

DARIAH Newsletter

Digital Research Infrastructure
for the Arts and Humanities

Contents

- **Sign of the Times: Thoughts from the Director of DARIAH**
- **DARIAH Publishes First of Series of Major Studies of National Digital Infrastructure Development**
- **Digital Humanities 2009 Conference - Report on Research Infrastructures Panel**
- **DARIAH - ACE - ARENA2 Workshop 1**
- **Interview with Professor Gerhard Lauer**
- **Focus on DARIAH partners:**
 - The Arnemagnæan Institute, University of Copenhagen
 - The Academy of Athens

This free newsletter is published quarterly. If you find it useful, please tell your colleagues and friends about it.

Sign of the Times: Thoughts from the Director of DARIAH

Peter Doorn, DANS

Developments in research often display a cyclical pattern.

Computing in the humanities originated in the late 1960s, but really took off just about two decades later. In the middle of the nineties a temporary decline in academic humanities computing set in, when more narrative and post-modern approaches gained ground. But at the same time, large-scale digitization in the cultural heritage sector began to blossom. In the first decade of the 21st century the interest in the digital humanities is again rising. Although most scholars agree that lots of resources for humanities research are now available in digital form, many also experience that what *they* need for *their* research is either not yet digital, or not accessible, or not in a form that is usable, or that the software tools to analyze that particular material are lacking.

In the past few years we see an increasing push to change this situation. The digital humanities are coming of age, and the increasing scale of operations requires something that is relatively new for us: collaboration and organization, sometimes called infrastructure. DARIAH is a sign of these times. The image of the lonely



scholar in his attic is no longer valid in digital projects where huge quantities of data have been collected or digitized. Division of labour appears to work more effectively than to turn the humanities scholar into a programmer, a data entry person, a database specialist, a systems analyst, and a web designer, all in one.

Do the humanities then need a huge facility such as CERN, where thousands of scientists work around a central piece of equipment? Our original sources are scattered in many ways: historical documents in archives and libraries, works of art in museums, archaeological finds in ancient sites, disappearing languages on the tongues of native speakers. Once these are digital, we want to be able to find them easily, to process and analyze them with user-friendly yet innovative software tools, and to publish our findings, in order to share and discuss our new insights with our colleagues.

Recently, I attended a conference on "computational science", and two days later one on "computational humanities". What struck me was that the differences between computational chemists and computational astronomers do not seem greater than those between *them* and us, computational humanities researchers. Indeed, the gap between the digital and "analog" (not to use the word "traditional") humanities may be bigger. What also struck me was the interest of the natural scientists to hear more of what we in the humanities are doing. The most important differences between "us" and "them" seem to be in how well we are able to formalize our assumptions, how strong our theories are, and how fuzzy our data. One scientist even made the plea to understand "computational science" as in

German or Dutch, where “Wissenschaft” or “wetenschap” includes the humanities!

I could not help thinking of the words of the Dutch mathematician and fundamental computing scientist Jan van Leeuwen, who after receiving the prestigious Lorentz Fellowship said: “For a successful application of computing science we must integrate science knowledge with knowledge from the social sciences and humanities. [...] Both cultures cannot do without each other”. I think there is a lot to gain from a closer collaboration between digital humanities scholars and computational scientists.

Learn more about DARIAH!

Visit the DARIAH website: <http://www.dariah.eu>

Send us an e-mail: info@dariah.eu

DARIAH Publishes First of Series of Major Studies of National Digital Infrastructure Development

DARIAH is pleased to announce the publication of an in-depth study of the digital infrastructure for arts and humanities in Slovenia¹. This important analysis of an emergent infrastructure focuses on the development process itself; identifying individual initiatives, strategies, collaborations, and accomplishments, as well as the obstacles encountered. Painstakingly researched with a series of in-depth interviews with researchers, infrastructure providers, and government representatives, the report maps all relevant recommendations, strategies, initiatives and key figures supporting and enabling the development of current and future policies in this area. The paper also includes a comparative component – considering developments in Slovenia within a European Union and wider international context.

This study, along with several forthcoming national reports, is of interest to all those working towards the development of enhanced opportunities for collaborative and independent research in the arts and humanities. In particular, the focus on the construction and deployment of digital research infrastructures will provide examples and be a helpful guide to those working toward the building of an infrastructure within similar contexts.

