IPR assessment in relation to UGCS
D1.1

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Analysis of the basic conditions that need to be observed in the use of user-generated content from the World Wide Web.

Established standards in the use of freely available content and publication on the web.

Reference to distinctive characteristics of GeoStream content sources.

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1   Overview

The goal of GeoStream is the development of a Web and mobile application for use in a tourism context. Rather than relying fully on information provided by professional authors for this purpose, this project aims at enriching such information with user-generated content available on the web.

Of course, the comprehensive, nearly limitless-seeming pool of data needs to be filtered topically and regionally. This is the only way that data queries can be sorted in a user-specific manner and processed in a clear relation to the user's current need for information.

In using data available on the web, however, it is essential to observe the authorized usage very precisely. Even if content appears to be freely available, it may be subject to terms of use and copyrights that must be accommodated.

Accordingly, it is the task and goal of this report to illuminate the topics of intellectual property rights and copyrights in order to guarantee that they are adhered to within the GeoStream project and the application emerging from this project.

In the following text, first the information sources and platforms that are to be used within the scope of the GeoStream application will be mentioned. Each platform will be briefly introduced in terms of its content or intended purpose. Some key data (date of founding, current number of registered users, etc.), provided that they are available, will be mentioned. Whether the platform can be connected via an application programming interface (API) is likewise of importance for the GeoStream project.

Furthermore, how and under which use cases content is used or information processed within GeoStream needs to be clarified.

The central terms such as usage rights, copyrights, etc., likewise need to be defined.

Finally, there is an assessment of whether the usage of the sources under consideration can be used within the GeoStream project or whether they have to be excluded from the project.

2   Data Sources

2.1 Description

Data and content (henceforth labeled "content") with relevance for the topics of travel and tourism are processed within the planned application. The content is generated by querying social networking sites and portals available on the web. Content is harvested from these sources based on its thematic and spatial relevance to the application.

The following portals and services have been identified as meaningful and relevant within the scope of GeoStream (in alphabetical order):

- DBpedia
- Eventful
- Flickr
- Foursquare
- Google places
- Last.fm

- OpenStreetMap
- OpenWeatherMap
- Panoramio
- Twitter
- Wikimapia

These portals will be briefly introduced in the following text. The portals' corresponding URL can be found in Chapter 4.

DBpedia

DBpedia is an initiative of the University of Leipzig, the Freie Universität Berlin (Free University of Berlin) and OpenLink Software. The focus of this initiative is to optimize searching for content within Wikipedia, in which terms and keywords from Wikipedia are filed in the DBpedia term database (DBpedia knowledge base). Meaningful structuring and an intelligent search logic make comprehensive search possible. All contents of the DBpedia knowledge base are supplied either with data dumps that can be downloaded or through a public SPARQL Endpoint.

The English version of DBpedia currently comprises 4 million terms and keywords. Regionalized versions of the database in 119 languages are available and complement the English version. These local databases describe over 24 million terms and keywords.

To differentiate itself from Wikipedia, where only a single search keyword is possible, several search terms can be formulated as a question in DBpedia, e.g., all burger restaurants in New York or theater stages in London.

Eventful

Eventful is a portal for location-dependent searching for events. Depending on the target location, information on concerts, the local cinema program, sporting or cultural events, recommendable restaurants and night life can all be queried.

Over 21 million registered users use Eventful for researching and planning their personal leisure time activities. Eventful is available via various platforms: as a classic website, a mobile application or as an email service.

Eventful's partners are companies in the sports, music and entertainment industries that can provide their offers in a targeted manner and can receive a rating via user feedback, including direct links to ticket portals and further information (e.g., descriptions of similar events).

Eventful provides an API for accessing and querying (subsets of) its data. (over 7000 licenses).

Eventful was founded in 2004 and is headquartered in San Diego, California.

Flickr

Flickr is a photo and video platform. Users make their images, photographic work and videos available via upload. All content is categorized using keywords and tags.

In addition to making image material available, registration makes it possible to organize and manage one's own image and video files.

