FUNDAMENTALS OF OPEN ACCESS

1. INTRODUCTION

Access to knowledge is important and critical to the development of all societies. It is not only a cost effective tool for improving the quality of education but is also key to addressing the problems associated with poor healthcare, agriculture, environment, climate change, eradication of poverty and the administration of good governance. Ten years ago its importance may not have been central, but today access to knowledge is critical to national and international development. This paper addresses the importance of access to knowledge and discusses the dynamics brought to the fore by the Open Access movement in its pursuit for unrestricted access to knowledge as well as the freedom to use, reuse and distribute such knowledge.

Underscoring this importance, on the 20th of January 2011, the Obama administration pledged $2 billion for purposes of making available, accessible and reusable educational resources and required that they be released under a Creative Commons attribution (CC BY) licence.\(^1\) The National Institutes of Health (NIH), (the largest source of funding for medical research in the world\(^2\) and home to the largest hospital totally dedicated to medical research)\(^3\) has adopted and mandated open access by making available online all its research findings and requiring that all NIH funded research be made available in line with the Institute’s open access policy.\(^4\) In the same vein, similar policies have been adopted by the Research Councils United Kingdom (RCUK),\(^5\) the European Research Councils (ERC),\(^6\) the Australian Research Council (ARC)\(^7\) and the World Bank.\(^8\) The World Bank announced its adoption of an open access policy requiring that all research outputs and knowledge

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\(^1\) Timothy Vollmer, New federal education fund makes available $2 billion to create OER resources in community colleges at http://creativecommons.org/weblog/entry/26100. The announcement was jointly made by the Secretary of Labor Hilda L. Solis and Secretary of Education Arne Duncan.


\(^3\) Id. at 25 February 2013


\(^7\) ARC, ARC Open Access Policy, available at http://www.arc.gov.au/applicants/open_access.htm. "ARC requires that any publications arising from an ARC supported research project must be deposited into an open access institutional repository within a twelve (12) month period from the date of publication."

products published by the Bank be licensed under a Creative Commons attribution license (CC BY) as a default and as a first phase of the policy, the Bank on the 10th of April, 2012 launched the Open Knowledge Repository9 with more than 2,000 books, articles, reports and research papers under a CC BY license,10 thus making those materials freely available accessible and reusable to the general public.11

Although access to knowledge is critical to societal development, it is imperative to note that the default setting for the grant of access for the vast stores of knowledge is closed.12 The mechanism that is working at shifting the default from closed to open is the focus of this paper.

This paper provides a background to open access by examining what it is and how it came about. It provides an analysis of the fundamentals of open access against the provisions of the Budapest Open Access Initiative (BOAI) and examines the duo barriers of price and permission to open access. It also looks at some of the fields connected to open access, such as open educational resources and public sector information. The final section of the paper examines the strategies that have been adopted towards achieving open access and concludes with a description of the licensing mechanisms available to advance open access with particular focus on creative commons.

2. BACKGROUND TO OPEN ACCESS

The open access movement focuses on making information that is available online accessible, useable and reusable, free from legal, price and technological restrictions.13 Taking cognisance of the usefulness and efficacy of information, there is a pressing imperative to ensure that information is disseminated as widely as can be and that possible

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10 (CC) Creative Commons, About the Licenses, available at http://creativecommons.org/licenses/.
barriers to accessing this information are reduced and where possible removed entirely. It is this initiative that the open access movement continue to seek ways to achieve. Several strategy sessions, meetings and models have been put forward and are being implemented to realise the goal of an open society, built on the platform of a technology that affords the opportunity for instantaneous flow of information at virtually no cost and to every and anywhere the information is directed to. That technology operating in the hemisphere of the online environment is called the internet and may no more be described as a new phenomenon.

The Internet: Today, the internet provides a unique means for all to access information wherever and whenever. The interesting and curious thing about the internet is that “it is not monolithic and no single organisation or corporation or government has control over its structure or operations.” The internet is somewhat structured as an inconceivably vast and rapidly evolving series of interconnected technology platforms serving billions of people on earth and navigating through machines, computers and networks which are alterable in real time.

The nature of the Internet with capabilities for instantaneous information distribution all around the world makes it a veritable platform for information flow and has become the base point for knowledge and information dissemination. The open access movement in recognition of the abilities and capabilities of the Internet embraces and uses it as one of its

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14 See generally, **ALMA SWAN, POLICY GUIDELINES FOR THE DEVELOPMENT AND PROMOTION OF OPEN ACCESS 27** (UNESCO. 2012).
16 **LAWRENCE LESSIG, REMIX: MAKING ART AND COMMERCE THRIVE IN THE HYBRID ECONOMY 38** (Bloomsbury. 2008).where in his conversation with Gillis the activities of ten year old kids on the internet was noted.
17 **Michael Strangelove, The internet as catalyst for a paradigm shift, 1 COMPUTER-MEDIATED COMMUNICATION MAGAZINE** (1994).
20 See e.g **DAVID BOLLIER, VIRAL SPIRAL: HOW THE COMMONERS BUILT A DIGITAL REPUBLIC OF THEIR OWN 3** (New Press. 2008). where it was noted that People started to discover their own voices...and their own capabilites...and one another.
core pillars for the implementation of the vision of the movement.\textsuperscript{21} The movement is mindful of the need to deploy the quickest, fastest, most efficient and effective way of getting information to would-be users and the platform of the internet apparently serves that purpose.\textsuperscript{22} Although Africa started slowly with regards to internet usage, the International Telecommunication Union’s data published by Google’s public data explorer\textsuperscript{23} on the growth of Internet Usage in Nigeria compared to Ghana, Kenya and South Africa is evidence of the heightened internet usage all over Africa but particularly in Nigeria.\textsuperscript{24}

\textit{The Knowledge Based Economy}: The economies of the world have made a significant shift towards reliance on knowledge\textsuperscript{25} and knowledge has been recognized as the key driver for productivity and economic growth, and has ushered in a “knowledge based economy” run on the shoulders of information and technology\textsuperscript{26}. The provision of legal protection to products of knowledge has changed the paradigm of property. The concept of property prior to the shift to a knowledge based economy was always associated with what is tangible but with this shift, this concept has assumed a new dimension and now includes intangible properties that are products of knowledge such as songs, software, colour, scent, marks etc.\textsuperscript{27} The continuous growth in knowledge brings with it a continuous growth in

\textsuperscript{21} Budapest Open Access Initiative. 2002. Where it was noted that "an old tradition and a new technology have converged to make possible an unprecedented public good" and went further to state that "the new technology is the internet"

\textsuperscript{22} See generally, LESSIG, REMIX: Making Art and Commerce Thrive in the Hybrid Economy 69. 2008. Where it was noted that the Internet didn’t make these other forms of writing significant rather it opened these media to the masses.


