



Swiss Open Cultural Data Hackathon 2016

Final Report

Beat Estermann, 12 September 2016

1. Introduction

On 1-2 July 2016, the OpenGLAM Working Group of the opendata.ch association, in cooperation with the Basel University Library, the Historical Museum Basel, and infoclio.ch, organized the second edition of the Swiss Open Cultural Data Hackathon. This year's event was kindly hosted by the Basel University Library. The present report provides a summary of the event's results as well as some insights with regard to next year's hackathon. It is based on an assessment of project goals, the results of an internal evaluation meeting, and last year's participants' survey. An overview of the financial result is also provided. This year's participants' survey will be carried out roughly half a year after the event, similarly to last year's survey.

2. Main Objectives of the Hackathon

The main objective of the hackathon was to bring different stakeholder groups together and to get them to interact around specific topics in order to share experiences and to develop concepts and software prototypes. Also, the event was to be used as a jumping board for the creation of software and other forms of data/content re-use that get some public visibility (e.g. by displaying or performing them at a museums' night) or have some other outside impact (e.g. by their use for research, in the context of Wikipedia/Wikimedia, or by facilitating the crowdsourcing of certain tasks). For this purpose, special attention was to be put on the match-making between hackathon project teams and potential "sponsors" – heritage institutions, funding organizations, research projects, or other entities interested in assisting a project team in taking their idea from prototype to a real product. And last but not least, the hackathon was to be used as an opportunity to encourage Swiss heritage institutions to open up their data and content and to spread the word about OpenGLAM¹.

¹ <http://openglam.org/principles/>

3. Achievement of Project Goals

The table in the appendix gives an overview of the goals that were set for this year's hackathon, the level of their achievement, last year's achievements for comparison, as well as suggested targets for next year. Please note that not all targets could be assessed yet, as dissemination activities take more time and this year's participants survey hasn't been carried out yet.

The documentation of individual hackathon projects and an overview of the media coverage can be found on the event website².

Specific goals were set in six areas. In the following, we will shortly discuss the level of achievement of these goals in the context of the hackathon.

3.1. Opening up cultural data and content for re-use and making it available at a central location

The specified targets were fully achieved: 70 open datasets / collections from 40 Swiss institutions have so far been made available through the make.opendata.ch website (compared to 34 open datasets / collections from ca. 20 institutions in the previous year). This has only been possible thanks to continuous and relentless efforts in this area, as convincing institutions to open up their data and content takes considerable time, with efforts often bearing their fruits only after one or several years.

Three indicators show that we are on a good track in this regard:

- We have been able to reach out to about as many new institutions as last year.
- Many institutions who have provided data/content in 2015 have done so also in 2016, indicating their satisfaction with the hackathon and creating a positive feedback loop.
- More than 60% of the participants of the 2015 hackathon estimated that the hackathon is (very) effective in getting/promoting access to cultural data.

As discussed during the internal evaluation meeting, a new solution is needed for the online presentation of datasets; the presentation of datasets hasn't been very clear (mostly due to their growing number), and some participants didn't see all datasets (especially those which were made available only through the 'Open Collections' platform).

3.2. Improving the visibility of Swiss heritage data and content at an international level

We have been using two avenues to achieve this goal in the context of the hackathon: the upload of all relevant content to Wikimedia Commons and the exposure of open collections on the Open Knowledge Foundation's Open Collections Website. In both cases, we have achieved our immediate target of exposing all Swiss collections on these websites where this makes sense.

There are however two caveats:

- The visibility of heritage content does not so much arise directly from its publication on Wikimedia Commons, but rather when it is embedded in Wikipedia articles. While there is evidence that content that has been uploaded to Wikimedia Commons by and by ends up in Wikipedia articles, we presently do not have a good tool to track this process for all Swiss collections centrally. Given the ever growing number of images uploaded by Swiss heritage institutions to Wikimedia

² <http://make.opendata.ch/wiki/event:2016-07>

Commons, increased attention should be given to promoting this content among Wikimedia contributors – an issue the Swiss GLAM-Wiki Working Group has started looking into.

- We presently do not have any impact measure regarding the frequentation of the Open Knowledge Foundation's Open Collections Website.

This said, other efforts may be undertaken directly by the heritage institutions themselves in order to enhance the visibility of their data and content at an international level. The impact of the sole hackathon may be limited in this area, but it can certainly sensitize the institutions for this issue.

