



Swiss Open Cultural Data Hackathon 2022

Final Report

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Appendix A: [Project Goals](#)

1. Introduction

From November 4th to November 5th 2022, the 8th edition of the Swiss Open Cultural Data Hackathon took place at the SUPSI in Mendrisio/Ticino. This live event was organized by the OpenGLAM Working Group, part of the Opendata.ch association, in collaboration with the SUPSI, among other partners.

The Swiss Open Cultural Data Hackathon (GLAMhack) was accompanied by a rich side program. The first gathering was a workshop day on September 20th, at the Natural History Museum in Bern, followed by two online onboarding sessions on October 4th and October 26th, as well as the Open Science for Arts, Design and Music Workshop on November 3rd, which was open to the working group as well as hackathon participants.

Through the collaboration with the PLAZI Foundation, OpenGLAM Switzerland and subsequently the GLAMhack22, opened itself up to a new strategic and thematic realm of biodiversity as heritage data, in addition to the second GLAMhack22 focus of sound, design and performance arts.

The present report provides a summary of event results as well as some insights with regard to future hackathons. It is based on an assessment of project goals and the results of an internal evaluation meeting. A participants' survey will be carried out at a later point in time. An overview of the financial result is also provided.



Main Objectives of the GLAMhack 2022

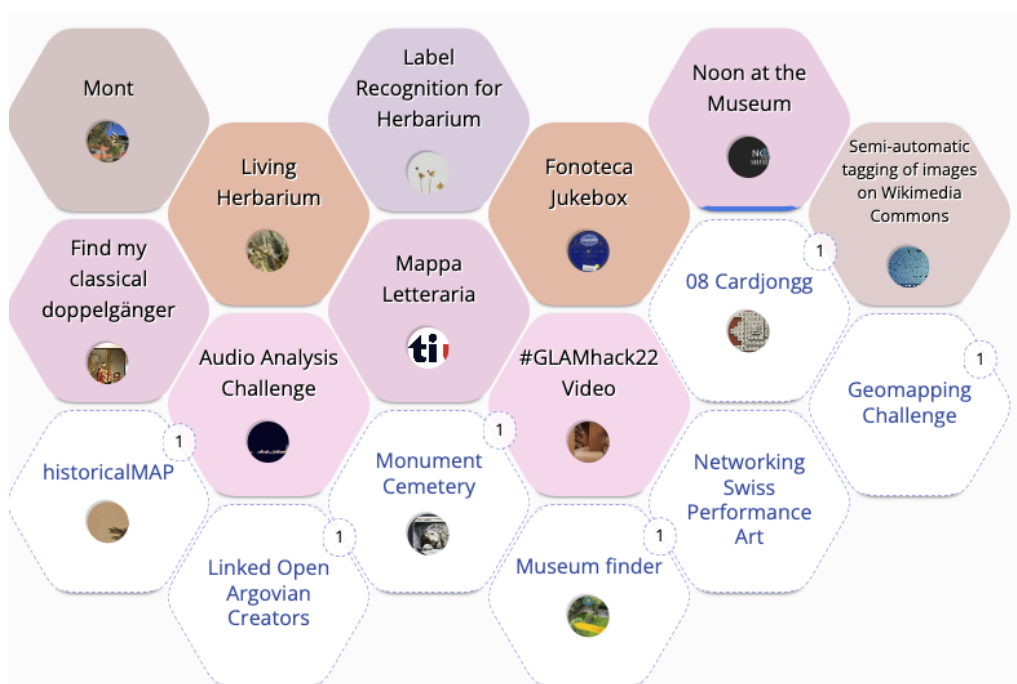
As in the past editions of the GLAMhack, the main objectives of the hackathon were firstly, to bring a variety of stakeholder groups together and secondly, offer them new and exciting datasets from different data providers, which they then, thirdly, would apply to the development of concepts and software prototypes.

Finally, the project teams were given the opportunity to showcase their results during the final presentations on the last GLAMHack day. The GLAMHack does not just offer teams the opportunity to present the projects they created during the hackathon, but also offers them the possibility to meet and connect with other people interested in GLAM subjects.

