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Open Access Licensing

A legal perspective for authors, publishers, funders, repository platform operators, and other stakeholders in the communication of science

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'I will make it a gift, if I want to and I will not gift it, if I don't want to; [...] there is no merit in gifting, if the donor is unconscious of the value of his gifts.'

Beaumarchais, author of '*Barber of Seville*' and '*The Marriage of Figaro*', in reply to a request by the *Academie Française* which tried to avoid having to account to the author for the use of his works; translated by CS Lavizzari and cited after, Oeuvres complètes de Pierre-Augustin Caron de Beaumarchais, Paris 1809 (7 Volumes), Volume. 6: Compterendu, p. 1-179, p.9 et seq.

'Some people got it
And make it pay
Some people can't even
Give it away'

Lines from the song 'Rose's Turn', Gypsy (Musical), Book by Arthur Laurents, Lyrics by Stephen Sondheim, Copyright 1959, Williamson Music, Inc. and Stratford Music Corporation, Chappel & Co.

'I write what I like'

Steve Biko, title of collection of select works, first published posthumously in 1978, Copyright 1979 Heinemann Educational Publishers, Oxford, UK

About the Publishing Research Consortium

The Publishing Research Consortium is a group of publisher associations and individual publishers. We support research into global issues that impact scholarly communication in order to promote evidence-based discussion. Our objective is to support work that is scientific and pro-scholarship. Overall, we aim to promote an understanding of the role of publishing and its impact on research and teaching.

The founding partners are The Publishers Association (UK), the Association of Learned and Professional Society Publishers, and the International Association of Scientific, Technical & Medical Publishers. Corresponding partners include the Professional/ Scholarly Publishing Division of the Association of American Publishers.

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Table of Contents

Foreword

The licensing of open access publication is an evolving concern to which no practical guide currently exists.

This short and we hope readable PRC Guide serves as an introduction to the issues involved for all those concerned with scholarly communication, and in particular for those involved with the drafting or appraisal of licences and agreements.

For a full understanding there is much ground to be covered, including: the landscape of open access; the concept of copyright; the nature of publishing agreements; the principles behind open access licensing; and the impact of other agreements that affect scholarly practitioners.

This Guide concludes with some recommendations to steer sustainable open access licensing, and offers a checklist of concerns for all actors concerned with open access publication to follow.

Although this expert legal opinion has been commissioned as a contribution to the continuing debates about open access licensing, this Guide should be read only as the advice of its authors and not as advocating a position on any specific issue on behalf of any of the publisher associations or individual publishers associated with the Publishing Research Consortium.

Graham Taylor, PRC Secretariat
February 2015

Glossary of abbreviations

AHSS	Arts, Humanities, Social Science (publishers)
APC	Article Processing Charge or Article Publication Charge
DOAB	Directory of Open Access Books
DOAJ	Directory of Open Access Journals
DOI	Digital Object Identifier
DRM	Digital rights management
EULA	End user licence agreement
IFLA	The International Federation of Library Associations and Institutes
IP	Intellectual property
LERU	League of European Research Universities
OA	Open access
OECD	The Organisation for Economic Co-operation and Development
OPC	Open published content
RMI	Rights management information
SaaS	Software as a service
SPARC	Scholarly Publishing and Academic Research Coalition
STM	Scientific, Technical and Medical (publishers) (also used as a shorthand for the International Association of STM Publishers)
TDM	Text and data mining
TPM	Technical protection measures
WIPO	World Intellectual Property Organization
WCT	WIPO Copyright Treaty

Introduction: Open Access Licensing

1. Copyright and licensing are important legal building blocks for open access publishing. This is potentially counter-intuitive because the public often incorrectly perceives 'open access' and 'open source' as alternatives, or as antithetical, to copyright and licensing.

2. Researchers regard themselves as authors since they wish to express and make public the discoveries and findings they make. Both the public and researchers themselves benefit from their role as recognizable authors, and copyright, or *droit d'auteur* (literally 'author's right') protects original expressions of the human mind as the author's own human right. Copyright also encourages the dissemination of the author's work and licensing is a mechanism by which dissemination can take place with the author's approval.

3. This Guide offers a high-level view of copyright and licensing with respect to scholarly publishing and open access. It considers the mechanics of Open Access Licensing before presenting and discussing key elements accepted by authors and publishers, including the written publishing agreement when moving from manuscript to publication. This Guide explains how well drafted publishing agreements can support Open Access Licensing and references other agreements regarding publishing and open access.

4. Given that the publishing agreement and Open Access Licences form the legal basis underpinning open access publishing today, this Guide suggests determinants of success for an open publishing agreement and licensing programme. The Guide concludes by recommending adoption of a workflow suitable to an Open Access Licensing partnership that all stakeholders should work towards.

5. Other important legal building blocks relevant for open access but not covered in this Guide include: the law of unfair competition and anti-trust; constitutional law; private international law (i.e. national laws governing legal relationships); criminal provisions; ethical standards and guidelines of academic honesty and good practice; public law applicable to public funding, research, and educational institutions; employment law matters of public bodies; or laws applicable to collective bargaining. Also, other forms of intellectual property, such as patents, trade secrets, design law, traditional knowledge and genetic resources are incompletely covered.

A. Scholarly and open access publishing

1. What is scholarly publishing and how electronic is it?

Today, virtually all Scientific Technical and Medical (STM) journals are available online. In fact, publishers are retrospectively digitising early hard copies back to the first volumes. In 2008, six years before this Guide was written, the Association of Learned & Professional Society Publishers (ALPSP) released an international survey reporting on scholarly publishing practice (Cox & Cox 2008 via the STM Report) finding that 96% of STM and 87% of Arts, Humanities and Social Sciences (AHSS) journals were already accessible electronically or 'born digital'. Books (scholarly monographs, multi-author works, anthologies, atlases and reference works) are also increasingly available in various digital formats. The vast majority of journal use and much monograph use, especially scholarly use, has already migrated online because of the portability of content through tablets and other mobile devices in conjunction with cloud storage services. Nevertheless, most publications, journal or book, are still available in both print and electronic versions in most STM and AHSS disciplines, but with an acceleration in the cessation of print.

2. What is open access? How long has it existed?

Widely cited declarations defining Open Access, referred to as the 'Three B's' (3Bs), date from 2002 and 2003: the Budapest Open Access Initiative, the Bethesda Statement and the Berlin Declaration. The International Association of Scientific Technical and Medical Publishers ('STM') offered the Brussels Declaration[1] while alternative definitions of Open Access include the Wellcome Trust's Position Statement supporting Open and Unrestricted Access to Published Research (2003), the Association of College & Research Libraries' (ACRL) Principles and Strategies for the Reform of Scholarly Communication (2003), IFLA's Statement on Open Access and subsequent clarifying statement (2003 and 2011), the OECD's Principles and Guidelines for Access to Research Data from Public Funding (2007), SPARC Europe Statement on Open Access (2011) and the LERU Roadmap towards Open Access (2011).

This Guide employs a 'broad church' working definition of open access and also frequently refers to Open Published Content (OPC), both defined as follows:

'Open access' means 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.'[2]

'Open Published Content' contains original peer-reviewed scholarly literature that can be accessed in electronic form by readers without their having to pay a charge for access, display, download, and the printing out for the reader's own scientific purposes. The open access publisher and authors arrange for the permanent availability for posterity

of their Open Published Content in the form of a scientific record (the version to which claims of authenticity, academic integrity, and authority attach).

The above working definitions do not include literary works published in ways that align the monetary interests of authors/copyright owners and publishers by virtue of a royalty, royalty advance, or flat fee, payable by the publisher. Although this form of publication is uncommon in the case of journal publications, it does exist for example in the form of commissioned review articles in research and review journals where authors are generally paid. Other more common examples would include monographs, anthologies, and book series. However, the above definitions should be broad enough to capture all the '*chiaroscuro*'[3] varieties of Open Access journals and Open Books (monographs, anthologies reference works, atlases) that are available based on Open Access models. The DOAJ (as of 2014) lists about 10,074 open access journals. Some also distinguish between open access and 'libre' open access. There appears to be however, no consequence or practical distinction following from classifying a publication as 'open' or 'libre', or at least no uniform consequence relevant for treatment in this Guide. DOAJ does not list all open access journals and recently announced the intention to de-list some.[4]

3. Open access and books

Book and book series authors derive income in the form of royalties or other payments far more often than authors that publish in journals, other than authors commissioned with payment to write review articles. As explained above, arrangements involving royalty and other payments do not generally fall under the scope of open access.

Similarly to DOAJ, there is a 'DOAB' – a Directory of Open Access Books[5]. Globally, many university presses are introducing or publishing monographs as OPC. For some of them, especially if their overheads are pre-funded by government, a 'dual' model could work[6] whereby a basic online version provides free access for non-commercial uses. Serial rights to mass media are also free, but the author may grant publishing rights for eBooks and printed books on a commercial basis. The publishing contract could then also be structured to take into account author-pays elements, such as where an 'earn-out' is agreed with the publisher: eBooks cease to be sold and become DRM (Digital Rights Management) free and free of charge once an income level of 50%-60% of costs is met through that income (the example assumes a 40% to 50% author-pays subvention). Other models are imaginable, but none with clear predominance seems yet to have evolved[7].

Thus, open access for entire books and anthologies is in principle also possible. The legal discussion in this Guide will therefore be useful for those wishing to publish open access books. However, print dissemination remains an important, if not the predominant, form of publication, particularly in the case of AHSS titles, while at the same time public funding of publication costs for AHSS and STM authors is unusual. There are open licences in use for open

books and some publishers have proposed and put into practice various models: O'Reilly's Open Book effort; Palgrave Macmillan and Springer offer books under open access conditions funded by APCs while print copies are sold "at cost"; and recently *de Gruyter*'s efforts are of interest. De Gruyter is also trying to work through crowd-funding arrangements such as Unglue.it[8]. Similarly, Knowledge Unlatched offers open access to books funded through payments by libraries[9]. For these reasons it is suggested that open access models may have to be tailor-made or significantly adapted in order to permit partial funding, at least until the investment of non-state funders has been fully recouped, through sales of books (in print or eBooks), or through crowd-funding models or other innovative mechanisms whereby the reading public effectively buys out the author and publisher and the work is consequently made electronically available at no cost to the public but at minimal cost in the print or print-on-demand forms.

4. Other concepts of openness

Openness is an important concept in electronic formatting, inter-operability and general standard setting. To the extent that open access is a term gleaned from 'open source software' and 'free ware', the term 'open' indicated foremost a need to publish software in dual form, i.e. not only in (unreadable) 'object code' but also in 'source code' and to make the source code available to developers for inspection and further use and development. Thus, in the open source (software) context openness refers not necessarily to 'free of charge' but to publication in accessible modes and an absence of trade secret protection. Open access publications may be used as part of collaboratively created content, such as in Wikis or running blogs. However, these concepts also present distinct challenges that are not dealt with in this Guide. Open access publications are understood as distinct from open access scientific information or knowledge – denoting ideas that are broader than peer reviewed scholarly literature, comprising also research data, software, methods, formulas, languages, procedures, plots and riddles, and recorded matter, perhaps even living or preserved organisms in the case of biological materials. Similarly, there are concepts of openness important to open innovation and also in standardization by virtue of patent licensing pools, patent 'FRAND' licensing terms and conditions. These concepts are not elaborated on in this Guide.

5. Open access to What and When?

Three stages in the publication cycle of a scientific work can readily be distinguished (extensively discussed in the STM Report of 2012[10]):

- Stage 1 - The author's (un-refereed) **Original Manuscript** or submitted version, known colloquially as a 'Preprint'.

