

Copyright in digital resources/data

Rowan Wilson
rowan.wilson@it.ox.ac.uk
researchdata@ox.ac.uk



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- IP rights in digital resources/data
- Copyright and reuse
- Who owns data generated at Oxford?
- Why do we care who owns research data?



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IP Rights in digital resources/data



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What is Intellectual Property?

- Intellectual vs 'Real' property
- Incentive to creativity, and a corpus of ideas
- The owner of intellectual property has a timed monopoly on its use
- Intellectual property law protects that monopoly
- Intellectual property rights come in two types: registered or unregistered
- There are many kinds of intellectual property



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Varieties of Intellectual Property include...

- Patents** – protect inventions
- Trademarks** – protect identifiers used by businesses
- Database Rights** – protect comprehensive collections of data
- Design Rights** – protect the shape and design of products
- Copyright** – protects literary and artistic material



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Varieties of Intellectual Property include...

- Patents**
 - Registered right
 - Granted nationally, and at EU level
 - Prior publication disqualifies application (in EU at least)...
 - Protects novel, non-obvious inventions with industrial application
 - Lasts up to 25 years
 - **Research data** generally cannot be an invention in itself, and is unlikely to count as prior publication on its own, but may facilitate others' inventive process
 - Defence of patents may involve accessing research records and data



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Varieties of Intellectual Property Include...

Database Rights

- Unregistered right – comes into being as soon as database is populated
- **EU-only**
- Separate from copyright, with less stringent requirements for protection – for example exhaustive collections requiring no 'judgement' are still protected as long as there has been '*substantial investment in obtaining, verifying or presenting the contents*'.
- Last 15 years from creation, although each substantial revision of the database generates a new right
- **Research data** often contain database rights



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Varieties of Intellectual Property Include...

Copyright

- Unregistered right – comes into being as soon as work is recorded
- Globally enforceable via treaty
- In general, lasts 70 years from the death of the author
- protects literary and artistic material, music, films, sound recordings and broadcasts, including software and multimedia
- does not protect works that are 'insubstantial' – in terms of either quantity or quality
- gives the owner exclusive economic rights over the copyrighted material
- **Research data** will often be protected by copyright



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Copyright

- protects the 'fixed' form of an idea, not the idea itself – the expression side of the idea/expression boundary
- protects material that is 'original' (requiring 'skill, labour and judgement' to create, not a 'slavish copy' of something else).
- Can exist at varying levels of a dataset simultaneously
 - Individual data elements if sufficiently substantial
 - Selection of elements / sample points / corpus texts etc
 - Database structure / metadata schema



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Copyright

- Artistic merit or high complexity is not required
- Even copying may introduce an additional layer of ownership – for example the photographing of paintings, but this can vary from jurisdiction to jurisdiction
- Independent creation of identical works results in two copyrights, one for each creator, although obviously this is rare



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'Digital' Copyright

- New forms of material, protected by old rights
- Computer software is a literary work
- Gradual adaptation of legislation / case law to new technical concepts
 - Transient copies / caching / linking
 - Patents in software
 - Monkey selfie
- Little newly drafted law
- HOWEVER trained neural networks may present a genuine typological problem for IP law, and this problem is not yet solved



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What exclusive economic rights do authors have?

- Making copies
- Issuing copies to the public (publication, performing, broadcasting, online distribution)
- Renting or lending copies
- Adapting the work (including translating into other languages)



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What if I'm employed to create copyright material?

- Your employment contract will govern who owns the copyright, although the default position will be that your employer does
- For University of Oxford employees the position is spelled out in the University Statutes XVI part b (see next slides)
- Even works created outside working hours may be owned by your employer if they are of the same general type as you are employed to create
- Beware! If you bring in contractors or consultants they will by default own the copyright in their work unless the contract you arrange says otherwise
- NB The situation varies internationally



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Whose work is claimed by Oxford?

5. (1) The University claims ownership of all intellectual property specified in section 6 of this statute which is devised, made, or created:

- (a) by persons employed by the University in the course of their employment;
- (b) by student members only in the circumstances specified in sub-section (3) below;
- (c) by other persons engaged in study or research in the University who, as a condition of their being granted access to the University's premises or facilities, have agreed in writing that this Part shall apply to them; and
- (d) by persons engaged by the University under contracts for services during the course of or incidentally to that engagement.

<https://www.admin.ox.ac.uk/statutes/790-121.shtml>



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What is claimed by Oxford?

6. The intellectual property of which ownership is claimed under section 5 (1) of this statute comprises:

- (1) works generated by computer hardware or software owned or operated by the University;
- (2) works created with the aid of university facilities including (by way of example only) films, videos, photographs, multimedia works, typographic arrangements, and field and laboratory notebooks;
- (3) patentable and non-patentable inventions;
- (4) registered and unregistered designs, plant varieties, and topographies;
- (5) university-commissioned works not within (1), (2), (3), or (4);
- (6) databases, computer software, firmware, courseware, and related material not within (1), (2), (3), (4), or (5), but only if they may reasonably be considered to possess commercial potential; and
- (7) know-how and information associated with the above.