As each year, the GLAM Organisational Committee designated a taskforce to reach out to Swiss heritage institutions and researchers in the Digital Humanities to open up their data and content and to spread the word about OpenGLAM¹.

After putting our efforts into raising awareness about OpenGLAM among museums and encouraging projects which engage an audience and make use of non-standard hardware in 2018 and 2019, and the 2020 and 2021 edition's foci on linked open data and collaborations with institutions of higher education, GLAMhack22 set its focus on design, biodiversity, sound and once again on collaboration with an institution of higher education.

A general goal of all GLAMhacks is to increase the number of open available datasets and contributing institutions. A further goal was to Since 2021 was very successful in terms of attendance, hopes were high to maintain the level of participation. Similar to last year's edition , we experienced a no-show rate of 30%, which has been partially analysed (compared to last year's 200 sign-ups and ca. 70 participants, the drop out rate has significantly improved.



Overview of the challenges and ideas published before and during the hackathon. The colourful hexagons represent the projects which have been worked on during the GLAMhack while the others remained at the "challenge-state".

¹ <http://openglam.org/principles/>

2. Achievement of Project Goals

The table in [appendix A](#) gives an overview of the goals that were set for this year's hackathon, the level of their achievement, and the achievements in the previous years for comparison. Please note that not all targets could be assessed yet, as dissemination activities take more time.

The documentation of individual hackathon projects can be found on the hackathon platform².

In the following, we will shortly discuss the level of achievement of our goals in the context of the hackathon.

2.1 Opening up cultural data and content for reuse and making them available at a central location

With new partners and supporters in the biodiversity and sound field, we were able to add 47 (new total of 204 compared to 157 in 2021) new data sets from 82 institutions to our list of open data sets (of which 79 are shared on opendata.swiss) (73 in 2021). To clarify, most of these datasets stem from the biodiversity field and were opened up in 2021, and they will be added to GBIF.org, not opendata.swiss.

A specific effort was made to involve teams from the ZHdK, SUPSI, Memoriav, and the field of biodiversity.

The continued experience of the past years shows that it is still vital for future editions to continue the task of contacting and assisting potential data providers in order to push the openGLAM agenda.



² <https://hack.glam.opendata.ch/event/3>

2.2. Improve the visibility of Swiss heritage data and content at an international level

With this year's edition close to the Italian border we were happy to welcome Italian participants from the Wikimedia Italia Community. It is a continuous effort to include and invite international participants and ideas to our GLAMhack community in order to increase the visibility of Swiss Heritage Data.

2.3 Promoting the re-use of cultural data / content

After a phenomenal 2021 online edition (despite the high no show rate with over 200 registrations and over 70 active participants), we wanted to keep up the drive and hoped for a similar number of participants. However, for many events we experienced a stark decline in registrations and an even more surprisingly high number of no-shows. Of 85 applications, 53 turned up and joined one of ten teams. Participants came from all over Switzerland, with a high ratio of SUPSI students and some participants from Northern Italy and the Italian Wikimedia Community.

The projects displayed a broad diversity, from almost ready to launch applications (MONT) to very experimental, playful projects like "Find my Doppelgänger" to the hilariously delivered "Micro Bugs" project. During the final presentation, teams showcased their projects ranging from visualisations, augmented reality applications, interactive maps and apps to enhanced collections tools as well as interactive maps. All teams demonstrated how perseverance and creativity can result in the most exciting results, strengthen the community as well as expand their horizon of what they thought could be possible within two days.

The data used in this year's projects covers a variety of areas, ranging from press articles and topographic information, paintings and provenience descriptions of artworks to datasets containing information about theatre performances, Swiss heritage institutions, or art exhibitions.

2.4 Fostering the exchange and cooperation among stakeholders from various backgrounds


Having the first offline Hackathon in two years was refreshing, exciting and a little daunting. The format of this year's hackathon, the fostering of exchange and cooperation among people from different backgrounds was first seen as a great challenge. Retrospectively, it seems that this goal has been successfully achieved, not only through the hackathon itself but also thanks to the pre-event and side program of the GLAMhack.

