"Proceedings of the Warsaw Workshop on Spatial Data in the Humanities"

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1. Workshop synopsis

The workshop, held 23 to 25.4.2022 with the support of an Europeana Research grant, brought together Polish and international cultural heritage institutions to discuss general issues and specific Polish issues related to improving the availability and use of cultural heritage spatial data. The workshop focussed on important dimensions of spatial data's relevance in cultural heritage:

- spatial data in cultural heritage
- cultural heritage institutions in leading developments
- technical standards for aligning developments
- organisational exchange for ensuring excellence
- open infrastructure institutional practice and research to sustain capabilities
- capacity building for enhancing digital and computational skills

The workshop, held in a hybrid online and presence format to facilitate participation, revised the draft Warsaw Statement on Spatial Data in Cultural Heritage and published it as signed publication. The publication is available online as a reference for cultural heritage involving spatial data.

2. Workshop participants

Participants had access to the workshop online or in person.
Prof. Francis Harvey, University of Leipzig/ University of Warsaw
Prof. Muki Haklay, University College London
Prof. Andrea Nanetti, Nanyang Technological University, Singapore
Dr Wiesława Duży, Institute of History, Polish Academy of Sciensces / University of Warsaw
Dr Marta Kuźma, University of Warsaw
Dr Tomasz Panecki, Institute of History, Polish Academy of Sciences/ University of Warsaw
Prof. Bogumił Szady, Institute of History, Polish Academy of Sciences/ John Paul II Catholic University of Lublin
Dr Paweł Nowakowski, University of Warsaw
Vahur Puik, Ajapaik.ee (Estonian Photographic Heritage Society)
Maciej Sagata, National Library of Poland

Michał Gochna, Institute of History, Polish Academy of Sciences Dr Aneta Pazik-Aybar, National Centre for Science (NCN) Dr Anna Bober, Head of the Main Office of Geodesy and Cartography Dr Jakub Kuna, Maria Curie-Skłodowska University Tamara Zaninović, University of Zagreb Hanna Rajfura, University of Warsaw Dr Katarzyna Słomska-Przech, Institute of History, Polish Academy of Sciences Sławomir Żabicki, Bałtycka Biblioteka Cyfrowa Tomasz Królik, Institute of History, Polish Academy of Sciences dr Leszek Szafrański, Coordinator of open access, head of the digital resources, Jagiellonian library, Jagiellonian University (Uczelniany Koordynator ds. otwartego dostępu, Kierownik Oddziału Zbiorów Cyfrowych, Biblioteka Jagiellońska, Uniwersytet Jagielloński) Karolina Zawada, University Library, Toruń Dominik Piotrowski, Information Department | New Generation Library System Department, Nicolaus Copernicus University Library, Toruń dr Valeria Vitale, The Alan Turing Institute Emma Han, CUNY

Dawid Maciuszek, IH PAN

3. Workshop program

23.3.2022 Room 125

16:00 Workshop Introduction

16:15 Prof. M. Haklay, UCL Keynote: "Geographical citizen science for cultural heritage"

17:00 Open-comments session on the "Statement" in regards to strengths, improvements as well as overarching, 'infrastructural issues' and implementation issues

18:00 Summary of group discussions

18:30 Day 1: Concluding remarks

19:00 End of Workshop Day 1 and dinner on your own

24.3.2022 Room B2

09:00 Meet online or locally for coffee or tea and small snacks

09:10 Orientation

09:15 Breakout sessions with rapporteur on implementation issues

10:15 Four short presentations

- 1. "Geodane w Bibliotece Narodowej". Maciej Sagata, Biblioteka Narodowa
- "Serwis <u>www.geoportal.gov.pl</u> w analizach dziedzictwa kulturowego" dr inż. Anna Bober, Dyrektor, Główny Urząd Geodezji i Kartografii
- 3. <u>Ajapaik.ee</u> a crowdsourcing platform for pictorial heritage, Vahur Puik
- Epigraphy and Identity in the Early Byzantine Middle East (NCN Sonata grant 2019/35/D/HS3/01872) <u>https://epi-identity.uw.edu.pl/</u>, dr Paweł Nowakowski

11:00 Break

11:15 Breakout sessions with rapporteur on geospatial information

12:15 Break

12:30 Prof. Andrea Nanetti, NTU, keynote "Geodata and the Engineering of Historical Memory"