<https://www.admin.ox.ac.uk/statutes/790-121.shtml>



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What isn't claimed by Oxford?

7. The University will **not** assert any claim to the ownership of copyright in:

- (1) artistic works not listed in sub-section (2) of section 6 of this statute, books, articles, plays, lyrics, scores, or lectures, apart from those specifically commissioned by the University;
- (2) audio or visual aids to the giving of lectures;
- (3) student theses, exercises and answers to tests and examinations save to the extent that they contain intellectual property claimed by the University under subsection (6) of section 6 of this statute; or
- (4) computer-related works other than those specified in section 6 of this statute.

<https://www.admin.ox.ac.uk/statutes/790-121.shtml>



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Reporting IP 'which is capable of commercial exploitation'

Council Regulations 7 of 2002

"Where any person who is subject to the provisions of Part B of Statute XVI (a 'researcher') creates intellectual property specified in section 6 of that statute which is capable of commercial exploitation, he or she shall report its existence to the Head of Department (or equivalent) and, in the case of intellectual property arising from research, to the Director of Research Services or, in the case of all other intellectual property, to the Director of Legal Services; and shall provide the relevant Director with all necessary information concerning the provenance of the intellectual property and the circumstances in which it was created."

<http://www.admin.ox.ac.uk/statutes/regulations/182-052.shtml>



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What is 'Oxford' anyway?

- The University is an exempt charity, regulated not by the Charities Commission but by UKRI
- Charitable aims are broadly "to lead the world in research and education"
- Where Oxford accepts money for research (and that funding represents 40%, the largest element, of Oxford's income) the resulting work must further the charitable aims
- In practice this means that data generated with research funding must – at the very least – be available for Oxford to use academically post-project ('academic license back')
- External entities funding research often seek to water down this requirement.
- Charities can undertake commercial work that generates income to further their charitable aims, but normally this would be more expensive to a partner than 'primary purpose' research



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What about Brexit?

- Unlike data protection, most IP rights are standardised on a treaty level above the EU
- ...therefore not much is likely to change
- However we **may** see database rights disappear, although traditionally the IP-supported industries in the UK have been extremely effective at lobbying against narrowing of available IP rights. *Database rights of UK entities may not be enforceable in the EU, however.*
- We are also scheduled to introduce 'trade secrets' as a distinct statutory form of IP. This will probably still happen.



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What's a licence (in the IP context)?

- A licence is an agreement between an IP rights owner (licensor) and another person or group (the licensee)
- This agreement permits the licensee to do things which would otherwise be protected actions under intellectual property law
- Licences can be exclusive or non-exclusive
- Licences do not have to be heavyweight legal documents. For low-risk licensing scenarios a simple fax or email containing permission in natural language is fine.
- Licences are often wrapped up in larger agreements (contracts) with additional permissions and conditions



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Questions?



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Fair Use and Fair Dealing



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What is Fair Dealing?

- Similar to the well-known phrase from US law 'Fair Use'
 - the purpose and character of your use
 - the nature of the copyrighted work
 - the amount and substantiality of the portion taken, and
 - the effect of the use upon the potential market.
- Fair Use provides loose guidelines that allow a court to decide if a particular use is infringing or not
- Academic and teaching use very frequently falls within Fair Use
- Fair Dealing is more rigidly codified and less open to interpretation by courts



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What is Fair Dealing?

- 'Fair Dealing' is a term which describes certain uses of a protected work under certain defined circumstances. Provided that these circumstances are in place, no permission for this use is required from the rights owner.
- The 'Fair Dealing' exceptions can be read in full in the Copyright, Designs and Patents Act 1988 (and subsequent amendments) and The Copyright and Rights in Databases Regulations 1997
- On the following slides some categories of these exceptions will be described briefly.
- **Refer to the Acts** to find the precise detail of the exceptions, and for some others not mentioned here



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What are the Fair Dealing exceptions?

Research-related exceptions

- Copying and extraction of protected works for non-commercial research purposes are generally permitted with suitable acknowledgement
- Decompilation of compiled software is permitted for interoperability, but information gained in this way may not be shareable outside the creation of interoperable software
 - Observing, studying and testing of software is permitted
 - Correction of errors in software can be a legitimate ground to adapt it
- Text and data analysis is permitted for non-commercial research purposes but care must be taken to ensure that the corpora thus created are not then used for any other purpose without permission



What are the Fair Dealing exceptions?

Criticism, review, quotation and news reporting

- any copyright material that has been made available to the public may be copied provided that acknowledgement of the source is made in the resulting material
- News reporting permits use of protected material (other than photos) where suitably acknowledged, and in the case of sound and video acknowledgement can be foregone where it is impractical
- In all cases the quotation/use needs to be minimal for the purpose and not affect the commercial exploitation of the work by its owner.