\textsuperscript{25} L.M Whicker & K.M Andrews, \textit{Human Resource Management in the Knowledge Economy: Realising the Potential}, 42 \textit{AISA PACIFIC JOURNALS OF HUMAN RESOURCES} 156, 157 (2004). It was noted that "Globally, Knowledge has become the most important factor in economic development and knowledge assets are considered essential for economic growth, competitive advantage, human development ad quality of human life"

\textsuperscript{26} The Knowledge-Based Economy. (1996). A report by the Organisation of Economic Co-operation and Development

intellectual property right protections. The knowledge which now stands upon legally protected frameworks serves as an incentive for further developments but at the same time constitutes barriers to the use of the knowledge that has either been invented or creatively expressed and designed. These barriers are often economically motivated and the curious combination of more Intellectual Property Rights (IPR’s) on more knowledge products is gradually locking up access to available knowledge.

Considering the fact that knowledge enables new possibilities and provides the requisite know-how as to how things may be done, where and how they may be found and the terms and conditions under which they may be used, it has become imperative to find a middle line between protection of knowledge based products under the current IPR’s regime and accessibility to such knowledge products for global development and for the common good.

**A2k Key to Education For All:** In recognition of the importance of knowledge, the Universal Declaration of Human Rights includes the right to education and notes that education shall be free at the elementary and fundamental stages and compulsory at elementary stages. It further sees education as a tool for ensuring world peace in the sense that it expects that all form of furtherance of knowledge/education should promote

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28. **Krikorian Gaëlle & Kapczynski Amy,** *Access to Knowledge in the Age of Intellectual Property* 24 (Zone Books. 2010). where it was noted that IP law regulates strategies of information production... and has become a central battleground... of the contemporary economy


30. See e.g Daniel Cahoy, *Property Right V Public Access* at http://news.smeal.psu.edu/news-release-archives/2009/june-2009/smeal-professor-awarded-fulbright-research-chair. where it was noted that it's important to protect public access because a lot of the intellectual property rights relate to important technology and are tying up important information.

31. **Olukunle Ola,** *Copyright Collective Administration in Nigeria Lessons for Africa* 24 (Springer. 2013). where it was noted that "what, why, when and how" of a subject matter refers to the framework.

32. See WIPO, *The 45 Adopted Recommendations under the WIPO Development Agenda,* available at http://www.wipo.int/ip-development/en/agenda/recommendations.html. See Recommendation 10 on the need to promote fair balance between intellectual property protection and the public interest; as well as cluster c which provides generally for access to knowledge


34. Id. at Article 26

35. Id. at Article 26(1)
understanding, tolerance and friendship amongst nations, racial or religious groups.\textsuperscript{36} In the UNESCO 2012 Education For All Global Monitoring Report, it was noted that whilst there has been undeniable progress towards the six ‘education for all’ goals,\textsuperscript{37} meeting the 2015 deadline was impracticable as the world is still not on track. It noted that the number of children out of school has stagnated since 2000 and that adult literacy and quality of education requires more attention.\textsuperscript{38}

The system of a locked up product of knowledge has not helped in the achievement of the goal of education for all and the report notes that the “recent developments ascribe even greater urgency to ensuring equitable access to appropriate skills development programme. As urban populations grow rapidly, especially in low income countries, young people need skills to work their way out of poverty... and that around 200 million young people need a second chance to acquire basic literacy and numeracy skills”.\textsuperscript{39} Surmounting the challenges of gaining access to knowledge will provide a second chance to acquiring basic literacy and numeracy skills and would be important as a strategy towards achieving education for all. The open access movement seeks to play a leading role in ensuring that knowledge is accessible, usable and reusable by those who need it, when they need it and wherever they need it.\textsuperscript{40}

3. **What is Open Access?**

Open Access (OA) refers to free unrestricted online access to information. It allows users’ access to knowledge by providing a legal platform to open up what the Intellectual Property system had legally closed up. The Budapest Open Access Initiative expressed it this way:

“By “open access” to [peer-reviewed research literature], we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose,

\textsuperscript{36} Id. at. Article 26(2)
\textsuperscript{37} Education For All Global Monitoring Report 2012: YOUTH AND SKILLS Putting Education to Work: An Independent publication commissioned by UNESCO. (2012). The Six goals are listed on page 5 of the report.
\textsuperscript{38} Id. at.
\textsuperscript{39} Id. at.3
\textsuperscript{40} SWAN, Policy Guidelines for the Development and Promotion of Open Access 27. 2012. Where she noted that Open access is an important early step in a move to creating a knowledge commons and building a true knowledge societies... where knowledge can be freely used, reused and redistributed.
without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.41

The conclusions of two meeting held at Bethesda and Berlin referred to as “Bethesda and Berlin statements” note that for a work to be open access, prior consent is required to have been given by the copyright owner permitting users to “copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship...”42 A concise definition is found on the Public Library of Science (PLOS) website which defines open access as “unrestricted access and unrestricted reuse”43. Stevan Harnad defines it as “free, immediate, permanent online access to the full text of research articles for anyone, webwide”44. It appears that outside the definition offered by PLOS (unrestricted access and unrestricted reuse)45 all others have narrowed their definition to particular fields. For instance, the BOAI narrows it down to “peer-reviewed research literature” 46, Harnad follows in the same direction when he adds “the full text of research articles”47, the Bethesda statement is targeted at scientific research while the Berlin statement focuses on open access to knowledge in the sciences and humanities.48 The good thing about all these definitions is that they are all branches of one tree and though seemingly separate, they all fuse into one at the end of the day.

41 See, Ten years on from the Budapest Open Access Initiative: Setting the default to open. http://www.opensocietyfoundations.org/openaccess/boai-10-recommendations (18 February 2013)
43 See PLOS, Open Access, http://www.plos.org/about/open-access/. at 18 February 2013
44 Stevan Harnad, What is Open Access, http://www.eprints.org/openaccess/ . at 18 February 2013
45 PLOS, Open Access, http://www.plos.org/about/open-access/.
4. **HOW IT CAME ABOUT**

The advent of digital technology and the internet altered the information sharing system and provided the platform to facilitate access to knowledge in an unprecedented manner. In addition, the inability of many researchers to easily access requisite information coupled with the rising cost of journal subscriptions created understandable agitations, which no doubt influenced the open access movement. These agitations had existed prior to the advent of digital technology and the internet but not in an organised form. The major point of reference for this movement can be traced to the Budapest meeting where leading proponents on the subject gathered together under the sponsorship of the Open Society Foundation and came up with the Budapest Open Access Initiative (BOAI).