3.3. Promoting the re-use of cultural data / content (with a special focus on sustainability)

This is a goal that is generally well achieved by means of the hackathon, as the number of hackathon projects and the number of responses to the 2015 participants' survey indicate: For almost 60% of the participants, the hackathon was (very) effective in helping them find out how data/content can be used, while more than 70% found that it was (very) effective in getting new inspiration or ideas.

The only reservation is that given the cost structure and the concept of the event, we could easily manage a 50% increase in the number of participants and thus also of hackathon projects without significantly increasing the overall cost of the event. While we increased this year's capacity compared to the 2015 event, we haven't been able to attract a larger number of participants than in the previous year (the number of participants remained stable).

The sustainability of hackathon projects is an aspect we have started to focus on during this year's hackathon. Given the short period of time that has elapsed since the event, we do not have any conclusive results yet. It appears, however, that the case in which a new team forms at the hackathon, starts developing a project and keeps pursuing exactly that project after the end of the hackathon is rather the exception than the rule. We have however been able to observe various cases where the hackathon may have a sustainable effect:

- A new hackathon project is developed by a team of participants during the hackathon, and the data provider is interested in further pursuing not the exact project, but a similar approach in cooperation with some of the hackathon participants (example: Visual exploration of 'corporis fabrica').
- Teams from existing projects in the field of cultural heritage or the digital humanities attend the hackathon and mingle with other participants to pursue some new ideas, possibly using also some new datasets; the ideas may later be further pursued within the existing projects (examples: Dodis; Visualize Relationships in Authority Datasets; SFA-Metadata at EEXCESS; Historical Dictionary of Switzerland out of the Box).
- A participant uses the hackathon as an occasion to develop a web app, whereby effort is already put in before the event in order to reach a presentable version by the end of the two hackathon days; the web app is later used for demonstration purposes at a higher education institution (examples: Manesse Gammon; Historical Tarot Freecell).
- Members of an existing project in the field of cultural heritage use the hackathon as an occasion to meet up with colleagues from other countries and with people holding specific expertise in an area of interest to further develop their concepts. The outcomes of these encounters directly benefit the existing project (example: Performing Arts Ontology / Linked Open Theatre Data).

- A member of a higher education institution uses the hackathon to put a student in touch with international experts in the area where the student is carrying out some case work (example: Wiki project “cultural heritage”).

This list may not be complete, as the long-term impacts of the hackathon can take various shapes and typically manifest themselves decentrally, which makes them somewhat elusive.

3.4. Fostering the exchange and cooperation among stakeholders from various backgrounds

This is an area where the hackathon is doing very well, as is exemplified by the fact that over 80% of participants of the 2015 edition appreciated the hackathon’s effectiveness in terms of meeting interesting people and fostering networking. There is also strong episodic evidence that this exchange and cooperation is actually happening within hackathon project teams. Table 1 shows that we have again been able to attract a good mix of participants from various backgrounds and profiles.

Participant category	2015 edition (N = 49 of 107)	2016 edition (N = 94 of 105)
Female	19%	33% ↑ **
Male	81%	67% ↓ **
Data provider	35%	–
Data provider or expert	–	28%
Software programmer	35%	25%
Ideator	27%	25%
Researcher	22%	31%
Wikipedia editor	12%	11%
Artist	8%	7%
Designer	4%	13% ↑ *
Organizer	25%	–
Hackathon organizer	–	11%
Other	12%	20%

Changes marked * are significant at the 0.10 level; those marked ** are significant at the 0.05 level.

Individual hackathon participants may belong to several categories.

Table 1: Different categories of participants

3.5. Propagating the OpenGLAM principles within the Swiss heritage sector

The immediate targets in this area have been fully achieved. The hackathon provides a good occasion to reach out to heritage institutions who aren’t committed to the OpenGLAM principles yet. Over the past year, we have also been noting an increased interest among Swiss heritage institutions to host (smaller)

hackathon events themselves, indicating that the idea starts to stick. Furthermore, we are planning to present the concept of the hackathon and some hackathon projects both at a digital humanities conference in Bern in February 2017 and at a public domain event targeted at representatives of heritage institutions and other interested people in spring 2017. Thus, the hackathon provides a good basis to promote the idea of OpenGLAM within the Swiss heritage sector.

This said, the hackathon is obviously not the only effort undertaken in this regard. There are notably the communication activities related to the International OpenGLAM Benchmark Survey as well as the activities of the Swiss GLAM-Wiki Working Group that also contribute towards this goal – sometimes with important synergy effects with the hackathon.