- Stage 2 – The author's final refereed manuscript accepted for publication by a journal and containing all changes required under peer review but not copyedited or paginated. This manuscript is referred to as the '**Accepted Manuscript**'.
- Stage 3 – The final published citable, paginated and copyedited article available from the journal's website, or the so-called '**Version of Record**'.

Open Access publication can take place either prior to, simultaneous with, or at a certain period after formal publication (i.e. after an embargo period), and may be related to any one of the three versions of a work described above. The following routes to open access of STM and AHSS publications can be distinguished:

Full Open Access (the Gold route) – The Version of Record is made open access on publication. There are two sub-varieties: immediate full open access journals, where all accepted content is made available in open access form usually on requirement of author payment, or hybrid/optional open access journals, whereby authors of accepted articles can opt to pay to have their article published open access. In hybrid journals, the journal provides the authors with the option to make their article open access in an otherwise subscription-based journal in return for payment of a fee and typically within a specified time frame.

Delayed Open Access – Also the Version of Record; publication uses a subscription business model, and after a delay (of between 6 and 36 months) the publisher makes the article freely available. To be truly open access this would also involve a change in licensing terms. The publisher's business model depends on the embargo period being sufficient to ensure that subscription sales continue, through which investments are recouped.

Self-archiving (the Green route) - The Accepted Manuscript after peer review is made available open access either immediately on formal publication or after a delay. Here, the author or author's representative or the publisher deposits the article in an open (institutional or central subject-based) repository[11].

6. Financing open access: 'Author Pays', 'Institutional', and 'Hybrid' models

The routes to open access described above tend to entail variants of the following three basic forms of financing the publishing activity:

- **The 'Author Pays' model:** The author pays a fee, called an APC (article publication charge[12]) for publication in a fully open access or hybrid journal. The author could recover some of or the entire fee from a research funder (via grants or their research institutions).
- **The 'Institutional or Subsidised' model:** An organisation arranges open access publication by a publisher or through an institutional repository. The institution itself funds

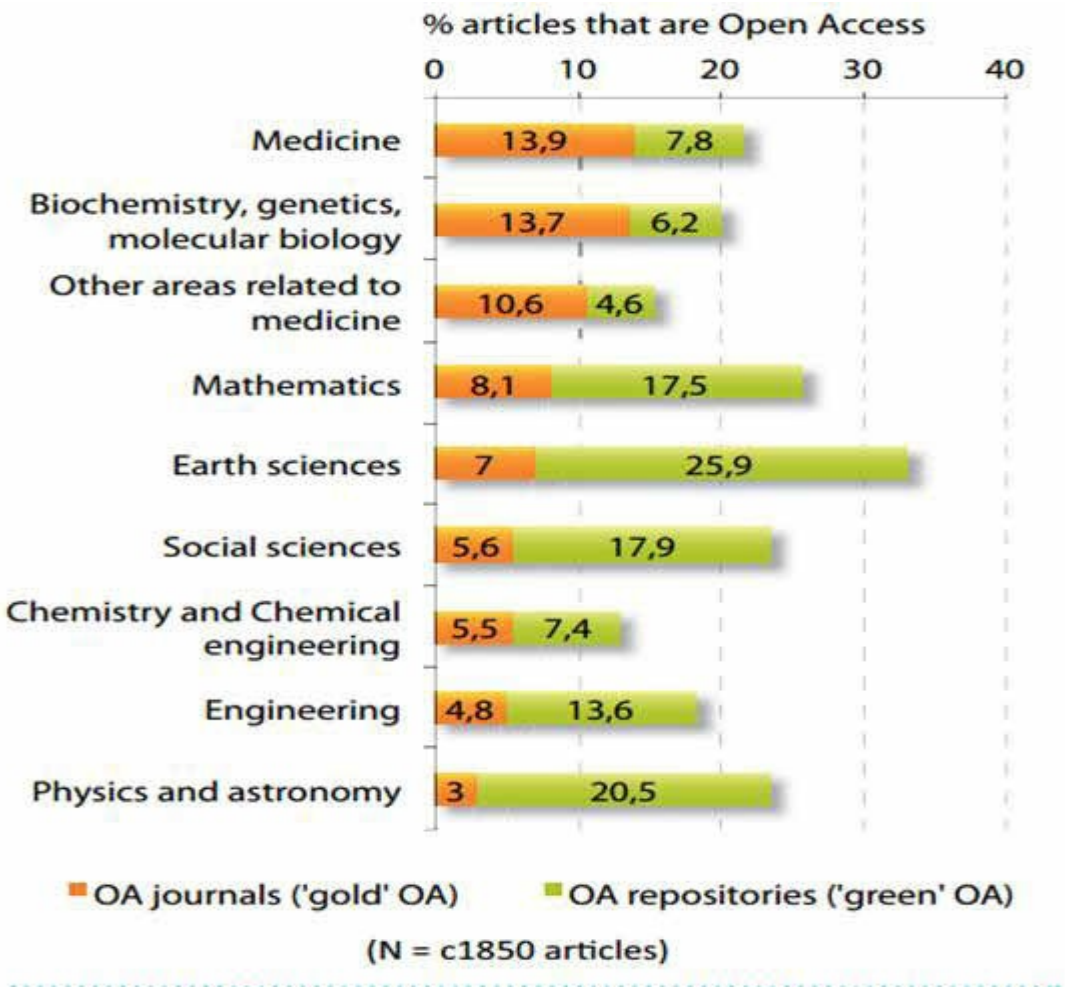
the costs of publication, either from its own funds or through a membership subscription agreement that the institution pays to a publisher.

- **The 'Hybrid' model:** Publication in a journal that is generally funded through subscriptions, but where the author is afforded a choice by the publisher to switch his or her contribution to open access by payment of a publication fee, i.e. an APC. In this way, the author can publish in a journal that has his/her preferred attributes as a publication medium (to wit: 'the medium is the message', McLuhan, M. (1964). *Understanding Media: The extensions of Man*. Canada: McGraw-Hill.), while making the author's contribution available without charge to the user.

7. Current trends and constants in open access publication

a) Open access as a percentage of overall science publishing today

While open access publishing has come of age and continues to grow steadily in many disciplines, it is simply one way for authors to extend readership and earn recognition. Nevertheless, the majority of journals and monographs currently remain 'reader-pays', i.e. accessible through purchase, subscription, rental, lending, pay-per-view or similar licensing mechanisms. The chart below shows the current percentage: for STM UNESCO 2013 and Björk B.-C., Welling P., Laakso M., Majlender P., Hedlund T. et al. 2010, Open Access to the scientific journal literature: Situation 2009, PLoS ONE 5(6).



b) Peer review

'Peer review' refers to the process, prior to or post publication, of subjecting an author's manuscript to the scrutiny of other experts in the field. The peer review process serves at a minimum to establish and maintain the scientific quality of published research and typically includes checking the validity, acceptability or plausibility of research methods used to arrive at valid or falsifiable statements of scientific claim (sometimes referred to as 'peer review lite'). To varying degrees depending on the journal the peer review processes also appraise the originality of discoveries, significance, and clarity of expression[13]. More recently publishers are experimenting with a 'portable' peer review, wherein the 'portable' review enables an author's manuscript that has been rejected for one journal to be offered either to other journals published by the same publisher or to other publishers that share in this process[14].

c) Mobile

Mobile access to publications and data potentially gives rise to huge benefits since researchers can access information from anywhere in the world, and consequently perform tasks at remote locations more quickly. Enabling of mobile devices for this purpose is growing rapidly and continually[15].

d) 'Big data' and 'open access to data'

'Big data' refers to data collections that are too large or complex for handling and analysis in conventional databases. This includes users' data in Facebook and CERN's Large Hadron Collider, which produces around 40 million images per second. Thus, IBM, Yahoo, Google and Amazon develop tools for handling big data in real time. 'Open access to data' refers to efforts to make primary research data and data sets available online. On 14 June 2012 the STM Association and DataCite agreed, in principle, to extend the concept of navigation tools offered by CrossRef to allow 'two-way' navigation between citable data and citable publications[16]. 'Big data' and 'open access to data' pose specific technical and legal challenges for research organisations, including intellectual property management (patent and trade secret, database rights) as well as data protection and privacy issues. While these present few problems for publishers, addressing them successfully is frequently a precondition of referencing and linking, open accessibility or data publication.

B. Copyright and contract

1. Why copyright?

Copyright, like the law of patents and trade secrets, protects intangible assets, creations of the human mind. The protection of the moral and material interests from an author's scientific, literary or artistic production is a human right (Art 27(2) of the Universal Declaration of Human Rights[17]) and, along with the right of free expression (including importantly academic freedom and protection from censorship), has informed the foundations of Western thought since the 17th century: Enlightenment, post-Malthusian growth, an open and democratic society based on pluralism, inalienable rights and individual freedoms.

Copyright and patent law may also be explained in the utilitarian English and American legal traditions as incentives or a bargain that society strikes for the promotion of science and the useful arts. Copyright in its Continental tradition, too, recognises the social contract element whereby for a limited time a creative mind obtains protection for a creative idea (patent) or expression (copyright) in return for disclosure to the world. However, Continental legal theory emphasises the personal, individual element of copyright over the industrial/proprietary aspect by associating a copyright-protected work very closely with the rights of the personality of the individual, the author's right (*droit d'auteur* with economic as well as idealistic, non-monetary features).

2. Copyright as a technology-neutral social innovation of the enlightenment

A basic feature of copyright is its technology-neutral social constructedness, i.e. it applies to old and new technologies, even given the addition of important features and exclusive rights over time, or the interpretation of old rights to accord exclusive rights status to new technologies. Thus, 'copying' or 'reproduction' has been interpreted to include digital file composition. In relation to music, film and cloud services, 'access' and 'streaming' may become the 'main' exclusive rights in future, displacing 'reproduction' from that role. 'Copyright' may thus become 'streamright', but this will not change the Continental view of 'Author's Rights' remaining the 'author's rights'.

3. What is a 'Work' eligible for copyright protection?

a) Original work of a natural person

Copyright protects original works of authorship, such as literary, musical, audio-visual works and computer programmes (software), as well as artistic works (visual works, such as illustrations, drawings, elaborate tables or tabulated data sets, sculptures, three-dimensional works and

architectural works). Copyright protects not ideas or facts, but their expression in any mode perceptible by humans.

b) Derivative works, collections, and databases

Copyright also subsists in collections of works, original databases that are original by their selection or arrangement of factual items, data or data sets. Copyright moreover protects so-called 'derivative' works, i.e. adaptations and translations or arrangements that are original in their new form but derive in recognisable ways from an original pre-existing work or works. Examples include translations of literary works, and modifications of works through extensive annotations and revisions[18].

There are a series of related rights that are sometimes classed as copyright and sometimes as copyright-like rights: sound recordings, broadcasts, and rights of musical and audio-visual performers. Video rights are of increasing importance as many journals or contributions also publish videos as illustrations or supplemental information. Sound recordings in specialised fields may also become part of the scientific record. Also of high practical importance are:

(i) 'Published editions', which are types of works prevalent in copyright law of Commonwealth countries derived from the British 1911 Copyright Act: published editions protect a form of copyright of which the publisher is considered author and first owner, protecting the typographical arrangement of any published literary work.

(ii) Critical and scientific editions and 'previously unpublished editions' are both protectable versions of public domain works, non-original databases, rights in titles of works, fonts and names of serial publications (sometimes protected as business identifiers, sometimes as trade marks). Scientific publications are a protected form of 'literary production in the scientific domain' irrespective of the mode of expression, e.g. writings, books and pamphlets or lectures and addresses.

(iii) In Europe a compilation of factual items may also be protectable by a related right, a *sui-generis* database right, which arises if the curation (creation or verification or maintenance) of a database requires substantial investment. Similar forms of protection exist in South Korea and Mexico. Photographs are sometimes also protected as a related right, where they are deemed not sufficiently original[19].

