How to Cite

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UNIT 3 RIGHTS AND LICENSES

Structure

3.0 INTRODUCTION

In the beginning of this millennium, three open access declarations namely Berlin, Budapest and Bethesda (BBB), have transformed the whole scholarly communications environment. The electronic journals had already arrived by then. But scholars still used to browse through print version of journals as a matter of habit. Electronic journals brought out the concept of open access journals, where people will get free access to published journal contents. However, copyright regime existing that time did not have adequate provisions to deal with open access to scholarly communications. Then the Creative Commons (CC) licenses got introduced in 2001 by a non-profit organization with the same name, that facilitate making open access knowledge resources globally accessible without the hassles of copyright restrictions. Open content licenses help researchers to make public funded research findings communicated through open access channels. There are two prominent open access channels available to researcher communities, namely Gold Open Access and Green Open Access. Gold open access channel usually caters to open access journals and open access contents in hybrid electronic journals. Green open access channel caters to institutional and disciplinary knowledge repositories. Scholarly authors are also made aware of author rights and some rights they can retain while signing a copyright transfer agreement or a license to publish agreement.

In this Unit, various author rights, licenses and rights assessment tools are discussed in details to help the librarians in strengthening their efforts in enhancing researchers' level of awareness.

3.1 LEARNING OUTCOMES

After going through the unit, you are expected to be able to:

- Understand the legal basis of copyrights and intellectual property;
- Explain the meaning of rights and restrictions associated with copyright;
- Understand the bases of open licensing;
- Analyse the different types of Creative Commons licensing; and
- Identify different support services available to understand adoption of OA.

3.2 INTELLECTUAL PROPERTY RIGHTS

Creative and innovative minds of human beings are the main force behind the technological changes for societal needs and comforts. Intellects and ingenious marvels are churning out in innovative solutions to societal problems. In scientific research, researchers deal with many real life problems as well as hypothetical or theoretical problems. The results of research are reported in research literature including journal articles, conference papers, book chapters, monographs, dissertations and research reports. In scientific and technological areas, research results often lead to scientific discovery or invention of new machines, formulae, designs and processes. Thus, scientific research turns into intellectual activities or intellectual exercises undertaken by a broad spectrum of researchers, who later become the knowledge creators, innovators, and finally legitimate holders of intellectual property rights.

WIPO (2008) defines "Intellectual property, very broadly, means the legal rights which result from intellectual activity in the industrial, scientific, literary and artistic fields. Countries have laws to protect intellectual property for two main reasons. One is to give statutory expression to the moral and economic rights of creators in their creations and the rights of the public in access to those creations. The second is to promote, as a deliberate act of Government policy, creativity and the dissemination and application of its results and to encourage fair trading which would contribute to economic and social development."

There are many forms of intellectual properties for defending rights of knowledge creators, inventors, or authors. Most prominent ones are Patent, Copyright, Trademarks, Industrial Designs and Integrated Circuits (IC), and Geographical Indications (GI).

WIPO (2008) defines 'Patent' – a major instrument for protecting intellectual property as, "a document, issued, upon application, by a government office (or a regional office acting for several countries), which describes an invention and creates a legal situation in which the patented invention can normally only be exploited (manufactured, used, sold, imported) with the authorization of the owner of the patent." The patents are vehicle of protection of intellectual property rights emanated from scientific projects or scientific discoveries. A

new product or process or technique derived from a scientific research work, which has certain applications for the betterment of human life, is patentable and inventors can claim it as their intellectual property by registering it with patenting authorities by following certain legal procedures.

WIPO (2008) defines 'Copyright' as "a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture and films, to computer programs, databases, advertisements, maps and technical drawings."

The copyright is a primary instrument for protecting intellectual properties of scientific and researchers' communities, as they communicate research findings through publishing papers in scholarly journals, conferences, monographs, theses and other research literature. The Patent is another tool for protecting intellectual property, although prudently used by scientific communities. The Copyright law is country specific and it varies country to country. The author, who is solely responsible for knowledge creation and authoring scholarly works, is the principal owner of copyright. However, many commercial publishers insist transfer of copyright from the creators to the publishers for getting research papers published in their publishing channels such as scholarly journals, monographs, books, conference proceedings, and case studies. While transferring copyright of a scholarly work to a publisher, an author actually transfers a bundle of exclusive rights such as reproduction, reuse, distribution, public performance, translation, public display, and modification of the original work. Most of the author's exclusive rights get curtailed. The SPARC (2006) highlights some of the rights an author should retain while publishing with for-profit publishers. Text Box 3.1 makes you understand your rights as an author. The SPARC (2006) has developed a model Addendum to Publication Agreement for retaining some author's rights while an author is signing the Copyright Transfer Agreement (CTA) or Licence to Publish (LTP).

