for the legal system to change. They see some of the current laws as impracticable and unrealistic and as Litman observed, "People don't obey laws that they don't

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[96] Id. at.

[97] See Chapter 15 on Justice in adapting to change by, R.W.M. DIAS, JURISPRUDENCE 305 (Butterworths. 1985).

[98] L. LESSIG, FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY 199 (Penguin Press. 2004).
"Overregulation stifles creativity. It smothers innovation. It gives dinosaurs a veto over the future. It wastes the extraordinary opportunity for a democratic creativity that digital technology enables. In addition to these important harms, there is one more that was important to our forebears, but seems forgotten today. Overregulation corrupts citizens and weakens the rule of law. The war that is being waged today is a war of prohibition. As with every war of prohibition, it is targeted against the behaviour of a very large number of citizens. According to The New York Times, 43 million Americans downloaded music in May 2002.15 According to the RIAA, the behaviour of those 43 million Americans is a felony. We thus have a set of rules that transform 20 percent of America into criminals"

believe in. It isn't necessarily that they behave lawlessly, or that they'll steal whatever they can steal if they think they can get away with it. Most people try to comply, at least substantially, with what they believe the law to say. If they don't believe the law says what it in fact says, though, they won't obey it -- not because they are protesting its provisions, but because it doesn't stick in their heads. Governments stop enforcing laws that people don't believe in. Laws that people don't obey and that governments don't enforce get repealed, even if they are good laws in some other sense of the word".[99]

This section will consider the reactions of Aaron Swartz and Edward Snowden to the legal system and discuss other legal dimensions to the society in light of the open access movement.

5.1. AARON SWARTZ

Aaron did not believe the law represented the interest of the ordinary people, he did not see any hope in sight through legislative channels and therefore encouraged everyone to take the law into their hands by downloading as much information as they could and make it available to the world on the Internet. In his 2008 Guerrilla Open Access Manifesto he noted that "We need to take information, wherever it is stored, make our copies and share them with the world. We need to take stuff that's out of copyright and add it to the archive. We need to buy secret databases and put them on the Web. We need to download scientific journals and upload them to file sharing networks. We need to fight for Guerrilla Open Access.[100]" This is exactly what he eventually did through the MIT website when he downloaded copyright protected contents belonging to JSTOR which lead to his prosecution and eventually to him committing suicide on the 11th of January 2013[101].

5.2. EDWARD SNOWDEN

In a similar action, we see Edward Snowden leaking out classified Intelligence information to the entire world and basing his action on the failure of the system to respect the ordinary citizens' right to freedom of information and privacy. Snowden who himself worked as an intelligence officer had seen the scale of surveillance on the ordinary citizen, businesses and foreign governments and had become agitated by the happenings. His

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[99] Litman, N.Y.U. J. INT'L L. & POL, (1997).
[100] Swartz. 2008.
[101] Paul McGeough, *Aaron Swartz: a beautiful mind*, The Sydney Morning Herald(2014), *available at* http://www.smh.com.au/technology/technology-news/aaron-swartz-a-beautiful-mind-20140127-31hjr.html.

hope for some form of reforms was not coming and he like Aaron Swartz decided to take laws into his own hands. It was noted that
"He got hardened. In other words, the more information he saw about what he viewed as ... mass surveillance, the more disillusioned he became. He says quite explicitly that he thought that (President Barack) Obama would roll back some of these programs when he came into the White House, and when this didn't happen, essentially Snowden decided he would take things into his own hands, and become a whistle-blower," the author said."[102]

In what has been described as US worst disclosure, he leaked out sensitive intelligence information causing political and diplomatic instabilities and it is said that the worst is yet to come.[103]

Prominent figures like Dr King and Mahatma Ghandi have advocated that when the laws are unjust, disobedience is a social responsibility. Whilst they both did not advocate violence, they noted that unjust laws are themselves species of violence. On the contrary side were philosophers like Thomas Aquinas, Plato, Socrates and Aristotle who all noted that laws may be unjust but obedience is the best way to preserve and maintain an orderly society.[104]

5.3. THE LAW IS AN ASS[105]

When Mr Brumble was told that the court supposes his wife acts according to his instruction, he responded that if the law supposes so, then "the law is a ass- a idiot".[106] The above phrase in the popular book, Oliver Twist by Charles Dickens points out the law has the propensity to exhibit some stupidity and rigidity.