4. Who is an author? How does copyright arise and who owns it?

As a rule, the natural person who creates an original work is its author. Although some countries vest rights in 'unnatural' persons (in the USA, legal entities, such as corporations may own works made for hire), that is the exception. Authorship arises as an automatic matter of fact and no registration or claim is necessary, although some countries, such as the USA, offer the possibility of registration or make the lodging of court action dependent on registration.

5. Authors, joint authors, and co-authors

If two or more persons collaborate to create a specific type of work, such as a journal article, and that work is original, then they are the co-authors of that work. Two or more authors of different categories of works could also collaborate to create a joint work, such as a lyricist working with a composer, and, if they so intended when the works were created, they are the joint authors of the resulting combined work. Alternatively the works may attract separate copyright but may be used together as separable works joined together to form a particular combination of works. The same distinction is possible for multi-media works. While the concepts exist in most jurisdictions, the terminology varies.

National law governs the rules for how co-authors/owners and joint authors/owners may use and authorise others to use a work. In some countries all co- or joint owners must act together, while other countries allow each creator/owner the right to license works, or at least obliges the other not to prohibit the licensing unreasonably. In practice, many 'licensing in' situations involve a 'head' or 'lead' author to enter into a transfer or licence agreement not only on his or her own behalf, but on behalf of his or her co-authors on an agency basis. Generally these agency agreements, which are often not in writing between co- owners, are respected for ordinary licensing situations. However, if and when legal action later becomes necessary to sue a third party for infringement, co-authors and owners are often re-contacted to convey their rights personally.

In many scientific disciplines, it is customary to list, as authors, people who may not actually in a legal sense be regarded as authors. These could be department heads, persons who have contributed to the conduct of experiments or research that forms the basis of the scientific work that describes, discusses and perhaps interprets the results in the light of a scientific hypothesis. According to many national copyright laws, by being identified as authors, these persons do presumptively acquire rights over the manuscript until their claim to authorship is disproven. Discharging the burden may sometimes be easier. Where, for instance, a research project lists hundreds of authors of a physics paper, it can be assumed that not all participants are indeed authors in a strictly legal sense. Also, in some instances, editors and peer reviewers might make such extensive annotations and modifications of works that, legally, they may be considered co-authors. On a practical level, most laws contain a presumption of authorship for named authors. If named on a paper, for example, a department head that had general oversight but contributed little to the writing will be deemed co-author for practical purposes, unless the contrary can be demonstrated.

6. First ownership in case of employed authors, commissioned works, government works

While, outside the USA, authorship of works other than software is restricted to natural persons, it may in exceptional cases not lead to first ownership (of economic rights: the moral rights stay

with the author). Employees creating a work in the course and scope of employment may find that first owner of the work is their employer. Similarly, some works created by an independent owner may be first owned by the person who commissions it. Owners of magazines or periodicals may become owners of copyright in contributions published in some jurisdictions, yet the author retains copyright for uses outside the magazine's purview. Most countries recognise copyright of governments (e.g. 'Crown copyright' in the UK) where a work is created under the direction or control of the state. In the USA, works created under the control of the Federal government (but not works created under the control of US individual states) are in the public domain. Legislation and case law is also typically in the public domain in most countries, although unofficial translations into other languages or annotated copies and collections of legislation may not be, and are therefore subject to copyright.

The USA knows a special category of works, the so-called 'works for hire'. These are works made pursuant to a written agreement in which not only the first ownership differs from the natural person creating the work, but the rules for the determination of the author are also different in that the person on whose behalf the work is made under the agreement is considered to be the author. Producers of films and sound recordings, and the maker of a non-original database in Europe are considered to be the person or persons who make the arrangements for these productions. In order legally to make these productions, the producer will need the consent of the individual author of works (e.g. a book on which a film is based, a script, the director of photography, performers' rights, etc.).

7. Territorial nature of copyright and the system of international copyright Conventions

Copyright remains in large part national and entirely territorial in nature. The Berne Convention contains a rule known as the '*lexloci protectionis*' – the applicable law is the law where protection is claimed (the so-called 'country of destination', as opposed to 'country of origin' principle). It is thus not enough to check the law whence a work emanates, but one has to check all the laws of copyright where a work is being used or where use is contemplated. International treaties, such as the Berne Convention and the WIPO Copyright Treaty (WCT) do obtain and, in the European Union, several Directives harmonise certain aspects of copyright. Nevertheless, copyright remains a territorial right that may vary significantly not only in scope, but also regarding who is considered author and/or initial owner of a work, which may affect the validity of licensing and copyright transfer agreements in different countries. For example, the 'work for hire' status of works outside the USA is often not recognised in other countries. Likewise, the rights of governments appropriating works by statute or administrative act from persons or classes of person are also often not recognised in other countries. Consequently, the natural persons continue to be vested with the rights of copyright as authors/owners abroad, i.e. in the territory of countries that do not recognize the government appropriation in question. This makes it prudent to seek agreement to use a work not only from employers and governments

(appropriating works) but always also from the natural person(s) involved in the creation of the works.

8. What rights does copyright confer?

a) Moral rights: recognising the author's personal and inalienable rights

Outside the USA, the character of copyright as a personal and inalienable right is illustrated by so-called moral rights, a set of rights that cannot be transferred, and which protects the author's right of attribution (also known as 'paternity') and the right of integrity of a work. In addition, moral rights comprise the right of retraction on grounds of changed conviction of the author in some jurisdictions. An author cannot alienate these rights, although in some countries an author is able to waive his or her moral rights.

One right that has characteristics of both moral and economic right is the right to determine the 'if, when and how' a work is first published. In the present context this right is naturally of pre-eminent importance. The author's right over an unpublished manuscript and to decide in absolute freedom the manner and place of first publication is very well described in the case of *Millar vs. Taylor* by Lord Mansfield, 98 Eng Rep 201, 252 (KKB 1769):

'…*because it is just, that an author should reap the pecuniary profits of his own ingenuity and labour. It is just, that another should not use his name, without his consent. It is fit that he should judge when to publish, whether he ever will publish. It is fit he should not only choose the time, but the manner of publication; how many; what volume; what print. It is fit, he should choose to whose care he will trust the accuracy and correctness of the impression; in whose honesty he will confide, not to foist in additions.*'[20]

The decision not to publish a work or not to use it is not destructive of copyright, but is in fact one of the inalienable rights of an author. Consistent with the freedom of expression is also the inalienable right *not* to express oneself. An unpublished work, in many jurisdictions, is also not subject to divorce asset re-allocation, bankruptcy or insolvency, and the copyright remains with the insolvent as personal belonging, rather than as an asset in his or her insolvent estate.

b) Economic rights: a bundle of transferable rights

Apart from the author's moral rights, the economic rights of copyright are a 'bundle of rights', which the author can either transfer or license. These rights are so-called 'restricted acts', i.e. acts that the author has the power to authorise or prohibit. The most basic of these rights is (to date) the right to authorise reproduction in any manner or form. The author also has the exclusive right to disseminate the work, be it by 'first publication' (the right 'to produce and publish' a work), by the distribution of hard copies (e.g. physical books, works on DVD, or on a USB stick), by 'communication to the public' (e.g. a stream of a video or a display of a written work on a terminal connected to an electronic secure or unsecure network), or as part of an inter-active work 'made available to members of the public', where the work is offered not as a stream but as a digital download at a time and from a place of choosing of the member of the public in

question. Apart from these uses of the work as is, the author also enjoys the exclusive right to authorise the making of works that are based on his or her original creation: the exclusive right of adaptation enables the author to control, if not the making, then at least the dissemination of derivative works. However, an original derivative work made by a later author with the primary author's authority will also acquire a separately protected copyright interest in the derivative work and the secondary author's set of exclusive rights will relate to his or her original modifications[21].

9. DRM protection: Technical Protection Measures (TPM) and Rights Management Information (RMI)

The countries that have ratified the WIPO Copyright Treaty of 1996 (WCT) (86 countries at the time of writing this Guide) are obliged to protect so-called 'effective' technological measures. In some countries these are access control and copy-control measures of a technical nature, known as encryption and digital rights management (DRM). Hacking is prohibited as well as the distribution of tools that enable hacking alone or in conjunction with other tools. In addition, these countries are obliged to protect against tampering with so-called 'Rights Management Information' (RMI) used in conjunction with or embedded in copies of a copyright-protected work. Open Access Licences may well be part of RMI and protectable as such.

10. Disposition of copyright

A key principle and fundamental rule underlying the entire copyright and licensing system world-wide is that no person can transfer more rights than are personally owned. Whereas in contract law it is generally possible to undertake an obligation to transfer something without possessing the rights ('selling short'), a copyright assignment or licence cannot create rights in the hands of the transferee/licensee from rights not actually held by the transferor/licensor, merely because the parties acted in good faith[22].

a) Offer and acceptance

Legally speaking, copyright transfers and licences are contracts involving at least two parties: at a minimum, the transfer or licence thus requires an offer by the transferor/licensor and its acceptance by transferee or licensee. This condition is fundamental to an understanding of open access licensing.

b) Transfer of rights: assignment vs. cession vs. transfer of accrued claims

The most comprehensive form of transfer is by way of assignment. Where an 'out and out' transfer of copyright is permitted, the transfer document (often called a 'deed of assignment' in the English common law tradition) has to be in writing and signed at least by the assignor. In many countries, in order for an assignment of copyright under a written document to be

effective, the document might not contain the word 'assignment' or even refer to copyright at all – it must simply be clear that what was intended by the parties was a transfer of the full and complete copyright.

Not all countries recognise the possibility of the author ever parting completely with his/her rights, which are seen as inseparable from the author's personality. Such countries do however recognise that an author can enter into a binding exclusive licence agreement and, in practice, will interpret an assignment valid under foreign law as if, for their territory, it was an exclusive licence agreement.

An exclusive licensee may in turn be able to sub-license (see below) or cede his rights to another. The distinction is crucial for purposes of enforcement. In the case of 'cession' the erstwhile exclusive licensee drops out of the chain and loses his/her ability to enforce the rights of copyright. In the case of a sub-license, he/she may continue to take action, but of course also remains liable to his licensor, the copyright owner, to comply with any conditions in the licence. Where a copyright owner transfers rights or cedes an exclusive licence, it is important also to transfer any so-called accrued claims – claims of copyright infringement that may already have arisen, so that the new owner/exclusive licensee can take confident action in relation to past infringements.

c) Licensing, exclusive licensing, sole, and non-exclusive licensing

At the heart of a licensing contract lies a grant of rights in relation to specified single or several copyright-protected works. The grant is an authorisation to carry out certain actions in relation to a work and may be non-exclusive, sole or sole and exclusive.

In practice, an **exclusive licence** has an effect similar to a transfer of copyright in relation to the rights licensed. An exclusive licence may however be substantially narrower in scope than a transfer, e.g. 'exclusive licence to perform a work publicly on Mount Everest'. Usually an exclusive licence is only valid if in writing. A written agreement need however not use the term 'exclusive' and it is a matter of construction if an exclusive licence was intended to be agreed between the parties for some or all of the rights conveyed by the licence (but exclusivity would not be inferred lightly absent the label exclusive). An exclusive licensee enjoys a right of action in nearly all jurisdictions in parallel with any owner or co-owners of copyright against third parties, and even the copyright owner is barred from using the rights licensed without a licence-back or consent from the licensee.

A **sole licence** is one in which the licensor reserves the right to use the work him or herself, but promises not to grant licences to third parties, a right usually reserved to the sole licensee.