While commercial or for-profit publishers have intensified commodification of scholarly works published by them, there are instances of researchers' communities adopting alternative pathways so that authors and users of scholarly literature retain some of the exclusive rights for fair use and continuation of the knowledge creation process. Table 3.1 shows various author rights regime. Copyright is the conventional method of protecting intellectual properties of authors and creators. Copyleft is a liberal method of protecting author's rights, while relaxing some rights for fair use and reuse of published literature. Creative Commons is another liberal form of protecting author's rights, which is most accepted in open access publishing environment.

Text Box 3.1: Know Your Rights as an Author

- The author is the copyright holder. As the author of a work you are the copyright holder unless and until you transfer the copyright to someone else in a signed agreement.
- Assigning your rights matters. Normally, the copyright holder possesses

the exclusive rights of reproduction, distribution, public performance, translation, public display, and modification of the original work. An author who has transferred copyright without retaining these rights must ask permission unless the use is one of the statutory exemptions in copyright law.

- The copyright holder controls the work. Decisions concerning use of the work, such as distribution, access, pricing, updates, and any use restrictions belong to the copyright holder. Authors who have transferred their copyright without retaining any rights may not be able to place the work on course websites, copy it for students or colleagues, deposit the work in a public online archive, or reuse portions in a subsequent work. That's why it is important to retain the rights you need.
- Transferring copyright doesn't have to be all or nothing. The law allows you to transfer copyright while holding back rights for yourself and others. This is the compromise that the SPARC Author Addendum helps you to achieve.

Source: http://www.sparc.arl.org/resources/authors/addendum

Table 3.1: Various Author Rights Regime

	Symbol	Rights Statement
Copyright		All rights reserved.
Copyleft		All wrongs reserved.
Creative Commons		Some rights reserved.

3.3 OPEN LICENSES

As seen in Table 3.1, there are two major alternatives to Copyright regime for protecting author's rights as well as users' freedom of use, reuse, share, distribution and modification of the original work. Copyleft and Creative Commons licenses become very helpful to the knowledge communities which are intended to guarantee your freedom to share, use, reuse, and change. Some popular forms of open licences are briefly introduced in the following paragraphs.

Copyleft

Copyleft is a general method for marking a creative work as freely available to be modified, and requiring all modified and extended versions of the creative work to be free as well. The believers of Copyleft movement are concerned over well-funded corporate strategies to privatize and commodification of all human knowledge, creativity, and meaning. This movement strives to build an

alternative to the current restrictive regime of intellectual property controls. The movement sarcastically kept its slogan "All wrongs reserved." GNU General Public License of the GNU Project, supported by the Free Software Foundation, follows the principles of Copyleft. Copyleft is a feature of most open source software (OSS) licenses.

GNU General Public License

The GNU General Public License (GNU-GPL or GPL) was originally written by Richard Stallman of the Free Software Foundation (FSF) for the GNU project. It was formally launched in 1989 as GPL version 1.0. It is the most widely used free software license, which guarantees end users (individuals, organizations, companies) the freedom to use, study, share (copy), and modify the computer software. Computer software that ensures that these rights are retained is called free software.

Open Content License

OpenContent Licensing (OCL) is another form of open license launched in 1998. It is mostly used in technical documentation, software manual and other related projects. The Wiki Books project also has adopted OPL for online distribution. Its derivative version Open Publication License (OPL) was released in 1999 as OPL version 1.0.

The Copyleft, GNU-GPL and OPL have been the collective and community efforts to produce shareable and modifiable computer software, technical literature and creative contents. These licences are also aimed at reducing overdependence from the multinational and large corporations, trying to hold community knowledge for their profits.

Creative Commons

While the Copyleft, GNU-GPL and OPL licenses mainly cater to the purposes of computer software and technical documentations, the Creative Commons (CC) licenses are preferred in scholarly communications as well as in creative audio-visual communications. Creative Commons, launched in 2001 as a non-profit organization, is an outcome of larger community movements, embracing the notions of freedom of sharing, reusing and modifying scholarly or artistic contents for knowledge re-creation and optimal utilization. Creative Commons in scholarly communications environment becomes the Science Commons that ensures open access to research literature and research data. As shown in Figure 3.1, there are six types of CC licenses, namely CC BY, CC BY-SA, CC BY-NC, CC BY-ND, CC BY-NC-SA, and CC BY-ND. Here ND stands for no derivative works, SA stands for share-alike, and NC stands for non-commercial. The most liberal term is CC BY, where users can copy, distribute, display, perform and remix an author's work if they credit author's name as requested by the author. The most restrictive term is CC BY-NC-ND, where users can copy, distribute, display, and perform verbatim copies of an author's work but for non-commercial purposes only.