13:30 Lunch with informal online or local chat possibilities

14:15 Breakout sessions with rapporteur on citizen science

15:15 Break

15:30 Summary of day by rapporteurs; plans for tomorrow

16:30 End of Workshop Day 2

19:00 Workshop Dinner - Bottega Napoli, Oboźna 9/105, 00-332 Warszawa

25.3.2022 Room B2

09:00 Meet online or locally for coffee or tea and small snacks

09:30 Presentation of revised "Statement" and discussion

10:30 Breakout sessions with rapporteur on revisions and future plans

11:15 Break

11:30 Summaries from rapporteurs

12:30 Publication of statement; discussion of plans (activities and

meetings)

13:30 Close of workshop; lunch on your own

4. Warsaw statement

The Warsaw Statement on Spatial Data in Cultural Heritage (Warsaw Statement) provides a helpful reference for any group interested in developing spatial cultural heritage data — regardless whether a museum, archive, gallery, other institution or research group or project. The version of the Warsaw Statement members of the workshop published and signed is available at: https://zenodo.org/record/6814297#.YssfFtpBw2w. Documentation of the workshop is available at: https://data.atlasfontium.pl/documents/548.

Pre-Workshop Version (date: March 2022)

A Statement on the Accessibility to Geospatial Information in Cultural Heritage Practice and Research Preamble

This statement intends to present significant points to guide the preparation and maintenance of geospatial information in cultural heritage institutions. The main points are:

- Importance of geospatial information (aka geodata) in cultural heritage definition
- Importance of cultural heritage institutions in leading developments
- Importance of technical standards for aligning developments
- Importance of organisational exchange to ensure excellence
- Importance of open infrastructure institutional practice and research

You have in this document a draft with our perspective (1.22) on these issues in the context of the planned workshop on 23.-25.3.2022. Advisory board comments and suggestions will guide the development of this statement for another version (15.2.22). We will circulate the revised version. At the workshop, participants speak to fundamental matters and engage with details. The final version created at the workshop will also be published with Europeana's help. We will work with English and Polish versions of the text; the final 'official' version will be in English, although we need to consider creating a formal Polish version and a subsidiary English translation instead. The aim for these activities is to meet needs and requirements of various actors, including researchers, general public, and institutions.

Overview

The draft statement is divided into three sections:

- 1. Citizen science as a guiding concept;
- 2. The importance of institutional infrastructure;
- 3. Geospatial information in institutions and research.

The end of the three sections follows a list of signatories from the Warsaw workshop and a section with additional sources of information.

To keep the document brief and understandable, methods and technologies of data creation, maintenance, curation, analysis, storing, classification, access are only mentioned in passing. The list of resources points to more detailed information.

Section 1: Citizen science as guiding concept

Academia was closed for general public. The future is to open it for the public, not only by providing results of the research. The many ways to collect, distribute and even maintain digital data for cultural heritage institutions and research can benefit in various ways from citizen science approaches. Therefore citizen science may be recognised as a guiding concept for the future. Geospatial information is perhaps no different from other types of digital data, but citizen science can constantly enhance relevance in so many areas. It is essential in cultural heritage institutions and activities to describe the relevant roles of digitisation for all kinds of users and institutions. Belonging to this is the importance of assuring access to the geospatial data. Foremost among the reasons for adopting citizen science principles is creating opportunities for research and social engagement. There are, of course, many different approaches, and this is why institutional infrastructure becomes crucial.

Section 2: The importance of institutional infrastructure

The alignment of institutional goals with citizen science principles provides an essential framework for all involved. Its many forms should speak to curation and metadata issues while providing a clear framework for organisational matters and sustainability. Institutional infrastructure is considered as responsible for and is central to long term stability and presence. Part of the relevant concerns finds their expression in data management plans; other institutional factors can find their relevance in other guidelines. Here, broader engagements with the potential uses and best practices for institutions and research can help institutions find the best way for their requirements. Related technical issues related to APIs, Linked Data, etc are complex and clear channels of communication in addition to accessible documentation are essential. The capacity of the institutions consists of people, data, and infrastructure, and therefore the responsibility includes both: to sustain the availability of data and to provide the infrastructure by developing in-home know-how. FAIR data principles are crucial guidelines for many facets of institutional interoperability.