The open movement is about responding to the need for greater access and where possible completely free access to knowledge, information, education, government and all things that should belong to the ordinary citizen. The OA movement recognises the frustration of researchers and users in gaining access to peer-reviewed literature and identifies that some

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[102] Mark Morgenstein, *Edward Snowden: World's most wanted man, says new book* CNN(2014), *available at* http://edition.cnn.com/2014/02/02/world/europe/uk-snowden-book/.
[103] Wikipedia, *Edward Snowden*, *available at* http://en.wikipedia.org/wiki/Edward_Snowden.
[104] Simona Vieru, *Aristotle's Influence on the Natural Law Theory of St Thomas Aquinas*, 1 THE WESTERN AUSTRALIAN JURIST (2010).
[105] The phrase has been attributed to an English dramtist,George Chapman in 1654 - Revenge for Honour. See Gary Martin, *The law is an ass*, *available at* http://www.phrases.org.uk/meanings/the-law-is-an-ass.html.
[106] C. DICKENS, OLIVER TWIST 279 (Richard Bentley. 1839).

interest groups have utilized the current legal system as a tool for locking up access.

The crux of the challenge with the legal system is that laws are reactionary in that they are drafted to deal with current and past issues but not future issues. The dynamic and changing nature of society however leaves citizens in dilemma as a result of the gaps between the law and new societal norms. This is what Lessig referred to when he noted that the current copyright legal framework which is over 300 years old has criminalised today's generation (the internet and social media generation) who see downloading and sharing of files (music, video and pictures) as a normal part of everyday life.[107]

As exemplified in Oliver Twist's story, the OA movement recognises that the law can be an ass and notes that if the law is being deployed to serve the selfish interest of a few to the detriment of the generality, then the generality can also deploy the same law to work in their interest. This is exactly what the open access movement has chosen to do and that is why Peter Suber has noted that while he supports the legally correct aspect of the Guerrilla open access manifesto, he is not in support of the illegal aspects, and this is because, open access has not been structured to run and thrive on illegality. Open access respects the current legal framework that controls information and actually builds on that same framework to now provide open access to the information that was before now locked up. Suber expressed it this way when he said "I support all the legal tactics recommended here (and then some) and none of the illegal tactics. It's legal to self-archive and it's legal to make public-domain texts OA. It's not legal to make copyrighted texts OA without the copyright holder's permission, even if you paid for your own copy"[108]

The laws could be frustrating and compliance often constitutes a problem when these laws appear unreasonable and non-representative of the people. That appears to have been the dilemma of both Aaron and Edward but frustration is no licence for conscientious disobedience but rather it should stir a prompting for radical but positive change. Seeing that the law is an ass and is amenable to different situation, the law can be stirred in the direction of open. This is definitely not an easy task as the stir towards

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[107] LESSIG, 207. 2004. See where he noted that "When forty to sixty million Americans are considered "criminals" under the law, and when the law could achieve the same objective—securing rights to authors—without these millions being considered "criminals," who is the villain? Americans or the law? Which is American, a constant war on our own people or a concerted effort through our democracy to change our law?"

[108] Peter Suber, *Guerilla OA*, Open Access News(2008), *available at* http://legacy.earlham.edu/~peters/fos/2008/09/guerilla-oa.html.

open is a stir against the current legislative current and change is often not easily achieved. Nonetheless, progress is already being made in this direction with initiatives like open licencing. Although it has not changed the laws but it has stirred the law in its direction by turning around to positive, the erstwhile negative powers inherent in Copyright. Based on this initiative it is able to revolutionise the software and content industries. This is the path to be taken and it promises tremendous changes.