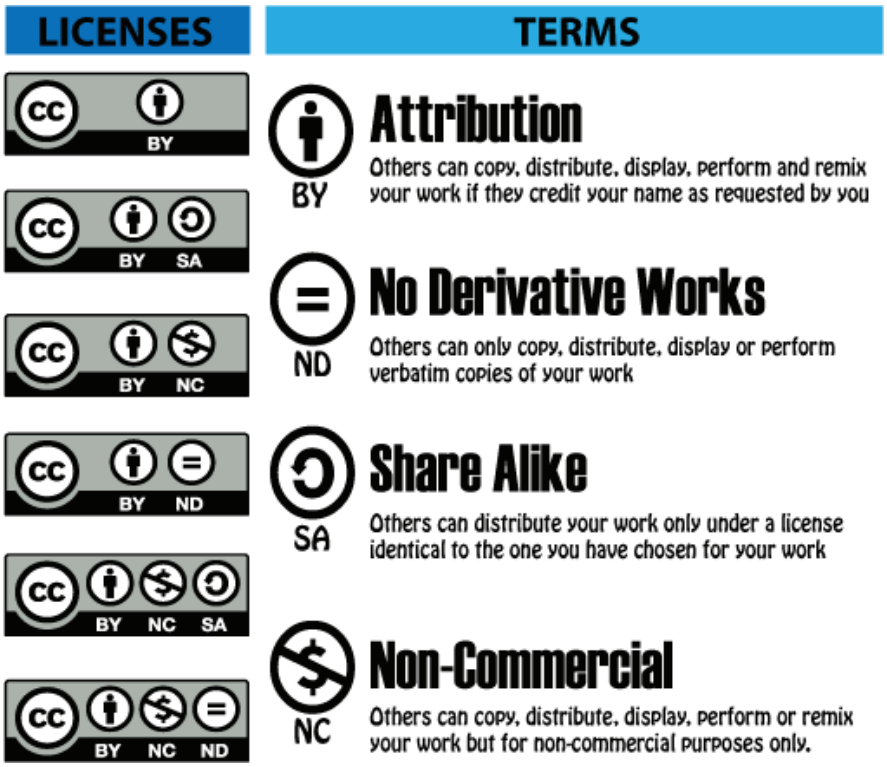


Figure 3.1: Understanding Creative Commons Licenses[20]

Open Access Spectrum: Table 3.2 shows a tabular representation of different rights available to a creator or author who opts to publish an open access publication. Such rights and attributes are the Reader Rights, Reuse Rights, Copyrights, Author Posting Rights, Automatic Posting, and Machine Readability. Some of these rights are also extended to users' community, in case of open access publications, allowing them to use, reuse, remix or share. This Table is drawn from an advocacy toolkit "HowOpenIsIt?™ Open Access Spectrum", jointly published by the SPARC (Scholarly Publishing and Academic Resources Coalition), PLOS (Public Library Of Science) and OASPA in 2014 and licensed under CC BY. The top most row indicates most generous rights available to an open access publication, with a CC BY license, where authors as well as users have rights related to reusing, sharing, archiving, self-archiving, copying, distributing, translating, machine reading and all other fair use. Whereas bottom most row indicates most restrictive rights for a closed access publication, where neither creators nor users have rights related to reusing, sharing, archiving, self-archiving, copying, distributing, translating, or machine reading. This tabular spectrum also gives a glimpse of broader view of an open access publication vis-à-vis narrower view a publication in copyright regime. The publications licensed under CC BY-ND offer more restrictive rights than the publications licensed under CC BY-SA or CC BY-NC. Similarly, the publications licensed under CC BY offer more liberal rights than the publications licensed under CC BY-SA or CC BY-NC.

Since the last decade we have observed the exponential growth of open access publishers as well as joining of toll-access publishers in open access scholarly

[20] http://education-copyright.org/creative-commons/

publishing domain. The Open Access Scholarly Publishers Association (OASPA), founded in 2008, has become an industry association representing open access publishers for sustenance of gold OA publishing model. OASPA recommends implementation of CC BY license by their member publishers so that OA contents can be reused and distributed through commercial and non-commercial channels. However, OASPA usually opposes implementation of CC BY-SA or CC BY-NC-ND licenses by their member publishers, as discussed in Text Box 3.2, as these licenses are more restrictive and non-beneficial to them. The publishers receiving article processing charge (APC) from the authors of accepted papers in their OA journals or OA articles in hybrid journals usually grant CC BY license to their contents. Whenever authors insist to have more restrictive ones such as CC BY-SA or CC BY-NC-ND licenses, they need pay premium APC – higher than regular APC for granting CC BY license.