What are the Fair Dealing exceptions?

Education

- Copying and extracting from works for educational purposes should be done via a collective licence where available (ie CLA, NLA)
 - Where there is no licence, up to 5% of a work can be used for non-commercial educational purposes with suitable acknowledgement
- There is a separate exception of 'Illustration for instruction' which has no extent limitation but is more limited in its scope. Usage again must be non-commercial and suitable acknowledged. It is intended for
 - Setting of exams
 - Usage of electronic display devices like digital whiteboards
 - Usage within closed virtual electronic environments such as VLEs (but seek support from Oxford's Canvas VLE staff in this)



Questions?



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How do I mark a work as protected?

- It's not strictly necessary to do so, however...
- Marking with a ©, your name (or your institution's name) and the year of composition will put readers on notice that they should consider the work to be protected
- Informal copyright registries do exist
- Supplying contact details will make it even more difficult for infringers to argue that they could not seek permission



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Other practical measures

- Google alerts set up on distinctive phrases (in quotes)
- Google image search
- IPO Orphan works registry
- Media hosting ID tools such as Youtube Content ID
- Consider distribution via established licensing channels like Apple iBookstore and Amazon Kindle Store. DRM outside these channels tends to be ineffective
- Keep media files at low bit rates
- Mark your work with metadata that identifies its licence terms
 - RDF, SPDX



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What can I do with others' material?

- Viewing and caching always acceptable
- Uses within the Fair Dealing exceptions
- Use of material whose protection has expired
- Use of material too insubstantial to be protected
- Public interest material (but *whistleblowing* is probably less risky in most cases)
- Use of orphan works via the IPO Orphan Works Licensing Scheme



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Why is all this important?

- Funders increasingly require open access data publication
 - Some now moving to require bespoke software release as well, where it is necessary for verifiability (Wellcome)
- Journals increasingly require underlying data to accompany a published paper
- The rise of data journals as a separate path to academic recognition
- The rise of data science as a distinct discipline
- Massive aggregation of data from disparate sources for 'Big Data' projects
- Increased focus on public money producing public benefit



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- **Open Data is the answer(?)**



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What is Creative Commons?

- Derived from free and open source software licensing
- Founded in 2001 by Prof Lawrence Lessig at Stanford
- Designed to push back against increased enclosure of 'intellectual commons'
- Six 'general', regionalised licences for easy sharing of rights in content
- A suite of machine-, human- and lawyer-readable licences
- Some cool icons



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What are the conditions?

Attribution

- Author must be acknowledged on all copies and adaptations of the work, including a link to the original version of the work



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What are the conditions?

Non-commercial

- The work can only be used for non-commercial purposes



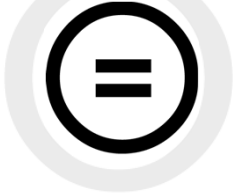
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What are the conditions?



No Derivatives

- The work can only be distributed in its original form; no adaptations or translations can be made



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What are the conditions?



Sharealike

- The work can be modified and adapted, but the entire resulting work (including new material added by the adaptor) must be distributed under the same sharealike licence



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What are the six licences?



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Other open licences



- **CC0 – 'public domain' dedication**
- Free and open source software licences
- GNU Free Documentation License
- Open Data Commons licences
 - Designed to deal with database rights
 - CC-BY and CC-BY-SA equivalents
 - Also a public domain dedication
- Open Government Licence – developed by the National Archives to cover public sector materials. Broadly a CC-BY equivalent



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Open Data Licences



- Originally (Linked open data initiative) CC-BY recommended
 - However attribution stacking may become a problem
 - Also pre-v4 CC did not handle database rights
- CC0 – 'public domain' dedication
- Linux Foundation's Community Data License Agreement (CDLA-Sharing & CDLA-Permissive)



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Doesn't standard academic practice allow all this anyway?



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- Principles of academic freedom
 - ..."to inquire, discuss and express themselves, study, conduct research, teach, publish, create and exhibit their work, associate and peaceably assemble without deference to prescribed doctrine on ideas, principles, concepts"
- Good academic practice
 - Adequate citation and acknowledgement
 - Honesty in presenting results / no cherry-picking



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- Overlapping, but not the same**
- Open licences permit any non-derogatory use, while academic good practice tends to assume that reuse will be academic.
 - Academic citation standards are generally more stringent than the basic requirements of open licences
 - The attribution stacking problem means that academic citation in the big data world may eventually become problematic
 - We have encountered situations in which threats of IP infringement action have been used as a lever to restrain 'academic freedom'; much still depends on the attitude of your source to your further research



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Questions?

researchsupport@it.ox.ac.uk

rowan.wilson@it.ox.ac.uk



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