Image and video files can be provided with various usage rights, which the copyright holder defines.

Flickr was founded in Vancouver, Canada in 2002. In 2005, the platform was acquired by Yahoo. According to its own data, Flickr has 77 million registered users, and approximately 5000 uploads occur per minute. Currently, over 8 million photos are available via Flickr.

An API is available for connecting Flickr to other web-based applications.

Foursquare

Foursquare is a platform for planning leisure activities. Its focus is on gastronomy and nightlife. Users are able to search for environment-based restaurants, bars and cafés, as well as query for recommendations and tips. The content comes from the Foursquare community, whereby custom search queries and favorites can be managed and preferred restaurants and bars can be shared with other community members. Foursquare is primarily used as an app in smartphones and GPS-capable mobile end-user devices.

In addition to private usage, Foursquare is also oriented towards companies, primarily of course those in catering/gastronomy. In Foursquare, catering companies can introduce their restaurant and create a descriptive profile, as well as perform advertising activities. Foursquare thereby qualifies as a platform for companies and not only for private users.

Meanwhile, the community of private users comprises 40 million members. The business community has over 1.5 million registered users.

Foursquare was founded in New York in 2009. It is possible to connect to Foursquare via an API.

Google Places

Google Places is exclusively oriented towards companies and supports optimization of a company-owned online presence. In addition to improved findability, Google Places' linking with other Google services (Google Maps, Google+) makes possible a more comprehensive online presence as well as more direct communication with interested parties and/or potential customers.

An API is available for Google Places. The API enables searching for location-specific information, sorted by a wide variety of categories: companies and stores, special or well-known establishments or places of interest (e.g., Acropolis, Athens; Rockefeller Center, New York; European Commission, Brussels), as well as geographical locations.

Last.fm

Last.fm is an internet radio platform through which music consumers are able to compile their playlists by interpreter, style of music and genre, according to their taste and listening habits. In addition, Last.fm serves as an interactive platform through which people with similar musical tastes recommend songs, interpreters and concerts in their vicinity. The available catalog currently comprises more than 80 million musical works. Last.fm has been in existence since 2002.

Last.fm provides an API for accessing and querying Last.fm-content.

OpenStreetMap

OpenStreetMap (OSM) is a free global map series. Its contents are compiled or digitized by members of the community and are freely available in accordance with the Open Data guidelines. All data material can be downloaded and further processed within a database.

OSM has been in existence since 2004 and the portal was founded in Great Britain. Currently, 1.38 million users participate in the OSN community and more than 3.6 billion GPS coordinates have been uploaded or entered into the OSM global map series.

No API is available for OpenStreetMap. The OSM database is freely downloadable. However, knowledge of geodata processing is necessary in order to generate a high-performance and GIS-capable background map from the database.

Alternatively, the LinkedGeoData project (http://linkedgeodata.org) uses the information collected by the OpenStreetMap project and makes it available as an RDF knowledge base through a Sparql Endpoint according to the Linked Data principles.

OpenWeatherMap

OpenWeatherMap (OWM) is a service for weather data and weather prognoses. OWM is primarily available as an API, suitable for every map-based service for the web as well as for smartphone applications.

The weather data are consolidated by weather services worldwide, and over 40,000 weather stations are tied to OWM and continually transmit weather data.

OWM uses OpenStreetMap for visualizing weather data.

OWM is basically free. Depending on query volume, length of historicization, service level and support, as well as flexibility in modifying the API, fees are assessed.

Panoramio

Panoramio is a photo sharing platform for publishing image material. In distinction to Flickr, on Panoramio geo-referenced images are published exclusively. In addition, Panoramio accepts only images that have been taken by the user personally. The images may not contain any advertising messages, sexually or politically motivated, discriminating or in any way xenophobic content.

The number of images uploaded is over 90 million. The exact number of callable images cannot be clearly determined, however, since users are able to remove their own images at any time, or images are made available only temporarily.

Panoramio was founded in Spain in 2005. Google acquired the portal in 2007.

An API is available for Panoramio.

