Concept Hackathon

Art is increasingly defined in an expanded field of knowledge, whereby it takes part in a multitude of practices and shares multiple knowledge bases. *Coding Culture* (working title) is an interdisciplinary hackathon, bringing together art institutions and programmers with the aim of creating synergies and expanding the knowledge of both fields. The hackathon will bride these two fields in a creative collaboration.

As pre-running event of the exhibition project *Open Codes. Digital Culture Techniques* (working title) at the Goethe-Institut/Max Müller Bhavan Mumbai (MMB), the hackathon explores the possibilities that coding can open up for the arts and creative sector, with the aim to find different forms of engagement between art and code. During the running time of the hackathon, teams of 2-4 coders will focus on building new open-source software or data sets.

The hackathon will foster a dialogue and an exchange between art institutions and coders. The goal is to investigate not only different modes of accessibility to art, but also investigate new forms of working with the arts through creative programming. The hackathon is an experiment that raises questions as to how data on art (in a wide sense) could be made available to a larger audience, and how it can be handled to create new narratives and insights. It analyses how programming can be used for creative, educational purposes, in the spirit of free, open and unrestricted sharing of knowledge and ideas.

In this regard, the published results from the hackathon may be forked, that is, further developed by other coders at a later stage while keeping the link to its source. This opens up the possibility of adaptation to local and shifting requirements, and extends the projects reach.

Outcome examples

- Educational software, apps, websites that give additional background and facts on works or create links and combine datasets from different sources for further analysis.
- New creations: creation of new artworks through datasets and code.
- Experience: new forms of encounter with art data, mixed realities, games, apps or smart home assistants.
- New audiences: accessibility to art, sharing of knowledge, bring new audiences (such as programmers) into art institutions.
- Infrastructural: better understanding of the infrastructure such as networks and resource usage.

Example 1: Augmented museum

If an institution provides additional data to the artworks currently on display in an exhibition or collection, an app providing an enhanced visitor experience could be written. This could detail the techniques, historical background, conservation or acquisition process.

Example 2: Time traveller

With digital historical maps of Mumbai, one could write software where the user can explore those maps together with live location data (from his smartphone, or by manual entry). At a location of his choice, the user can select different maps at different moments back in time and discover how landscape and streets may have changed over time.

Exemplary data types

Content data:
- Text (manuscripts, journal articles, publications)
- 2D-datasets (digital copies of paintings, photographs, maps, drawings, prints)
- 3D-datasets (scans of sculptures, elevation models)

Meta data:
- Description of the artwork (label information, conservation data, technique, history of object)
- Artist bios
- Statistics about the institution or building (visitor numbers, electricity use, water use)
- Listing/register of artworks, artists, exhibitions, events, library

Meta and content data can be provided together. Content data must always be linked to meta data while meta data can be provided without content data. Usually, meta data is easier to process and IP-related questions since institutions may not be able to publish copyright protected artworks.

Example for a pair of content/meta data:
- Content data: colour scan of a picture of Mumbai in 1960, provided as TIF image. Name of the image could be *000651_Mumbai_1960.tif* where *000651* is a unique number (UID) used to link the meta data from table to this file.
- Meta data: uid, date of capture, photographer, camera/film used, collection, conservation details, description, provided as XML/JSON file.

Course of Action

The Hackathon will start with a two-day event on 1st and 2nd of February 2018 taking place at the MMB.

1st February:

10:00am	Signing up of teams
10:30am - 11:00am	General introduction by curators
11:00am - 01:00pm	Participating institutions will give introductory talks to their organisations and explain their provided data.
01:00pm - 02:00pm	Lunch
02:30pm - 06:30pm	Teams will have the opportunity to work on their ideas, prototype and break off into focus groups, ask questions to the institutions.

2nd February:

11:00am	Teams can meet at the MMB to further work on their project
12:00pm	Site visit to institutions for tour of premises and further discussions, groups may split up according to their projects

3rd February - 4th March:
Within the following four weeks, the teams will put their ideas into code. In this running time, several meetups or video conferences will take place in support of the teams, to exchange and share preliminary outcomes. Institutions should ideally provide one or two Q&A sessions with programmers if there is the need to discuss certain questions.

4th March:
The teams submit their code on 4th March 2018 together with a short description, explaining the main ideas and key features. The jury consisting of the participating institutions will, in a further step, decide on the winning team. Projects may also be included in the exhibition project opening on the 6th of April 2018. All projects will be made publically available and accessible under an open source licence.

Data structures

For each data set, it is necessary that the following information is provided:
- Data encoding information (e.g.: UTF-8, Latin-1).
- Abstract.
- Licence information (Creative Commons BY-SA is preferred).
- Version and date.
- Data structure description. Columns description, example data set, total data set count, file type: Excel, CSV?

The hackathon focuses on both data usage and data creation. If support is needed for creating or publishing those data sets, please do not hesitate to ask us for support.

While there are many data structures possible and file format available and it impossible to cover all of theme the following gives an example for a common data structure.

Examples for meta data:
- Excel / CSV list of all past exhibitions with *title, abstract, start, end, keyword*
- Excel / CSV list of all works currently on display in the museum with *title, artist, abstract, exhibition, location, keyword, year, type*

The number of columns / data complexity depends on what data institutions are able to share. These two meta data examples show how a minimal dataset could look like. This could be expanded by (examples):
- First meta data example: *subtitle, number of artworks, total number of visitors*
- Second meta data example: *owner, size, weight, material/pigment used*

Data does not have to be provided in one data set. It is possible to provide linked datasets in different list. Here an example:
- List of artworks in the collection, each artwork with a unique *artworkID* number
- List of materials in database, each material with a unique *materialID*
- List of artists, each artist with unique *artistID*.

In order to connect those databases there are two possibilities:
- Create one linking database. This would contain three columns: *artworkID, materialID* and *artistID*. This is the preferred option.
- Select one main database (e.g.: artwork) and add one column for *artistID* and *materialID*.

Contact

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