In some countries a **non-exclusive licence** agreement is merely an act that is valid between the parties (effectively the licence is merely regarded as an obligation of the licensor not to sue the licensee), while in other countries, a licence creates an authorisation that the licensee can rely on in relation to dealings with any third party, even with a later transferee of the rights licensed.

The right of a licensee to sub-license rights is another feature that may or may not be included in the initial grant. Where the right to sub-licence is presumed by law, implied or stated, licensing chains of considerable length can, and frequently do, arise.

Licensing agreements are thus the life-blood of businesses, underpinned by copyright. Due to their importance, licence agreements should deal clearly with the following: the description of parties, whether the licence is an exclusive licence, a sole licence, or not, whether or not sub-licensing of any of the rights granted is permitted, the territory and duration of the licence. Due to the rule referred to above that no person can transfer more rights than he is possessed of, licensing agreements tend to contain warranties, or at least indemnities, regarding the licensor's legal ability to license the subject matter in question. National laws of many countries imply such warranties and impose an obligation on the licensor to hold the licensee harmless where it transpires that the grant of rights was not effective. In licensing contracts, a warranty is a representation guaranteeing that a licensor actually holds the rights licensed (not to be confused with an indemnity: a promise to cover damage or injury resulting from a failure to convey rights by way of licence). Some licence agreements also contain more elaborate rules on who has the right and/or obligation to enforce intellectual property rights in the event of third parties infringing intellectual property. These features are relevant also for open access licensing.

d) The contracting parties

We mentioned earlier the basic tenet that no person may be able to convey more rights than are actually held. Thus, if A and B agree that rights held by C should be granted by A to B, the licence is only effective if A either validly acts as the agent of C, or A derives his position as licensor from a grant of rights by C. This fundamental principle means that all stakeholders should be careful to assess who actually holds intellectual property rights that form the subject matter of a licence. National law determines who is legally considered the author and who is the first owner in a copyright-protected work. This basic tenet also gives rise to the idea of a 'licensing chain', i.e. rights being 'licensed in', managed and eventually 'licensed out'.

Another legal concept of pivotal importance is agency. Frequently rights are licensed by suitably authorised third parties, called 'agents', on behalf of the rightsholder (licensee or owner). The agent, through his/her actions, binds the rightsholder represented. Many licensing agreements in practice are entered into by a rightsholder who also acts simultaneously as agent for and on behalf of another. A typical example is a lead-author submitting a licensing agreement to a publisher on behalf of his or her joint authors.

e) Multiple transfers and licences: priority rules

Also of interest are rules of priority where a series of contradictory transfers and licences have been granted over time by the same or related rightsholder. As a general rule, the earlier transfer trumps the later one. Thus even a non-exclusive licence granted in time before a copyright assignment or an exclusive licence will survive and encumber the later transfer, like a servitude or easement in land law. There are exceptions to this rule in the US where a transfer first

registered may trump a prior unregistered one. Also tricky questions may arise in France with a new law on so-called out-of-commerce works that are being revived and where various options for print-rightsholders and third parties exist to obtain rights for digital uses.

11. Termination of transfer and licence agreements, reversion of rights

National laws also prescribe conditions of termination. In a substantial number of countries, any contract entered into for long periods, e.g. more than 10 years, can be terminated on notice. Other countries allow reasonable notice unless a contract is specifically rendered irrevocable. In the USA, authors enjoy a special protection for all transfers after 35 years. How to exercise the rights of termination are not trivial and are beyond the scope of this Guide. In Germany, licences in relation to unknown uses are potentially terminable and licensing agreements relating to future works may always be terminated by the rightsholder after a maximum of five years.

12. Public domain (absence of copyright protection)

In copyright law, unlike the law of trade secrets, patent law, or state security, a work is considered to be 'in the public domain' once copyright protection has lapsed. Works may fall into the public domain due to the intellectual property rights being expired or abandoned or forfeited by the author or owner. 'Abandonment' of copyright is not possible in all countries; most European countries would not recognise a blanket dereliction of copyright as valid. 'Public domain' is also used to denote cases where works are not rendered eligible for protection, e.g. US works created by or under the control of the Federal Government. Due to the territorial nature of copyright, a work may be still 'in' copyright in some countries while copyright may have lapsed or may never have vested in another. Also, in many countries, so-called 'Critical and Scientific Editions' and editions of 'Previously Unpublished Works', if lawfully published, give rise to a related right for an additional term of, respectively, 30 and 25 years from date of first publication. Thus, even in relation to works that are in the public domain in some countries, licensing agreements are the preferred route to bring them to market or to expand access.

C. Open Access Licensing

This Section starts by looking at the mechanics of Open Access Licences before discussing the publishing agreement between the authors and their original publisher and how that agreement may support different modes of open access. Looking at the mechanics allows a discussion of contract formation, issues of validity, rights and obligations and how these may be enforced, questions of warranties, termination and dual licensing. The position elaborated here is that Open Access Licences underwrite and substantiate Open Published Content (OPC).

1. The mechanics of Open Access Licensing

a) The Open Access Licence as a contract: need for 'offer and acceptance'

For open access to work it is fundamental to keep in mind that a licence is neither a unilateral act, nor a declaration to the public 'automatically' accepted by all members of the public. In each case an individual contract is either concluded based on a meeting of minds, or not so concluded if one of the parties can claim to have made a fundamental error enabling rescission. The scope of the agreement in many jurisdictions will also be limited by a general rule of interpretation that we translate (from German) as the 'theory of purposive transfer', requiring a construction of agreements (transfers, licences, releases) or waivers by the author restrictively and using the object of a contract as indicative of the limit of any copyright transfer or licence. The hypothesis used, known in German as the '*Zweckübertragungstheorie*', is that the owner/licensor will transfer or licence solely the rights strictly required to attain the objective of the contract, permitting the use the user has in mind at the time of contracting, but otherwise retaining control over the 'bundle' of all other rights. As a corollary, general transfers or widely worded agreements are often found to be unenforceable or invalid when using wide-ranging wording lacking specificity; they may be voidable or non-binding, rather than void. In Commonwealth jurisdictions the theory of insufficient consideration and vagueness of terms is used by courts to limit the impact of overly broad terms of author agreements.

2. 'Access' without a contract?

Where readers are offered versions of OPC in a repository, the question is what rights and obligations readers may incur. The view presented here is that browsing a repository or placing a link is not per se a restricted act and tantamount to the action of a user of SaaS (Software as a Service): the reader does not require a licence at all. Repositories may explicitly or implicitly also license OPC for uses beyond mere browsing.

3. Parties to the Open Access Licence: licensor and licensee

a) Licensor identity is often unspecified

In traditional licences, the text of the licence identifies the licensor, the licensee and the work in question. In contrast, OPC tends to embed or link to a copy of the licence text, which leaves the identity of the licensor and licensee unspecified. In order to determine who the counter-party to a particular transaction is, the licensee would normally have to approach the original open access publisher to establish on whom he/she, the licensee, depends for the grant of any rights. Many permutations obtain (see discussion of the publishing agreement below).

b) Prohibition on sub-licensing

Not inherently, but commonly, Open Access Licences are not organised as a 'stack' or chain of sub-licenses that depend on the validity of earlier licences in a licensing sequence. Rather, each licensee acquires an Open Access Licence direct from the licensor. Thus, where a licensee makes use of a derivative work both of which are licensed under OPC, the Licensee is effectively subject to multiple licensing terms, viz two Open Access Licences associated with two separate licensors. The effect of this 'star-fish' mode of licensing is that at any one time a licensor is party to a multitude of licensing agreements that all run in parallel in relation to the same OPC. This also means that there is no licensee who acts as steward or seeks adherence to terms and conditions: this is left to the licensor or his/her agents.

4. Permissions included in an Open Access Licence, from when and for how long

A recipient of OPC gets all the rights specified in the Open Access Licence and may thus engage in the uses thereof as long as the licence terms are not violated. The licence is effective from the first moment the recipient makes a use that falls under the licence and from then on he/she is effectively the Licensee under an Open Access Licence, consciously or not. Thus a user who merely browses or puts a link on the item of OPC is not actually a licensee as these acts are not restricted per se by copyright. From the moment the licence is concluded, it becomes effective and irrevocable vis-à-vis that specific Licensee.

5. The Open Access Licence as so-called 'general terms and conditions' and as 'consumer contracts'

Users and readers of the OPC enter into a direct legal relationship with the rightsholder based on general terms and conditions and without ever having met or spoken to the rightsholder. These agreements are akin to 'self-executable' legal programmes that convey rights from the rightsholder to the reader and they also terminate automatically, with the rights reverting

automatically to the licensor, should the reader breach any of the terms of the open access licensing agreement. Considerations of mass licensing and consumer protection bring them closer to 'EULA' – the 'end-user licence agreement' known from software distribution, usually as a pop-up window, 'shrink-wrap' or 'enter'-licence. An Open Access Licence does not require any formal 'acceptance' other than making use of one of the copyright permissions contained in the licence – they are effectively entered into by the 'conduct' of the reader/user. Open Access Licences are by their very nature end-user licences and must respect national laws imposed to safeguard the presumed interests of the unsuspecting public. In practice, this means that some conditions, express rules of interpretation, some waivers or limitations of liability and provisions regarding the applicable law and competent courts or mandatory arbitration will simply not be valid if agreed as part of 'general terms and conditions' with a 'consumer', or where the licensor is not a private party entering into a non-commercial contract, but a business (such as a publisher). National laws may also make it more difficult to actually make general terms and conditions even part of a contract entered into by 'conduct' over the Internet, or grant special rights of termination to consumers. There may be additional requirements in order to validly modify or update any general terms and conditions where these affect long-term agreements, such as Open Access Licences are designed to be.

6. Principal rights and obligations

The one essential component of open content (and STM and AHSS publications are effectively 'Open Published Content') is that the Open Access Licensing terms and conditions must be passed along to any user.

Inspired by the Open Source Software movement one could of course aspire to more: open content would ideally also be content that is not only freely accessible electronically, but also of which the 'history' of its generation (essentially all who modified the original content, how and when, and any experimental data associated with the creative content or scientific work) and associated metadata is equally accessible. Moreover, open content should ideally be published in widely available formats that are inter-operable and such that accessibility is not restricted by encryption or DRM. These conditions are to some extent aspirational and will be followed to a greater or lesser degree in the field of Open Access publishing. They are in practice, however, not seen as requirements and some licences explicitly state that a Licensee is not obliged to distribute Open Published Content (OPC) further or to maintain its availability.

The passing on of Open Access Licensing terms and conditions is, however, a must

The terms and conditions of the licence are best embedded in the work, rather than the work and licensors being referred to in the licensing agreement (as is typically the case for traditional licensed copyright works). It is thus possible to answer the question of what makes OPC OPC: it is, explicitly expressed Open Access Licensing!

7. Licensee's obligations incurred to keep the licence and avoid copyright infringement

The licensee has to cite the work in the customary fashion. Customary citation will be determined by the discipline to which the OPC relates. Citation will always be needed, unless the specific use would make citation unreasonable – this could be the case for permitted text and data mining uses where a great number of articles are mined, but only few are ultimately represented in any text and data mining (TDM) 'output'.

Where required, the licensee has to link the citation back to the version of record, e.g. via a DOI (Digital Object Identifier). Publishers would do well to require this as part of their Open Access Licence conditions. Clearly the condition will only need to be complied with for as long as the version of record is in fact available. If the version becomes unavailable, this obligation terminates without adverse consequences for the licensee.

On request the licensee has to discontinue attributing the work to the licensor or other named rightsholders. This could be important where it is felt that inappropriate use is being made of a version or adaptation of the work in question.

8. Permissions typically not included or reserved in Open Access Licences

a) Third-party content

Nobody can validly license content to which they have no rights. Thus, Open Access Licences inherently do not cover any third-party content embedded in OPC, third-party illustrations, photographs, chunks of text that the author-researcher proposes to use as part of his unpublished manuscript, or supplementary content such as data sets, videos, sounds, etc.