¹ <http://tinyurl.com/me9h3q>

A study of Ireland will be available in the near future, with further studies of Greece and the United Kingdom to be published later in the year.

Digital Humanities 2009 Conference - Report on Research Infrastructures Panel



At Digital Humanities 2009, held from the 22nd to the 25th of June at the University of Maryland, representatives of several major infrastructure projects came together on a panel entitled ‘Supporting the Digital Humanities: putting the jigsaw together’. The projects were represented by Seth Denbo (DARIAH), Neil Fraistat (CenterNet), Chad Kainz (Bamboo), and Steven Krauwer (CLARIN); Martin Wynne, who is the official liaison between DARIAH, and CLARIN chaired the panel. All of these projects are in the planning stages, so it was very useful to compare and contrast strategy and policy, and have the precious opportunity to present the plans to the digital humanities community.

Three crucial points came out of the papers and discussion. First, it was widely agreed that infrastructure must support the way researchers work and, therefore, should be built with the input and ongoing involvement of the community. Second, because of the need to respond to the community, infrastructure initiatives should build on and enhance existing resources, rather than attempt to start from scratch. Finally, all of the speakers emphasized that infrastructure is not just about technology; it is about people and communities, information, knowledge, epistemic practices, content, data, etc. The panel led to some very useful discussion (including input via Twitter) about the importance of large-scale infrastructure projects. Overall, it was a valuable opportunity to exchange ideas and discuss plans.

Shortly after the panel Seth Denbo, who had represented DARIAH, was interviewed briefly by one of the organizers about what he felt was the

most interesting aspect of the conference. His response emphasized the need for a coordinated infrastructure¹.

A live blog of the Digital Humanities 2009 conference is available at arts-humanities.net (<http://tinyurl.com/nv5kvd>)

DARIAH - ACE - ARENA2 Workshop 1 Report

Dr Stuart Jeffrey, Archaeology Data Service, University of York



The first meeting of the ARENA2 (Archaeological Records of Europe Networked Access) project, coordinated by the Archaeology Data Service (ADS) took place on the 6th and 7th of February at the University of York in the UK. The ARENA2 project builds on an original interoperability project funded under the EU Culture2000 programme, which was completed in 2004. This project was a technical demonstration of the possibility of making archaeological datasets cross-searchable; in this instance monument inventories from a number of European partner countries. Such international cross-searching is universally considered highly desirable as a means of unlocking research potential in the cultural heritage sector.

Partners for this project were drawn from the cultural heritage sector in Poland, Romania, Denmark, Iceland, Norway and the United Kingdom. The underlying technological approaches were a combination of the Z39.50 protocol and the Open Archives Initiative Protocol for Metadata Harvesting (OAI PMH). While these technologies were considered close to the cutting edge of interoperability approaches at the inception of the ARENA project, advances in the last 5-10 years,

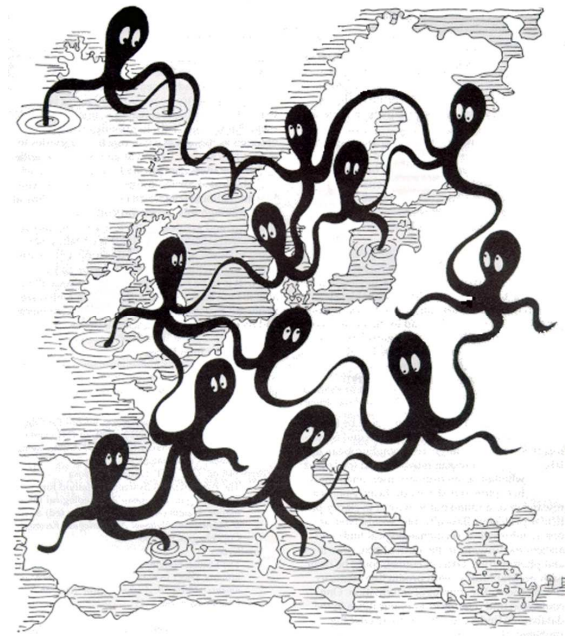
particularly in Service Oriented Architecture (SOA), have meant that while the strategic objectives of the ARENA project remain sound, the technology could be updated to a more flexible, scalable and extensible model.