5.4. INFORMATION LEGAL STRUCTURE & COMPLIANCE

The dynamics of knowledge is governed by certain rules. These rules determine ownership, transfer, reproduction, distribution and basically use and reuse rights when it comes to products of knowledge or content. An important part of knowledge which forms the backbone of academic development is peer-reviewed literature. The quality analysis and distribution mechanism for peer-reviewed knowledge is carved around writing, editing, peer-review and publication. These activities which are undertaken by authors, editors, referees, publishers, funding agencies, universities and of course the user-publics are governed by structures protecting amongst other things the creative endeavours of copyright owners under a legal framework called Intellectual Property and more directly, Copyright. This framework is now over 300 years old and is facing several challenges especially that of technological change which in turn has affected the behaviour and attitude of the user-publics.

In 1710 when the Statutes of Anne was passed, the author or copyright owner enjoyed the rights of reproduction, importation and distribution.[109] The task of reproducing literary works was laborious, difficult, time consuming and error prone. The rivalrous nature of literary works prior to the advent of the internet made it such that literary works had to be utilized one after the other and the only way to maximize use of such literary works was by means of reproduction. Reproducing a work allows for multiple copies of such works and thereby enables several users' access to the same content. The right of reproduction is one of the exclusive rights of an author or a Copyright owners and it constitutes exploitation of a work. The birth of Copyright has been linked to a dispute that had to do with the reproduction of a literary work. Finnanin who had just obtained a copy of the Bible loaned it to Columcille who was later accused of copying the Bible without the consent of Finnanin, the owner. King Diarmund in making his declaration said "to every cow her calf; and to every book its copy."[110]This

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[109] Statute of Anne, 8 Anne c. 19 (1710).
[110] Kunle Ola, *Fundamentals of Open Access*, 36 E.I.P.R 112, 25 (2014). See also, Thomas Cahill, How The Irish Saved Civilization, Anchor Books, Doubleday, New York, New York, 1995, p.14. 170.

decision reinforces the fact that acts of reproduction are within the exclusive rights of a copyright owner.

The legal architecture which structured copyright law and gave copyright owners exclusive powers to restrict all others from reproducing their works or books where consent was not obtained, was at the time appropriate to the printing technology of the day. At that time, the generality of people would not have had any problem complying with the laws as it did not affect all of the public, but rather a select few involved in the business of printing and reprinting. Compliance to the provision of the law was therefore not a problem from the technological standpoint and from the standpoint of the general public's adherence and acceptance of the appropriateness and rationality of the laws. However, in today's internet and technologically driven society, reproducing a copyright protected content has become very easy and has taken a new face. It is no more the manual transcription of documents, neither is it just the printing of documents via the printing machine, it has assumed a new dimension. The typewriter, photocopier, fax machine, tape recorder, video player recorder, the desktop, laptop and the many variants of handheld devices have brought in entirely new dimensions to reproduction and in turn the exercise of the right of reproduction in unprecedented manners.

In 1710, reproduction was within the exclusive preserve of a few entrepreneurs but today, reproduction has become a normal and subconscious part of daily activities considering that every act of download on a laptop, mobile phone, PC or any handheld device amounts to reproduction. The community of printers, re-printers, publishers and marketers who used to control the business of reproduction is facing a new order. An order in which the general public has now joined the community of printers, re-printers, publishers and marketers and can now deal directly with and on the content, they before now relied on the old community to provide. Technological advancement bringing in innovations like the computer and the Internet is what has enabled this new order.

The new order has turned everyone, inclusive of children into potential writers, printers, publishers and marketers and has in some ways taken away the three-layered structure that entailed authors, publishers and the user publics and has replaced it with a two-layered structure entailing authors and users, thus potentially doing away with publishers. A problem however exists and it is that the laws governing information management and distribution is governed by copyright laws, laws which as stated above are currently over 300 years old and were built on technology and practices which have changed drastically. The laws as they then were could not have contemplated the technological possibilities that exist today. Considering

when the laws were passed, the changes in technology and in the perception of people, compliance has become an issue and worse still; the people do not see the appropriateness of the laws.[111] There is a disconnection between the written provisions of the law and the daily realities of people living in a digital world and hence the words of Aaron saying "There is no justice in following unjust laws. It's time to come into the light and, in the grand tradition of civil disobedience, declare our opposition to this private theft of public culture." Similarly, this is why the whistle blower, Edward Snowden would knowingly break the laws and say "I have no intention of hiding who I am because I know I have done nothing wrong"[112]and that the "moral decision to tell the public about spying…has been costly, but it was the right thing to do and I have no regrets."[113]