Major OA publishers, such as, PLOS, BioMed Central and eLife, have been publishing papers with appropriate CC licenses, as suggested or approved by authors' respective research funders. Other OA publishers, particularly, which are from the developing countries, need to implement standardized OA licenses suitable for global researchers and research funders.

Text Box 3.2: Why doesn't OASPA allow CC BY-SA or CC BY-NC-ND licenses?

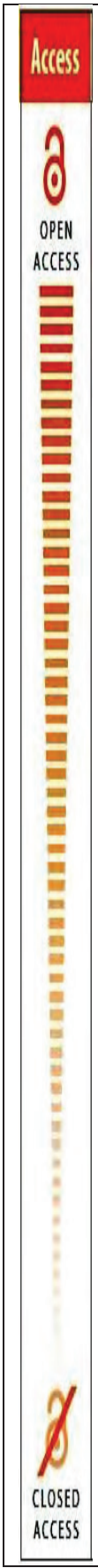
Each type of restriction has its uses, for certain types of content and certain types of sharing. But the emerging consensus on the adoption of CC-BY reflects the fact that any of these restrictions needlessly limits the possible reuse of published research.

CC-BY-SA: Share-Alike. Material distributed under a share-alike license can be used to create and distribute derivative works, but only if those works are shared under the same Share-Alike license. Such licenses are sometime referred to as Viral licenses, as "the licenses spread a continuing use of the licenses in its derivatives". However, while such licenses can be extremely helpful in building up a collection of content, they also have downsides in terms of the limitations they place on reuse. For example, material distributed within a Share-Alike article could only be combined and redistributed with other share-alike content. In contrast, CC-BY content can be combined with any content, and redistributed according to the terms of that other content, as long as CC-BY's own attribution requirement is respected. This makes CC-BY something like a Universal Donor blood-type in that it has maximal compatibility.

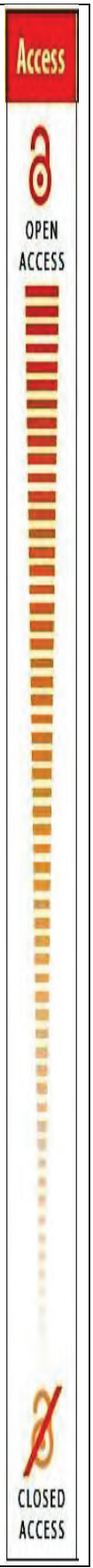
CC-BY-NC-ND: No Derivatives. Derived use is fundamental to the way in which scholarly research builds on what has gone before. One of the many benefits of open access publishing is that elements such as figures from a published research article can be reused, with attribution, as part of teaching material, or in other published works, without needing to request permission of the publisher. Similarly, article translations, image libraries, case report databases, text-mining enhancements and data visualizations are all examples of how additional value can be created by allowing derivative use.

Source: http://oaspa.org/information-resources/frequently-asked-questions/

Table 3.2: Understanding Fully Open Access Resources from the "Open Access Spectrum"



Reader Rights	Reuse Rights	Copyrights	Author Posting Rights	Automatic Posting	Machine Readability
Free readership rights to all articles immediately upon publication	Generous reuse & remixing rights (e.g., CC BY license)	Author holds copyright with no restrictions	Author may post any version to any repository or website	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) immediately upon publication	Article full text, metadata, citations, & data, including supplementary data, provided in community machine readable standard formats through a community standard API or protocol
Free readership rights to all articles after an embargo of no more than 6 months	Reuse, remixing, & further building upon the work subject to certain restrictions & conditions (e.g., CC BY-NC & CC BY-SA licenses)	Author holds copyright, with some restrictions on author reuse of published version	Author may post final version of the peer-reviewed manuscript ("postprint") to any repository or website	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) within 6 months	Article full text, metadata, citations, & data, including supplementary data, may be crawled or accessed through a community standard API or protocol
Free readership rights to all articles after an embargo greater than 6 months	Reuse (no remixing or further building upon the work) subject to certain restrictions and conditions (e.g., CC BY-ND license)	Publisher holds copyright, with some allowances for author and reader reuse of published version	Author may post final version of the peer-reviewed manuscript ("postprint") to certain repositories or websites	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) within 12 months	Article full text, metadata, & citations may be crawled or accessed without special permission or registration
Free and immediate readership rights to some, but not all, articles (including "hybrid" models)	———	Publisher holds copyright, with some allowances for author reuse of published version	Author may post submitted version/draft of final work ("preprint") to certain repositories or websites	———	Article full text, metadata, & citations may be crawled or accessed with permission
Subscription, membership, pay-per-view, or other fees required to read all articles	No reuse rights beyond fair use/limitations & exceptions to copyright (all rights reserved copyright) to read	Publisher holds copyright, with no author reuse of published version beyond fair use	Author may not deposit any versions to repositories or websites	No automatic posting in third-party repositories	Article full text & metadata not available in machine-readable format



