

Open Data Management in Agriculture and Nutrition

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GODAN Action is a three-year project UK's Department for International Development to enable data users, producers and intermediaries to engage effectively with open data and maximise its potential for impact in the agriculture and nutrition sectors. In particular we work to strengthen capacity, to promote common standards and best practice and to improve how we measure impact. [www.godan.info]

UNIT 5: INTELLECTUAL PROPERTY AND COPYRIGHT

LESSON 5.1: INTELLECTUAL PROPERTY RIGHTS



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Aims and learning outcomes

This lesson aims to:

- define intellectual property rights (IPRs) and list different types of IPRs
- explain copyright and database rights in relation to IPRs
- explain rights which apply to data that is produced or reused
- lists considerations of IPRs in databases
- provide an overview on data ownership.



After studying this lesson, you should be able to;

- understand different types of intellectual property rights and their relation to data
- be aware of differences between different jurisdictions
- make informed assumptions regarding copyright and database laws applicable to the data that you work with
- understand potential complications in ownership rights in data.

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1. Introduction

The importance of protecting intellectual property (IP) was first recognized in the Paris Convention for the Protection of Industrial Property adopted in 1883 (referred to as the Paris Convention) and the Berne Convention for the Protection of Literary and Artistic Works adopted in 1886 (known as the Berne Convention). Both these treaties are administered by the World Intellectual Property Organization (WIPO). Established in 1967, WIPO is the global forum for intellectual property services, policy, information and cooperation. Its mission is to lead the development of a balanced and effective international intellectual property system that enables innovation and creativity for the benefit of all.¹

WIPO describes IP as follows:

'Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create. By striking the right balance between the interests of innovators and the wider public interest, the IP system aims to foster an environment in which creativity and innovation can flourish.'

The term was already used in the 19th century, but it became commonplace more recently. It is often used in a legal context, hence we tend to speak of Intellectual Property Rights (IPRs); WIPO's description indicates that legal systems should seek a balance between the general interest of access to knowledge and the interests of the people who create products of the mind and want to benefit from their work. Others claim that there is a 'paradigm shift' in favour of greater access to protected works.² However this shift did not result in the adoption of new internationally recognized legal instruments. So if we want to create an environment in which data can be shared, reused and redistributed we will have to make use of legal tools that were originally created to protect the efforts of the creators, and treat their products as 'property'.

¹ WIPO: Understanding Copyright and Related Rights.

http://www.wipo.int/edocs/pubdocs/en/wipo_pub_909_2016.pdf

² Morin, Jean-Frederic. 'Paradigm shift in the global IP regime: The agency of academics, Review of International Political Economy, vol 21-2, 2014, p.275-309

<http://corpus.ulaval.ca/jspui/bitstream/20.500.11794/14327/1/Morin%20Paradygm%20shift%20in%20the%20IP%20Regime.pdf>

2.Types of IPRs

IPR is an overarching term for a wide variety of different legal instruments. IPRs protect the results of intellectual efforts or, if you wish products of the human mind. It is a broad concept, as indicated in the following diagram.

Intellectual Property	
Industrial property	Copyright
Patents	Literary work
Trademarks	Film
Industrial design	Music
Geographical indication	Artistic work
	Architectural design

Figure 1 Types of IPRs

Table 1 The table below summarizes a number of areas that are relevant to data³

Type of law	What does it protect?	Differences between legislations	Applicable to data?
Patent law	Inventions	Most legislations protect inventions	No, but data may underlie patent applications
Copyright law	Creative, intellectual, artistic works	Generally legislations protect copyrights	Yes
Database law	Effort to compile data collections	EU legislations and Mexico; in some countries (e.g. India, South Africa) seen as part of copyright	Yes
Trademarks and 'trade dress'	Signs, names and expressions that identify marketable products or services	Generally legislations protect trademarks	No, but there are concerns that such rights may be infringed when reusing data from the private sector
Breeders' rights	Plant cultivars and animal breeds	In most legislations breeders rights are protected, but the way cultivars or breeds are registered varies	No, but data may underlie registrations

³ WIPO Intellectual Property Handbook: Policy, Law and Use (2004). WIPO, Geneva, Switzerland. ISBN 92-805-1291-7 available at <http://www.wipo.int/about-ip/en/iprm/>

IPRs may vary in different national legislations, but there are international treaties⁴ with which signatory countries' legislation has to comply and which they must enforce. Examples for such treaties are the Berne Convention⁵ and the World Trade Organisation's 'TRIPS'⁶ agreement for patents.