Twitter

Twitter is a real-time information network. Registered users communicate via short message (microblogging or "tweets" with a maximum length of 140 characters), express opinions, ideas or news. Twitter thereby becomes a sort of publicly viewable online diary. Twitter is not only used by private individuals—it is also used by companies, organizations, brands and media.

Twitter was founded in 2006 and now counts 1.7 billion members.

Twitter provides an API for querying Twitter data.

WikiMapia

WikiMapia is an open content collaborative worldwide mapping project. The gathering of data and information is user- and community-driven: Every user can place tags and add any description to each tag. The goal is to describe the whole world and to share knowledge with the global community. WikiMapia started in 2006, and presently it offers over 19 million tags.

2.2 Usage of Content in GeoStream and Use Cases

The result of GeoStream is mainly targeted around an application (mobile app) that serves the planning of trips and leisure activities. Within this application, information from the platforms introduced in Chapter 2.1 will be used to stream, collect, generate and select logically and thematically—depending on the current subject or search query.

Technically, two types of content can be distinguished by their type of availability on the internet:

- Third-party content: content that is collected, generated and made available by a (commercial) provider;

- User-generated content: content that is communicated, expressed or made available by users via communication platforms (social media);

User-generated content is given preference within the GeoStream application or the selected data source.

In GeoStream, we intend to use third-party content indirectly, e.g. by providing clustered and aggregated results and by always providing references to the source of origin whenever such data are used.

For using the GeoStream application, three central use cases have been identified:

- Author preparing a trip

- User travelling

- Author travelling

Under these aspects, it is essential to examine the defined sources and their terms of use in order to decide on its possible usability within GeoStream.

2.3 Terms and Definitions

Before it can be assessed in detail whether all content sources under consideration for the project can be implemented, the central terms first need to be established, understood and defined.

2.3.1 Copyright, Copyright Holder, Work

According to German copyright law *(Gesetz über Urheberrecht und verwandte Schutzrechte)*, the terms "copyright," "copyright holder" and "work" are defined as follows:

> The **copyright** protects the copyright holder in his or her intellectual and personal connections to the work and in the use of the work. At the same time, it serves to secure an appropriate compensation for the use of the work.

> The **copyright holder** is the creator of the work. If several persons are involved in the creative process and they do not have their proportion of their efforts separately defined and/or exploited, they are joint copyright holders of the work. All joint copyright holders have the right of publication and exploitation of the work; changes are only possible upon the agreement of all joint copyright holders.

> **Works** as they apply to the copyright are only personal intellectual creations. Works of literature, science or art that are to be protected are:
> - *Literary works (compositions, speeches, computer programs);*
> - *Musical works;*
> - *Pantomime works, including dance;*
> - *Works of visual arts, including architecture, applied art and drafts of such works;*
> - *Photographic and film works and works that are similarly created;*
> - *Representations of a scientific or technical nature (drawings, plans, maps, sketches, tables, three-dimensional representations)*

(Translated from the German; cf. http://www.gesetze-im-internet.de/urhg/BJNR012730965.html#BJNR012730965BJNG000101377; 9/29/2013)

In Wikipedia, the term copyright is defined as follows:

> Under **copyright** is the subjective and absolute right to the protection of intellectual property in its ideational and material aspects. It comprises the sum of legal norms of a legal system that regulates the relation of the copyright holder as well as his or her legal successor to his or her work. Content, scope, transferability and the consequences of breaching the subjective right are regulated via the copyright.

(translated from the German ; cf. http://de.wikipedia.org/wiki/Urheberrecht#cite_note-iecl3-38-5; 9/29/2013; original reference: Haimo Schack: *Urheberrecht und Urhebervertragsrecht.* Mohr Siebeck Verlag, Tübingen 2009, Rn. 2).