3.4 SUPPORT TOOLS AND SERVICES

Scholarly communications require clear understanding related to author rights and users' rights in order to maximize benefits of publishing and knowledge diffusion. Particularly when authors are young researchers, they need regular institutional supports for rights management. In many universities and research institutions, librarians provide advisory service and guidance to budding authors while they deal with copyright and related rights during the course of their academic publishing.

Some organizations associated with open access advocacy and awareness raising have developed certain ready-to-use tools for authors helping them to deal with rights management, particularly while they deal with copyright transfer before publishing in scholarly journals or conference proceedings, and self-archiving after publishing in journals or conferences.

SPARC Author's Addendum

In earlier section you came to know that an author requires signing a Copyright Transfer Agreement (CTA) for transferring a bundle of rights to publisher for publishing a paper in a scholarly journal or conference volume. This way, publisher also obtains a Licence to Publish (LTP) from the author, before publishing a paper in a scholarly journal. However, the author can retain some rights (e.g. rights to access, reuse, modify, share, etc.) and transfer only LTP to the publisher. This would facilitate publishers in accepting contents for publishing, while authors would have freedom to reuse. The SPARC has developed a model agreement and a tool known as *SPARC Author's Addendum* for facilitating authors to negotiate with publishers of scholarly journals. Author can carefully assess CTA given by a publisher and opt out some provisions in it restricting in exercising his/her academic freedom.

SHERPA/RoMEO[21]

As Green Open Access model gives researchers avenues for self-archiving of their papers in institutional repositories, disciplinary repositories and personal research profiles, there is confusion in what form an author should self-archive a particular paper written by him/her. S/He needs to check whether in pre-print, post-print or publisher's version s/he can self-archive. RoMEO is a necessary tool for a researcher for making a self-archiving decision. The RoMEO is a searchable database of publisher's copyright policies regarding the self-archiving of journal articles on the web and in open access repositories. This is a web-based database of about 22,000 peer-reviewed scholarly journals, covering many print, electronic and open access journals available worldwide. This project is part of the SHERPA Services based at the University of Nottingham. This project is presently funded by JISC. It also received seed funding from the Wellcome Trust, UK. You can use RoMEO website for different purposes, such as:

[21] http://www.sherpa.ac.uk/romeo/

- Use RoMEO to assist you when depositing articles to your institutional repository.
- Use RoMEO to find out if your publishers' copyright rules allow you to deposit in your institutional repository.
- RoMEO summarizes publishers' conditions and categorizes publishers by colours, indicating level of author rights.
- RoMEO shows which publishers' comply with funding agencies' conditions on open access.

SHERPA/JULIET[22]

The SHERPA/JULIET is an excellent tool for helping global authors in identifying Research Funders' Open Access Policies. JULIET is searchable by funders' name or country keywords. The search results indicate whether researchers are required or not required to have open access publishing, open access archiving of publications and data archiving, while carrying out sponsored research projects. JULIET helps in comparing details of policies between different countries or different funding agencies, research councils and research bodies across the world. It also helps in determining open access mandates and publishing conditions of funding agencies. It also helps in identifying funders having provisions to pay APC for publishing open access scholarly articles. JULIET project is a part of the SHERPA Services based at the University of Nottingham. This project was initially funded by JISC and Research Libraries in the UK and Ireland (RLUK). You can use JULIET website for different purposes, such as:

- Use JULIET to find out if your research funder requires you to deposit your article in a repository.
- Use JULIET to assist you when depositing articles to your institutional repository.
- JULIET provides summaries of funding agencies' grant conditions on self-archiving on research publications and data.

3.5 LET US SUM UP

In this Unit, you have learnt about various provisions of protection of intellectual property rights during the processes of knowledge creation, publishing and dissemination. Electronic publishing environment helps in sharing ones' scholarly works with global communities. However, copyright of a scholarly work, if transferred to its publishers, may restrict an author to share his/her own works through a global network. On the other hand, authors may obtain some exemptions in using, reusing or sharing their respective works. Research papers published in toll access journals or conference proceedings may be made freely available through self-archiving in institutional or

[22] http://www.sherpa.ac.uk/juliet

disciplinary repositories. The author needs to know the journal's self-archiving policy, i.e., whether allowing pre-print or post-print or publishers' version to be self-archived. Author should also know whether a journal is having an embargo period restricting self-archiving for a certain period after publishing.

