

# LICENCES AND OPEN DATA IN CARTOGRAPHY

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# **OPEN DATA**

**Open Data** is one of the phenomena of contemporary Geoinformatics and Cartography. Development and expansion of cartography are clearly linked to the availability of spatial data that can be visualized. That is why the Open Data became a boom that approximately 15 years after the formation of "information society" begins to form "geoinformation society" – society dependent on the applications working with spatial data. At the beginning of the 21<sup>st</sup> century, data was the main "assets" of each cartographic publishing house. However, now it is not difficult to obtain any data, and it was clearly shown that free availability of the spatial data causes the development of other spatial applications. Open data mean that data are freely available to everyone to use and republish as they wish, without restrictions.

There is various "openness level" of data – from the situation when data is available only in a particular format, and for noncommercial use only, to "really open data", which are freely available to anyone, without any restrictions from copyright, patents or other mechanisms of control. In fact, open data complement the existing range of open source, open hardware, open content and open access. Together with these other tools open data creates enormous opportunities in Geoinformatics and Cartography.

A study on copyright issues in cartography and geoinformatics was implemented in cooperation with experts in law and experts in Geoinformatics and Cartography. The poster includes specific illustrative

# **INTELLECTUAL PROPERTY**

Intellectual property is crucial in the time of information society (Peterson, 1999). Unfortunately, the debate over the appropriate scope of **intellectual property protection** for GIS and geodatabases largely ignores the role of cartography and spatial data uniqueness in setting rights. An important part of copyright law is the definition that there is essentially required the consent of the author for each use of the work. The law essentially requires the authorization to exercise the right to use the work (licence) to another person. There are also possible contracts and licensing agreement with the fact that no such authorization is needed, in other cases law prescribes the potential use of the work.

> In information technology, there are very often used **pre-defined licences**. Licenses linked to software (including GIS) are public domain, cardware, freeware, shareware, commercial software licensing, OEM (Original Equipment Manufacturer), open source, etc.

Usually in the non-technological field of geographic information systems and cartography are used licences for no-software products – copyright as all rights reserved and Creative Commons licences as some rights reserved. Digital data are often under copyright protection as geodatabases. Due to the territoriality of copyright protection it is very important to know the specific licence terms and conditions. The uniqueness of spatial data and services deals with fact that spatial data are combined together. Moreover, it is the combination of different data sources, where it is really important to follow licences and copyright issues.

# **INTERNATIONAL SITUATION**

Copyright is a legal right created by the law of a country that grants the creator of an original work exclusive rights to its use and distribution. This is usually only for a limited time. The exclusive rights are not absolute but limited by limitations and exceptions to copyright law, including fair use. Copyright is a form of intellectual property, applicable to certain forms of creative work.

Copyrights are considered **territorial rights**, which means that they do not extend beyond the territory of a particular jurisdiction. Morevoer, this is the main problem - because in the field of geoinformatics and cartography we use spatial data from different states, and we combine them. Every country has its interpretation of copyright law, but there are many agreements between nations. Licences are enforced under copyright law, which is different from contract law. The distinction here is questionable within certain jurisdictions, each of which applies the law differently. The Berne Convention (for the Protection of Literary and Artistic Works) was established in 1886 and is an international agreement that governs copyright. It states that each member state must recognize the copyright of work from other countries, and it must extend the same rights to outside work that it gives to those of its own citizens. It also makes clear a minimum standard of protection for copyright owners.

examples in which a conflict with the legal protection of copyright works is presented. Based on the definition of state matters a brief analysis of where there are gaps in the protection of copyright in the field of GIS and cartography.

Licences can be limited to certain jurisdictions. So, while something is free in one country, the copyright owner could reserve all rights in other countries.

# LICENCES

A licence can be written from scratch, but most people choose a popular one. All licences use common terminology: COPY as a simple copy of the original work, MODIFY as to alter copyrighted work in some way before using it, DERIVATE WORK as the result of modifying copyrighted work to produce new work, DISTRIBUTE as the act of giving someone your work under a licence, REDISTRIBUTE as the act of distributing work and its licence after obtaining it under licence from the original copyright owner, SHARE ALIKE as the permission to distribute derivative work under the same or a similar licence, COPYRIGHT NOTICE as a written phrase or symbol © informing of copyright ownership, ALL RIGHTS RESERVED as a copyright notice declaring that no usage rights exist, and WARRANTY as a written guarantee included with the licence.

### **PUBLIC DOMAIN**

Work that is distributed under the "public domain" basically has no copyright owner. You can use, modify and redistribute it as you wish. An author can forfeit their copyright and, thus, put their work in the public domain. Copyright ownership expires after the author's death (genera-Ily 50 to 70 years after death in most countries).

### COPYRIGHT

Copyright is a legal right created by the law of a country that grants the creator of an original work exclusive rights to its use and distribution. The sign can be translated as "all rights reserved", if the product wants to manipulate with this work, he should contact the author (or copyright owner) and obtain consent from him.