Section 3: Geospatial information in institutions and research

The breadth of potential for geospatial information raises several questions that a continuing exchange with other institutions working on humanities and scientific research and institutional issues is crucial to developing capacities and maintaining them at the highest levels. Here standards hold an essential place; standards are essential in helping guide and inform activities to ensure technical compatibilities open up interactions, and assure an economical allocation of resources. Support for infrastructures and exchanges to exchange experiences and develop best practices helps ensure institutional excellence. The corresponding relationships and activities can help institutions and researchers through complex technical matters. Experiences and best practices can help guide established and new users in matters related to methods and technologies of data creation, maintenance, curation, analysis, storing, classification, access. The general aim shall be understood as making data stable and available, therefore the data is the core. The attachment to this statement lists additional resources. Along with these points, the provision of metadata and adoption and implementation of FAIR principles can help negotiate these complexities in an economically efficient way and guide data collection and provision. Communication of these principles can prepare users from institutions and research for successful activities.

Europeana workshop website: http://historia.uw.edu.pl/cultural-heritage-geodata/

Website of the PPE Project (People, Places and Events: Innovative Spatial Humanities Research to support Interpretation and Explanation) Faculty of History, University of Warsaw: <u>http://historia.uw.edu.pl/ppe/</u> Website of the Institute of History, Polish Academy of Sciences: <u>https://ihpan.edu.pl/</u>

Final Workshop Publication (25.03.2022)

The Warsaw Statement on Spatial Data in Cultural Heritage

DOI: 10.5281/zenodo.6814297 https://zenodo.org/record/6814297#.YssfFtpBw2w

Preamble

This statement intends to present significant points to guide the preparation and maintenance of spatial data in cultural heritage institutions. The main points are:

- Importance of spatial data in cultural heritage
- Importance of cultural heritage institutions in leading developments
- Importance of technical standards for aligning developments
- Importance of organisational exchange for ensuring excellence
- Importance of open infrastructure institutional practice and research to sustain capabilities
- Importance of capacity building for enhancing digital and computational skills

You have in this document a revised draft with our perspective (23.3.2022) on these issues in the context of the European workshop at the University of Warsaw on 23.-25.3.2022. The workshop was supported by the Europeana Research Grants Programme. The statement is non-binding and is open for future revision. The aim for the statement is

to help meet needs and requirements of various actors, including researchers, general public, and institutions. The statement is a collection of principles to support work with cultural heritage spatial data in all institutions and settings.

Overview

The draft statement is divided into three sections:

- 1. Citizen science as a guiding concept;
- 2. The importance of institutional infrastructure;
- 3. Spatial data in institutions and research.

At the end of the three sections follows a list of signatories (Appendix A) from the Warsaw workshop and a section with additional sources of information.

To keep the document brief and understandable, methods and technologies of data creation, maintenance, curation, analysis, storing, classification, access are only mentioned in passing. The list of resources (Appendix B) points interested readers to more detailed information.

Section 1: Citizen science as guiding concept

Science involves more than providing results of the research. It also includes the processes of opening science. The many ways to collect, distribute and even maintain digital data for cultural heritage institutions and research can benefit in various ways from citizen science approaches, including crowd-sourcing. Therefore citizen science principles serve as a guiding concept for individuals in various situations and roles working on spatial data in cultural heritage. Spatial data is perhaps no different from other types of digital data, but citizen science can constantly enhance its relevance in many areas. Cultural heritage institutions and their activities play a key role in society's capacity building–knowledge and data from the past for questions of today. Belonging to this is the importance of assuring access to spatial data. Foremost among the reasons for adopting citizen science principles is the creation of possibilities for research and social engagement. There are, of course, many different approaches, and this is why institutional infrastructure becomes crucial.

Section 2: The importance of institutional infrastructure

The alignment of institutional goals with citizen science principles provides an essential framework for all involved. Its many forms should speak to curation and metadata issues related to spatial data while providing a clear framework for organisational matters and sustainability. Institutional infrastructure has a responsibility and has centrality for the long term stability and presence of cultural heritage data related to places in geography and history. Part of the relevant concerns finds their expression in data management plans; other institutional factors can find their relevance in additional guidelines. Here, broader engagements with the potential uses and best practices for institutions and research can help institutions find the best ways to fulfil their requirements. Technical issues connected to systems of stable identifiers, ontologies, APIs, Linked (Open) Data, etc are complex and clear channels of communication in addition to accessible documentation are essential. The capacity of the institutions rests on people, data, and infrastructures, and therefore the responsibility includes both these aspects: to sustain the availability of data and to provide the infrastructure by developing institutional know-how. FAIR (Findable, Accessible, Interoperable, Reusable) data principles are guidelines for many facets of institutional interoperability.