Over the course of changing technical possibilities in internet usage as well as in communication, the behavioral patterns in terms of consumption and information generation have changed. In order to do justice to these new basic conditions, new guidelines and regulations were approved by the World Trade Organization in the 1990s:

- Agreement on trade-related aspects of the rights of the intellectual property (TRIPS – Trade Related Aspects of Intellectual Property Rights): http://en.wikipedia.org/wiki/TRIPS_Agreement; 9/29/2013

- WTC – WIPO Copyright Treaty: http://en.wikipedia.org/wiki/WIPO_Copyright_Treaty; 9/29/2013

- WIPO Performances and Phonograms Treaty (WPPT): http://www.wipo.int/treaties/en/ip/wppt/trtdocs_wo034.html; 9/29/2013

Criticism of the new guidelines were expressed to the effect that they strengthen copyright holders and licensing agents and limit the rights of consumers and the general public—a point of criticism that has been more and more strongly broached since the ratification of these treaties increasingly by jurists and economists, as well as the public: Copyright is increasingly becoming "rights licensing law" without taking into account the interests of the internet and information society that is undergoing change.

The central keyword is open source. Open source projects and partnerships increasingly develop into an economic supplement and supplant commercial projects in the software as well as (geo-) data field.

Here, there are several central projects or organizations that create the guidelines for the use of open source content on the internet or make available a body of rules and regulations with which the copyright holder or publicist may protect his or her own intellectual property, yet also define limits within which the corresponding content, source code or similar may be freely used and further processed:

- Creative Commons
- Free Software Foundation

Both organizations will be introduced more comprehensively in Chapter 3. Both initiatives are widespread in today's online communities.

2.3.2 Usage Rights

A right granted by the copyright holder to exploit movables and unmovables as well as servitudes. It can be limited spatially, temporally and thematically. The exploiting person is granted solely possession, without the actual property being passed over to him or her (cf. Gabler Wirtschaftslexikon and Wikipedia: http://wirtschaftslexikon.gabler.de/_Definition/nutzungsrecht.html#definition and http://de.wikipedia.org/wiki/_Nutzungsrecht; 9/29/2013).

3 Analysis and Assessment

After presentation of the relevant sources, after explanation of which type of usage will be implemented within the GeoStream application and how this will be done, and after clarification and definition of central terms, this chapter is henceforth dedicated to the assessment of the usability of the sources.

Here, the formal basic conditions for the use of content is available, even if this content is freely available (i.e., free of charge) on the internet, are above all essential.

As already mentioned in the preceding chapter, two standards—among others—have emerged which protect and regulate the use of content on the internet and the rights of the copyright holder. These standards will be described in greater detail below.

3.1 Licensing Standards of Web Content

3.1.1 Creative Commons

Creative Commons (CC) is a nonprofit organization based in Mountain View, California and founded in 2001 (http://creativecommons.org/). CC develops and formulates technical as well as legal basic conditions for the publication of content independent of type and content: texts, images, video or music files (all works that are covered by copyright), for works in academic/scientific as well as artistic fields. The goal is to facilitate the creativity and innovative power of artists, researchers, publicists, et al. and to increase creative exchange activities in a digital context.

CC formulates and makes available license agreements with which the use of content published on the internet is clearly regulated. The author or publicist can secure his or her intellectual property yet allow other authors, scientists or artists to work with his or her content, to modify or further develop this content.

In addition to licensing agreements, Creative Commons also makes the corresponding tools available for technical management of licenses and license keys.

By means of the CC licenses, an author can clearly define the scope he or she allows for the further use of his or her work. For this purpose, CC has defined the following legal modules:

- Attribution: The name of the copyright holder must be specified;
- Non-commercial: The content may not be used for commercial purposes;
- No derivatives: The work / the content may not be changed;
- ShareAlike: When changed, the work / the content must be redistributed under the same license.

Six types of CC licenses result from the combination of these modules:

- Attribution (abbreviation: BY)
- Attribution–NoDerivs (abbreviation: BY-ND)
- Attribution–NonCommercial (abbreviation: BY-NC)

- Attribution–NonCommercial–NoDerivs (abbreviation: BY-NC-ND)
- Attribution–NonCommercial–ShareAlike (abbreviation: BY-NC-SA)
- Attribution–ShareAlike (abbreviation: BY-SA)

For further details and descriptions on the individual rights modules and types of licenses, see the link in the Table of Contents (Chapter 4).