3.6. Promoting the public visibility of OpenGLAM

Given our experience so far, it is not easy to achieve a significant impact in this area by means of the hackathon. In fact, media coverage has been lower than last year, probably due to a combination of factors:

- The ‘first time’ effect has vanished.
- At the beginning of the summer holidays, some journalists interested in the event weren’t able to attend in person.
- The omnipresence of soccer (European Championship) during the time right before and after the hackathon may have lowered the interest by the media.
- Also, the organizing team may have made less sustained efforts to reach out to the media compared to the previous year.

Although we opened the project presentation session at the end of the event and communicated it widely, we weren’t able to draw a large audience among the wider public during the hackathon itself. It appears that we would need to “go where the people are” in order to reach a wider public.

While the hackathon is a good means to promote the idea of OpenGLAM among a specialized public (heritage institutions, digital humanities, interested software programmers and web designers), it does not directly lend itself to reaching a wider audience, and it still remains to be seen to what extent some of the hackathon projects will be presented at public events in a near future. Still, some improvements could be made in the future with regard to media coverage; as we have seen this year, it is possible to get media coverage for individual hackathon projects, at which occasion the ideas behind OpenGLAM can be explained as well.

4. Positive Aspects Highlighted During the Internal Evaluation

During the internal evaluation of the hackathon by the organizing team, the following positive aspects have been particularly highlighted:

- the perfect location, the excellent premises (library building, use of the Botanical Garden for the meals)
- the quality of the catering
- the interesting hackathon projects and project presentation session
- the varied and attractive side program (workshops)
- the great ambiance among participants during the event
- the great involvement of UB Basel staff during the event.

Further positive mentions included:

- the quantity and composition of participants
- the good collaboration within the team
- the exchange with other participants, the quality of networking
- the learning experience during the real life event (an experience one cannot get through mere online interaction)
- the positive feedback from people who just dropped by to have a first-time experience of the hackathon
- the fact that the hackathon has led to the opening up of many new datasets
- the fact that many teams made use of metadata and thesauri in their projects – data that may not appear to be very attractive at first sight
- the great weather
- the great satisfaction of the host institution.

5. Potential for Improvement

Potential for improvement has been identified in several areas. The most notable points that were brought up during the internal evaluation meeting were:

- A new solution is needed for the online presentation of datasets; the presentation of datasets hasn't been very clear (mostly due to their growing number); some participants didn't see all datasets (especially those which were made available only through the 'Open Collections' platform).
- The question how to ensure/enhance the sustainability of the hackathon projects remains a burning issue.

Many other minor issues and ideas for improvement have been gathered that can serve as a checklist in view of the organization of future hackathons and/or as a basis for discussion when it comes to making adaptations to the present concept.

6. Project Resources

6.1. Financial resources

Table 2 below gives an overview of the financial resources of the project.

The project was kindly supported by the following sponsors:

- Universitätsbibliothek Basel (10'000 CHF)
- Infoclio.ch (6'000 CHF)
- Migros Kulturprozent (10'000 CHF)
- Ernst Göhner Stiftung (10'000 CHF)
- Christoph Merian Stiftung (10'000 CHF)
- Staatsarchiv des Kantons Basel-Stadt (2'000 CHF)

	Budget	Effective Costs / Revenues
Expenses	- 52'000	- 45'565
Catering	25'000	18'713
Accommodation (Youth Hostel)	5'000	3'869
Project Coordination	15'000	19'958
Varia / Incidentals	7'000	3'025
Revenues	+ 52'000	+ 48'000
Internal Sponsors	16'000	16'000
External Sponsors	36'000	32'000
Balance	0	+ 2'435

Table 2: Overview of financial resources

The effective costs for catering and accommodation have been lower than expected given the fact that the effective number of participants was lower (105) than the one budgeted for (150-200). The higher amount spent on project coordination is due to the fact that the absence / withdrawal of other team members obliged the project coordinator to take over various tasks that hadn't been part of his original job description.

The resulting benefit remains on the account of the opendata.ch association and is earmarked for future hackathons or similar events related to cultural heritage.

6.2. In-kind contributions

The organization of the event wouldn't have been possible without the substantial in-kind contributions made by several individuals and organizations, most notably by contributing their volunteer and/or staff time:

- Oleg Lavrovsky, Frédéric Noyer, Oliver Waddell (opendata.ch)
- Beat Estermann (opendata.ch / Bern University of Applied Sciences)
- Enrico Natale, Jan Baumann (infoclio.ch)
- Christoph Ballmer, Manuela Schwendener, Marion Regenscheit, Martin Reisacher, Lionel Walter, Felix Winter (Basel University Library)
- Stefan Bürer (Historical Museum Basel)

but also by allowing us to use their infrastructure and/or equipment:

- Basel University Library and Botanical Garden (premises, equipment)
- Historical Museum Basel (flyers/posters for Wikipedia editathon)
- Bern University Archives (hosting of pre-event)
- Bibliothèque cantonale et universitaire de Lausanne (hosting of pre-event)
- Opendata.ch (online infrastructure, financial administration).