Third party content may be so embodied in OPC because sometimes the authors may in fact not need a licence to do so under local copyright laws, as the inclusion would be covered under an exception, such as making a quotation. However, more often uses are proposed or licensable to the public that would go beyond those permitted in national exceptions. The authors should thus seek permission in order to include this third party material. Where the third-party content is itself subject to an Open Access Licence, the authors would incorporate the content based on that licence and consistent with its requirements, e.g. attribution, link back to the rightsholder's version, uses free from DRM, and any other requirements, e.g. statement of non-modification or modification of the content depending on permissions available. Where the third-party content is proprietary, then it would be misleading to embed the content into OPC without clearly marking it as another licence. This author would recommend a prominent demarcation of such

content so that users are aware that they might need additional copyright licences if they wish to make a copyright use of the content in question[23].

b) Licences to overcome Technical Protection Measures (DRM);

Technical protection measures (such as DRM) can be applied by licensors, licensees or by intermediaries such as platform providers. Open Access Licence conditions generally do not allow distribution of OPC under DRM that restricts licensed uses. However, even where such measures are imposed in breach of an Open Access Licence, the recipient would not be authorised to hack through them. Also, many Open Access Licences treat access control measures differently from copy-control measures and allow conditional access, e.g. for payment. The recipient may in rare circumstances be in the situation that the only copy associated with an Open Access Licence is actually protected by DRM, and he/she may thus need to obtain a fresh copy licensed separately by the rightsholders.

c) Licence to apply licensee's own DRM

Where a person other than the Licensor wishes to use or include OPC in a DRM-protected service, special permission from the rightsholder is required. The mere downloading of OPC under an Open Access Licence will not authorise the application of DRM, at least not copy-control DRM.

d) Endorsement for licensee's uses of OPC

Where the licensee requires endorsement or wishes to imply endorsement, a special permission is required. This could for instance be the case for 'authorised translations'. Given the terminology and need for accuracy of OPC in science, there may often be a need for authorised translations rather than 'do-it-yourself' approaches.

e) Moral rights consent or waivers

Most Open Access Licences are without prejudice to moral rights, which vary in their scope around the world. While uses made by the licensee may infringe moral rights, such infringements would be actionable but would not terminate the Open Access Licence as such. Where a use may implicate moral rights, it will always be advisable to seek additional releases or waivers and an Open Access Licence would generally be insufficient where a release or waiver is implied (some Open Access Licenses specifically exclude moral rights from their ambit). The legal insufficiency is exacerbated to some extent by the mechanics of licensing an indeterminate number of unknown users, for an indeterminate time and for an unknown set of uses. Far-reaching waivers of unforeseeable magnitudes are likely invalid in jurisdictions that recognize moral rights, even if the principle of specific waiver could be entertained to some degree.

f) Licence to use any trade marks applied to OPC

The Creative Commons Open Access Licences are very clear that no trust marks or other indications of origin that indicate a source in a trade mark sense may be applied without a separate trade mark licence. An example could be a series of 'versions of record' branded 'XYZ original publisher's version', where this phrase is protected for its distinctiveness or through registration in a particular market. Similarly, some jurisdictions protect journal titles either as trade marks or as a form of business identifier. Special licenses may be needed where this is the case.

9. Other common terms in Open Access Licences

a) Applicable law and competent courts

Some licences specify the law applicable to the contractual provisions. Such provisions would not change the law that determines who the Licensor ought to have been, nor do they vary with respect to the applicable national copyright law in the case of infringement. Where a contract is deemed a 'consumer' contract, contractual agreements ousting jurisdiction or applicable laws favourable to the consumer are not enforceable.

b) Express and implied warranties

Normally an Open Access Licence will not include a warranty or indemnity that the Open Access Licence is in fact valid or binding, or that the content is what it says it is.

Warranties could apply to properties of OPC itself and also as to the validity of the licence. Especially the validity of the licence could be questioned in a number of situations: where extensive third-party material is quoted, e.g. a beautiful or unique photograph. Also, given that nobody can actually convey rights not legally held, some Open Access Licences (containing the offer of the licensor but not yet accepted by the licensee) may 'run on empty' (to wit: purchasing a knife with no handle or blade – i.e. nothing), where the rightsholder has subsequently transferred his or her rights to another licensor not party to the Open Access Licence. In that case, the recipient acquires nothing actual. And since all warranties are disclaimed expressly, the recipient would not even be able to seek indemnification from the licensor in such case.

In some countries there will be an implied warranty that obtains even where a warranty is excluded. This is because an Open Access Licence will be treated as so-called 'general terms and conditions' to which special socially motivated laws apply and cannot be waived by consumers or members of the public. Some laws internationally take specific aim at the would-be exclusion of warranties where these are insulated from challenge by 'reduction to the extent permitted'. Be that as it may, some recipients actually would prefer a warranty and authors and publishers should consider either generally adding warranties to OPC or at least enable the publisher to

offer a version of record with a warranty and, thus, license such a version separately on a user's request.

c) Termination of offer vs. Termination of the Open Access Licence

In a copyright sense, the Open Access Licence terminates ultimately when OPC is in the public domain. Moreover, a Licensee can terminate the licence by giving notice of termination or implicitly by accepting other licensing terms in a later agreement (e.g. moving from an earlier version of a model licence to a later version or by obtaining a proprietary licence). The Licensor may not terminate the agreement with existing Licensees. The Open Access Licence accepted by a Licensee is irrevocable in principle for the full term of copyright (this latter aspect may or may not actually be enforceable in all countries or in relation to all copyright uses – see copyright Section above). However, it is questionable whether a Licensor is bound by his or her offer before acceptance. Some countries will qualify the binding nature in terms of duration: the offer is valid until such time as acceptance may reasonably occur. Many advocates of open source software characterise open licences as a form of donation and this may be correct under many laws, many of which will treat a promise of a donation only as binding if made by notarial deed, and as otherwise unenforceable at least until acted upon[24]. In any event, a Licensor may in our view announce that he will henceforth no longer offer an Open Access Licence. The consequence is that any user who has not entered into a licence before the offer is withdrawn will be unable to rely on the Open Access Licence thereafter. Regardless, if a Licensor disposes of the exclusive right, or assigns copyright, future Licensees would henceforth have to seek a licence not from the previous owner of copyright, but from the new owner.

10. Model Licences

a) Types of model Open Access Licences and their main attributes

The Open Access Licence is usually a standard licence offered by a third party. These include the Creative Commons (CC) licences (now version 4.0)[25]; STM's sample licences; the GNU Public Documentation License; the Digital Peer-Publishing Licences (DPP); the SSOAR Deposit Licence (for uploading Green open access), the licence used by the PEER project; and the Open Publication Licence, to name some of the better known ones. There could also be bespoke licences or licences mandated by institutions to which the author is related e.g. MIT, or licences that combine for instance Creative Commons licences with a bespoke rightsholder-generated 'CC+' licence. Extensive literature, Wiki-entries, FAQs and blogs exist that provide a broad and flexible variety of perspectives on the range of licences available and they are thus not explained or analysed in detail here.

The Creative Commons and STM licences both offer variations. Creative Commons distinguishes between licences that are either 'Share-Alike' (abbreviated 'SA') or not. This affects derivative works and where SA is required, any derivative work has to be offered on the same

terms as the underlying licence. Creative Commons is silent on whether or not it is possible to mark off third-party content that does not fall under the SA licence, but presumably this is still allowed.

Other variations offered by Creative Commons all permit copying and distribution online and offline, but some are restricted to non-commercial uses only. The meaning of 'non-commercial' depends on the actual understanding of the parties according to the laws of many countries. But as we have seen, very few Licensors and Licensees will ever have met or formed an understanding. It is therefore essential as a Publisher-Licensor to communicate clearly and unambiguously and make it easily discoverable precisely what the understanding of 'non-commercial' is. There are some useful FAQ entries provided by Creative Commons but even those will need to be concretised by any publisher wishing to use a CC-NC licence.

For rightsholders (authors and publishers) who wish to allow only some commercial uses, but not others, or wishing only to allow derivative works of a certain kind, the Creative Commons licensing suite offers no tailor-made solution. For this reason, STM has crafted sample licences that can be used individually or in parallel to Creative Commons licences. In any event, it would be possible to offer a less permissive Creative Commons licence and simultaneously also release the same work under a more permissive STM licence (see below 'dual licensing').

The DPPL licence is used predominantly in Germany. Its attraction is that a separation of print and electronic rights is possible. Thus authors and publishers of monographs would be able to use a commercial model for print, yet switch to Open Access for electronic uses.

The SSOAR Deposit licence is interesting because it illustrates how a repository could structure its licensing terms with relative ease and clarity (refer to the Section entitled 'Legal requirements to support the Green Road' in Section D below).

The GNU Public Documentation License is closely connected to the GNU Public Licence developed for software. The licence contains interesting provisions regarding supplementary materials and adding some history or other materials where the making of derivative works is allowed, whereas for the general documentation the making of derivative works must be allowed. We find this an interesting idea, i.e. to allow part of a work to be amenable to improvements and modifications but not other parts. This could make much reasonable sense in many STM and AHSS subjects.

b) The question of commercial and derivative uses in particular

Apart from the question of allowing 'commercial' and 'non-commercial use' impacting on income and revenue models for publishers, e.g. in the bio-medical or pharmaceutical field, and in AHSS where revenue from anthologies can be substantial subventions, the question of allowing generally derivative works is one that ideologically is very strongly influenced by

software. What is often not appreciated is that software, by its very nature as immediately 'executable', reveals to the user its usefulness. Software adaptations are thus detectable mainly when they are improvements, whereas many senseless changes made to software will render the programme inoperable and will thus have a self-limiting quality. Open source licensing permitting adaptation benefits from this self-correcting attribute of software. In science and arts, modifications are of an expressive, aesthetic and contextual quality that is harder to assess and evaluate. A widely distributed derivative is therefore not automatically to be presumed as an improvement (e.g. superior, slicker, or more elegant). It should therefore be more plausible for the public to articulate in sympathy with authors and their publishers that they feel strongly about the immutability of their OPC, of not being edited out over time in an attention economy. Moreover, members of the public may also not automatically be protected from 'malfunctioning' modifications as they are in the case of software, where malfunctioning software is subject to a Darwinian effect of extinction.

For these reasons, we believe that the insistence by some open access advocates regarding the need to randomly or widely permit derivative uses, in effect anonymously, and as part of 'mass' licensing, is not cogent and not even persuasive. Not permitting the making of derivative material through standard or 'mass' Open Access Licensing does of course *not* mean that, on particular request, or with good cause shown, an author or publisher should refuse authorisation of derivatives; nor should this mean that in certain disciplines some derivative uses ought to be allowed widely, such as translations into languages of few under-served speakers, or derivatives created in the course of or resulting from text and data mining. These were moreover some of the reasons STM created sample licences addressing these two categories of derivative use licences.

11. Dual licensing

Similar to well-established practice in open software licensing, it is common practice to offer OPC simultaneously under Open Access Licencing and also under other 'proprietary' licensing agreements. Persons who may not be able to or do not wish to incur the obligation to comply with Open Access Licence conditions are thus offered the same material on other terms from the Licensor.

Similarly, there is nothing in theory or practice that would prevent simultaneous licensing offers under a plethora of Open Access Licence models. Thus, it would be perfectly viable to offer the same OPC under STM's sample licences, e.g. to put beyond doubt the ability to text and data mine a work and to create derivatives resulting from TDM, and simultaneously to offer the work under a Creative Commons licence as 'ND' (non-derivative). Sometimes, also, different formats of the same work may be released under different licences. Photographers, for instance, may release a low-resolution copy of a photograph under a Creative Commons licence, while offering bespoke licences for a 'publisher-grade version' of the same work either for certain limited uses

or for a fee. Offering a multitude of licences increases the chance of compatible licensing terms and inter-operability.