3.1.2 Free Software Foundation

The Free Software Foundation (FSF) was likewise founded as a nonprofit organization already in 1985, with the purpose of supporting and promoting the distribution of free software. The primary motivation of founder Richard Stallman was to generate monetary means for work on free software.

The FSF's financial means has been used primarily to employ and pay programmers for developing free software. Now that very many companies meanwhile develop free software, the FSF's activities increasingly focus on legal and structural issues of the free software community.

A central project of the FSF is the GNU project (GNU's Not Unix), also founded by Richard Stallman (in 1984). The GNU project is dedicated to developing an open, Unix-like operating system that guarantees that end users have the freedom to use, analyze, copy and distribute it, as well as to adapt and/or change it. Software that ensures these freedom and usage rights falls under the category of free software.

These freedom rights were manifested with the GNU General Public License (GPL), in which the above-mentioned four basic principles were concretely defined and stated once again:

- Free use of the program for every purpose;
- Creation of copies as well as distribution are permitted;
- Studying the method of operation of the program is permitted;
- Adapting the program for one's own needs is permitted;

Further comments on the GNU General Public License can be read at http://www.gnu.org/licenses/licenses.

Additional licenses and guidelines that have been defined and approved by the FSF for the GNU project are:

- GNU Lesser General Public License
- GNU Affero General Public License
- GNU Free Documentation License

The aim of these additional licenses will not be explained in greater detail here. Comprehensive information can be found at http://www.gnu.org/licenses /licenses as well as at http://de.wikipedia.org/wiki/Free_Software_Foundation, Chapter 1: *Arbeit der FSF* (or the English Wikipedia entry http://en.wikipedia.org/wiki/Free_Software_Foundation).

3.2 Assessment of Data Sources

In the following, we assess the sources selected for GeoStream in view of usability within the project. Distinctive features within the guidelines will be pointed out.

First, we present an overview of the distinctive features and subsequently a brief assessment.

Afterwards, the information on the licensing and terms of use is discussed in more detail.

3.2.1 Overview

Service	API	Description: License Terms, Specials
DBPedia	no	CC license (CC-BY-SA); GNU Free Documentation License
Eventful	Yes	No reference to CC or GNU; commercial use of API prohibited; no usage of API in a competing product
Flickr	yes	CC license; commercial use of Flickr API permitted
Foursquare	yes	No reference to CC or GNU; no commercial usage without consent of Foursquare
Google Places	yes	Commercial use of API permitted; observe reference to usage limit (max. 1000 requests per 24-hour period)
Last.fm	yes	Commercial use of Last.fm data and Last.fm API prohibited
OpenStreetMap	no	Free unlimited usage of database; totality of statement of copyright must be observed
OpenWeatherMap	yes	Creative Commons License (BY-SA); commercial use of content and API permitted; fees required for specific usage scenario
Panoramio	yes	Explicit parameters as regards copyright specifications when integrating image files; commercial use of API only possible upon approval by Google
Twitter	yes	Commercial use permitted; necessary to observe the guidelines for this purpose
WikiMapia	no	CC license (CC-BY-SA)

Brief Assessment

- DBpedia, Flickr, OpenStreetMap, Twitter, WikiMapia: For these content sources there are very concrete specifications for which licensing terms need to be observed and how usage of the API or database can occur.

- Eventful, Foursquare, Google Places, Last.fm, Panoramio: Here, it is essential to check and scrutinize precisely whether usage is possible within GeoStream. On the one hand, very comprehensive specifications as regards the use and integration of content are formulated; however, whether the technical prerequisites can be created in the GeoStream application needs to be checked (e.g., Panoramio). In part, the statements on licensing and terms of use turn out to be very imprecise or intangible.

3.2.2 Description and Specifics

DBpedia

The DBpedia database is published under the Creative Commons guidelines (CC-BY-SA), as well as under the GNU Free Documentation License (cf. DBpedia: http://dbpedia.org/About; 9/29/2013).