2.4.2 Pre-event and side program

The Swiss Open Cultural Data Hackathon (GLAMhack) was accompanied by a rich side program. The first gathering was a workshop day on September 20th, at the Natural History Museum in Bern, which attracted 33 participants from Europe and from across Switzerland. It included various talks on natural history data collections, a panel discussion followed by two workshop rounds of three

breakout sessions. The two online onboarding sessions on October 4th and October 26th, aimed to introduce participants to each other, the datasets, what and how a challenge can be presented and gave the opportunity for brainstorming on various topics. The Workshop for Open Science for Arts, Design and Music on November 3rd, which was open to the working group as well as hackathon participants, was attended by over 20 participants from many parts of Switzerland. The workshops as well as the onboarding sessions were highly appreciated and facilitated a vivid exchange among the participants.

Programme, 20 September 2022

09:15 - 09:45	Check-in / Welcome Coffee
09:45 - 10:15	Welcome Address and Introduction Welcome address by Christoph Beer, director of the Natural History Museum of Bern Short Presentation of OpenGLAM (Open Data) and the GLAMhack, data ecosystem perspective Introduction to the programme of the day / practical information
10:15 - 11:30	Presentation of activities of various parties in the area of data management ( slides): - Towards a virtual natural history collection (Michael Greeff, SwissCollNet) - Collection databases (Stefan Hertwig, Natural History Museum of Bern) - The data aggregation process in Switzerland (Lukas Wotruba, Datenzentrum Natur und Landschaft) - The background and case for GeoCase 2.0 (geological portal) (Rachel Walcott, National Museums Scotland) - How natural history collection data is put to use (Tim Hirsch, GBIF International) - Linking biodiversity data via literature (Donat Agosti, Plazi.org)
11:30 - 12:00	Coffee Break
12:00 - 12:50	Panel Discussion: Main challenges regarding the collaborative management and use of natural history data
12:50 - 13:50	Lunch Break
13:50 - 14:00	Introduction to the Workshops
14:00 - 14:50	Workshops Round 1: 1. Towards a virtual natural history collection (Michael Greeff, SwissCollNet) 2. Improving the data aggregation process (Glenn Litsios / Lukas Wotruba) 3. Enriching collection databases with research data about collection items (Donat Agosti)
15:00 - 15:50	Workshops Round 2: 1. Putting data from natural history collections to use (tbd / Tim Hirsch, GBIF International) 2. How to deal with sensitive data in the context of Open/FAIR Biodiversity Data? (Christian Kropf / Glenn Litsios) 3. Mapping the biodiversity data ecosystem and locating the Swiss stakeholders (tbd / Beat Estermann)
16:00 - 16:30	Workshop Wrap-up in the Plenary (5' summary from each workshop)
16:30 - 16:50	Getting ready for the GLAMhack on 4-5 November in Mendrisio Explanation of the functioning of the GLAMhack Submission of challenges Q&A
16:50 - 17:00	Farewell Announcement of next steps

Side Programme

GLAMHack 2022 Onboarding Event [online], 4th October 2022

The GLAMHack22 Appetizer is for all those who can't get enough or aren't sure what they're getting into. We're holding a 1.5 Hour online session on **October 4th from 5 PM-6:30 PM CEST** where the team will introduce you to each other, the hack platform, various data sets, and what your challenge could look like (don't worry you don't need to have your own challenge pitch to participate at the hackathon as you are very invited to "just" join a team).

Sign up for the Onboarding session via the official GLAMHack22 sign-up form on this [Eventbrite link](#).

GLAMHack 2022 Onboarding Event [online], 26th October 2022

We're holding a 2nd Onboarding for all those, who didn't make it to the first onboarding or might want to continue working on their challenge, ahead of the GLAMHack22.

The GLAMHack22 Appetizer is for all those who can't get enough or aren't sure what they're getting into. We're holding a 1.5 Hour online session on **October 26th from 5:30 PM-7:00 PM CEST** where the team will introduce you to each other, the hack platform, various data sets, the FABLAB, and what your challenge could look like (don't worry you don't need to have your own challenge pitch to participate at the hackathon as you are very invited to "just" join a team).

