Coding Dürer: International Interdisciplinary Hackathon for Art History and Information Science

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A highly interdisciplinary field such as digital art history requires specialized skills. For sophisticated projects, a fruitful collaboration between scholars in the humanities and scientists with a technological background is crucial. When the methods of art history encounter current topics in computer science, differing concepts of research come together, which results in the application of mixed methods. Researchers trained in one field often need the expertise of those in the other to successfully complete a digital humanities project that convinces from the conceptual, the content-related but also technological aspects.

The organizational structures at universities rarely facilitate collaboration across different faculties. For that reason, Harald Kli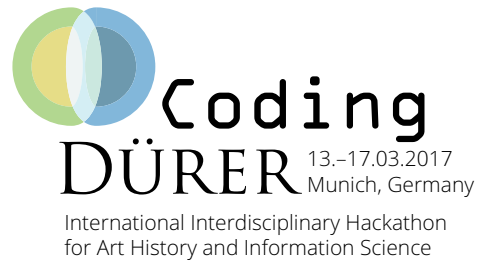nke (Digital Art History[1], Ludwig-Maximilian University Munich (LMU)) and Sonja Gasser (Digital Humanities Lab[2], University of Basel; Digital Art History LMU) decided to organize an event that gives the participants the opportunity to work interdisciplinarily. Thanks to the generous funding of the VolkswagenStiftung within the workshops and summer schools' funding line "'Mixed Methods' in the Humanities?"[3], this five-day "Coding Dürer" Hackathon[4] could take place in Munich—with 40 participants as well as five invited speakers from various countries of Europe and the USA—from March 13th to 17th 2017.

The event follows from previous initiatives, such as the Summer School "Computing Art—A Summer School for Digital Art History" in Heidelberg 2015,[5] and the Summer Institute "Digital Collections—New Methods and Technologies for Art History" in Zurich and Lausanne 2016, which brought together researchers from mainly German-speaking countries.[6] In contrast to these previous summer schools, the international group at "Coding Dürer" included a range of participants, from BA students up to professors. Most

importantly, it was not just restricted to scholars from the discipline of art history. In addition, computer scientists and others anywhere in between were involved. Outside of academia, it is characteristic to find this mix of people at open cultural GLAM-hackathons such as "Coding da Vinci"[7] in Germany, which inspired "Coding Dürer".

The main intention of Coding Dürer was to bring art historians and computer scientists together to enable them to collaborate face to face. Although both groups often generate worthwhile ideas for utilizing cultural data, they often do not have the chance to interact in everyday academic contexts. All participants arrived with a deep interest and prior experiences in the fields of art and technology, some of them even with training in both. The exchange was very fruitful for both sides. Many technicians were happy to have capable interlocutors whose background in art history allowed them to answer historically specific questions about the data. Being familiar with the content and meanings of a particular data set is not only a prerequisite to contextualize and interpret it correctly, but also for having good ideas for data processing projects. Art historians with a strong interest in digital humanities often have a good understanding of technology, but not sufficient capabilities to apply it. Therefore, they enjoyed having team members, who were able to set up complex systems, apply computer scientific methods and realize interactive applications. Moreover, being an expert in one particular area and having a ge-

neral understanding of other areas is necessary to smoothly overcome differences in doing research between the two disciplines. The technologists realized that the art historians were able to precisely describe what they wanted in terms of technological functionalities, which facilitated coding and implementation.

Most of the available time was reserved for working on self-organized group projects. Due to the limited period of five days, it was intentionally an experimental setting with an open outcome. At the beginning of the event, everybody presented his or her ideas and told the others about their research skills. With the help of a big post-it cloud on the wall, the groups formed almost automatically. This was the starting point for successful discussions and collaborations in the teams on a democratic basis and led to results that many teams did not anticipate.

It was very important that the participants could be part of an interdisciplinary exchange. Additionally, the inputs from five renowned invited speakers throughout the whole week

offered a welcome insight into particular research projects and developments in the field. Nuria Rodríguez Ortega reflected profoundly on software, tools and methods to analyze and visualize data. Lev Manovich explained via livestream how cultural analytics allow to handle a big amount of images and to draw conclusions on society. Anna Bentkowska-Kafel set out that there is already a history of the still emerging digital art history, while Justin Underhill presented impressive examples of art historical reconstruction. Mario Klingemann spoke about his experiences as an artist who works with algorithms and data. The speakers were on site for the entire event and joined also one of the seven groups.

The discussions in the groups or in plenum were very vivid. The interdisciplinary exchange yielded many insights. It also allowed participants to find out that certain terms with highly divergent meanings and discursive histories exist in both disciplines, such as 'similarity' and 'image', with highly divergent meaning. At the end of each day, the groups reflected in plenum on the progress of their project. It was interesting to see how the projects developed, to learn what was successful, and what obstacles the teams had to overcome.

The success of the event was partly due to the participants, a group of open-minded people with varied

Figure 2: Participants of the hackathon "Coding Dürer".

backgrounds. The participants were selected from the astonishingly big number of 159 applications. This makes it evident that there exists a community—by the way, a very gender balanced one—for the topic. Therefore, summer schools, workshops or hackathons are a suitable way to foster and cultivate this community. In the future, more long-term projects will allow for outcomes that go far wider than those realized within only five days. Thus, it is necessary to establish environments and projects at universities that facilitate and document interdisciplinary collaborations. The "International Journal for Digital Art History"[8] is an optimal outlet for digital art historians to communicate on such projects, initiate debates and discuss the theoretical implications of their research methods.

At the Hackathon, the public presentations of functional prototypes were broadcasted via live stream and attracted also a worldwide audience. Before, during and after the event, the interaction on Twitter[9] was very active. The Coding Dürer website documents the hackathon, the group projects and remains a valuable resource for digital art history with a list of collected tools and a table of data resources accompanied by explanatory blog posts. The participants, speakers and organizers were all very satisfied with the event. It was a good opportunity for digital art historians to network in real time. One will see, what will arise in the future from the contacts made during Coding Dürer.

Notes

1   http://www.kunstgeschichte.uni-muenchen. de/forschung/digitalekg/

2   http://dhlab.unibas.ch/

3   https://www.volkswagenstiftung.de/en/ funding/mixed-methods-in-the-humanities

4   http://codingdurer.de/

5   See Peter Bell, "Computing Art. A Summer School for Digital Art History" in: *International Journal for Digital Art History,* No. 2, 2016, p. 216– 218, http://dx.doi.org/10.11588/dah.2016.2.24760.

6   http://digital-collections.online/

7   "GLAM" stands for "Galleries, Libraries, Archives and Museums"; https://codingdavinci. de/

8   http://dah-journal.org/

9   https://twitter.com/hashtag/codingdurer