

Workshop on electronic editions Göttingen, January 8 – 9, 2015

A *Workshop on Electronic Editions* will be held on January 8 (starting in the early afternoon) and 9 (ending not later than 5 pm) 2015, at Göttingen, under the auspices of the Academy of Sciences at Göttingen, and the Department for Special Collection and Conservation of Göttingen University Library, organized by Moritz Epple (Frankfurt), Helmut Rohlfing (Göttingen), and Norbert Schappacher (Strasbourg) on behalf of the Academy's *Kommission für Mathematiker-Nachlässe*.

The aim of the workshop is to learn about, compare, and discuss basic questions of electronic editions. The focus will be on the *specific interdisciplinarity* necessary for, and often created by e-editions: between historians of science, librarians / archivists, and especially computer scientists. Problems related to the electronic editing of scientific correspondence will receive special attention in the discussions.

The backbone of the workshop consists of the presentations of four electronic edition projects, always with particular emphasis on their interdisciplinary routines: the Newton Project, the D'Alembert edition (ENCCRE), Blumenbach-online, and the Sommerfeld edition. Each presentation is scheduled for about 60 minutes, followed by a 40 minutes slot for discussion.

The workshop will convene in the Old Göttingen University Library, Papendieck 14.

Signing up for the workshop

All those having an active interest in electronic editions are welcome to participate in the workshop. However, in order to prepare the meeting venue and catering needs, **we require prior registration by sending an email announcing your presence** (indicating time slots in case you will not participate at all the sessions of the workshop) to both Norbert Schappacher and Samuel J. Patterson at the following addresses:
schappacher@math.unistra.fr and sjp@uni-math.gwdg.de.

Programme

Thursday, 8 January 2015

14:00 – 14:30 **Opening** by the organizers

14:30 – 16:10 **The Newton Project**
presented by Robert Iliffe, Michael Hawkins, Cornelis J. Schilt

16:10 – 16:40 *Coffee break*

16:40 – 18:20 **Blumenbach-online**
presented by Claudia Kroke, Wolfgang Böker, Alexander Gehler

Friday, 9 January 2015

09:00 – 10:40 **ENCCRE and the D'Alembert Edition**
presented by Irène Passeron, Alexandre Guilbaud, Vincent Barreton

10:40 – 11:00 *Coffee break*

11:05 – 12:45 **The Sommerfeld Edition**
presented by Michael Eckert, Karl Märker

12:45 – 14:00 *Lunch break (buffet provided)*

14:00 – 16:00 **Final discussion**
opened by Dirk Wintergrün (Head IT group, MPIWG, Berlin)

Abstracts

Robert Iliffe, Michael Hawkins, Cornelis J. Schilt
A Digital Edition of Newton's papers

The Newton Project was created in 1998 with the goal of producing an Open Access scholarly digital edition of Newton's non-scientific writings. When we designed the technical elements of the project, there was no serious pre-existing digital edition that could function as a template for the scale and richness of coding that we wanted to achieve. Although we learned from others about basic aspects of the coding, the overall arrangement of the site was a largely bespoke effort that took into account the fact that many of the papers were disorganised and had never been fully catalogued. Given various constraints on the project such as funding restrictions, the primary focus has been on producing very high quality transcriptions of the totality of Newton's *Nachlass*. Nevertheless, we have published a vast supply of expository materials such as scholarly introductions, the notes and draft biography written by John Conduitt, and various filmed interviews with historians.

In the last few years, the digital edition has evolved to include Newton's most important scientific and mathematical works, as well as his correspondence. These are now accompanied at a document level by high quality colour images of the originals held at Cambridge University Library and the National Library of Israel. Some of Newton's mathematical papers in the edition are currently among the most complex TEI/MathML objects on the Web, and we are planning to embed links in the notebooks and letters that display the way Newton made use of various private writings when releasing doctored versions of his research to people such as Leibniz. In sum, we now aim to present Newton's writings as a whole, by making all of his private writings available in their entirety for the first time, and we also hope to reveal the internal 'order' of his work.

In the talk, we will lay out the future strategic plan for making the project an exemplary, state-of-the-art digital edition. Although the project is not currently receiving any financial support, in the event that future funding bids are successful, we envisage a limited degree of crowdsourced involvement in transcribing Newton's administrative (Mint) papers. These, for the most part, are not technically difficult, and we have good existing relations with groups of people who have transcribed documents such as the town of Grantham Hallbook (1633-1704). There is also a range of more technical materials, which we hope to transcribe in the next decade and include in the project as a whole. Finally, we are planning to utilise state of the art software such as Latent Semantic Analysis to bring to light various relations between different fields of his intellectual life. Such tools are essential for editing work, and will also be important instruments for the next generation of elite users, who (we hope), will contribute to the overall value of the project even as they use it for their own purposes.