As the copyright and database rights are the most relevant property rights in relation to data, we will look at them in more detail.

3. Copyright

Copyright relates to literary and artistic creations, such as books, articles, music, paintings and sculptures, films and technology-based works (such as computer programs and electronic databases). Unlike protection for inventions, copyright law (and the associated concept of related or neighbouring rights) protects only the *form* of expression of ideas, not the ideas themselves. The works protected by copyright are creative with regard to the choice and arrangement of the medium of expression, such as words, musical notes, colours and shapes. Copyright protects the owner of the exclusive property rights against those who copy or otherwise take and use the particular form in which the original work was expressed.⁷

Copyright protects two types of rights. *Economic rights* allow right owners to derive financial reward from the use of their works by others. *Moral rights* allow authors and creators to take certain actions to preserve and protect their link with their work. The author or creator may be the owner of the economic rights or those rights may be transferred to one or more copyright owners. Many countries do not allow the transfer of moral rights.⁸

There is a copyright on every text, picture, video or sound recording that one comes across, be it on paper, on electronic media or on the internet. If you did not create something and it is somebody else's work, you cannot distribute or reuse it without their agreement. In trade publications you may come across copyright statements, a '©' symbol or the word copyright followed by a year and the name of the rights holder. Such statements make clear who owns them, but they are *not* needed to prove that the work is copyrighted.

Copyright laws may vary between different national legislations, but there are several common points:

⁴ <http://www.wipo.int/treaties/en/>

⁵ <http://www.wipo.int/treaties/en/ip/berne/>

⁶ https://www.wto.org/english/docs_e/legal_e/legal_e.htm#TRIPs

⁷ *The Legal Status of Raw Data: a Guide for Research Practice.*

https://www.surf.nl/binaries/content/assets/surf/en/knowledgebase/2009/SURFdirect_De+juridische+status+van+ruwe+data_wegwijzer_ENG.pdf

⁸ WIPO: *Understanding Copyright and Related Rights.*

http://www.wipo.int/edocs/pubdocs/en/wipo_pub_909_2016.pdf

- Copyright protects an 'original expression of intellectual or artistic activity.' Bare facts or ideas in themselves are not copyrightable.
- If there is more than one creator they share the rights.
- They give the originator the right to distribute and use a work.
- The rights are limited to a fixed duration, often the lifespan of the originator plus 50 or 100 years.
- There may be limitations to the rights: a 'fair use' may be allowed, such as citing part of a work in your own work, but not more than you need to make your point.
- The rights to use, translate and distribute can be transferred, inherited, waived or sold. Publishers, employers or funders may claim them in an agreement with the originator.
- Rights can be waived, i.e. 'relinquished or surrendered'. This can be done, for example, by assigning an open licence to bring a work into the public domain. By waiving copyrights the rights holder declares that they are the rights holder – and may want to be recognized as such – but they agree that anybody can reuse and redistribute their works.

Data is commonly accepted as copyrightable, although it is sometimes argued that not all data are original expressions of intellectual or artistic activity.

4. Database rights

In any data project, there are likely to be two components. The first is the data collected, assembled, or generated; think of it as the raw content in the system. The second component is the data system in which the data is stored and managed.⁹ If information is structured in a database, the structure acquires a database right, alongside the copyright in the content of the database. A database may be protected by both copyright and database right. For a database right to apply, the database must be the result of substantial intellectual investment in obtaining, verifying or presenting the content in an original manner. Simply entering facts into a spreadsheet does not count as substantial effort. The database right is an automatic right and protects databases against the unauthorised extraction and reuse of the contents.¹⁰

Open data is often provided as a searchable database rather than as a static file. Until some years ago the contents of a database could not be legally protected, but on 11 March 1996 the Council of the European Union adopted Directive 96/9/EG¹¹ giving specific and separate legal rights (and limitations) to databases: database rights. Countries in the European Union have

⁹ <https://data.research.cornell.edu/content/intellectual-property#data-vs-database>

¹⁰ <https://www.ukdataservice.ac.uk/manage-data/rights/other-rights>

¹¹ <http://eur-lex.europa.eu/lexUriServ/LexUriServ.do?uri=CELEX:31996L0009:EN:HTML>

implemented laws based on this EU directive. To be applicable this directive and any derived legislation require that:

- the database consists of independent items
- the database is searchable or systematically arranged so that the individual items can be traced
- there has been a substantial investment in the database (obtaining, presenting, and/or verifying the data).