Of late, Creative Commons (CC) licenses facilitate authors to enjoy certain liberty in sharing, using, reusing, distribution and modification. When an author shares his/her 'just published' research paper in social media, personalized researcher's profile and online forums, it comes with much higher possibilities of getting read or noticed by co-researchers working in the same or allied research areas. All six types of CC licenses give rights to share and fair use. Open licenses help the researchers in global dissemination of public funded research results for effective delivery of public goods and services.

The publishing and academic databases industries have strengthened their digital rights management (DRM) tools for detecting copyright violations and plagiarisms in the vicinity of academic publishing. The fair use culture needs to inculcate in academic researcher communities in order to bring transparent publications ethics in the process of scholarly communications, particularly in the electronic environment.

3.6 CHECK YOUR PROGRESS

a) Identify four open licenses suitable for scholarly publishing.

b) Identify four organizations involved in awareness raising of author rights.

c) Identify four rights that can be exempted through SPARC Author Addendum.

d) Where can you find out whether your publishers' copyright rules allow you to self-archive?

e) Where can you find out whether your research funder requires you to deposit your article in a repository?

f) Which license does not permit commercial redistribution of a published work?

   i) CC BY

   ii) CC BY-NC

   iii) CC BY-ND

   iv) CC BY-SA

g) Which license does not permit users to modify and republish a work already published?

   i) CC BY

   ii) CC BY-NC

   iii) CC BY-ND

   iv) CC BY-SA

h) Which license does not permit users to produce derivative works of a work already published?

   i) CC BY
   ii) CC BY-NC
   iii) CC BY-ND
   iv) CC BY-SA

i) Which license is most liberal?

   i) CC BY
   ii) CC BY-ND
   iii) CC BY-NC-SA
   iv) CC BY-SA

j) Which license is most restrictive?

   i) CC BY
   ii) CC BY-ND
   iii) CC BY-SA
   iv) CC BY-NC-SA

ONLINE VIDEOS FOR SELF-LEARNING

There are a number of video tutorials available on topics discussed in this Unit. Some of the tutorials were developed by the organizations responsible for the advocacy and awareness raising, while some others were developed by reputed scientists and libraries. Now, you can learn more about different dimensions of copyright and author rights in real life academic research environment.

- Author rights, your rights **Video**[23]
- Author Rights: Working with Publishers to Keep Your Rights **Video**[24]
- Copyright vs Copyleft **Video**[25]
- Creative Commons & Copyright Info **Video**[26]
- Fair Use & Copyrights **Video**[27]
- Using copyrighted content licensed under Creative Commons or from the Public Domain **Video**[28]
- Science Commons **Video**[29]

[23] http://www.youtube.com/watch?v=hWZ_ZYbAIyg
[24] http://www.youtube.com/watch?v=dYXwqsFmK44
[25] http://www.youtube.com/watch?v=Ry5bVQ3y2FU
[26] http://www.youtube.com/watch?v=8YkbeycRa2A
[27] http://www.youtube.com/watch?v=GidwzOYiPl0
[28] http://www.youtube.com/watch?v=as5QsoRYyBk
[29] http://www.youtube.com/watch?v=hZAcTNFzF-s

ANSWERS TO CHECK YOUR PROGRESS

Unit 2

Q-(e) ii,
Q-(f) iv,
Q-(g) iii,
Q-(h) ii,
Q-(i) i.

Unit 3

Q- (f) ii,
Q- (g) iv,
Q- (h) iii,
Q- (i) i,
Q- (j) iv.

Unit 4

Q-(e) iv,
Q-(f) ii,
Q-(g) ii,
Q-(h) i,
Q-(i) ii,
Q-(j) iv.

Unit 5

Q-(f) i,
Q-(g) ii,
Q-(h) ii,
Q-(i) iii,
Q-(j) iv.

GLOSSARY OF TERMS

Advocacy	It is a political process by an individual or group which aims to influence public opinion, public-policy and resource allocation decisions within political, economic, and social systems and institutions. It can include many activities that a person or organization undertakes including media campaigns, public speaking, commissioning and publishing research.
Altmetrics	Altmetrics is a new metrics proposed as an alternative to the widely used journal impact factor and personal citation indices such as h-index. The term altmetrics was proposed in 2010, as a generalization of article level metrics, and has its roots in the twitter #altmetrics hashtag.
Article	The article influence determines the average influence of a