The nobility of the actions of these men is not in doubt nor is it in question, but it however does not negate the fact that the law declares such acts illegal. The dilemma is that of non-compliance due to a failure in the system and that of non-believe in the reasonability and sensibility of the laws.[114]

5.5. LAW REFORMS

Attempts to restructure copyright have only seen copyright laws being strengthened in favour of copyright owners. The ascendance of the TRIPS agreement and other bilateral agreements have only strengthened IP rights

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[111] Lessig Lawrence, *The Vision for the Creative Commons. What are We and Where are We Headed? Free Culture*, *in* OPEN CONTENT LICENSING: CULTIVATING THE CREATIVE COMMONS
 42-43, (Fitzgerald Brian ed. 2007).See where he said 'They are doing it today by rendering this activity illegal and by doing this we say to our kids "you are criminals when you engage in this behaviour". We raise a generation who thinks their activity is criminal. These children... will learn something different about democracy if they think that activities that seem to them to be totally obvious and totally creative and totally productive, are called, by the great Soviet, 'criminal'.'
[112] Glenn Greenwald, et al., *Edward Snowden: The whistleblower behind the NSA surveillance revelations*, The Guardian(2013), *available at* http://www.theguardian.com/world/2013/jun/09/edward-snowden-nsa-whistleblower-surveillance.
[113] Barbara Miller, *Fugitive Edward Snowden meets with human rights groups at Moscow airport*, ABC News(2013), *available at* http://www.abc.net.au/news/2013-07-12/snowden-meets-with-human-rights-groups/4817674.
[114] J. LITMAN, DIGITAL COPYRIGHT: PROTECTING INTELLECTUAL PROPERTY ON THE INTERNET 29, 112 (Prometheus Books. 2006).Members of the general public commonly find copyright rules implausible, and simply disbelieve them…the copyright law is complicated, arcane, and counterintuitive, and the upshot of that is that people don't believe the copyright law says what it does say. People do seem to buy into copyright norms, but they don't translate those norms into the rules that the copyright statute does; they find it very hard to believe that there's really a law out there that says the stuff the copyright law says

and has made it a necessity for criminal sanctions to be introduced into virtually every national Intellectual Property legislation, thereby criminalising more and more the unapproved exploitation of content by the general public. This really should not come as a surprise and it is because the whole concept of copyright is esoteric and not very general public friendly[115]. Most people do not understand what it is all about and have generally accepted whatever is told to them. This system of general acceptance of what was passed down was acceptable when the exploitation of content (reproduction, distribution, and marketing) was within the control of a few. But today, everyone with a laptop and an internet enabled mobile phone is involved in numerous acts of reproduction on a daily basis and it is quite difficult to expect such number of persons' to merely accept a rule that requires them to go and seek permission from the copyright owner who they may not know and if they do, may not know where he is, and if they do know where he is, it may not be practicable for them to seek and obtain such permission.

Clamour for a change in the legal rules governing the use and reuse of content is continually been made but the current legal provisions regulating the information system is still not adequately reflective of the current technological realities. In the November 2009 issue of the SPARC open access newsletter, Peter Suber opining on this issue noted that "We possess a revolutionary technology for knowledge sharing but are often restrained from using it by laws which (in the relevant respects) have not changed for more than two centuries. It's not just that legal change is slower than technological change. The desire for legal change is either not sufficiently widespread or is dispersed among the comparatively powerless and opposed by the comparatively powerful. Some of us want to seize the opportunities created by digital media and lift the legal restrictions on new kinds of knowledge sharing. But many others want to keep the restrictions in place and force us to forego the full benefits of our revolutionary technology."[116]

Even if we had no problems to tackle with regards to accessing peer-reviewed literature, the thought of a technological invention that enables unprecedented ways for knowledge dissemination is another reason to explore the open culture as against the old toll publishing system. However, we have both the problems and the opportunities for resolving them.