For the above reasons it would be short sighted for any law, employer, funding agent or research institution to prescribe a preference or a mandate for one licensing system over another. It would also be unnecessarily restrictive for a publishing agreement to specify that an item of OPC may only be licensed by using one specific licence or exclusively under a certain set of model licences.

D. Making Open Access Licensing work: the publishing agreement

1. Getting published and enabling open access

The publishing agreement is really the heart and the central element governing the publication and the open access arrangements that can be made in relation to the work to be published. We have discussed above that, before a manuscript is published, it enjoys special protection under the law: it is the author's sole prerogative under copyright (and moral rights of copyright) to determine when, whether and how a work is first published. The author, in other words, chooses the medium of first publication that, in effect, becomes the message.[26]

Moreover, before even this process the author controls the rights of copyright: from documented (and repeatable) experiment and research results, to the authorial manuscript that evaluates and perhaps interprets the results in relation to state of the art prior knowledge, to the decision to publish or otherwise exploit the research results (e.g. trade secret or patentability or registrability of patents, topography, plant variety, micro-organism deposit or as a pattern or design), to submission to a publisher, to peer-review, to accepted manuscript, to editing (including linking via DOI to other sources and references of published works and data sets), to publication of what henceforth is the 'version of record'.

Author and original publisher by virtue of their collaboration thus create what we would describe as a 'special relationship', that needs to be encapsulated in the publishing agreement. Effectively, the published author and his/her original publisher remain joined together through their published work, i.e. from the moment the manuscript metamorphoses into a published 'version of record'.

When an author makes the important decision with whom to publish, often he or she makes a crucial call in terms of career progression. Attracting the best authors also empowers and strengthens the brand of the journal and its publisher, who is of course eager to claim a special factual kind of endorsement. Even the 'right to forget' and the right to retract – a moral right of the author to retract personal work – will not entirely eradicate the 'metadata' in that a first publication has in fact occurred at a particular time, in a particular medium, and by virtue of a particular author signing up with a particular publisher.

For Open Access Licensing to work there needs to be clarity about the above relationship and the respective roles of author and publisher post-publication, in as much as there needs to be clarity regarding the permissions enjoyed by eligible members of the public. In other words, there needs to be clarity about:

(a) The nature of the relationship between author and publisher and the right of first publication and the ongoing use of 'publishing rights'. This applies irrespective of the open

access model to be used or proprietary licensing carried out downstream (often referred to as 'licensing out'), and

(b) The permissions readers enjoy at no cost and, if applicable, what can be done when readers wish to secure additional permissions, or what to do when permission conditions, including copyright or ethical rules, are breached[27].

The publishing agreement will typically also set out what rights the publisher acquires and what obligation the author incurs (guarantees of originality, of chain of rights, of clearing permission of third-party material to be published, of ownership of initial copyright, and payment of an author publication charge 'APC'). The agreement will also set out what open access licenses will be selected in order to offer the work to the public.

As we have seen in the general part of this Guide about copyright and contract, a licence should be distinguished from an assignment of copyright or other intellectual property where ownership of the copyright title changes or from any other contract that leads to the disposal of a right of copyright. In addition, in many countries, 'publishing agreements' are viewed as distinct from licence agreements and entail the transfer of the rights customarily needed to publish (variously called 'publishing rights' or 'publication rights'). These agreements are viewed either as a permanent transfer from the author to the publisher or as creating a transfer of a certain duration. During the initial phase of the publishing contract or for the entire duration, the publisher is thus entitled to exercise the rights as rightsholder exclusively and also holds the rights in trust. The author may reclaim the rights so held by the publisher, either at the end of the contract or may be able to object to the further disposal or sub-licensing of rights during the continuation of the contract.

To make Open Access Licensing work, the publishing agreement therefore needs to enable open access based on some or all of three 'Roads' mentioned earlier (page 12):

- **Gold Road** – the author should consider entering into an open access publishing agreement from the outset (a form of Gold open access achieved through fully open access or hybrid publications);
- **Green Road** –the author may conclude a conventional publishing agreement or sign a 'Copyright Transfer Agreement' (CTA) that allows a form of Green open access as part of a publisher policy (to wit: typically a delayed open access of pre-owned content);
- **Azure Road** *(a term coined by the authors of this Guide but not in common use)* - to turn a conventionally published work into open published content by way of subsequent agreement, thus transforming to Gold or to Green after the fact. We posit that the Azure Road may be a possibility that deserves more attention from the various stakeholders in cases of or comparable to retro-digitisation of analogue publications or 'crowd funding' monographs or seminal 20th century papers into openness.

For a publishing agreement to support Open Access Licensing, it should support at least one of the above three Roads and be clear what Open Access Licence terms will be used in conjunction with the work in the first instance. To keep an item of OPC published under changing conditions, the publishing agreement should make provision for the adaptation of Open Access Licence terms and conditions, for migration to newer and better Open Access Licences, and should also enable the publisher to release multiple Open Access Licences concurrently (see Section C.11 above on dual licensing).

a) Support for the Green Road

The most straightforward option for open access is perhaps the Green Road: all stakeholders can rely on the traditional publishing process and the publisher can set policies for sustainable self-archiving. Required of the publisher is to ensure that the stipulated self-archiving embargo periods entail no embarrassment to authors or that they are notified appropriately when entering into a publishing agreement about the need to respect self-archiving rules including embargos. In this regard, we indicate the so-called 'addendum' offered by some organisations, e.g. SPARC. To facilitate Green open access where the publisher does not already allow self-archiving a number of organisations have developed an 'addendum' to engage in what lawyers call the 'battle of the forms' where two sides to a contract send each other different terms and conditions in the hope that their version prevails. It is posited that this is not a method conducive to greater clarity nor is it a particularly civil or effective method. Rather, the parties wishing to get each other's concerns heard should engage in a negotiation and hammer out a mutually acceptable agreement. If that is not achievable, then authors at least deserve transparency on the part of the publisher regarding what kinds of 'addenda' the publisher will or will not entertain.

b) Support for the Gold Road

The next simplest choice from the point of view of publishing agreement 'disruption' is perhaps the Gold Road. Here a bespoke publishing agreement should be drafted that takes all of the interests properly into account. And it is to these conditions that we will turn under para. 2 below.

c) Support for the Azure Road

Lastly, the 'Azure Road' to open access is perhaps the most challenging. Where authors think of open access as an 'afterthought' for their OPC, it may be possible to switch over to a Gold Road model. In practice this could be done by replacing a publishing agreement (referred to above as a Copyright Transfer Agreement) with another, open access, publishing agreement. The effect would then be retroactive. However, the publisher will need to take into account the interest of users who already depend on licences entered into based on the understanding that the OPC is part of a proprietary medium (e.g. a subscription journal). In this sense, Azure open access is not retroactive and for practical reasons there may have to be a time limitation for taking up the

option. Some publishers expect an author to make a decision on Azure open access within a year, or by a certain calendar date of the year subsequent to publication.

2. Allocation of rights and role of open access steward

While open access is agnostic to the author retaining all the rights (and responsibilities) to make Open Access Licensing work in the intended way, there is in our view much to be said for the ongoing role of the original publisher to act as the aggregator and rights and e-commerce manager of open access publications. Thus, in line with all varietals of Open Access Licensing, it can be each author (or a lead author in an author team) who does the licensing, or it could be the original publisher who would act as 'rightsholder' and would be the central licensor of the open access licensing 'hub'. Given that it is the publisher who obtains the DOI, fingerprints the work for plagiarism services, abstracts and generally makes the content discoverable, there is much to be said in our view for allocating the role of steward, i.e. of ongoing rights management, to the originating publisher. In Commonwealth countries and jurisdictions that recognise the related right of the 'published edition', there is also this reason to keep the rights of authors and publishers conjoined to enable licensing from a 'single hand'. A publisher who 'only' acts as original publisher merely by organising the first time publication and nothing else would seem to deliver a service that ensures the OPC's inclusion as an item in the 'minutes of science' for posterity. Authors should consider what it is that they are buying with their Author Publication Charges: a one-time event, or an ongoing publication service.

Based on our discussion of copyright and licensing above, the publication agreement can be structured in many different ways and the various pros and cons will be briefly discussed below:

a) Author retains copyright in Open Published Content & exclusively licenses publisher's related rights (where applicable)

The author retains copyright and acts as sole licensor for the Open Access Licensing hub. However, for the record of science to remain of a high quality, and for keeping the publication active (i.e. in use) for posterity, this is not advisable. Such a scenario would also necessitate an exclusive licence of the publisher's related right in the published edition (where this right exists, cif supra). The publisher would then need a non-exclusive licence 'back' to keep the work published.

b) Author assigns copyright to the original publisher

The author could assign the entire copyright to the publisher. This will be the method prevailing for Green open access and perhaps for post-publication 'Azure' open access (see Section D.1.c), unless the originating publisher and author enter into a new agreement when a pre-owned work is turned into Gold open access. (For the licensing of Green open access and the impact of copyright and publishing agreements on repositories, see Section E.4 below.) All of the actions

identified under option D.2(c) below apply here as well, and this is the agreement that is most fitting and natural for publishers as stewards of OPC, placing on them a moral and economic imperative to defend the author's rights as well as to deal with ethical issues on their behalf.

c) Author and publisher license the work as joint owners of copyright

The author and publisher could jointly hold the copyright. This would be the advice of the authors of this Guide. It not only best reflects the reality of a jointly owned project, but is best for ensuring that both author and publisher continue to benefit from their joint venture. Both are henceforth licensors and both are able to bring actions where OPC is used inappropriately. Publishers are frequently better positioned and resourced to take effective action, authors benefit from 'moral rights' that cannot be assigned, but publishers as joint owners will in many jurisdictions be able to enjoy the right to raise the moral rights of their co-owners, i.e. on the author's behalf. The publishing agreement will then entrust the publisher as the manager for all licences and permissions and also for enforcement actions or as the defendant against claims of plagiarism. Joint ownership would also best reflect the entitlement to so-called secondary rights and subsidiary rights income. Even though OPC is theoretically 'free' to the reader, there are many remuneration and statutory collective licensing payments that cannot be avoided by the general public and that are payable to the rightsholder of any work, including OPC. Often users may benefit from open access and avoid such payments, but not always. Moreover, sometimes such payments will be collected as a default and in that case they will still be due and payable to the rightsholder. Where author and publisher jointly own the work, payment would be by equal share, absent any other agreement, or based upon the applicable distribution rules of the collecting Collective Management Organisation.

d) Author grants exclusive publication rights to the publisher

The original publisher owns the sole and exclusive rights. This is the default situation arising under many national laws providing for an allocation of rights flowing from publishing agreements generally, i.e. also from open access publishing agreements. For periodical publishers this default applies for a limited time, after which the original publisher is considered merely a non-exclusive licensee as far as use in other media is concerned. By agreement, authors and publishers can vary this default outcome and they may do so explicitly or by implication. We venture to posit that even publishers deriving their rights from publishing agreements that do not currently explicitly state that the publisher is the holder of exclusive rights nevertheless hold those exclusive publication rights by way of a tacit agreement in many jurisdictions.