5. **FUNDAMENTALS OF OA**

It was at the Budapest meeting that the term open access was first coined and defined. Apart from defining the term, the meeting provided the framework on which open access still operates and identified certain crucial issues that have shaped the developments and discussions around open access. The meeting addressed the need to remove barriers to accessing knowledge and focused on what would enable access to knowledge such as the need to structure effective and proactive management systems for copyright. It advocated for a copyright system that will have a default pre-granting of “permission to use”, rather than the current default “prohibition from use”.

It further advocated for the removal of fees which constitute price barriers to access and for the discovery of business models that would ensure payment of publication. In addition to

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53 Budapest Open Access Initiative. 2002. at 20 February 2013
54 Mellisa Hagemann, *Ten Years on, Researchers Embrace Open Access*, available at http://www.opensocietyfoundations.org/voices/ten-years-on-researchers-embrace-open-access. at 20 February 2013
56 See SUBER, Open Access 9. 2012. Where he said "OA is made possible by the Internet and copyright-holder consent"
this, it recommended two strategies for the actualization of open access, namely self-archiving (green road) and open-access journals (gold road).

Several other statements have endorsed the BOAI such as the Bethesda Statement on Open Access Publishing, the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, and the Declaration on Access to Research Data from Public Funding. Fundamental to all of these initiatives and statements are some of the issues mentioned here-under:

**An Old Tradition:** The academic community is knowledge based. It builds and feeds on knowledge and thrives through the expansion of knowledge. It has a practice of publishing its articles for free and provides editorial and refereeing services to publishers also for free. The structure for promotion, advancement and academic recognition is directly connected to the number and quality of papers published and has promoted a “publish or perish culture” 61. The BOAI took cognisance of this old tradition, that is, the willingness of academics and researchers to publish their works for free and was able to use it as one of the building blocks of the Open Access Movement. The OA movement reasons that if academics and researchers are willing to release their work to the public for free (publishing for free) then the public should be allowed to access these works for free.

**A New Technology:** The switch from the Advanced Research Project Agency Network (ARPANET) to Transmission Control Protocol/Internet Protocol (TCP/IP) marked the birth of the internet and the world has not been the same ever since. The enabling ability of the internet to grant access to, as well as distribute content is unprecedented. This enabling ability of the internet constitutes probably the most important building block in the Open Access structure. The internet has been described as a

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57 See generally, Budapest Open Access Initiative. 2002.
61 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/.
"global system of interconnected computer networks that use the standard Internet protocol suite (often called TCP/IP, although not all applications use TCP) to serve billions of users worldwide. It is a network of networks that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless and optical networking technologies. The Internet carries an extensive range of information resources and services, such as the inter-linked hypertext documents of the World Wide Web (WWW) and the infrastructure to support email."\(^{62}\)

**Public Good:** The objectives of the open access movement is larger than any individual’s interest and seeks to serve the common good by providing platforms capable of enabling access to knowledge. The merger of the old tradition with the enabling ability of the internet would have the potential of granting access to research output as well as instantaneous world-wide electronic distribution of such outputs and this will no doubt result in the good of all of mankind.

**Quality:** The OA movement is concerned about the quality of published information and is thus not advocating for just any kind of literature, it has made it clear that the information it would like to put out for free, without permission and price restrictions are literatures that have been peer-reviewed.\(^{63}\) The BOAI puts it this way “Open access to peer-reviewed journal literature is the goal.”\(^{64}\)

**Delivery:** Peer-reviewed literature in the closed access model is delivered through a subscription/fee paying model. On the other hand, it is the objective of the open access movement that peer-reviewed articles and literature would be delivered free and without any access restrictions to the general public.

**Barriers:** The three barriers identified in the BOAI are Financial, Legal and Technical.

1. Financial barriers include price barriers in the form of subscription fees.
2. Legal barriers refer to intellectual property rights that grant exclusive rights to owners, restrict access to works and require intending users to seek and obtain permission to use such works.

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\(^{64}\) Budapest Open Access Initiative. 2002.
3. Technical barriers refer to technologies deployed by right-owners to restrict and control access to copyrighted digital contents. They are referred to as Technological Protection Measures (TPM) and Digital Rights Management (DRM).

**Focus:** The Budapest meeting identified five classes of people as beneficiaries of the free and unrestricted access to peer-reviewed literatures. They include scientists, scholars, teachers, students and other curious minds. The inclusion of the category ‘other curious minds’ should be wide enough to capture any group not specifically mentioned as well as the general public.

**Potential Benefit:** Five potential benefits of a system where peer-reviewed literature is delivered for free and without any form of access barrier include:

i. Accelerate research
ii. Enrich education
iii. Share the learning of the rich with the poor and the poor with the rich
iv. Make the literature as useful as it can be
v. Lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge

**Area of Operation:** One important point to note is that the terrain for the free and unrestricted access to these peer-reviewed literatures is only online. The BOAI only dealt with online availability and online accessibility on the public internet.

**Exploitation:** The BOAI interestingly mentions in detail what it expects users to be able to do with works that are within the Open Access regime and it is clear that the BOAI seeks to open up the access door as wide as possible and at the same time allay any fears regarding infractions of the law by potential users. The types of use noted include the following:

i. reading,
ii. downloading,
iii. copying,
iv. distributing,
v. printing,
vi. searching,
vii. linking to the full text,
viii. crawling for indexing,
ix. passing the information as data to software,
x. or use for any other lawful purpose.

**Nexus to IP rights**: This movement is not anti-copyright or anti-intellectual property.\(^{65}\) It actually builds on IP rights to achieve its objectives.\(^{66}\) For instance the open access movement, in reliance on the right of an author which is traditionally to prohibit (negative by default) exploitation of a work without permission, turns around its traditional default position and grants permission in advance to prospective users. In doing this, copyright becomes the building block upon which permission is granted but this time, permission is not prohibitively used rather it is used for empowerment by advanced authorization. Hence, the restrictions placed by copyright are no longer present, except for the moral rights of the copyright owner to be appropriately acknowledged as the author and to exercise control over the integrity of his or her work.