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[115] Litman, N.Y.U. J. INT'L L. & POL, (1997).
[116] Suber, Knowledge as a Public Good. 2009.

5.6. ALTERNATIVE TO LEGAL REFORM

Considering the difficulties encountered in the several processes of changing the laws from its default closed access model to an open access model,[117] the open community working within the current legal framework of copyright has deplored exclusive rights of copyright owners as enabling tools for empowering prospective users. It considers that if copyright owners have powers to restrict others from exploiting a work, such copyright-owners are equally empowered to grant consent for the use of such works. It considers that the hitherto restrictive (negative) powers can be turned into enabling (positive) powers.[118]

This can be achieved by means of the law of contract which prescribes that once an offer is made and accepted and there is the intention to enter a binding legal relationship and consideration has been furnished, then a valid contract comes into place.[119] By means of the law of contract, the right of the copyright owner to license his/her work is deployed in making copyright an enabling tool for granting access to prospective users. The copyright owner by issuing an open licence to prospective users' both establishes his intention to enter a binding legal relationship and at the same time makes an offer which is open to the general public. Any interested member of the public is therefore free to accept the terms of the offer and by using the content either through downloads, translation or any other form of reuse, confirms acceptance and at the same time furnishes consideration, thereby establishing that a contract has been entered into.

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[117] J. Litman, *Revising Copyright Law for the Information Age*, 75 OREGON LAW REVIEW 19, 20 (1996). Where she noted that, "Our current copyright law is based on a model devised for print media, and expanded, with some difficulty to embrace a world that includes live, filmed and taped performances, broadcast media, and, most recently, digital media. That much is uncontroversial. The suitability of that model for new media is much more controversial. As one might expect, to the extent that current legal rules make some parties "haves" and others "have-nots," the haves are fans of the current model,' while today's have-nots suggest that some other model might be more appropriate for the future.2 Meanwhile, copyright lawyers, who, after all, make their livings interpreting and applying this long and complex body of counterintuitive, bewildering rules, insist that the current model is very close to the platonic ideal, and should under no circumstances be jettisoned in favour of some un-tried and untrue replacement."

[118] BRIAN FITZGERALD, OPEN CONTENT LICENSING: CULTIVATING THE CREATIVE COMMONS 5 (Sydney University Press. 2007). Where it was noted that "The genius of Stallman was in understanding and implementing the ethic that if you want to create a community of information or creative commons you need to be able to control the way the information is used once it leaves your hands. The regulation of this downstream activity was achieved by claiming an intellectual property right (copyright in the code) at the source and then structuring its downstream usage through a licence (GNU GPL). This was not a simple 'giving away' of information but rather a strategic mechanism for ensuring the information stayed 'free' as in speech. It is on this foundation that we now see initiatives like the Creative Commons expanding that idea from open source code to open digital content."

[119] HUGH COLLINS, THE LAW OF CONTRACT 3 (Butterworths. 1993).

In practical terms, the author or copyright owner can provide access to peer-reviewed literatures through a two-tiered structure. The first tier is for copyright owners to place their works in a repository where anyone who has access to the internet can access it and basically read such works. The permission granted in this respect must contain at least the right to use the work but may exclude the right to reuse the work. This is not to say that woks placed in repositories may not be licensed for reuse. At the level of the second tier, which involves publishing in an open access journal, the copyright owner makes available his work to prospective users through journals that provide immediate, free and permanent access for use and reuse of peer-reviewed literatures and via this platform clearly tells them what it is they can do or may not do with such works. Most often reuse rights are granted in this tier and such grants could be restrictive or non-restrictive. Some permission to use and reuse would allow reproduction, distribution but would not allow adaptation and commercialization of the work. Others allow reproduction, distribution, adaptation but not commercialization; others allow all the above activities. This is achieved via the licensing vehicle, using the laws of copyright and contract. The software industry has taken the lead in this initiative with open source licences[120], for example the GNU GPL licence[121]. The content industry has followed suit with several content licences in use today, but the creative commons licences have made the greatest impact in this respect[122].