Sign up for the Onboarding session via the official GLAMHack22 sign-up form on this [Eventbrite link](#).

Warm Up Programme

Open Science for Arts, Design and Music Workshop **Thursday, 3rd November 2022, 2:00PM - 7:00PM CEST**
at different locations at SUPSI

14:00 - 15:00	Operative meeting of the project Open Science for Arts, Design and Music	Room A0.07, ground floor
15:00 - 15:30	Pre-hackathon brainstorming session	Room A0.07, ground floor
16:00 - 17:30	Option A : Erzsébet Tóth-Czifra, "DARIAH Information systems for Arts and Humanities scholars", in English	A - Room A0.07, ground floor
16:00 - 17:30	Option B : Suzanna Marazza, CC Digital Law, Università della Svizzera italiana (USI) "Le sfide legali dell'Open Access: copyright, licenze open (CC e FOSS) e privacy", in Italian	Room A0.09, ground floor
18:00 - 19:00	Online presentations moderated by Iolanda Pensa, SUPSI, in English"	Please connect to the following link: https://supsi.zoom.us/j/8859972910

Hackathon Programme

Main hackathon from Friday morning to Saturday evening (*the detailed programme is subject to change; times are CEST / UTC +2*). If you have any questions please contact giovanni.profeta@supsi.ch.

Friday, 4th November 2022

08:30 - 09:00	Check-in
09:00 - 10:00	Opening Session, the official start of the Hackathon
10:00 - 11:00	Presentation of Challenges / Idea Pitching
11:00 - 12:00	Group Creation - First Group Meeting
13:30 - 14:30	Noon Break
	Work in groups
17:15 - 17:45	Check-in/check-out & update
18:00 - 19:00	Movement & Sound @Foyer with Samuel Messerli
18:30 - 19:30	Demo session : projects about sound (Foyer & Room A0.09)
18:30 - 19:30	SUPSI AdVibes, Giulio Zaccarelli (Foyer)
18:30 - 19:30	Il rumore lontano, SUPSI Paesaggi sonori, Lorena Rocca SUPSI CV: Coding-decoding crypto-sound SUPSI CV: Oscillator (Room A0.09)
19:30 - 20:30	Dinner
from 20:30	Work in groups ("night shift")

Saturday, 5th November 2022

08:00 - 09:00	Breakfast / School is open
09:15 - 09:30	Check-in
09:30 - 09:45	Welcome to Day 2
	Work in groups
13:00 - 14:00	Lunch
	Work in groups
16:30 - 17:30	Final Project Presentations
17:30 - 17:45	Closing Session

Side events were off- and online and all were open to the general public, as long as participants signed up to the event via Eventbrite. The different formats of the side-events (input-presentations, tutorials, workshops) enabled the sharing of knowledge, the exchange of experiences, the identification of common goals and challenges as well as the initiation of future collaborations. Some ideas were pursued as projects during the main hackathon. Additionally, there was a dissemination effect beyond our usual audiences thanks to the exceptionally good media coverage (probably the best since the 2015 edition).

2.4.3 Main hackathon

After a couple of editions with high attendance in 2020 and 2021, we have to report that our participation dropped back to previous participation counts of around 50+ active participants. We had a very high no-show rate of over 30%. Upon asking the no-showers why they were not present, many answered they thought that the event was going to be held online, however, communication never indicated an online event.



Screenshot with GLAMhack participants during the “ice-breaking session” on Friday morning, CC BY-SA 4.0.

Table 1 below shows that this year’s hackathon was again a bit weaker than last year’s edition at attracting female participants. Participation was slightly unbalanced compared to other years. We had a lot more designers but fewer of almost all other categories, however the reason behind this is that participants had more options to choose from during sign up.