**Who Pays the Bills?**: If subscription fees are no longer paid by the users, who then funds production? After all, publishing, including facilitating peer review and editing costs money, and since it is a business concern issues as to how to cover the costs must be considered. The BOAI made some suggestions on how these costs could be defrayed and opens the door for more ideas. It stated that:

“While the peer-reviewed journal literature should be accessible online without cost to readers, it is not costless to produce. However, experiments show that the overall costs of providing open access to this literature are far lower than the costs of traditional forms of dissemination. With such an opportunity to save money and expand the scope of dissemination at the same time, there is today a strong incentive for **professional associations, universities, libraries, foundations, and others**\(^{67}\) to embrace open access as a means of advancing their missions. Achieving open access will require new cost recovery models and financing mechanisms, but

\(^{65}\) See Lawrence Lessig, The Vision for the Creative Commons: What are We and Where are We Headed? Free Culture. In Brian Fitzgerald, (ed) Open Content Licensing: Cultivating the Creative Commons, Sydney University Press, 2007 p.42 where he said “I want to be clear about something, intellectual property is good. I am in favour of it.”

\(^{66}\) See Lawrence Lessig, The Vision for the Creative Commons: What are We and Where are We Headed? Free Culture. In Brian Fitzgerald, (ed) Open Content Licensing: Cultivating the Creative Commons, Sydney University Press, 2007 p.45 where he said “We want to use IP to enable free culture.”

\(^{67}\) Emphasis mine, for the category of those who suggested to be able to cover the cost.
the significantly lower overall cost of dissemination is a reason to be confident that the goal is attainable and not merely preferable or utopian."\(^{68}\) (Emphasis added)

6. **BARRIERS TO OA**

The OA movement takes cognisance of the fact that access to the results of either public or private research are often inaccessible due to protections on such materials as stipulated by intellectual property laws; for example, copyright laws which prohibit unauthorised persons from exploiting the output of research without having first obtained permission.\(^{69}\) In essence only persons who have obtained permission from the copyright owner or who are covered by some form of exceptions or limitations to copyright may exploit research outputs.\(^{70}\)

Permission is not the only barrier to gaining access to the results of research. The price barrier\(^{71}\) is another restriction referring to costs such as licensing fees, fees for pay-per-view as well as subscription fees payable\(^{72}\) to journal publishers who are responsible for publishing, warehousing, marketing and distributing the results of research. In recent times it has become impracticable for most institutions to pay the subscription fees for all the journals they would wish to access. This frustrating view was recently expressed by Harvard.\(^{73}\) The high cost of paying the journal fees is an example of the price restriction; it means that those who are unable to pay are unable to access the needed information.

The involvement of government and funding organisations in research all over the world is such that research outputs can to a large extent be considered the product of tax payers money (at least to the extent that it was funded by the government) and it is only

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\(^{68}\) See, Read Budapest Open Access Initiative, [http://www.opensocietyfoundations.org/openaccess/read](http://www.opensocietyfoundations.org/openaccess/read) (6 December 2012).

\(^{69}\) For example Section 6 of the Nigerian Copyright Act, Cap C28 (2004). Provide that works protected under copyright are under the exclusive control of the copyright holder.


\(^{72}\) Suber, Open Access Overview: Focusing on open access to peer-reviewed research articles and their preprints, [http://www.earlham.edu/~peters/fos/overview.htm](http://www.earlham.edu/~peters/fos/overview.htm) 12. Op Cit

\(^{73}\) See Norrie, THE CONVERSATION, 2012. Where it was reported that “harvard library says it can no longer afford the vast cost of academic journal subscriptions.. Subscription prices for online content from two publishers have increased by 145% over the past six years, far in excess of not only the consumer price index but also the higher education and the library price indices”
reasonable that if tax payers have funded research\textsuperscript{74} outputs of such research should be freely available to tax payers without legal or price restrictions.\textsuperscript{75}

The advent of digital technology and online access to information raised concerns amongst right owners as to ensuring that due protection is given to their copyrightable works.\textsuperscript{76} To this end, the World Intellectual Property Organisation (WIPO) passed the WIPO Copyright Treaty\textsuperscript{77} and the WIPO Performance and Phonogram Treaty\textsuperscript{78} both referred to as the Internet Treaties\textsuperscript{79} which provide a legal regime for technological measures and rights management information on works in which copyright subsists. Both treaties place an obligation on contracting States to provide adequate legal protection and effective legal remedies against circumvention of effective technological measures and against anyone knowingly doing, inducing, enabling, facilitating or concealing the removal or alteration of any electronic rights management information without due authorization.\textsuperscript{80} The open access movement advocates that for free unrestricted online access to be achieved technological lock ups via the deployment of technological protection measures and electronic rights management information need to be removed.\textsuperscript{81}

The implementation of Open Access involves several players\textsuperscript{82}. Some of the players include universities\textsuperscript{83}, research institutions\textsuperscript{84}, government\textsuperscript{85}, funding agencies, learned societies and

\textsuperscript{74} See FITZGERALD, et al., OAK Law Report 3. 2006. Where he referred to the worldwide movement led by Organisations such as the Organisation for Economic Cooperation and Development (OECD) to allow citizens access the outputs they have funded.

\textsuperscript{75} See Fitzgerald Anne, Open Access and Public Sector Information: Policy Developments In Australia and Key Jurisdictions, in ACCESS TO PUBLIC SECTOR INFORMATION: LAW, TECHNOLOGY & POLICY (Fitzgerald Brian ed. 2010).

\textsuperscript{76} David Fewer, The genie in the information bottle, INDEX ON CENSORSHIP, 1-2 (2005).


\textsuperscript{79} WIPO, WIPO Internet Treaties, available at \url{http://www.wipo.int/copyright/en/activities/wct_wppt/wct_wppt.html}.


\textsuperscript{82} See Sha. Li Zhang, The Flavors of Open Access, 23 OCLC SYSTEMS & SERVICES, 231 (2007).where it was mentioned that "there are many players in the open access movement. Some are advocates, some are spectators, and other take quite opposite stands"

\textsuperscript{83} Most universities have put in place a repository for the deposit of final version of articles. The QUT and UNISA repositories are examples.
professional agencies. Five broad groups could however be considered directly involved in all open access publications namely; \textbf{Authors} who generate content such as literary works, \textbf{Funders/Employers}, who provide funding for carrying out research, for example NIH, ARC & RUCK. \textbf{Publishers} who publish works of authors and markets them, \textbf{Libraries} who are the major clients of the publishers and serve the multi-purpose of providing storage of literary works as well as access to literary work (usually to a select audience) and lastly, the \textbf{User public}.\textsuperscript{87}

7. \textbf{FIELDS RELATED TO OA}

The campaign for free unrestricted access and unrestricted use online has a wide spread. This is not unexpected as its influence in one field quickly spreads over to another field and it continues to grow. The Open access movement itself received inspiration from other related movements such as the access to knowledge (A2K) movement and the Free Open Source Software Movement.\textsuperscript{88} Open Access covers several fields and directly impacts on research, journal articles and literature, publications, public sector information, open education resources, open content licensing, open standards, records and data\textsuperscript{89}. Research is on-going to discover efficient and effective ways of implementing open access and how it can be better applied to existing and other emerging fields.\textsuperscript{90} Amongst the fields mentioned