7. Final Remarks

This year's hackathon has again been a great success, and both the participants and the organizers are looking forward to the next edition of the event. As the present report has shown, there is room for improvement with regard to various goals that were set for this year's hackathon, and in some areas we may need to re-think our concept and/or adjust the goals of the hackathon in order to make sure that we are able to deliver on all our goals.

We would like to thank all our sponsors and partners for supporting our event and are looking forward to opportunities of future cooperation.

Appendix: Project Goals

Goal	Achievements 2015	Targets / Achievements 2016	Suggested Targets 2017
<p>Open up cultural data and content for re-use and make it available at a central location</p>	<p>34 open datasets / collections from ca. 20 institutions made available through the make.opendata.ch website.</p> <p>10-15 datasets / collections were specifically made available in view of the hackathon (<i>this number is difficult to estimate and should be treated with precaution</i>). Several institutions used the hackathon as an occasion to announce newly released datasets to the public and the community of potential re-users.</p>	<p>Target: 70 open datasets / collections from 40 institutions made available through the make.opendata.ch website and/or the Open Knowledge Foundation's Open Collections website</p> <p>Fully achieved: ca. 75 open datasets / collections from ca. 45 institutions have been made available through the make.opendata.ch website and/or the Open Knowledge Foundation's Open Collections website</p>	<p>Target: 110 open datasets / collections from 65 institutions made available through the make.opendata.ch website, the Open Knowledge Foundation's Open Collections website or on an alternative platform.</p>
<p>Improve the visibility of Swiss heritage data and content at an international level</p>	<p>Open collections have in large parts been made available on Wikimedia Commons (but not all of them).</p> <p>There is no overview statistics regarding the re-use of Swiss heritage content on Wikipedia.</p> <p>So far, open collections from Switzerland are hardly promoted on the Open Knowledge Foundation's Open Collections Website.</p> <p>Only a subset of open heritage data and content from Swiss institutions is available through Europeana or the Archives Portal Europe.</p>	<p>Target: Make all open collections from Switzerland available on Wikimedia Commons where this makes sense from the point of view of the Wikipedia / Wikimedia Community.</p> <p>Widely Achieved: There are 10 new datasets from 7 institutions relevant to Wikimedia Commons. In the case of 5 institutions, the upload has been completed, 1 institution (ETH Bibliothek) is in the uploading process, while 1 institution may not upload the files itself (Sozialarchiv). In the case of the image upload by ETH Bibliothek, uploading the images is taking much longer than expected, partly due to unexpected administrative hurdles on the side of the Wikimedia Community;</p>	<p>Target: Make all open collections from Switzerland available on Wikimedia Commons where this makes sense from the point of view of the Wikipedia / Wikimedia Community.</p>

Goal	Achievements 2015	Targets / Achievements 2016	Suggested Targets 2017
		<p>also the quantity of images is much higher than for the other institutions (several 10'000s of pictures).</p> <p>Target: Create overview statistics regarding the re-use of Swiss heritage content on Wikipedia.</p> <p>Not achieved: Wikimedia CH is presently planning to develop a new tool for usage statistics on Wikipedia and Wikimedia Commons that is expected to provide this kind of overview statistics.</p> <p>Target: Reference all open collections from Switzerland on the Open Knowledge Foundation's Open Collections Website.</p> <p>Fully achieved: All open collections from Switzerland have been referenced on the Open Knowledge Foundation's Open Collections Website.</p>	
<p>Encourage the re-use of cultural data / content, with a special focus on the sustainability of projects</p>	<p>Ca. 100 active participants worked on 24 projects re-using cultural data / content.</p> <p>At least three of the projects received additional funding by external partners and are going to be presented to a wider audience (<i>this aspect has not been systematically tracked; the number may be underestimated.</i>)</p>	<p>Target: 150 active participants working on 36 projects re-using cultural data / content.</p> <p>Only partly achieved: Ca. 100 active participants worked on ca. 15 projects re-using cultural data / content. In addition, one hackathon participant provided three tools which he developed in view of the hackathon and that are to be used in the context of the publication of data as linked data; several projects focused on the publication of heritage data as linked open data and/or on its ingestion into Wikidata in</p>	<p>Target: 120 active participants working on 25 projects re-using cultural data / content.</p> <p>Target: 12 projects developed during the hackathon are further promoted and are presented to a wider public or are otherwise put to some outside use (e.g. in research).</p>