6. Political

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.--That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, --That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness.[123]

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[120] Richard Stallman, *Free Software*, *in* KNOWLEDGE POLICY FOR THE TWENTY-FIRST CENTURY: A LEGAL PERSPECTIVE (Mark Perry & Brian Fitzgerald eds., 2011).
[121] Richard Stallman, *The GNU Project* *at* http://www.gnu.org/gnu/thegnuproject.html
[122] Ola, E.I.P.R, (2014).
[123] U.S. Congress, *Declaration of Independence*(1776), *available at* http://www.archives.gov/exhibits/charters/declaration_transcript.html.

Philosophers argue that man by nature is a communal being and should not live in isolation. Aristotle postulated that the city-state exists by nature and that humans by nature are political animals.[124] Thomas Hobbes in his well-known aphorism notes that life is "solitary, poor, nasty, brutish and short" that man is intrinsically self-centred and to ensure peace, law and order, a government is required.[125]

John Locke agrees with Hobbes on the role of government in the society but argues against Hobbes view that man is by nature bestial. Locke argues that man has rights to property and that God created the earth for man to enjoy and when man works the earth he should be entitled to the revenues. Locke argues that man has rights and that when a government is unjust the oppressed have a right to resist tyranny. In his opinion, a tyrant has no authority.[126]

Jean Jacques Rousseau[127] is somewhat more metaphysical than either Hobbes or Locke and argues that the general will is what controls society. He describes this general will as an agreement between the individual and the community and that the government represents this agreement. He argues that so long as the government represents this general will, it is capable of doing anything.[128] It appears in one breath that Rousseau advocates democracy by acknowledging the role of citizenry participation but in another breathe acknowledges the ability of the state to do anything thereby endorsing totalitarianism.

The role of government in maintaining law and order in the society is unquestionable. When however this role is abused and the people do not feel adequately represented or they feel misrepresented, tyranny sets in and Locke has argued that in such instances, man has a right to challenge tyranny. The declaration of independence states that "whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government." The next section will show the exercise of these rights.

6.1. SOPA & PIPA The reaction by the general public to the two bills introduced at both houses of the United States' legislative arm, Stop Online Anti-Piracy Act (SOPA) at the house of representative and Protect IP Act

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[124] Fred Miller, *Politcal Naturalism* Standford Encylopedia of Philosophy *at* http://plato.stanford.edu/entries/aristotle-politics/supplement3.html.

[125] T. Hobbes & R. Tuck, Hobbes: Leviathan: Revised Student Edition 89 (Cambridge University Press. 1996).

[126] J. Locke, Two Treatises of Government 270, (C. and J. Rivington. 1824).

[127] J.J. Rousseau & G.D.H. Cole, The Social Contract (Cosimo, Incorporated. 2008).

[128] R. Wacks, Understanding Jurisprudence: An Introduction to Legal Theory 24-25 (OUP Oxford. 2012).

(PIPA) in the Senate is a vivid evidence of the power of the people through social media and the Internet. It was reported that as an aftermath of the online protest, "more than 162 million people saw the protest message on Wikipedia, 18 senators have backed away from the proposed legislation, and 4.5 million people signed a petition against the acts"[129]. The bills failed due to the voice of the people and politicians listened to the people.

Politicians are also listening to the people who are speaking in favour of open access and have made decisions whether politically oriented or not, that favour the open cause and the generality of people would be better for it.

6.2. FASTR

Senators Cornyn and Wyden as well as Reps Doyle, Yoder and Lofgren of the United States congress have in a bi-partisan move introduced The Fair Access to Science and Technology Research Act (FASTR) in both the House of Representatives and the Senate.[130] The Act requires federal agencies with annual research funding of $100 million or more to provide open access to the outputs of funded research no later than six months after publication[131]. The legislation represents an improvement on the NIH Policy by reducing the embargo period and would increase the usefulness of public access to research. It would particularly maximize the impact and utility of such researches by its focus on reuse rights as reflected in the main text of the act.[132]

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[129] Paul Ian, *Were SOPA/PIPA Protests a Success? The Results Are In*, PC World(2012).

[130] U.S. Congress, *Fair Access to Science and Technology Research Act of 2013*, Congress.gov, *available at* https://www.congress.gov/bill/113th-congress/house-bill/708/text.