Eventful

The Eventful service formulates the following guidelines for the use of the Eventful API and thereby the content contained in Eventful:

> *"[…] sell, lease, share, transfer, or sublicense the Eventful APIs or access or access codes thereto or derive income from the use or provision of the Eventful APIs, whether for direct commercial or monetary gain or otherwise, without Eventful's prior, express, written permission […]"; (cf. License Uses and Restrictions, Section 1.a.e.iv: http://api.eventful.com/terms).*

> *" […] use the Eventful APIs in a product or service that competes with products or services offered by Eventful." (cf. License Uses and Restrictions, Section 1.a.e.vi: http://api.eventful.com/terms);*

Flickr

Flickr is a Yahoo company. Yahoo appears not to orient itself towards guidelines such as Creative Commons and formulates its own, very generally valid Terms of Service (http://info.yahoo.com/legal/de/yahoo/utos/de-de/), IP/Copyright Policy (http://info.yahoo.com/legal/de/yahoo/copyright/de-de/)   and   Privacy   Policy (http://info.yahoo.com/privacy/de/yahoo/). These guidelines relate to Yahoo services in general, not explicitly to Flickr.

The following notice can be found in the IP/Copyright Policy (translated from the German):

> *"[...] Users of web pages can electronically copy or print excerpts of this content for their personal, non-commercial use. Every other use, including reproduction, modification, distribution, transfer, re-publication, exhibition or performance of the content of web pages is categorically prohibited." (cf. Yahoo, section 'Informationen zum Urheberrecht': http://info.yahoo.com/legal/de/yahoo/ copyright/de-de/; 9/29/2013)*

In the Terms of Use for the Flickr API, however, the CC licenses are referred to directly and it is explicitly described that the rights of content provided do not lie with Flickr but rather with the corresponding copyright holder. If the copyright holder has provided a given item of content with particular terms of use, e.g., CC

guidelines, these need to be observed on an individual basis (cf. Flickr, Terms of Use for Flickr APIs, 1.a.ii: http://www.flickr.com/services /api/tos/; 9/29/2013).

Flickr does not prohibit commercial usage of the API. The rules and limitations are described under Point 2, Commercial Use (cf. http://www.flickr.com/services/api/tos/). Commercial use requires the granting of a commercial API key.

Foursquare

In Foursquare's Terms of Use, commercial usage of content is prohibited:

> *"[…] Modification and reproduction of the Content, exclusively for personal and non-commercial use, duplication, modification, distribution or storage of any Content for other than personal, non-commercial use is expressly prohibited without prior written permission from Foursquare, or from the copyright holder identified in such Content's copyright notice, as applicable. [...]"*

Google Places (with focus on Google Places for companies)

The Terms of Service for the Google Places API are described in detail at https://developers.google.com/places/policies#terms_of_use. It must be observed that anonymous usage of the API is limited to 1000 requests within 23 hours. For more extensive usage, a credit card must be provided for identification purposes. Nevertheless, usage remains free of charge (cf. Google Developers, Chapter Usage Limits: https://developers.google.com/places/policies#terms_of_use; 9/29/2013).

With regard to commercial use, there are no notices of limitations for the API in the Terms of Service, neither in the Google Terms of Service (http://www.google.com/intl/en/policies/terms/) not in the Privacy Policy (http://www.google.com/policies/privacy/).

Last.fm

Concrete limitations for the use of Last.fm content can be found in the Last.fm Terms of Use:

> *"[...] The copying, reproduction, re-arrangement, sale, leasing, renting, lending, distribution, redistribution, modification or adaptation, downloading, sideloading, exchanging, creating of derivative works, uploading, posting, transmitting, communication to the public or publication by you, directly or indirectly, of the Content, including the removal or alteration of advertising, except pursuant to the express limited grant of rights hereunder, is strictly prohibited.*

> *"Subject to your strict compliance with these Terms of Use, Last.fm grants you a limited, personal, non-exclusive, non-commercial, revocable, non-assignable and non-transferable licence to:*

> a. *download and use the Last.fm client-based software in accordance with its pre-defined functionality only;*
> b. *listen to music and view videos streamed from the Website and participate in the Last.fm community areas;*
> c. *submit or upload music, video and other content to the Website strictly as permitted in accordance with these Terms of Use and any other terms posted on the Website;*
> d. *embed the Last.fm widget on your personal website or profile pages for non-commercial and private use only; and*
> e. *communicate with other members of the Last.fm community;"*

(Translated from German; cf. Last.fm, Terms of Use, 3. Intellectual Property Ownership; Licence, 2nd paragraph: http://www.last.fm/legal/terms#para3; 9/29/2013).