Goal	Achievements 2015	Targets / Achievements 2016	Suggested Targets 2017
		<p>view of its use in Wikipedia or in other contexts.</p> <p>Target: 12 projects developed during the hackathon are further promoted and are presented to a wider public or are otherwise put to some outside use (e.g. in research).</p> <p>Still ongoing: We are planning to present 3 of the hackathon projects at the Digital Humanities Conference taking place in Bern in February 2017; furthermore, we are planning to present several projects at a public domain event in spring 2017. Some other projects have been further pursued by individual hackathon participants or organizations.</p> <p>Needs to be evaluated at a later point in time.</p>	
<p>Foster the exchange and cooperation among various stakeholders and encourage cross-pollination between different areas, in particular between software programmers, data/content providers, researchers, Wikipedians/ Wikimedians, designers, and artists</p>	<p>There is episodic evidence that such exchange and cooperation has taken place; some people are even asking for more of it.</p> <p>In the participants' survey 2015, 80% of respondents indicated that the hackathon has been effective for meeting interesting people / networking, and 74% indicated that it has been effective to get new inspirations or ideas.</p>	<p>No data yet: Data to be gathered through the participants' survey.</p>	<p>Target: Reach the same level of satisfaction regarding networking, and getting new inspirations or ideas as in previous years.</p>
<p>Promote the propagation of the OpenGLAM principles within the Swiss heritage sector</p>	<p>A pre-event targeted at heritage institutions was held in Zurich, allowing to reach out to ca. 20 heritage institutions.</p> <p>More than 100 data owners</p>	<p>Target: Hold a pre-event, reaching 10-15 heritage institutions in the Romandie</p> <p>Fully achieved: Two pre-events were held, one in</p>	<p>Target: pre-event (?)</p> <p>Target: Approach 100 data owners directly in view of the hackathon.</p>

Goal	Achievements 2015	Targets / Achievements 2016	Suggested Targets 2017
	<p>were approached individually in view of the hackathon, and many more through mailing lists.</p>	<p>Bern with 17 participants, and one in Lausanne with 27 participants. In both events, we have been able to attract new data providers and new hackathon participants who were able to inform themselves and to exchange views ahead of the main event. The events allowed to reach out to ca. 10 new data providers. Interestingly, the Lausanne event also attracted a large number of digital humanists from the Lausanne and Geneva areas.</p> <p>Target: Approach 100 data owners directly in view of the hackathon.</p> <p>Fully achieved: ca. 120 data owners were approached individually in view of the hackathon, and over 1000 through mailing lists and mass mailings.</p>	
<p>Promote the public visibility of OpenGLAM</p>	<p>Media coverage in various daily newspapers (Berner Zeitung, Le Temps, Le Nouvelliste, La Liberté) as well as on Swiss Radio (SRF2 Kultur Kompakt)</p> <p>Various blog contributions targeting specific communities (digital humanities, heritage institutions, international Wikimedia community, international OpenGLAM community, Swiss OpenGLAM community)</p> <p>3 (?) projects developed during the hackathon have been / are going to be presented to a wider audience at another public event (<i>this aspect was not</i></p>	<p>Target: Media coverage in 5 daily or weekly newspapers and on radio.</p> <p>Only partly achieved: The event was covered by one daily online newspaper (2 articles in Tageswoche).</p> <p>Target: increased media focus on the projects themselves.</p> <p>Achieved: One of the Tageswoche articles focuses on concrete projects.</p> <p>Target: Project presentation session at the end of the second hackathon day with at least 30 external</p>	<p>Target: Media coverage in 5 daily or weekly newspapers and on radio.</p> <p>Target: Media focus on the hackathon projects....(?)</p> <p>Target: Public presentation of 10 projects developed during the hackathon at another public event (e.g. museums night) during the year following the hackathon.</p>

Goal	Achievements 2015	Targets / Achievements 2016	Suggested Targets 2017
	<p><i>systematically tracked; the number should therefore be treated with precaution)</i></p>	<p>participants (especially potential sponsors).</p> <p>Only partly achieved: We were able to attract ca. 10 additional participants for the project presentation session.</p> <p>Target: Public presentation of 10 projects developed during the hackathon at another public event (e.g. museums night) during the year following the hackathon.</p> <p>Still ongoing: Needs to be evaluated at a later point in time.</p>	