Users must ask permission or check licences if they want to:

- retrieve (i.e. by copying or downloading) substantial portions of the database
- repeatedly and systematically retrieve non-substantial portions of the database
- reuse (i.e. publish) substantial portions of the database.

Most other legislations do not have specific database laws, but their copyright laws may protect databases. There are views that this is the case in India and South Africa.¹² Even if a database as such is not protected, the structure of a database may be copyrightable. An example from the USA is the structure of a telephone directory that can handle names both in Chinese and Latin scripts.

The Digital Curation Centre offers a list of considerations¹³ for IPRs in databases:

- Database creators should assess which databases they have rights in and whether they want people to be able to use them over time.
- Users should consider which databases contain information that they wish to access and/or reuse. Are they protected by copyright or the database right?
- Some databases may be created in the course of employment or by multiple authors/contributors. In this situation clarity should be sought on exactly who was involved and who has rights in the database.
- A rights holder may want to protect certain elements of a database and make others freely available in the public domain for reuse.
- It is possible for a rights holder to adopt a 'some rights reserved' position allowing certain uses and not others. For example they may want to allow others to copy or modify for the purpose of preservation but not for commercial use.

¹² T. Pistorius, 'Developing countries and copyright in the information age,' Potchefstroom Electronic Law Journal // Potchefstroomse Elektroniese Regsblad, vol. 2006, no. 2, pp. 1–27, 2006.

<http://www.saflii.org/za/journals/PER/2006/11.html>

¹³ <http://www.dcc.ac.uk/resources/briefing-papers/legal-watch-papers/ipr-databases>

5. Ownership rights in data

Ownership of data rights remains a controversial issue. A clear understanding of what intellectual property rights in a database (and any associated rights) are, when they arise, and how they operate is beneficial for practitioners. It helps to avoid infringement of third-party rights as well as being able to recognise the rights they themselves hold, thereby maximising the potential for access, exploitation and dissemination.¹⁴

Copyright is owned initially by the author(s) of a copyrighted work. For copyright purposes, the author is the person or persons who make the creative or editorial decisions about how to express the underlying facts and ideas. If there is a copyright layer to a dataset or database, the copyright owner associated with this layer would be the one who chose how to organize, arrange, annotate or visualize the data, rather than the one involved in its generation or collection. When the copyrighted work is created by an employee within the scope of employment, a national division emerges.

The holder of database rights is the person or entity that makes the substantial investment in collecting data from other sources or maintaining the database. In the research context, these rights usually will belong to data aggregators and repositories rather than individual researchers or research teams.¹⁵

Creators of services cannot assume that they can use external data unless they have an explicit permission to do so. Creators who make their data available with the objective of others to reuse and redistribute also have to give explicit permission. Licences provide communication tools for this purpose between the creators and the users of data. In the next lesson data licensing and open licences will be discussed in detail to permit such use.

¹⁴ <http://www.dcc.ac.uk/resources/briefing-papers/legal-watch-papers/ipr-databases>

¹⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4551669/pdf/pbio.1002235.pdf>

Further readings

- M. de C. Buning, A. Ringnalda and T. van der Linden (2009) *The legal status of raw data: a guide for research practice*, SURFDirect, Utrecht, Netherlands. Available at: https://www.surf.nl/binaries/content/assets/surf/en/knowledgebase/2009/SURFdirect_De+juridische+status+van+ruwe+data_wegwijzer_ENG.pdf
- M. McGeever, (2007). *IPR in Databases*_Digital Curation Centre Briefing Paper. Available at: <http://www.dcc.ac.uk/resources/briefing-papers/legal-watch-papers/ipr-databases>
- N. P. Louwaars, W. S. De Boef, and J. Edeme (2015). Integrated seed sector development: a basis for seed policy and law. *Journal of. Crop Improvement*, **27** (2), 186–214. <https://pubag.nal.usda.gov/catalog/351582>