In a later paragraph (same chapter of the Terms of Use), the following notice can be found in addition:

> *"Provided that you […]:*

> v. *do not embed or otherwise exploit the Last.fm widget for commercial gain (which includes, for example and without limitation, selling advertising on your site or otherwise monetising any element of your site which contains the Last.fm widget); [...]"*

(Translated from German; cf. Last.fm, Terms of Use, 3. Intellectual Property Ownership; Licence, 2nd paragraph: http://www.last.fm/legal/terms#para3; 9/29/2013).

In the Terms of Use for the Last.fm API (under http://www.lastfm.de/api/tos), commercial use is not explicitly precluded. The following circumstance is pointed out:

> *"[…] If Last.fm has granted you permission to use the API and Last.fm Data for commercial purposes in accordance with the Commercial Use*

> *Terms, such Commercial Use Terms shall also form part of this Agreement. For more information about how to apply to use the API and Last.fm Data for commercial purposes, please contact us […]"*

(Last.fm, API Terms of Service, 2. Conditions of Use: http://www.lastfm.de /api/tos; 9/29/2013).

Under Section 3. Use of the API and Last.fm Data, that commercial use is precluded is described concretely:

> *"You are permitted to use the Last.fm Data solely for non-commercial purposes and for no other purpose and subject always to any limitations or conditions as advised to You by Last.fm at any time. If you are unsure whether your use of the Last.fm Data constitutes non-commercial or commercial use, you should contact us."*

(Last.fm, API Terms of Service, 3. Use of the API and Last.fm Data: http://www.lastfm.de /api/tos; 9/29/2013).

OpenStreetMap

It is generally permitted to integrate the map series within commercial or non-commercial applications, to copy, transfer or modify map data, provided that the source is mentioned accordingly:

© OpenStreetMap contributors

(source: http://www.openstreetmap.org/copyright)

OpenWeatherMap

OpenWeatherMap's contents are subject to the CC BY-SA license (Attribution–ShareAlike under the same terms). Under these guidelines, the database as well as the API may also be used for commercial purposes.

However, it must be observed that OpenWeatherMap offers several usage models and that fees are applicable for use under certain basic conditions.

Details can be found at http://openweathermap.org/price; 9/29/2013.

Panoramio

In the Conditions of Use for the Panoramio Widget API are detailed specifications that must be taken into account when integrating images published via Panoramio:

> *"To use the Panoramio Widget API, you must follow these conditions:*

- *"Next to every photo or group of photos displayed in your site through the Panoramio Widget API you must show the Panoramio name and logo, and the text 'Photos are copyrighted by their owners' or a translation in the site's language.*

- *"Each photo whose largest displayed dimension is more than 499 pixels ('Large Photo') must include, at least when the mouse is over the photo, a link to the photo page on the Panoramio.com domain […], a link to the user page of the photo owner on the Panoramio.com domain […], and the name of the photo owner.*

- *"Each photo whose largest displayed dimension is less than 500 pixels must comply with the requirements for Large Photos; or include a link to the photo page on the Panoramio.com domain; or make visible, active, or otherwise draw the user to, a photo that complies with the requirements for Large Photos."*

(cf. Panoramio, Panoramio Widget API, Attribution Requirements: http://www.panoramio.com/api/widget/api.html#conditions-of-use; 9/29/2013).