Table 1: Different categories of participants

Participant category	2017 edition (N = 94 of 98)	2018 edition (N = 66 of 69)	2019 edition (N = 33 of 33)	2020 edition (N = 68 of 68)	2021 edition (N = 95 of 98)	2022 edition (N = 53 of 53)
Female	37%	39%	12% ↓ **	44% ↑ **	43%	37%
Male	63%	61%	88% ↑ **	56% ↓ **	57%	62%
Data provider or content expert	32%	38%	24%	26%	34%	22%↓
Software programmer	34%	33%	52%	19% ↓ **	30%	38%↑
Ideator	22%	21%	24%	–	–	15%
Researcher	21%	27%	–	–	24%	22%
Wikipedia or Wikidata editor	5%	3%	–	6%	17% ↑ **	15%
Artist	1% ↓ **	5%	–	9%	–	8%
Designer	3% ↓ **	8%	–	9%	–	26%↑
Artist / Designer	–	–	–	–	6%	-
Multimedia producer (new)	–	–	–	19%	7% ↓ **	-
Hackathon organizer	11%	17%	24%	15% ↓ **	8%	11%
Other	18%	11%	12%	37% ↑ *	16% ↓ **	13%

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

2.5 Propagating the OpenGLAM principles within the Swiss heritage sector

In terms of the number of new datasets made available for the GLAMhack 2022, the targets have been achieved. The organizing committee has put a lot of effort into reaching out to potential data providers and were particularly successful in finding new institutions who shared a lot of datasets (like infospecies.ch which serves as a data aggregator in the field of biodiversity data). In terms of outreach within the heritage sector, the pre-event and side program of the hackathon have proven to be an effective way of propagating the OpenGLAM principles by sharing experiences and successful projects conducted by Swiss heritage and research institutions.

2.6 Promoting the public visibility of OpenGLAM

The impact of the hackathon in the media is always highly dependent on the visibility and the communication efforts of the host institution. For the 2022 edition many Ticino outlets shared reports on the GLAMhack22 edition. Thus, the reach of a wider public via the media was most likely the highest since the very first GLAMhack at the National Library in 2015.

- Ticino digital business
GLAMHack2022: hackathon nazionale sulla cultura aperta in Ticino
<https://www.ticinodigitalbusiness.com/glamhack2022-hackathon-nazionale-sulla-cultura-aperta-in-ticino/>
- tio.ch
Hackathon nazionale sulla cultura aperta
<https://www.tio.ch/aziende-ticinesi-informano/1612074/supsi-hackathon-novembre-nazionale-mendrisio>
- Corriere del Ticino
GLAMhack2022 sbarca in Ticino
<https://www.cdt.ch/lifestyle/tecnologia/glamhack2022-sbarca-in-ticino-298486>
- L'informatore
Maratona Software alla SUPSI di Mendrisio
<https://www.dropbox.com/s/m7jisi32a9b63mn/L-Informatore.pdf?dl=0>
- Il Quotidiano, 5th November 19:30
<https://www.rsi.ch/play/tv/programma/il-quotidiano?id=2009705>
- Corriere del Ticino
La conoscenza aperta: un'opportunità per molteplici settori
https://www.dropbox.com/s/9jj87f57lfkq6v9/20221126_CDT.pdf?dl=0
- Canton Ticino department of culture newsletter
- RSI (Min 4:20)
<https://www.rsi.ch/play/tv/il-quotidiano/video/il-quotidiano?urn=urn:rsi:video:15763123>

3. 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 the following:

- Get a broader network involved or create some sort of incentive, in order to reach a larger audience during final presentations.
- The side program and outreach strategy vis-à-vis potential data providers need to be improved, in order for them to feel more involved.
- Regarding budgets, clear communication with partners is crucial.

4. Outlook

The next GLAMhack will take place September 29-30th at the Musée d'ethnographie de Genève. After putting our efforts into raising awareness about OpenGLAM among museums, encouraging projects which engage an audience, working with linked open data, machine learning, human-computer-interaction and crowdsourcing, the focus of the 2023 edition lies on **colonial collections**, provenance research, as well as the application of the FAIR and CARE principles in data governance. As in the previous editions, all types of heritage institutions are encouraged to provide data and to participate in the hackathon; it is our goal to improve the networking among them, especially also across sectors (museums, archives, libraries). We will pursue our endeavors to collaborate closely with institutions of higher education in order to give students the opportunity to put their skills into practice. We will also cooperate to further develop the institutions' curricula.