Irène Passeron, Alexandre Guilbaud, Vincent Barreton

ENCCRE

(Edition Numérique Collaborative et Critique
de l'Encyclopédie de Diderot et D'Alembert),
a project of the D'Alembert Edition Group

The ENCCRE project, supported by the Paris Academy of Sciences, aims to produce the first critical digital edition of the *Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers*, edited by Diderot and D'Alembert (28 in-folio volumes, 1751-72), in order to raise the awareness of its content, its scientific, philosophical, editorial and political context, and to make available to a wide public the intense and flourishing international research on the work conducted in the last sixty years, which is still growing.

This digital edition will make the work's material reality available, based on the first digitisation of a complete original copy of the *Encyclopédie* and enable us to highlight the huge number of links provided by the editors between its 74,000 articles and 2,000 engravings. The purpose is also to produce a critical edition based on a close multilevel interaction between the work's original content and past and ongoing research on it. In order to achieve these goals ENCCRE has chosen a form of controlled crowd sourcing, which will allow in the long run for a dynamic editing process combining skills from different disciplines, thus opening up new research horizons. On the technical level, ENCCRE draws on an existing policy of text enrichment and data structure. In addition, the project raises fundamental questions in computer science linked to the complex model of data building chosen and to the need for the collaborative platform to be able to evolve while being user-friendly. Since October 2013, this question has been the subject of a PhD thesis by Vincent Barreton (LIRIS).

Claudia Kroke, Wolfgang Böker, Alexander Gehler
*The works of Johann Friedrich Blumenbach,
an online edition for the 21st century*

Johann Friedrich Blumenbach – online is a long-term project financed by the Union of German Academies of Sciences based at the Göttingen Academy of Sciences (<http://www.blumenbach-online.de>). The project entails, among other things, an internet edition of Blumenbach's published writings including translations and reissues, enriched by digital images from objects of natural history.

Johann Friedrich Blumenbach (1752–1840) was a Professor of Medicine and Natural History at the University of Göttingen. One of the leading exponents of the revolutionary change of the geo-biological concept of the world at the turn of the 18th to the 19th century, his long life bridged the biology of Carl von Linné on the one hand and Charles Darwin on the other. In his famous classification of human varieties, Blumenbach coined the term “caucasian” which is used today in the English-speaking parts of the world to denominate Europeans and light-skinned people. From the mid-19th century onward, Blumenbach was misunderstood as fathering the idea of scientific racism, when in fact he urged for the unity of humankind, thus becoming the founder of scientific anti-racism.

The presentation will give an overview of the challenges the electronic editing of an 18th-century, multi-lingual, multi-topic, multi-media corpus poses. Important decisions need to be made in advance as well as along the way, concerning for example a) the implementation of standards to ensure interchangeability, b) the level of markup required to yield high quality results and keep the texts reusable in new/different scientific setups, c) connecting the findings to the encyclopaedic knowledgebase of the internet. The constraints ensuing from this concept will be addressed as well as, for example, the limitations of using ID-numbers from an online-thesaurus opposed to the freedom of formulation possible in traditional editing practice.

The presentation will show how only an electronic edition can produce a detailed and visualisable analysis of the structure of Blumenbach's work, making evident the evolution and dissemination of ideas and texts over time and generating new avenues for future inter- and multi-disciplinary research (history of science, anthropology, zoology, botany, geology, chemistry, archaeology, ethnology, philosophy, history, etc.).

Michael Eckert, Karl Märker
The Sommerfeld Edition

Arnold Sommerfeld is renowned both for his scientific achievements and for his school-building in 20th century theoretical physics. The plan for the Sommerfeld project emerged in the early 1990s (before the advent of the internet and the definition of XML) in an effort to render the content of Sommerfeld's scientific correspondence accessible to the community of historians of science. However, to edit Sommerfeld's voluminous correspondence by following the role model of the edition of Niels Bohr's, Albert Einstein's and Wolfgang Pauli's scientific correspondence (to name only comparable editorial projects) seemed prohibitive in view of available manpower and funding. Therefore we planned a combination of traditional scientific edition with a digital counterpart, where the digital part provides a survey of the total amount of several thousands of letters (by now ca. 6,500 letters) and the traditional edition was limited to a selection of several hundred letters (the two volumes published in 2000 and 2004 contain 298 and 344 letters, respectively).

Such a combination was unprecedented at the time and called for novel methods. Each letter was scanned and processed in a database. The database entries comprise the date as well as all persons, geographical, institutional and scientific items occurring in each letter. Letters considered for further editorial effort were transcribed. In order to allow for various uses (by the mid 1990s the internet appeared on the horizon) a flexible mark-up system was developed which allowed an automatic processing of letters for different forms of presentation. This we think is an important feature we try to implement (and nowadays probably would be done mainly with XML, maybe TEI and MathML). Another important feature we have attempted to address is linking. Here, too, technical possibilities suggest further debate (neither did we use permanent identifiers nor do we use interoperable authority files).