\textsuperscript{84} The NIH in America and WELLCOME TRUST in the UK are examples of players in the research industry.
\textsuperscript{85} Many government bodies are adopting open access and have opened up the results of publicly funded research to the public on several platforms inclusive of the Creative Commons licensing system. See \url{http://wiki.creativecommons.org/Government_use_of_Creative_Commons} informing of the adoption of CC licences by the Australian Bureau of Statistic for its census. Also mentioned are AusGOAL and the adoption by the Netherland government of a CCO as the default policy for the nation’s single government website “Rijksoverheid”.
\textsuperscript{86} See \textit{Knowledge Unlatched, A new Model For Academic Publishing}, available at \url{http://www.knowledgeunlatched.org/}. Where four of the five groups was mentioned.
\textsuperscript{87} See Esther Hoorn & Maurits Graaf, \textit{Copyright Issues in Open Access Research Journals, The Authors’ Perspective}, 12 D-LIB MAGAZINE (2006). accessible at \url{http://www.dlib.org/dlib/february06/vandergraaf/02vandergraaf.html}. Where the Open Access movement was said to have stimulated discussions on copyright in the scholarly communication system and noted that stakeholders in that system include publishers, academic institutions, libraries and academics authors.”
\textsuperscript{88} See generally, G\AE{}LLE \& AMY, \textit{Access to Knowledge In The Age of Intellectual Property} 17. 2010.
\textsuperscript{89} FITZGERALD, et al., OAK Law Report 115. 2006.
\textsuperscript{90} Peter Suber, \textit{Not Napster for science}(October 2, 2003), available at \url{http://dash.harvard.edu/bitstream/handle/1/4455490/suber_napster.htm?sequence=1}. See also SUBER, Open Access 9. 2012.
above, three related areas, Open Educational Resources, Open Content Licensing and Public Sector Information will be addressed here-under.

**Open Educational Resources:** The right to education is one of the basic human rights of any citizen and has been affirmed and reaffirmed in treaties by the United Nations.\(^91\) It is not news however that despite this right to education, a large population of the world is still illiterate\(^92\) and with the growing population of the world (most of whom are in developing/densely illiterate areas) the illiteracy level is a thing of great concern.\(^93\)

The Access to Knowledge movement concerned about the high level of illiteracy is deploring mechanisms such as open content licensing (a mechanism allowing right owners grant prior approval for the use of their works thus establishing a platform for lawful use and reuse of content\(^94\)) to address the challenge.\(^95\) At a conference organised by the United Nations Education Scientific and Cultural Organisation (UNESCO) the term Open Educational Resources (OER) was adopted.\(^96\) According to the UNESCO website, “OER are teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution.”\(^97\) An institution such

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\(^92\) See the Foreword by Irina Bokova in, Education For All Global Monitoring Report 2012: YOUTH AND SKILLS Putting Education to Work: An Independent publication commissioned by UNESCO.

\(^93\) Wikipedia, List of countries by literacy rate, available at http://en.wikipedia.org/wiki/List_of_countries_by_literacy_rate where it was noted that “Over two-thirds of the world's 793 million illiterate adults are found in only eight countries (Bangladesh, China, Egypt, Ethiopia, India, Indonesia, Nigeria, and Pakistan). Of all the illiterate adults in the world, two-thirds are women; extremely low literacy rates are concentrated in three regions (the Arab states, South and West Asia, and Sub-Saharan Africa), where around one-third of the men and half of all women are illiterate”

\(^94\) Brian Fitzgerald, Open Content Licensing (OCL) for Open Educational Resources: A paper commissioned by the OECD’s Centre for Educational Research and Innovation (CERI) for the project on Open Educational Resources, 3 (2007).


\(^96\) See UNESCO, Open Educational Resources at http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources/ where it was noted that the term Open Educational Resources was adopted at the 1st Global OER Forum in 2002

as Massachusetts Institute of Technology (MIT) in support of the OER has licensed almost all of its course materials for free online access.\textsuperscript{98}

In line with the open access movement, OER relies on the willingness of authors to publish their works freely.\textsuperscript{99} It also relies on the enabling abilities provided by the internet for cheap and easy production of educational resources and a virtual zero cost for distribution. It hopes to alleviate the digital divide between the global north and the global south and to make a contribution to the development of less advanced economies.\textsuperscript{100}

**Open Content Licensing (OCL):** This is a mechanism that allows for the grant of prior permission to would-be users of a work on certain terms and allows such would-be users the legal right to use and share such works.\textsuperscript{101} It is about sharing, about ensuring that works and their derivatives are open for use and reuse within the ambit of what is granted. This licence is conceptually related to open source and the free software licences which promote free redistribution and access to an end product’s design and implementation details.\textsuperscript{102} The GNU General Public Licence created by the founder of the Free Software Foundation, Richard Stallman, is an example of an open source software licence.\textsuperscript{103} OCL aims to ensure that downstream user rights are clear.\textsuperscript{104} Wikipedia is an example of an organisation using open content licensing. It uses the Creative Commons Share Alike licence (CC BY SA) as well as the GFDL.\textsuperscript{105}

**Public Sector Information:** The opportunity for the general public to participate in governance is one of the underpinnings of democracy. Meaningful participation in this process is however frustrated when the requisite information is not made available. Availability of information at the right time and through the right means is therefore vital to good governance and influences the quality of life of the citizenry.


\textsuperscript{99} See Budapest Open Access Initiative. 2002. “where it was noted that the old tradition is the willingness of scientists and scholars to publish the fruits of their research in scholarly journals for free.”

\textsuperscript{100} *Mulder Jorrit*, *Knowledge Dissemination in Sub-Saharan Africa: What Role for Open Educational Resources (OER)?* (University of Amsterdam. 2008).

\textsuperscript{101} SWAN, Policy Guidelines for the Development and Promotion of Open Access 27. 2012.


\textsuperscript{104} Brain 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 (Department of Education and Science and Training Brisbane, 2006) p79

One of the basic duties of government is to make policies and articulate the ways in which these policies are to be implemented. In the process of making these policies, government commissions and funds research to verify and ascertain issues. Reviews and reports are then written to convey the results of these researches to government as well as to critique or make recommendations as to the output of research findings, policies or issues which concern the citizenry. These information no doubt form a large part of the knowledge base that can help humanity if access for use and re-use of the information is made available to the general public. This information is what has been described as Public Sector Information (PSI).