[131] Timothy Vollmer, *FASTR introduced in U.S. Congress to drastically expand public access to federally funded research*(2013), *available at* http://creativecommons.org/weblog/entry/36699?utm_campaign=newsletter_1302&utm_medium=blog&utm_source=newsletter.

[132] Congress.

See preamble (2.3): "the United States has a substantial interest in maximizing the impact and utility of the research it funds by enabling a wide range of reuses of the peer-reviewed literature that reports the results of such research, including by enabling computational analysis by state-of-the-art technologies."

See also provision (4.b.5) which includes a formatting and licensing provision covering versions deposited in repositories and made OA. It states that it shall be made available "in formats and under terms that enable productive reuse, including computational analysis by state-of-the-art technologies."

See also (4.f.2.B.i) & (4.f.2.B.ii) respectively covering "whether the terms of use applicable to such research papers are effective in enabling productive reuse and computational

The political imperative for the open culture is not only linked to the need to score political points but is more about fulfilling the core purpose of representing the people. The open culture affords the opportunity for everyone to participate in governance and allows for the voice of the people to be heard. When SOPA and PIPA where being pushed in both houses, the people were able to speak up affirmatively although in a new and unprecedented way and their voices were heard. The bills were not passed. The legislations giving effect to the National Institutes of Health's mandate are another example of legislations which are working in the interest of the ordinary people.[133] The legislation which makes it a requirement for research funded by NIH to be made available within 12 months in PubMed has given researchers a strong foot against publishers.[134] FASTR now seeks to reduce the 12 month embargo period to 6 months thereby increasing the opportunities for availability and accessibility to these research findings and at the same time maximizing their useful and impact.[135] Use of political positions in the ways referred to above enable proper representation of the people and ensures that these kind of legislation do not end up on the shelves of some government department or within the exclusive access of a privileged few. It also assists young researchers from being confronted with the up-heel task of having to negotiate terms of agreement for self-archiving with publishers.

7. Knowledge is not an end in itself it is a means to an end.

With the advent of digital technology and the internet, the production of knowledge has increased astronomically and it continues to increase with endless avenues to create and disseminate such knowledge.[136] Considering the vast amount of knowledge available and accessible today, (let us leave

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analysis by state-of-the-art technologies" and the results of the agency's "examination of whether such research papers should include a royalty-free copyright license that is available to the public and that permits the reuse of those research papers, on the condition that attribution is given to the author or authors of the research and any others designated by the copyright owner".

[133] NIH, *NIH Public Access Policy*, *available at* http://publicaccess.nih.gov/.
[134] National Institute of Health (NIH), Policy on Enhancing Public Access to Archived Publications Resulting from NIH Funded Research § NOT-OD-05-022 (Health and Human Services ed., 2005).
[135] Peter Suber, *United States doubles down on open access to federally-funded research* SPARC Open Access Newsletter *at* http://legacy.earlham.edu/~peters/fos/newsletter/03-02-13.htm.
[136] Rogers. Paul, et al., *Infobesity: The enemy of good decisions* Insight *at* http://www.bain.com/publications/articles/infobesity-the-enemy-of-good-decisions.aspx.

out the inaccessible knowledge) if knowledge strictly speaking was the key change factor, then definitely, the overwhelming amount of available and accessible knowledge would have solved all the world's problems already but as we all know the world still has its large share of problems and the ultimate solution is not in sight.[137] Several initiatives have been pushed to help solve global challenges through the eight Millennium Development Goals of the United Nations but as we all know, these problems are not near solved.[138] The efforts at addressing poverty, universal basic education, gender inequality, HIV Aids, infant mortality, maternal mortality, environmental sustainability and global partnership for development are indeed helping the world especially developing countries and this is most commendable.[139] However, the collation of information on the above noted issues is not what solves the problems but rather how the information gathered is utilized as an agent for change. Albert Einstein put it this way; he said "any fool can know, the point is to understand."[140] Just like every flour is a potential loaf of bread so also every knowledge is a potential solution to a problem, but just as flour is not bread, so also knowledge is not "solution to a problem". The same way some effort and extra steps need to be taken to transform flour into bread, so also some effort and extra steps must be taken to transform knowledge into "solutions to problems," and that is what Einstein was referring to when he noted that the point is understanding.