Section 3: Spatial data in institutions and research

The breadth of potential for spatial data raises several questions that benefits from an ongoing exchange among cultural

heritage institutions. Humanities and scientific research are crucial to developing capacities and maintaining institutions at the highest levels. Here standards hold an essential place. Institutions and individuals should be cognisant of related legal frameworks, cultural heritage institutions and society's spatial activities, e.g., INSPIRE, the Common European Cultural Heritage Data Space, European Open Data, and PSI directive etc. Standards are critical in helping guide and inform a broad range of individual and institutional activities to ensure technical compatibilities open up interactions and assure the economical allocation of resources. Support for infrastructures and exchanges for sharing experiences and developing best practices helps ensure institutional excellence. The corresponding relationships and activities can help institutions and researchers through complex technical matters. Experiences and best practices can help guide established and new users in matters related to methods and technologies of data creation, maintenance, curation, analysis, storing, classification and access. The general aim is making data stable and available, therefore the data is the core. The appendix to this statement lists additional resources. Along with these points, the provision of metadata and adoption and implementation of FAIR principles can help negotiate related complexities in an economically efficient way (e.g., avoiding a duplication of efforts) and guide data collection and provision. Communication of these principles can prepare users from institutions and research for successful activities. Enhancing digital literacy is an important ongoing activity in all institutions.

https://lh6.googleusercontent.com/0snQtDIovcMzAmnq4icFb74Ja4R7al_ITW1hT1dyPJjDxy0d7iQTm_XkEvIR9r PrrXkCadf3etu7sg1FY8LekfPkZovzkXOoPMSVZJRzxrjVDqtxcb1GUzyZMVtPH8C3XWr_ObZzcF8a0R-44A

Appendix A - 25.03.2022 Warsaw Statement Signatories

Wiesława Duży Michał Gochna Francis Harvey Jakub Kuna Marta Kuźma Elżbieta Kwiecińska Tomasz Panecki Bogumił Szady Tamara Zaninović Hanna Rajfura

Appendix B - Additional Resources

EU Open Data and PSI directive https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32019L1024 EU Recommendation for a Common European Cultural Heritage Data Space https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021H1970 Geocoded Digital Cultural Heritage Report https://www.indicate-project.eu/getFile.php?id=402 Europeana Pro https://pro.europeana.eu Europeana Data Model Europeana Data Model | Europeana Pro INSPIRE INSPIRE Directive | INSPIRE (europa.eu) The Collective Wisdom Handbook: Perspectives on Crowdsourcing in Cultural Heritage https://britishlibrary.pubpub.org/the-collective-wisdom-handbook-perspectives-on-crowdsourcing-in-cultural-heritage---commu FAIR Principles https://www.go-fair.org/fair-principles/ OGC www.ogc.org Europeana workshop website http://historia.uw.edu.pl/cultural-heritage-geodata/ Website of the PPE Project (People, Places and Events: Innovative Spatial Humanities Research to support Interpretation and Explanation) Faculty of History, University of Warsaw http://historia.uw.edu.pl/ppe/ Website of the Institute of History, Polish Academy of Sciences https://ibpan.edu.pl/

5. Publication activities

The Warsaw Statement was published at: https://zenodo.org/record/6384114#.Yot4RJNBy3I

The overview video of the workshop activities is available at:

https://pro.europeana.eu/page/europeana-research-collaborations-university-of-warsaw-faculty-of-history

6. Summary

The workshop held 23. - 25.4.2022 in Warsaw was site for the refinement and publication of the Warsaw Statement on Spatial Data in Cultural Heritage. This statement is available with an accompanying video to cultural heritage institutions and groups interested in developing the use of spatial data in their projects, work, or institutions. In light of the discussions during the workshop and afterwards we write in the name of all workshop participants in hope for future discussions.