Influence® score	journal's articles over the first five years after publication. It is calculated by dividing a journal's EFS by the number of articles in the journal, normalized as a fraction of all articles in all publications.
Arts & Humanities Citation Index	It is the third commercially available citation index, launched in 1978 by the ISI. Now it is available with the WoS/ WoK platform.
Author Addendum	A legal instrument that modifies the publisher's agreement and allows you to keep key rights to your articles.
Author Rights	A bundle of rights which are part of copyright law, such as right to share, use, reuse, modify, perform and remix.
Capacity Building	It is a conceptual approach to development that focuses on understanding the obstacles that inhibit people, governments, international organizations and non-governmental organizations from realizing their developmental goals while enhancing the abilities that will allow them to achieve measurable and sustainable results. It is also referred to as capacity development.
Citation	It is a reference to a text or part of a text identifying the document in which it may be found.
Citation analysis	It is the examination of the frequency, patterns, and graphs of citations in articles and books. It uses citations in scholarly works to establish links to other works or other researchers. It is one of the most widely used methods of bibliometrics.
Citation Index	It is a bibliographic tool in print or electronic format that lists all referenced or cited source items published in a given time span.
Cited Half-Life	It is a measurement used to estimate the impact of a journal. It is the number of years, going back from the current year, that account for 50% of the total citations received by the cited journal in the current year. ISI developed this calculation to provide an indicator as to the long-term value of source items in a single journal publication.
Citing Half-Life	The number of journal publication years, going back from the current year that account for 50% of the total citations given by the citing journal in the current year. ISI developed this calculation to provide an indicator of the subtle changes in scope of a publication over the course of time.
Coalition	It is a pact or treaty among individuals or groups, during which they cooperate in joint action, each in their own self-interest, joining forces together for a common cause. This alliance may be temporary or a matter of convenience.
Copyleft	An arrangement whereby software or artistic work may be used, modified, and distributed freely on condition that anything derived from it is bound by the same conditions.

Copyright	The exclusive and assignable legal right, given to the originator or creator or author for a fixed number of years, to print, publish, perform, film, or record literary, artistic, or musical material.
Copyright Transfer Agreement	An agreement between authors and publishers, where authors transfer some exclusive rights to publishers.
Delayed OA	It offers free access after a specified period. A journal will make its articles freely available after a period of time, anywhere from 6 months to 2 years.
Digital Preservation	In library and archival science context, it is a formal endeavour to ensure that digital information of continuing value remains accessible and usable.
Eigenfactor® score	It is based on the number of times articles from the journal published in the past five years have been cited in the JCR year, but it also considers which journals have contributed these citations so that highly cited journals will influence the network more than lesser cited journals. References from one article in a journal to another article from the same journal are removed, so that Eigenfactor Scores are not influenced by journal self-citation.
Gratis OA	It removes price barriers alone. It is free of charge, but not free of copyright, or licensing restrictions.
H-Index	It refers to Hirsch's H-Index, suggested by physicist Jorge E. Hirsch. It is the largest number h such that h publications have at least h citations.
Hybrid OA	It offers free availability of certain articles written by authors who choose to pay a publication charge or APC to make their articles OA immediately on publication, while the rest of the articles requires a subscription to access.
i10 Index	It, introduced in 2011 by Google Scholar, indicates the number of academic publications an author has written that have at least ten citations from others.
Institutional Repository	It is an online archive for collecting, preserving, and disseminating digital copies of the intellectual output of an institution, particularly a research institution. Usually it is in OA.
Journal Citation Reports	It is a tool, launched in 1975 by the ISI, for ranking academic journals analysing citations count, journal impact factor and journal immediacy index. Presently it has two annual editions for science and social sciences, based on SCI-E and SSCI.
Journal Immediacy Index	It is the average number of times that an article published in a specific year within a specific journal is cited over the course of that same year.
Journal	It is the number of current citations to articles published in a

Impact Factor	specific journal in a two year period divided by the total number of articles published in the same journal in the corresponding two year period.
Libre OA	It removes price barriers and at least some permission barriers as well. It is free of charge and expressly permits uses beyond fair use.
Licence to Publish	An exclusive right authors grant to publishers.
License	A permission or authorization that ensures licensors get the credit for their work.
Open Source Software	It is computer software with its source code made available and licensed with a license in which the copyright holder provides the rights to study change and distribute the software to anyone and for any purpose.
Partial OA	It offers free availability of the journal's primary research articles, but access to other value-added content such as editorials and review articles requires a subscription.
Scholarly Journal	It is a peer-reviewed periodical publication in which scholarship relating to a particular academic discipline is published. Academic journals serve as forums for the introduction and presentation for scrutiny of new research, and the critique of existing research.
Science Citation Index	It is the first commercially available citation index, launched in 1964 by the ISI. Now it is available with the WoS/ WoK platform.
SCImago Journal Rank	It is a prestige metric based on the idea that 'all citations are not created equal'.
Scopus	It is the world's largest abstracting and citation database of peer-reviewed literature.
Selected OA	It offers free availability of selected articles of a journal issue, while the rest of the issue requires a subscription to access.
Self-Citation	It is a reference an author provide in a document to other documents written by himself/ herself.
Serials Crisis	A common phenomenon to describe the constant increase in subscription cost increases of many scholarly journals.
Short-term OA	It provides free access to articles for a short period after publication, after which they are only available to paid subscribers.
SNIP	It measures contextual citation impact by weighting citations based on the total number of citations in a subject field.
Social Science Citation Index	It is the second commercially available citation index, launched in 1972 by the ISI. Now it is available with the WoS/ WoK platform.