The main hackathon will again last two days. The organization of an online side program shall be maintained, allowing participants to update each other on recent developments and to share skills and experiences. Furthermore, the “helpdesks” which gave participants the opportunity to ask questions to specialized mentors during the hackathon is a feature which we would like to have again in the future. The publication of challenges beforehand will also be encouraged.



5. Project Resources

5.1 Financial resources

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

Table 2: Overview of financial resources

Item	Budget	Effective Costs/Revenue
Total Expenses	- CHF54.330,00	- CHF31.985,95
Food & Beverages	CHF11.500,00	CHF6.977,80
Accommodation Youth Hostel/Hostel	CHF10.280,00	CHF5.465,50
Project Coordination + Communication	CHF15.000,00	CHF11.900,00
On site Coordination / Tech	CHF1.550,00	CHF1.150,00
opendata.ch Contribution to the administrative costs of the opendata.ch association (10% of the overall budget)	CHF5.000,00	CHF3.200,00
Contribution to the renewal of the infrastructure (online platform) of the Swiss Open Cultural Hackathon (10% of the overall budget)	CHF5.000,00	CHF0,00
Varia / Incidentals	CHF6.000,00	CHF3.292,65
Total Revenues	CHF36.350,00	CHF31.985,80
Internal Sponsors	CHF14.350,00	CHF9.985,80
External Sponsors	CHF22.000,00	CHF22.000,00
Balance		-CHF0,15

The SUPSI, as the event's host, supported the event with roughly CHF 8000 for catering and communication activities, combined with countless working hours from their team - in addition to providing the venue for free. The project was kindly supported by the following organizations:

- Hasler Stiftung (CHF 10'000) deficit guarantee
- Wikimedia CH (CHF 10'000)
- PLAZI.org (CHF 2000)

The GLAMhack 2022 was roughly CHF 20'000 cheaper than budgeted, mostly due to the lower number of participants (lower expenses for the hotel and catering).

5.2 In-kind contributions

The organization of the event would not 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:

- Beat Estermann (Opendata.ch)
- Oleg Lavrovsky (Opendata.ch)
- Dominik Sievi (OpenGLAM)
- Lionel Walter (OpenGLAM)
- Jonas Lendenmann (OpenGLAM)
- Giovanni Profeta (SUPSI, Organisation)
- Iolanda Pensa (SUPSI, Organisation)
- Alessandro Plantera (SUPSI, Photography & Video)
- Lorenzo Di Lernia (SUPSI, Photography & Video)
- Antonella Autuori (SUPSI, Support)
- Ginevra Terenghi (SUPSI, Support)
- Serena Cangiano (SUPSI, FabLab)
- Matteo Subetn (SUPSI, FabLab)
- Sofia Petraglio (SUPSI, FabLab)
- Max Fonseca (SUPSI, Design)

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

- SUPSI, Mendrisio
- Natural History Museum Bern
- Opendata.ch (online and hardware infrastructure, financial administration)

or by supporting the documentation of the event:

- Infoclio.ch



6. Final Remarks

This year's hackathon was a success in many respects: the diversity among the participants and participating institutions, the high quality and variety of the projects, the good atmosphere throughout the event, as well as the high quality and resonance of the side program. Furthermore, we were very happy to involve new institutions, especially with the team from SUPSI, Wikimedia Italia, Memoriav and the Canton Ticino. We are very grateful for the support of our partners and once again, need to admit that gathering resources is a challenge best faced directly and broadly.

We would like to thank all our sponsors and partners for supporting the event and are looking forward to continuing our cooperation in the future.

Our Sponsors

Organizers

Scuola universitaria professionale
della Svizzera italiana

SUPSI



Partners



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opendata.swiss



Eidgenössisches Departement des Innern EDI
Schweizerische Nationalbibliothek NB

ETH zürich



Schweizerisches

Sozialarchiv



SCHWEIZERISCHES NATIONALMUSEUM. MUSÉE NATIONAL SUISSE. MUSEO NAZIONALE SVIZZERO. MUSEU NAZIUNAL SVIZZER.