Within the open access movement, there is an increasing demand for better access to and re-use of PSI. The advantages of ensuring better access to and re-use of PSI is far reaching. It has social, cultural and economic advancement advantages. Access to PSI would enable more participation by the ordinary citizen in the process of governance. It would create a stronger sense of accountability in the minds of leaders and would enable maximal use of government generated information.

Government plays a major role in the daily lives of its citizens and influences areas such as healthcare, energy, environmental issues, global warming, climate change, law, economics and the list goes on and on. The data, records, reports, analysis, maps, compilation etc generated by government through public servants, consultants or via whatever means form part of PSI, hence public sector information has been noted to include data, meteorological information, scientific research databases, statistical compilations and datasets, maps and geospatial information.

8. **Strategies to Achieving OA**

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106 See Ed Felten, et al., *Government Data and the Invisible Hand*, 11 Yale Journal of Law and Technology 160(2009), where at the introduction a policy strategy was suggested to Obama.


108 See, Access to and use of Public Sector Information, [http://www.aupsi.org/](http://www.aupsi.org/) (5 December 2012) where it was noted that “auPSI is at the heart of developing information policy about delivering access to and encouraging the use of public sector information (PSI) for social, cultural and economic advancement.”

Two major strategies were recommended by the BOAI, namely; Self Archiving and Open Access Journals. Other strategies such as contracts, licensing and open access mandates are being explored in the implementation of open access. The movement encourages the discovery of new strategies for the implementation of open access\textsuperscript{110}

**Self Archiving (Green Road):** This is a system that enables authors to deposit their refereed journal articles in open electronic archives such as personal websites, blogs and repositories.\textsuperscript{111} This strategy also referred to as Green Open Access could be implemented by the deposit of a final print (post print) in an institutional repository such as that of the University of South Africa (UNISA)\textsuperscript{112} and QUT repositories\textsuperscript{113}. The SHERPA ROMEO website provides a list of publishers that support green open access.\textsuperscript{114}

**Open Access Journals (Gold Road):** The other road to achieving open access is the gold road; open access journal-publishing. The Directory of Open Access Journals defines open access journals as journals that use a funding model that does not charge readers or their institutions for access.\textsuperscript{115}

The paths to open access are not all together straightforward. Several approaches have been adopted and are being adopted by publishers, authors, universities, research institutions and funding agencies to ensure that open access via multiple routes is workable. Some publishers maintain the traditional journal system and at the same time make particular articles available online subject to payment of a fee by the author or the authors sponsor.\textsuperscript{116} Another practice is to make a particular article published in the traditional journal available after an embargoed period, that is, an agreed period of time within which

\textsuperscript{110} See Ten Years on from the Budapest Open Access Initiative: Setting the default to open, http://www.opensocietyfoundations.org/openaccess/boai-10-recommendations (5 December 2012)
\textsuperscript{111} Steven Harnad, What is Open Access http://www.eprints.org/openaccess/ (22 November 2012). See also Steven Harnad, Open Access Archivangelism http://openaccess.eprints.org/ (22 November 2012)
\textsuperscript{112} UNISA, Unisa Institutional Repository, available at http://uir.unisa.ac.za/.
\textsuperscript{113} QUT has both an eprint repository http://eprints.qut.edu.au/ and a digital repository http://www.digitalrepository.qut.edu.au/ The eprint repository warehouses and showcase some of the research output of QUT staff and postgraduate students and the digital repository makes available the current QUT research repositories and digitized collections.
\textsuperscript{114} ROMEO SHERPA, Publisher copyright policies & self-archiving, available at http://www.sherpa.ac.uk/romeo/PDFandIR.html.
\textsuperscript{116} These are referred to as Hybrid open access journals.
the work shall not be made open access.\textsuperscript{117} The SHERPA ROMEO website provide amongst other things, a list of publishers and their embargo period for each of the publishers.\textsuperscript{118}

The following are some of the routes that have been adopted to enable open access.

**Open Access Journals** are scholarly journals readily available online to the public without “financial, legal or technological barriers other than those inseparable from gaining access to the internet itself”\textsuperscript{119} It refers to a new model of publishing, (open access publishing) which enables the general public to freely read and re-use peer-reviewed literature.\textsuperscript{120} It however charges an Article Processing Charge (APC) to cover the publication cost.\textsuperscript{121} Examples of OA journals are, PLoS\textsuperscript{122}, BioMed Central\textsuperscript{123}, The New Journal of Physics\textsuperscript{124} and Murdoch University Law Review\textsuperscript{125}

**Hybrid Open Access Journals**: Peer-reviewed literature published as Gold OA within subscription based journals. Thomas Walker’s Florida Journal of Entomology is an example of a hybrid open access journal\textsuperscript{126}

**Delayed Open Access**: Subscription based publishers allowing Green Open Access after an embargo period. Journal of the Physical Society of Japan is an example of a traditional journal with delayed open access.\textsuperscript{127}

\textsuperscript{117} These are referred to as delayed open access journals.
\textsuperscript{118} See Publisher copyright policies & self archiving: Embargoes required, \url{http://www.sherpa.ac.uk/romeo/PDFandIR.html} (5 December 2012) where it categorised the embargo periods into 1 month (1 publisher) 3 months (1 publisher) 6 months (25 publishers) 12 months (22 publishers) 18 months (3 publishers) 24 months (10 publishers) 3 years (2 publishers) 4 years (2 publishers) 5 years (2 publishers) and Various embargo lengths (1 publisher).
\textsuperscript{119} Suber, Open Access Overview: Focusing on open access to peer-reviewed research articles and their preprints, \url{http://www.earlham.edu/~peters/fos/overview.htm}.
\textsuperscript{120} Quin Sarah, *Open Access by IOP Publishing*(2013), available at \url{http://australe.upmc.fr/access/content/group/fcMED_infoScient/seminaire_2012/UPMC_IOP_2012_11_anglais.pdf}.
\textsuperscript{122} PLoS, *PLOS ONE is a Peer-Reviewed, Open Access Journal*, PLOS ONE.
\textsuperscript{123} BioMed Central, *BioMed Central The Open Access Publisher*, BIOMED CENTRAL.
\textsuperscript{124} IOPscience, *New Journal of Physics The open access journal for physics*, available at \url{http://iopscience.iop.org/1367-2630}.
\textsuperscript{126} See Wikipedia, *Hybrid Open Access*, available at \url{http://en.wikipedia.org/wiki/Hybrid_open-access_journal} where it was noted that This was the first journal to have been recorded to have used this model. It was later extended to the other publications of the Entomological society of America and later refined by David Prosser in 2003 in the journal Learned Publishing.
Gratis Open Access refers to access which is free from price barriers, that is, it is delivered free of charge to users.\(^{128}\)