### **CREATIVE COMMONS**

The Creative Commons are open licences and has six basic variations. It is a collection of licences that cover particular uses in cartography and geoinformatics. From version 4.0 there is also good protection for databases. These include whether the licensed work can



be used commercially, whether it can be modified, and whether derivative work can be redistributed under the same (or a compatible) licence. A Creative Commons licence can be restricted to certain jurisdictions or apply internationally (every time with the focus on national legal issues).

The basic Creative Commons licences are:

**CC** Attribution – it allows for all copying, modification, and redistribution (even commercially), provided that the original author is attributed (with no implication of endorsement). Work under CC Attribution is essentially free to use. CC Attribution-ShareAlike - the same rules apply, except that all derivative work must be licensed the same way. This distinction ensures that all resulting work remains free. Wikipedia uses this licence for its text. **CC Attribution-NoDerivs** – redistribution is allowed, provided that attribution is given, and no modifications are made. **CC Attribution-NonCommercial** – everything is allowed with attribution, provided that it is not done commercially. **CC Attribution-NonCommercial-ShareAlike** – the same as above, but derivative work must be under the same licence. **CC** Attribution-NonCommercial-NoDerivs – redistribution is allowed for non-commercial use and without any modification.

# DO YOU KNOW...





**FOR ANYTHING WANT?** 









### SOFTWARE PRODUCT LICENCES

An important part of copyright law is the definition that for each use of the work there is essentially required the consent of the author. The law essentially requires the authorization to exercise the right to use the work (licence) to another person. There are also possible contracts and licensing agreement with the fact that no such authorization is needed, in other cases law prescribes the likely use of the work. In information technology there are very often used following licences:

cardware – copyright belongs to the author, it is implemented to the software (product), a licence agreement usually treats the spread and the restrictions depends on the author **freeware** – copyright belongs to the author, it is implemented to the software (product), somebody else must not interfere this software in any way, distribution is unlimited in its original form and authorized limits are realized only in exceptional circumstances shareware – copyright belongs to the author, it is implemented to the software (product), somebody else must not interfere this software in any way, the spread is usually limited to licensing and distribution agreement and are usually implemented time limits functionality commercial software licensing - copyright belongs to the author, it is implemented to the software (product), somebody else must not interfere this software in any way, distribution is strictly prohibited and restrictions depending on the scope of the licence of the product **OEM – Original Equipment Manufacturer** – software is distributed under a 'package', copyright belongs to author, it is implemented in the software (product), somebody else must not interfere in any way, distribution is strictly prohibited, the product is usually not restricted in any way **open source** – distribution is permitted even in a modified form (but may be further treated with another licence agreement) restrictions and are usually not.

### **OTHER LICENCES**

There are also other specific licences as MIT licence, BSD licence, Apache licence and GNU General Public licence used mainly for web applications.

### **OPEN DATA LICENCES**

As mentioned, there is various "openness level" of data – from the situation when data is available only in a particular format, and for non-commercial use only, to "really open data", which are freely available to anyone, without any restrictions from copyright, patents or other mechanisms of control.

Usually, for many open datasets are used Creative Commons licences. However, there are also other open licences. The Open Definition gives full details on the requirements for 'open' data and content. Open data are the building blocks of open knowledge. Open knowledge is what open data becomes when it is useful, usable and used. Such example is Open Data Commons, it is the set of predefined legal tools to provide and use Open Data in three forms: Public Domain Dedication and Licence (PDDL), Attribution Licence (ODC-By), and Open Database Licence (ODC--ODbL).



**UNDER WHICH LICENCE** 

**IS OPEN STREET MAP?** 



1800 1900 2000





# DID YOU KNOW (ALMOST) EVERYTHING? IT AIMS TO REWARD...

If you have more than 10 questions correctly, you can take the pin. Also, you can take it even if you tried so hard and the next time will be better.



### LICENCES COMPATIBILITY CHART

					CC OS		CO CO BY NO SA	
	>	$\checkmark$	>	$\checkmark$		×	$\checkmark$	×
	>	$\checkmark$		$\checkmark$	>	×	$\checkmark$	×
CC O	>	$\checkmark$		$\checkmark$	$\checkmark$	×	$\checkmark$	×
C O O	>	$\checkmark$	>	$\checkmark$	×	×	×	×
CO O O	>	$\checkmark$	>	×	<b>&gt;</b>	×	$\checkmark$	×
CC C C	×	×	×	×	×	×	×	×
BY NC SA	$\checkmark$	$\checkmark$	$\checkmark$	×	$\checkmark$	×	$\checkmark$	×
	×	×	×	×	×	×	×	×

### EXAMPLE

Possible use of cartographic work in breach of copyright law legislation: the change of map key on the same data (data were used without permission)







EXAMPLE



Possible use of cartographic work in breach of copyright law legislation:

Omega Technology Agency of the Czech Republic

DEPARTMENT OF GEOINFORMATICS Palacký University in Olomouc

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# **INTERNATIONAL MAP YEAR** 2015–2016



**OPENSOURCE** 

INTERNET כ)

**OPENSTREETMAPS** 