It is therefore not the availability of knowledge alone that spurs change, rather it is the positive use of knowledge, in order words, it is not what you know that matters but what you do with what you know. However, you cannot do anything with knowledge if you don't first have it and hence the movements for greater access to knowledge through the multiple platforms of open access, open educational resources and public sector information.

[137] Jon Sobrino, *Humanizig a Sick Civilization*, *in* EVIL TODAY AND STRUGGLES TO BE HUMAN (R. Ammicht-Quinn ed. 2009). "The world's tragedy is plain to see, but as far as possible, it is ignored." See also, Annie Malknecht, *What the Millennium Development Goals Have Accomplished at* https://www.americanprogress.org/issues/security/news/2014/08/18/95805/what-the-millennium-development-goals-have-accomplished/.

[138] Ana Jesus Lopez Menendez & Rigoberto Perez Suarez, *Measuring Progress towards the Millennium Development Goals. A regional approach at* http://www.academia.edu/999515/Measuring_Progress_towards_the_Millennium_Develop ment_Goals._A_Regional_Approach.

[139] United Nations UN, *Millennium Development Goals and Beyond 2015*, *available at* http://www.un.org/millenniumgoals/.

[140] Robert Mills, *Knowing Vs Understanding*(2012), *available at* http://www.robertmills.me/knowing-vs-understanding-2/.

8. Conclusion

The open movement is a movement for change which some are pursuing within legally recognised limits while others are more radical in their approach. As explained earlier, philosophers have postulated on the two sides of the divide that firstly change must be within the confines of the law and on the other hand where citizens are dissatisfied with a tyrannical government or the laws are unrepresentative of the people, the people are free to fight for change and that protest is in fact, a social responsibility of the people.

The desire to see a world where access to peer-reviewed knowledge is free from the structural restrictions of price, the law and technology is now an international objective. The realities of today made possible by technological developments and innovation has altered the architecture of information dissemination and has enabled a group who before now were purely users and spectators to become themselves creators and stakeholders in the knowledge industry. However, the laws regulating information dissemination are still fundamentally what they used to be some 300 years ago. The gap between the written laws and today's reality has brought about a generation that abhors the law, not because they are miscreants or truants but rather because they see that the laws are not reflective of today's reality and that those who are meant to ensure these reflections have failed and are continually failing the system. They have therefore taken laws into their hands and the consequences have been severe.

Careful consideration on how the goals of open access, open educational resources and public sector information can be achieved has brought about open access journals, institutional repositories and open licences which are platforms and mechanisms that enable instant, free and unrestricted publishing and sharing of information in the research, educational and governmental realms. These platforms have brought about the development of mandates and policies which are addressing the negotiating imbalance between publishers and authors and have enabled greater successes for institutional repositories. They have also produced successes through the introduction of open licensing, a concept which utilizes the current laws governing information dissemination and deploys it to create a shift from an all rights reserved regime to some rights reserved and in certain instances no rights reserved. The products of these platforms have been able to address the fears in some minds about the viability of open access, open educational resources and public sector information as a business model and about its impact on the publishing industry. Today most of the major publishers have embraced open policies.

The underpinnings of the open movement are intrinsically linked to respect for the dignity of the human person which recognises Aristotle's postulation that man is a social animal and also recognises the intrinsic value of each person. It is further inspired by the word "Ubuntu" which teaches us that we are who we are because of who we all are and that we really cannot thrive alone. We owe ourselves a social responsibility to share. Each one of us must always remember, it's not about me, rather it is about us. It is an open world and the best way to maximize the riches of the world is to leave it open, to leave the knowledge open, to leave the opportunities open and to open it up so we all can continue to use, reuse and build just like Isaac Newton who understood that his development was intrinsically connected to that which had been provided by his forerunners. The rationale for open is diverse encompassing socio-economic, legal and political aspects, in some ways they affect us and it is therefore our responsibility to respond and bring about the goal of a world where everyone has not only the opportunity for access to knowledge but actually has access to knowledge.

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