In the Terms of Service are two important notices that are of significance for using Panoramio within GeoStream: Commercial use requires written confirmation or approval from Google; the use of Panoramio contents in the context of a map representation must use Google Maps as the exclusive map service:

- *"Section 1: Fees*

  "You may not charge users any fee for the use of your application, unless you have entered into a separate agreement with Google or obtained Google's written permission.

- *"Section 2: API Client restrictions*

  "You may not use the API in API Clients using map technology other than Google Maps or any photo-sharing sites.

  "No more than 50 Panoramio photos can be displayed at a time on one single webpage."

(Panoramio, Panoramio API Terms of Service: http://www.panoramio.com/api/terms.html; 9/29/2013).

Twitter

Twitter does not object to any commercial use of the Twitter API; however, the basic conditions of use are described extensively under https://dev.twitter.com/terms/api-terms; IV. Commercial Use (9/29/2013).

WikiMapia

On WikiMapia.org there are no notices regarding licensing rights and the usage of the content. According to Wikipedia, the WikiMapia database is subject to the CC license CC-BY-SA (cf. Wikipedia, WikiMapia, organizing institution: de.wikipedia.org/wiki/WikiMapia ; 9/29/2013).

Non-commercial use of the WikiMapia API requires only that the data source is accordingly cited:

> *"We open Wikimapia data free for non-commercial use (as you mention the original data source, according to Wikimapia TOS) […]"*

(cf. WikiMapia API: http://wikimapia.org/api/?action=how_to; 9/29/2013).

4 Summary URLs

Below is a collection of relevant and interesting URLs (sorted by provider/platform):

- Creative Commons: http://creativecommons.org/
- CC licenses: http://de.creativecommons.org/was-ist-cc/ (German page); as well as http://de.wikipedia.org/wiki/Creative_Commons
- DBpedia: http://dbpedia.org
- Eventful API: http://api.eventful.com/
- Eventful Privacy Policy: http://eventful.com/privacy
- Eventful Terms of Service: http://eventful.com/terms
- Eventful API Terms of Use: http://api.eventful.com/terms
- Eventful: http://eventful.com
- Eventful: http://eventful.com/
- Flickr: http://www.flickr.com/
- FlickrAPI documentation: http://www.flickr.com/services/api/
- Foursquare API developers' policies: https://foursquare.com/legal/terms
- Foursquare API License Agreement: https://de.foursquare.com/legal/api/licenseagreement
- Foursquare for companies: http://de.business.foursquare.com/
- Foursquare: https://foursquare.com/
- Free Software Foundation: http://www.fsf.org/
- GooglePlaces: http://www.google.com/business/placesforbusiness/
- Last.fm API Terms of Use: http://www.lastfm.de/api/tos
- Last.fm Privacy Policy: http://www.lastfm.de/legal/privacy
- Last.fm Terms of Use: http://www.lastfm.de/ legal/terms

- Last.fm: http://www.lastfm.de/
- OpenStreetMap: http://www.openstreetmap.org
- OpenWeatherMap API: http://openweathermap.org/API
- OpenWeatherMap pricing: http://openweathermap.org/price:
- OpenWeatherMap: http://openweathermap.org/
- Panoramio Widget API: http://www.panoramio.com/api/widget/api.html
- TRIPS - Trade-Related Aspects of Intellectual Property Rights: http://de.wikipedia.org/wiki/%C3%9Cbereinkommen_%C3%BCber_handelsbezogene_Aspekte_der_Rechte_des_geistigen_Eigentums (German); http://en.wikipedia.org/wiki/TRIPS_Agreement (English)
- Twitter API terms: https://dev.twitter.com/terms/api-terms
- Twitter: https://twitter.com/
- WikiMapia: http://wikimapia.org
- WikiMapia API: http://wikimapia.org/api/?action=how_to
- WIPO Copyright Treaty (WTC – WIPO Copyright Treaty): http://de.wikipedia.org/wiki/WIPO-Urheberrechts vertrag (German); http://en.wikipedia.org/wiki/WIPO_Copyright_Treaty (English)
- WIPO Performances and Phonograms Treaty (WPPT): http://www.wipo.int/treaties/en/ip/wppt/trtdocs_wo034.html