e) Original publisher is a non-exclusive licensee with sub-publication rights

The original publisher explicitly only acquires a non-exclusive (but otherwise wide-ranging) licence to publish and, where possible, non-exclusively to sub-licence rights in relation to the work. This would impair the publisher's ability to stand up for the work where this is needed

and in fact even the requirement to link back to the original publication (of that publisher) may not be enforceable by the publisher, but only by the author or authorial team who are the owners/joint owners and therefore the 'hub' in the Open Access Licensing wheel. The rights may suffice, however, in jurisdictions where two conditions are met: (i) a publisher is the automatic first owner of the related right in a 'published edition', or the work is one that gives rise to the related right of a 'Critical and Scientific Edition' or as the edition of a 'previously unpublished work'; alternatively the publisher is understood to act simultaneously as non-exclusive licensee and as sole agent for the author who holds the exclusive rights, as a kind of trustee or agent of the author, and (ii) where the Open Access Licence is limited to non-derivative uses of the work. In these cases the publisher will under the Open Access Licence be licensor of the related right and since no adaptations of the work are permitted will be able to control compliance with the Open Access Licence relatively easily.

f) Original publisher is an Open Access Licensee of the author

The original publisher may acquire no rights different from any other third party licensed under an open access 'licensing out' licence derived from the author(s). This amounts really to a self-publishing solution and the first publication by the publisher is the only interest he/she can really have, more as temporary engagement than as ongoing commitment. Everything thereafter lies in the hand of the de facto self-publishing author. While this may be greeted by some as 'emancipation' of the author, it puts into doubt the continued availability of the publication in the record of science. In essence the challenges that may present themselves down the line from initial publication may be not dissimilar from those of so-called orphan works, where digitisation of such works is hampered by the lack of a steward for the work and the rights in question. More distinctly, allocating the rights for purposes of management to the hands of authors puts into doubt the continued availability of works published under open access principles: nothing stops the author from terminating or withdrawing his offer to enter into Open Access Licences at some putative future time. This 'termination' would of course not affect the original publisher or those users who have previously accepted an Open Access Licence as licensees of the author, but because the open access licensing structure is starfish-like and not a chain, later users do not derive their rights from previous re-users of the content, but in all variants of Open Access Licences derive their rights directly and only from the rightsholder. Consequently, these later users may no longer legally 'accept' an offer made for a licensing contract but revoked by the rightsholder. To the extent that the licensor revokes this offer, which legally is always possible, the content ceases to be open access. This could even be done by heirs of an author who have no ties or obligation to any institution or funding agency that may have required the content to be published openly. Successors in title may have no interest continuing to function as a 'hub' in an open licensing wheel. For example, hypothetically, the daughter of a scientist author of a great number of peer-reviewed publications might revoke open access licences after the author's death and might choose the relicensing of the works afresh through different publishers, perhaps for a share of royalties or a flat fee.

3. Need to include rights and obligations on licensing

Depending on the publisher's business strategy and the author's preferences, the publishing agreement should regulate the following:

- The use the publisher can make in parallel with any other users that benefit from an open published content licence (dual licensing). If the agreement is silent on this, misunderstandings may occur, but the publisher as a rule will hold the rights to engage in dual licensing.
- The role the publisher can play in licensing, managing and monitoring third-party uses. Copyright and licensing are the tools that provide this clarity if author and publisher set the right terms;
- Provide flexibility for changing conditions: allow the open published content to be used by the publisher in ways unknown at the time of contracting; allow the publisher to implement or remain unaffected by a change in the open published content terms and conditions (e.g. a migration from an older licence to a newer variant of the same licence, or a migration from one Open Access Licence type to another (e.g. from a STM model licence to a Creative Commons, or vice-versa); changing the attributes of any publication, e.g. from permitting non-commercial uses to additional uses or generally all commercial uses. The original publisher should be empowered to keep the content published irrespective of any such changes affecting the reading public's ability to use the content.
- The original publisher should be empowered to include the OPC in new products not known at the time of contracting to achieve the widest possible dissemination, e.g.: use on social networks not foreseen in previous years; linking content to open data; text and data mining; and embedded software.
- The publisher should be able to object to false and misleading publications that may wish to use the article to draw attention to themselves and represent, wrongly, that they are the original publisher or a legitimate secondary publisher endorsed by the author.
- Make clear how both publisher and author will benefit from the OPC used by readers. Will the publisher be able to enforce a link-back if the Open Access Licence requires a link back to the original or published version? Will the original publisher continue offering the content in closed databases and collections? Will the publisher enhance the content from time to time to keep it alive and used as technology changes? Will the publisher use the content to check future submissions to guard against plagiarism and academic dishonesty (something done currently by many STM publishers, who use automated tools to 'fingerprint' publications to check for illegitimate duplicates and multiple-submissions and which are bound to become even more powerful and sophisticated through translation services, that can automatically detect plagiarism across languages). Should the original publisher be in a position to sub-license rights and to bring legal actions? In a majority of cases this possibility is restricted to copyright owners and exclusive licensees. It may thus be advisable to

empower the publisher by making him/her owner, co-owner or exclusive licensee under the original publishing agreement.

E. Other agreements affecting Open Access Licensing

Returning to the juncture at which an author's decision on where and how to publish is made, other agreements or mandatory rules may already be in place which may or may not have been brought to the attention of researcher-authors. Some of these are discussed below:

1. Employment and service contracts

Here we consider the employment relationship of researcher-author and research institution, or research contracts: researcher-authors are either freelance or employed by research institutions, industry, or a mix. Employment or research contracting may be carried out on the instruction of or under the control of a government agency or institution, in which case the question of state ownership of copyright may arise. Some researchers carry out research and publish within the scope of their employment but many are in fact funded in whole or in part by funding agencies that are distinct from their employers. The employment relationship may specifically affect who the initial owners (and licensors) of copyright are and also what administrative hurdles must be cleared before a manuscript can be submitted for acceptance for publication. As we have seen above (Sections B.1, B.4, and B.8 (a)), ownership allocation is dependent on country-specific copyright laws and while in the US an employer may acquire copyright as first owner by virtue of a work made for hire, this status is unrecognised and constitutionally not recognisable in France. Thus, a point that cannot be overemphasized, for global science and global publishers, it is best to obtain a licence in these cases from BOTH (or ALL) interests, always including the author and any employer or other entity claiming copyright in the country of habitual residence of the author.

2. Funding agreements of researcher's institutions and researcher's own grant agreements

Here we discuss funding grant agreements between funder organisations and research institutions, and/or agreements of the funder directly or of research organisations that contract with individual researchers. First, funding agencies and research institutions at which researcher-authors are working may impose obligations or issue publication and IP guidelines which authors and researchers generally must observe as a process and meet. Sometimes, funders and research organisations require that they acquire copyright and other IP from their staff or resident scientists, but more often they merely impose publication incentives or obligations to make published research findings available to open access by way of the Gold or Green road. The funding grant agreement will often set out the funder's requirements to publish open access, and may even specify what conditions in Open Access Licensing agreements meet the funder's requirements. However the degree to which funding agreements can restrict the author's

freedom to decide whether, when and how to publish will in each case depend on national law, but an analysis of such interpretations is beyond the scope of this Guide.

Rarely do funder agreements contain rules of what is to happen if the funder offers only partial funding or if the researcher-author is subject to several funding agreements either directly or by virtue of his or her institution being party to such agreements. Also, these agreements do not deal generally with public-private funding arrangements. Rules on these issues remain the province of laws, guidelines and regulations, as well as on agreements on intellectual property derived from publicly funded research[28]. To set out this landscape is however beyond the scope of this Guide on Open Access Licensing and the reader is referred to the OECD website for more information[29]. Elaborate conditions for grant agreements have now been set by the EU for EU-funded institutions and also for research institutions that collaborate with or otherwise receive EU-funding[30]. Analysing these agreements and their effect in different EU member states is however beyond the scope of this Guide.

3. Open access membership agreements

Open access membership agreements, a kind of membership agreement between an institution and a publisher, is an understanding of how open access is funded for researcher-authors that are connected to the research institution or scholarly society. Depending on individual negotiation, it is imaginable that a research institution is charged a flat fee covering a given number of items of OPC accepted for publication by eligible authors. Alternatively, there could simply be a cost-sharing model, where authors directly are paying part of the charges and the membership institutions cover the remainder. Further models and variations are imaginable. By virtue of their 'pre-paid' element, there could be a bias by the membership institution to encourage their researcher-authors to publish with certain publishers only or preferentially. Subject to the constitutional principles of academic freedom and copyright conferring a human right to authors freely to choose whether, when and where to publish, these encouragements could be problematic or at least should remain 'soft law', i.e. remain unenforceable and not insisted upon with rigidity.

4. Repositories (open archives) and publishing agreements

Apart from many other legal aspects, copyright and licensing also shapes the role of repository platform operators, the principal vehicle for the Green Road to open access.

Essentially, repository platform operators need to derive their rights from the copyright holder as most scientific publications are protected by copyright. They also need to obtain a copy of either the author manuscript (pre-print or finally accepted manuscript) or the authoritative version of record, depending on what kind of a repository they wish to be. Repository platform operators will also have to manage and comply with publisher-set embargoes and find out from

the original publisher the date of first publication in order to calculate any embargo periods. Where they use a version different from the version of record a link to that version should also be provided. This could be done by a full-text repository set up by or in collaboration with publishers, such as the CHORUS initiative in the United States (www.chorusaccess.org). CHORUS solves a number of needs at once. Publishers make available accepted manuscripts or versions of record on their platforms deriving from funding bodies working with CHORUS. CHORUS then directs (links) readers to the 'best-available' version of a publication. This also ensures long-term preservation of the scientific record in a distributed fashion by virtue of publishers' collaboration with PORTICO, LOCKSS and CLOCKSS and other secure deposit organisations. Another way would be to operate a 'distributed' repository through hyperlinks. This is attractive as several courts have held that the mere setting of a link to an otherwise publicly available work is not an act restricted by copyright [31].

To make Green open access a reality, a repository should seek to collaborate with publishers and seek their buy-in to an acceptable embargo period, in return for access to a publisher-grade copy of a manuscript or version of record.

As part of this collaboration, repositories and publishers will also have to respect and pass on the Open Access Licensing terms that should abide. Some of these are currently available from publisher websites as part of so-called publisher policies, viz. self-archiving. We posit here that a more structured approach would be helpful where it is ensured that publications in repository are made available with clear licensing terms attached, similar in a way to the Open Access Licensing terms embedded or referenced in OPC, which require the terms to be always reproduced in an immediately visible and well-presented link. These Open Access Licences are under copyright laws protected as 'Rights Management Information' and their omission or tampering would constitute a criminal offence. For both readers and users, repositories would be significantly more useful if repository platform operators and publishers could intensify their cooperation about discoverability, not only of the content but the open licensing terms attached to such content.

There appears to be great potential for co-operation between publishers and repository platform operators to co-ordinate and implement the management of embargo periods, and also the release of OPCs that relate to earlier versions contained in a repository. In this way both stakeholders could work towards the researcher having ready access to 'best-available' versions.

F.Conclusion and recommendations

This Guide concludes with a few general remarks and recommendations that are based on what we would call the four mantras of open access publishing (and licensing). Publishing agreements and open access licences need to enable the stakeholders and stewards of knowledge to be:

a) **Flexible:** the agreements should support a variety of open access models and otherwise also remain a sound basis for alternative simultaneous licensing, so-called dual licensing model [Sections C.11 and D.1];

b) **Adaptable:** the agreements need to enable the steward of open access - either the publisher, the author or both acting in concert [Section D.2] - to adapt Open Access Licences and to release a work under future licence terms that may gain currency or may include new uses unknown at the time of first publication;

c) **Enforceable:** the steward of Open Access Licensing must be empowered to see to compliance and intervene where abuses take place. In instances of plagiarism and moral rights injuries [Sections B.10(b) & (c); C.1(a); C.9(a)_& (c) and D.2(c) & (e)] the publisher should offer assistance as the author's trustee and agent, and

d) **Sustainable:** the goal must be to retain the content as accessible and open for the long term and curated (increase and measure usage; allow for and execute timely migration to new formats; and deal with new uses and platforms) not as a mere afterthought, but as a key concept from the beginning [Section D.1]. Offering this service is of course dependent on sufficient financing and thus an element of sustaining ongoing publication as part of the 'minutes of science' requires adequate ongoing funding by states, industry or institutions [Sections A.6 & E.2]. A successful Open Access Licensing programme will enable and encapsulate these elements of publisher service and financial sources;

and remain cognizant of all of the above in order to ensure a continued flow of quality information and the long-term availability of the integrity of scholarly records.