LIST OF ABBREVIATIONS

ACD	IFLA Acquisition & Collection Development
A&HCI	Arts & Humanities Citation Index
AIS	Article Influence® score
ALM	Article Level Metrics
Altmetrics	Article Level Metrics
APC	Article Processing Charge
ATA	Alliance for Taxpayer Access
BBB	Budapest, Berlin and Bethesda OA declarations
BMC	BioMed Central
BOAI	Budapest Open Access Initiative
CC	Creative Commons
CC BY	Creative Commons Attribution
CC BY-NC	Creative Commons Attribution- Non-Commercial
CC BY-NC-ND	Creative Commons Attribution- Non-Commercial- No Derivatives
CC BY-NC-SA	Creative Commons Attribution- Non-Commercial- Share Alike
CC BY-ND	Creative Commons Attribution- No Derivatives
CC BY-SA	Creative Commons Attribution- Share Alike
CLOCKSS	Controlled LOCKSS
COAPI	Coalition for Open Access Policy Institutions
COPE	Committee on Publication Ethics
CTA	Copyright Transfer Agreement
DCC	Digital Curation Centre
DOAJ	Directory of Open Access Journals
DOI	Digital Object Identifier
DOI	Digital Object Identifier
DORA	San Francisco Declaration on Research Assessment
DRM	Digital Rights Management
EFS	Eigenfactor® score
EIFL	Electronic Information for Libraries
EOS	Enabling Open Scholarship
ERA	European Research Area
ETD	Electronic Theses and Dissertations
EU	European Union
FAO	Food and Agriculture Organization
FASTR	Fair Access to Science and Technology Research

FOSTER	Facilitate Open Science Training for European Research
FP7	Seventh Framework Programme for Research and Development
FSF	Free Software Foundation
GPL	GNU General Public License
GSC	Google Scholar Citations
HC-Index	Contemporary H-Index
H-Index	Hirsch Index
HTML	Hypertext Markup Language
I2S2	Infrastructure for Integration in Structural Sciences Project, U.K.
INASP	International Network for the Availability of Scientific Publications
IPR	Intellectual Property Rights
ISI	Institute for Scientific Information, USA
JCR	Journal Citation Reports
JIF	Journal Impact Factor
JII	Journal Impact Factor
JISC	Joint Information Systems Committee, United Kingdom
LIBER	Association of European Research Libraries
LOCKSS	Lots of Copies Keep Stuff Safe
LTP	Licence to Publish
MOOC	Massive Online Courses
NDLTD	Networked Digital Library of Theses and Dissertations
OA	Open Access
OAI	Open Archives Initiative
OASPA	Open Access Scholarly Publishers Association
OCC	Open Citations Corpus
OCS	Open Conference Systems
OCW	Open Courseware
ODL	Open and Distance Learning
OER	Open Educational Resources
OHS	Open Harvester Systems
OJS	Open Journal Systems
OpenDOAR	Directory of Open Repositories
OPL	Open Content License
OSS	Open Source Software
PKP	Public Knowledge Project
PLOS	Public Library of Science
PLOS ALM	PLOS Article Level Metrics.
PMC	PubMed Central

POP	Publish or Perish software
R&D	Research and Development
RLUK	Research Libraries in the UK and Ireland
ROARMAP	Registry of Open Access Repositories Mandatory Archiving Policies
RoMEO	Rights Metadata for Open Archiving
SCI-E	Science Citation Index Expanded
SciELO	Scientific Electronic Library Online
SJR	SCImago Journal Rank
SNIP	Source Normalized Impact per Paper
SPARC	Scholarly Publishing and Academic Resources Coalition
SSCI	Social Science Citation Index
SSRN	Social Science Research Network
UKOLN	United Kingdom Office for Library and Information Networking
UNESCO	United Nations Educational, Scientific and Cultural Organization
URI	Uniform Resource Identifier
WIPO	World Intellectual Property Organization
WoK	Web of Knowledge
WoS	Web of Science
WSIS	World Summit on the Information Society

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