Libre Open Access is gratis open access plus freedom from some form of permission barrier, that is, legal (copyright and licensing) and technical restrictions.\(^{129}\)

It is important to note that whereas the green and gold roads focus on the mode of delivering open access, gratis and libre open access are concerned with the scope of freedom available to users.\(^{130}\)

**Open Access Mandate:** These are policies adopted by institutions (employers, funding agencies, government etc), to ensure that peer-reviewed journal publications, conference papers, theses, dissertations and institutional information emanating from them or from works funded under their charge are made open access by self archiving such documents in a freely accessible central or institutional repository.\(^{131}\) These open access mandates make open access a requirement for researchers and people under the charge of a mandating institution, thus placing them in a position of strength to bargain with publishers for open access to their journal articles.\(^{132}\) It also places a responsibility on authors who would ordinarily not have bothered, to ensure that their works are deposited in an institutional repository.\(^{133}\) A good example is the National Institutes of Health (NIH) in the United States

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\(^{127}\) See Wikipedia, *Delayed Open Access*, available at [http://en.wikipedia.org/wiki/Delayed_open-access_journal](http://en.wikipedia.org/wiki/Delayed_open-access_journal). Where it was noted that Molecular Biology of the Cell has a one month embargo, whereas Journal of the Physical Society of Japan has a 15 years embargo period.

\(^{128}\) Peter Suber, *Gratis and libre open access*, available at [http://legacy.earlham.edu/~peters/fos/newsletter/08-02-08.htm#gratis-libre](http://legacy.earlham.edu/~peters/fos/newsletter/08-02-08.htm#gratis-libre).


\(^{132}\) The Conversation, Princeton goes open access to stop staff handing all copyright to journals – unless waiver granted, [http://theconversation.edu.au/princeton-goes-open-access-to-stop-staff-handing-all-copyright-to-journals-unless-waiver-granted-3596](http://theconversation.edu.au/princeton-goes-open-access-to-stop-staff-handing-all-copyright-to-journals-unless-waiver-granted-3596) (5 December 2012)

Open access self-archiving has been mandated by over 150 universities, including the Harvard University, Queensland University of Technology (QUT), Massachusetts Institute of Technology (MIT), University College of London, research organisations in the United States (National Institutes of Health), United Kingdom (RCUK) and Europe (European Research Council (ERC) the Australian Research Council (ARC) and the World Bank. A comprehensive list of registered repositories can be found on the website of the Registry of Open Access Repositories Mandatory Archiving Policies (ROARMAP).

9. LICENSING

A (copyright) licence refers to the grant of permission by a licensor to the licensee and is usually reached via an agreement which would specify the subject matter and would provide clear details as to the terms and conditions under which the license is granted. These terms would usually stipulate what can and cannot be done, duration, cost and clarify grey areas if any. Licences may be exclusive or non-exclusive. While exclusive licenses grant permission to the licensee to the exclusion of all others (the licensor inclusive), non-exclusive licences grant restricted permission to the licensee, and the licensor therefore

134 NIH, NIH Public Access Policy.
138 See Massachusetts Institute of Technology (MIT), http://roarmap.eprints.org/122/ (5 December 2012)
140 NIH, NIH Public Access Policy.
141 RCUK, RCUK Policy on Open Access.
143 ARC, ARC Open Access Policy. The ARC has introduced a new open access policy for ARC funded research which takes effect from 1 January 2013. According to this new policy the ARC requires that any publications arising from an ARC supported research project must be deposited into an open access institutional repository within a twelve (12) month period from the date of publication.
retains the un-granted rights and may do as he please with the un-granted rights. Fees are applicable and payable for drafting licensing agreements. These fees could often be expensive.

As part of the OA plan to enhance access, an open licensing mechanism to simplify the licensing process has been introduced. This mechanism reduces cost, saves time and makes the process more user friendly as it comes in the format suitable for lawyers, laymen and that readable by machines.\textsuperscript{146} Examples of open licensing are the free/open source software movement (FOSS) and particularly copyleft introduced by Richard Stallman as well as the open content movement started by David Wiley. The above mentioned licensing systems influenced the creation of the Creative Commons Licences.\textsuperscript{147} Lawrence Lessig was central to the development of the Creative Commons licenses, a set of pre-drafted open content licences freely available to right-owners enabling the grant of prior permission to would be users. There are of course several other licensing options such as the GNU Free Documentation License (GFDL) but the current focus is on Creative Commons licence.

**Creative Commons**

The Creative Commons is a not for profit entity that enables the ideals of the OA movement.\textsuperscript{148} The organisation was launched on the 15th of May 2001. As at the time this paper was written (2013), Catherine Casserly coordinates the affairs of the organisation as the Chief Executive Officer.\textsuperscript{149}

The Creative Commons licences are built on the principles of copyright. They are not alternatives to copyright; rather they work within the framework of copyright principles.\textsuperscript{150} A copyright holder has exclusive rights to prohibit others from exploitation of a copyright

\textsuperscript{146} Creative Commons, About the Licenses.
\textsuperscript{147} Esther Hoorn, *Contributing to Conversational Copyright: Creative Commons Licenses and Cultural Heritage Institutions*, in *OPEN CONTENT LICENSING FROM THEORY TO PRACTICE* 7-8, (Lucie Guilbault & Christina Angelopoulos eds., 2011).
\textsuperscript{148} See (CC) Creative Commons, *About*, available at http://creativecommons.org/about. where it states the mission and vision of the organisation as follows:

**Our mission:** Creative Commons develops, supports, and stewards legal and technical infrastructure that maximizes digital creativity, sharing, and innovation.

**Our vision:** Our vision is nothing less than realizing the full potential of the Internet — universal access to research and education, full participation in culture — to drive a new era of development, growth, and productivity.\textsuperscript{9}

\textsuperscript{149} See (CC) Creative Commons, *Staff*, available at http://creativecommons.org/staff#catherinecasserly.
\textsuperscript{150} See (CC) Creative Commons, *About the Licenses: What our licenses do*, available at http://creativecommons.org/licenses/.
work subject to the grant of permission and to certain specified limitations and exceptions. In the context of this discussion, the permission factor is what is important. What Creative Commons have done is to create licenses providing avenues for issuance of prior permission to would-be users upon certain terms and conditions. One of the most constructive and remarkable contribution of the Creative Commons organisation to the OA movement are the Creative Commons licences.