Derived from these broad concepts, we emphasize the following ten recommendations:

1. **Authors** should be clear about their obligations under research or grant agreements under university rules and as employees of research institutions [Sections B.10(c); C.10(a); D.2(f) & E.4]. At the same time, authors should vigorously guard their unwaivable human right and academic freedom to determine whether, when, where and how to publish their writings [Section A.5]. At no stage should open access policy impede the author from choosing the medium of publication, as the 'medium is the message' [Section C]. And for very good reasons in the tradition of Western development the message is protected by freedom of speech and academic freedom.

2. **Authors** wishing to publish in a particular variant of open access need to ensure that any embodied third-party content is either prominently and clearly demarcated as not licensed by the author, since nobody can license content to which they have no rights [Section

C.8(a)], and/or under what licence the embodied text is included in their publication [Section C.10].

3. **Authors and their publishers** may wish to take a fresh look at moral rights and assist their authors in standing up also for authors' moral rights [Section B.8(a)]. As a corollary, waivers of moral rights should not be unduly sought by publishers but these rights should rather be used to promote the free choice of authors and the integrity of the scholarly record.

4. **Publishers** who are intending fully to embrace open access must develop a workflow such that nuanced copyright and licensing agreements are taken care of and utilized to yield what will ultimately be an elegant and simple solution for the reader: access to the best-available version of peer-reviewed publications at no cost to the reader. As part of this workflow, publishers should define their role as long-term partners of authors and stewards of their publications in a publishing agreement that runs in parallel with any Open Access Licences and any other agreements of funders, repository platform operators or institutional memberships. The publishing agreement ought to be signed always by or on behalf of the authors, where applicable by employers or institutional copyright claimants, and the original publisher. Crucially, the publishing agreement – and not the Open Access Licensing agreement – determines what the publisher may or may not do to keep the work published and used [Sections B.10(b) & D.2(c)].

5. **The publishing agreement** is the heart and central legal document needed to allow the publisher to engage in comprehensive rights management. The agreement should enable the publisher to grant a variety of Open Access Licences and also to grant bespoke licences where the 'mass' licences are insufficient for particular users. Publishers also should seek compliance and, where necessary, take legal action to enforce Open Access Licensing terms [Sections B.10(b) & (c); C.1(a); C.9(a) & (c); C.10 and D.2(c) & (e)].

6. **Publishers** who are rightsholders and act as the hub of Open Access Licensing agreements to be concluded with users and readers may require a link back to the version of record and clear attribution. This may help also in the usage and impact calculations and may present valuable information to the entire publishing ecosystem that, due to the absence of a market price set by readers, stands to lose an important distributed signal of market demand for quality publications [Sections B.8(a) & C.7].[32].

7. **Publishers in the medical field and publishers in the AHSS field** need to be particularly careful about selecting the right Open Access Licensing terms and conditions so as not to forfeit an important subvention and income stream (e.g. from pharmaceutical industry uses). Losing these income streams may have negative impacts on investment and innovation in biomedical publishing if not properly taken into account. For AHSS publishers the priority is not to compromise third-party content (e.g. visual art or music) which frequently is embedded in AHSS titles, or by virtue of having inappropriate derivative works published on sensitive AHSS subjects [Section C.8(a)]. There may also

be a loss of revenue in other disciplines through the loss of secondary income, e.g. the potential for revenue loss from anthologies in AHSS. In other words, licences that allow all uses including the creation of adaptations and derivative works without any restrictions short of blatant misuse may not be desirable or practical in some disciplines in the humanities and social sciences. In art, music and literature, for example, there may be extensive use of in-copyright content which cannot be licensed by authors for use under a CC-BY licence [Section C.10]. Publishers and authors could be subject to considerable legal risk. One size may not fit all, or, in Vicky Gardner's phrase, we need to recognise the '*chiaroscuro*' of scholarly publishing.

8. **Funders and publishers** desirous to see a comprehensive manifestation of open access will need to do more to carry authors with them. Funders and publishers cannot, in the long term, rely on authors blithely ticking a licence box since there is evidence that some authors are not fully understanding and acknowledging the meaning and legal implication of Open Access Licensing terms. Education and awareness are required, a point that cannot be overemphasized and to which effort this Guide strives to contribute.

9. **Repository owners and providers** need to be clear about their mission and should seek to collaborate with publishers. This could be done as part of open access membership agreements, where a repository is de facto acting as an open access steward managed by an external publisher. Alternatively, repositories could rely on distributed content structures such as CHORUS. Key is that the publishing agreement and author self-archiving policies set by publishers will define how repositories can fulfil their mission. The terms and conditions for repository users are often poorly discoverable and sometimes unknown. Like publishers, repository platform operators should strive to make not only research discoverable but also licensing terms [Section E.4].

10. **Open Access Licensing** is a field that continues to evolve and the definition of ever better Open Access Licensing terms that match the interests of all stakeholders to make world scientific literature accessible must at the very least be anticipated as a trend with exponential possibilities. Publishers and authors must therefore preserve their ability to migrate their business and legal agreements as open access further evolves.

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Endnotes:

SECTION A

[1] Declaration [of 1 November 2007], http://www.stm-assoc.org/brussels-declaration/, which has been followed by a Sustainable Open Access statement, http://www.stm-assoc.org/publishers-support-sustainable-open-access/ and an Access statement http://www.stm-assoc.org/access-statement/

[2] Mike Taylor: http://poynder.blogspot.co.uk/2013/07/open-access-where-are-we-what-still.html

[3]Gardner, V. (2013).*Chiaroscuro: The light and shadow of CC-BY in the context of Social Science, Arts and Humanities.*

[4]http://www.nature.com/news/open-access-website-gets-tough1.15674?utm_source=newsletter&utm_medium=email&utm_campaign=Copyright%20%26%20A2K%20Issues%20-%2019%20November%202014

[5]http://doabooks.org/doab?func=about&uiLanguage=en

[6] http://de.slideshare.net/powerinbetween/hsrc-press-open-access-presentation

[7] Beyond scholarly works, Project Gutenberg (PG) keeps available some 46,000 books in the public domain in the USA and offers them for free reading and downloading for personal use. Crawling is not allowed, however, and the license comes with particular caveats; it is truly free in the USA only and any commercial redistribution attracts a 20% royalty in favour of the PG foundation[7]. This 'goodwill' project illustrates that open access in books is conceptually still evolving and maturing before it reaches the level of traction, and standard access currently is in vogue only for contributions to scientific or scholarly journals

[8]www.researchinformation.info/news/news_story.php?news_id=1178

[9]http://www.knowledgeunlatched.org/

[10] http://www.stm-assoc.org/industry-statistics/the-stm-report/

[11]An entire journal can also be made open access after a period of time, e.g. the Journal of Cancer, http://www.jcancer.org/about

[12] In the authors' view "APC" should more properly stand for "Author Publication Charge", as it is the author who pays for the services associated with the first publication of his/her original work.

[13] See also PRC Guide – Mark Ware

[14] http://www.nature.com/news/company-offers-portable-peer-review-1.12418

[15] http://www.stm-assoc.org/industry-statistics/the-stm-report/

[16]https://www.datacite.org/node/65

SECTION B

[17]http://www.un.org/en/documents/udhr/

[18] see Berne Convention Article 2(1): '2(1) The expression 'literary and artistic works' shall include every production in the literary, scientific and artistic domain, regardless of the mode or form of its expression (books, pamphlets and other writings; lectures, addresses, sermons; dramatic or dramatico-musical

works; choreographic works and entertainments in mime; musical compositions with or without lyrics; cinematographic works and works analogous to cinematography; works of drawing, painting, architecture, sculpture, engraving and lithography; photographic works and works analogous to photography; applied art; illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science.'

[19] In some countries exclusive rights of owners exist and are defined as additional categories of copyright works or as derivative works, while in other countries the same artefacts are protected as 'related rights'. Examples are television broadcasts, sound recordings, published edition (in the typographical arrangement or layout of a published written work), and rights of musical or audio-visual performers.

[20] Case cited after: Cyrill P Rigamonti, *Urheberpersönlichkeitsrechte, Globalisierung und DogmatikeinerRechtsfigurzwischenUrheber- und Persönlichkeitsrecht*, Stämpfli Publishers, Switzerland, Bern, 2013, 352 pages, Lord Mansfield quoted at bottom of page 77.

[21]Protection of a derivative work under national law is sometimes only extended to legally made works.

[22] This might as well be called the 'Nothing from Thin Air' principle: putative transfers or acquisition of putative rights, even under good faith of the parties involved are ineffective. This is expressed by the old legal maxim in Latin *nemo plus iuristransferrepotest quam ipse habet* (full rule – *Non debeomelioricondicionisesse quam auctor meus a quo iusinme transit)* (the exact translation reading 'I ought not to be in a more favourable position than the person from whom I derive my rights' is the corollary rule of the better known 'nemo plus iuris' rule).

SECTION C

[23]See also guidance available from Creative Commons (but without any 'legal advice' or commitment about correctness on the part of CC): (i) for 3rd-party content for which another licensor is competent to issue a licence:https://wiki.creativecommons.org/Marking/Creators/Marking_third_party_content; and (ii) for content that is used under a US national exception (uses that in other jurisdictions might be considered exempt from copyright as 'quotations': https://wiki.creativecommons.org/Frequently_Asked_Questions#May_I_apply_a_CC_license_to_my_work_if_it_incorporates_material_used_under_fair_use_or_another_exception_or_limitation_to_copyright.3F

[24] Donations may also be undone where the donee acts in indefensible offensive ways towards the donor or his relatives.

SECTION D

[25] OASPA recommends these licences, seehttp://oaspa.org/information-resources/frequently-asked-questions/: "*Why does OASPA recommend the Creative Commons Licenses?*".

[26] .'This is merely to say that the personal and social consequences of any medium – that is, of any extension of ourselves – result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology' McLuhan, M. (1964). *Understanding Media: The extensions of Man.* Canada: McGraw-Hill

[27]In this respect, there is a whole host of publication ethics to consider, for e.g. the prohibition on dual publication.

SECTION E

[28]Organization for Economic Co-operation and Development, (2014). *Making Open Access a Reality - Final Report*. Directorate for science, technology and innovation.

[29] http://www.oecd.org/

[30] http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf

[31]*Svensson, N v Retriever Sverige AB* [delivered 13 February 2013] Case no: C466/12 (CJEU), Regarding - Approximation of laws; Copyright and related rights; Directive 2001/29/EC; Information society; Harmonisation of certain aspects of copyright and related rights; Communication to the public; Internet links giving access to protected works. [online] Available at http://curia.europa.eu/juris/document/document.jsf?docid=147847&doclang=EN. Accessed 29 November 2014.

[32] According to Friedrich August von Hayek, a key advantage of markets is that market prices convey distributed information about an offering not otherwise available. To the extent that open access eliminates or obviates markets of readers and buyers of copyright-protected works, the measure of demand by readers for such publications is lost as a signal for future publications of like quality. See Hayek, F. A. von (1945). The Use of Knowledge in Society. *American Economic Review*, 4, pp.519-530.

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