**Copyright** as an exclusive right which grants its holder(s) certain rights to exclude all others from exploiting his/her creative endeavours without permission but subject to limitations and exceptions imposed by the law. It empowers its holders to grant or withhold permission with regard to exploitation of a creative work. Copyright works are numerous and we interact with them every day. They include literary (school text books, novels, thesis and dissertations, reports, software etc), dramatic (plays and theatrical displays), musical (songs), artistic (drawings, paintings, sculptors), cinematograph films (film recordings, video games), sound recording (sound and image recorded into devices such as CD’s, VCD’s, DVD’s, I-pod’s etc) and broadcast works (sending out audio and video information that are signal based through communication networks such as radio and TV stations). The focus of the open access movement has been on literary works, that is, works of writings such as books and articles. The copyright holder of a literary work enjoys certain rights such as the right to reproduce, publish, perform, distribute, adapt, translate, communicate to the public or broadcast the work.\footnote{Section 6 (1) a-ix of the Cap C28 (2004). See also Articles 6, 7 and 8 of the WCT (1996), providing for the rights of distribution (making available to the public), rental and communication to the public; and the Berne Convention for the Protection of Literary and Artistic Works, September 9, 1886, amended last on September 28, 1979 (September 9, 1886), which provides at articles 8, 9, 11 and 12 for the rights of translation, reproduction, public performance (particular recitation in public) communication to the public and adaptation respectively.}

The use of a work in which copyright subsists in any of the above mentioned ways without prior permission from the copyright holder or its being covered by a limitation or exception amounts to copyright infringement. To legitimately use a work that is protected by copyright, the current legal structure expects that one must either obtain permission or fall under one of the limitations or exceptions. Surmounting this copyright barrier often constitutes a challenge and it is this challenge, that is, of obtaining permission, that the
open access movement is out to resolve. In an attempt to overcome the inherent challenges associated with obtaining permission, the Creative Commons licences were developed.

**Creative Commons Licences**

Creative Commons has created a set of licences that serve as a mechanism for granting prior permission on a work, thus removing the copyright/permission barriers on open access to knowledge.

The licences are in 4 categories namely:

1. **Attribution** – This licence grants permission for exploitation of the work on the condition that due recognition be given the author, that is, the author be properly acknowledged as author. Under this licence a user may freely copy, distribute, re-use, adapt, sell, market, display in public, communicate to the public, and broadcast the work so long as due credit is given to the author. The licence is usually represented as “CC-BY”\(^\text{152}\). The World Bank is an example of an institution that has adopted a CC-BY licence\(^\text{153}\). In the same vein, since 2011, the Australian Budget and associated documents have been released under a CC BY license\(^\text{154}\).

2. **Share Alike** – This licence takes its inspiration from the “Copyleft movement”, the open source and free software movement (for example the GNU General Public Licence) which permits users free access to exploit (copy, use, re-use, mix, re-mix, adapt and even commercialize) software codes but places a condition of proper acknowledgement of the author and in addition, that derivatives of and from the work must be made available to the public on the same terms as the earlier work. The share-alike licence therefore grants permission for exploitation of a work on the conditions of proper acknowledgement and that derivatives must also be made available to the public on the same terms on which the

\(^{152}\) See Creative Commons, About the Licenses: What our licenses do.


\(^{154}\) Department of Parliamentary Budget Office, PORTFOLIO BUDGET STATEMENTS 2012-13, BUDGET RELATED PAPER NO. 1.20D, (2013).
initial work was granted. This licence is usually represented as “**CC-SA**". The popular Wikipedia is an example of an institution using the CC-BY-SA license.\(^{156}\)

3. **Non Commercial** – This licence permits users the right to exploit the work but restricts commercial use of the work. That is, you can copy, distribute, mix, re-mix, adapt and perform but do not commercialize the work. In essence it reserves the commercialization right of the author. It is usually represented as “**CC-NC**". The Massachusetts Institute of Technology’s (MITOPEN COURSEWARE) is licensed under a non-commercial license.\(^{158}\)

4. **No Derivatives** - This licence grants access to the work but restricts any form of adaptation of the work. In other words, the user is allowed to copy and distribute but cannot re-use, re-mix or adapt the work. It is usually represented as “**CC-ND**". The Creative Commons human readable summary of the Legal Code is an example of a document licensed under a no derivate license.\(^{160}\) The Australian parliament uses this license.\(^{161}\)

**CONCLUSION:** This paper has noted the importance of access to knowledge and the mechanisms that are being put in place to enable access to the world's vast resource of knowledge. The paper further notes the unprecedented availability but inaccessibility of information because they are locked up behind pay walls and permission restrictions erected by the current intellectual property rights regime. It has identified platforms that enable open access and advocates for global solidarity and participation by all stakeholders. The BOAI noted in 2002 that we can all make our contributions to open access by exploring

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\(^{155}\) See Creative Commons, About the Licenses: What our licenses do. [http://creativecommons.org/licenses/](http://creativecommons.org/licenses/)

\(^{156}\) See (CC) Creative Commons, *Wikipedia + CC BY SA = Free Culture Win*, available at [http://creativecommons.org/weblog/entry/15411](http://creativecommons.org/weblog/entry/15411). where mike Linksvayer noted that the Wikimedia Foundation board had approved the adoption of the Creative Commons Attribution-ShareAlike license as the main content license for Wikipedia and other Wikimedia sites.

\(^{157}\) See Creative Commons, About the Licenses. [http://creativecommons.org/licenses/](http://creativecommons.org/licenses/)

\(^{158}\) See MIT, MITOPEN COURSEWARE. Privacy and Terms of Use, [http://ocw.mit.edu/terms/](http://ocw.mit.edu/terms/) (5 December 2012)

\(^{159}\) See Creative Commons, About the Licenses. [http://creativecommons.org/licenses/](http://creativecommons.org/licenses/) (5 December 2012)

\(^{160}\) See (CC) Creative Commons, *Attribution-NoDerivs 3.0 Unported (CC BY-ND 3.0)*, available at [http://creativecommons.org/licenses/by-nd/3.0/](http://creativecommons.org/licenses/by-nd/3.0/).

new ways to enable access, use and reuse of knowledge. New ideas and strategies will be required in the implementation of open access and all parties must play their individual roles in the build up to a more open world.

When we look back and remember the impact of the invention of the printing press on the world’s information system, we realise that today, the Internet has stepped into the shoes of the printing press and is making a new kind of impact on the information system of the world. Maximizing this new platform for distribution, sharing and enabling access will mean taking positive and sometimes radical steps to address possible hindrances. The Copyleft and Creative Commons licences address a legal problem, open access journals and institutional repositories address an access problem, open access policies be they mandates or simple encouragements broaden the access gates and will in turn empower a community of commoners and bring about improved education, healthcare, agriculture, reduction of poverty and good governance.
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