It is with this in mind that the ADS is creating a new technical demonstrator, called ARENA2, as a key component of the Preparing a Digital Research Infrastructure for the Arts and Humanities project (DARIAH, work package 7), an EU ESFRI funded programme to support a digital infrastructure for the arts and humanities data across Europe. DARIAH brings together researchers, information managers and information providers and gives them a technical framework that enables enhanced data-sharing among research communities. ARENA 2 will upgrade the ARENA portal using SOA, demonstrating the enhanced functionality this offers whilst showing that existing systems based on legacy protocols (such as Z39.50) can be integrated into this new approach. Intrinsic to ARENA2 as a demonstrator is the geographical expansion of the project via collaboration with DARIAH's partner network.

Apart from the production of this demonstrator for DARIAH, the ADS is also a partner in the Archaeology of Contemporary Europe (ACE) project. This project funded under the EU culture programme and led by INRAP in France aims to promote contemporary archaeology at a European wide level, by emphasizing its cultural, scientific, and economic dimensions, including its manifold interest for the wider public. As part of the ADS's participation in this project a web services registry for the UK and European cultural heritage sector is being constructed using Java and Universal Description Discovery and Integration technologies (JUDDI). Clearly these two strands, the recasting of ARENA as a web services based cross-search platform and the creation of a functional registry and service specification for those services, complement each other. February's workshop, therefore, was an opportunity to bring together partners in the ARENA project, both those who participate in DARIAH, such as DANS in the Netherlands, and those outside the project, such as representatives from Scotland, Iceland, Romania, and Norway, with those partners from the ACE project who had expressed an interest in participating either in ARENA2 or in the ACE - JUDDI registry project, such as LaPa in Spain, The University of Thessaloniki in Greece and the Flemish Heritage Institute. The objectives of the workshop were twofold, firstly to inform all participants of the strategic objectives of the

¹ <http://www.youtube.com/watch?v=ddN9mbxjxCU>

project and its technical underpinnings and secondly to get feedback from all partners on current initiatives in the field of interoperability, their current technical standings and their availability to participate in ARENA2 in practical terms (for example timescales and access to technical support).



After a round of introductions, the first sessions of Friday the 6th were given by Prof. Julian Richards and Dr Stuart Jeffrey of the ADS, who provided the essential contextual information on the two projects DARIAH and ACE and also on the fundamentals for web services and SOA. After lunch, this was followed by a demonstration of a working national web services aggregator, English Heritage's 'Heritage Gateway' project and the web services registry created by the ADS. Also demonstrated was the original ARENA project as it currently stands. The penultimate session on Friday was dedicated to confirming the level of participation that each partner present was hoping to offer, including what specific data sets would be offered as targets to the cross-search mechanism and what technologies would be utilized. The final session of the day was an opportunity for each partner to report to the group on recent developments in their organizations on interoperability. The assembled participants represented a significant cross-section of European archaeological and cultural heritage organizations and it was an extremely valuable opportunity to report, at a senior level, on developments within individual countries as well as future plans for international cooperation. The PowerPoint slides that were used in these presentations are available for

download at the ARENA website. After the close of this session, informal discussions continued over the workshop dinner in one of York's famous 'haunted' medieval buildings, St William's College, close to York Minster itself.

Sessions on Saturday the 7th of February followed on from the previous day, by confirming partners and data sets for participation and engaging in a more detailed discussion of each partner's technical standing and an in-depth look at the challenges we face with regard to data thesaurus and mapping issues. Importantly, the timescales for each partner's participation was collated into an agreed project calendar. The session concluded with an open discussion and a final round-up before partners dispersed to head back to their respective countries.

It was clear at the time, and has been reinforced by participant feedback since, that the workshop was highly successful in its objectives of providing a point of intersection between the DARIAH and ACE projects, in confirming partner participation in the ARENA2 project and clearly delineating the next steps towards its objectives. The implementation stage will start with the integration of the RCAHMS (Scotland) monument inventory data set in early summer and conclude with maximum partner participation by the end of 2009. Although not all partners will be able to participate immediately the longer term objectives of cross-border data access were agreed. Each participating organization garnered the necessary context and made the necessary network contacts to drive towards this shared objective. It looks like the ARENA2 partnership will continue to thrive beyond the lifespan of the technical demonstrator alone.

Arena website: <http://ads.ahds.ac.uk/arena>

ACE website: <http://www.ace-archaeology.eu/>

Interview with Professor Gerhard Lauer

In this issue we are adding a new item that features an interview with a distinguished researcher on digital humanities. The first interviewee is Professor Gerhard Lauer **Gerhard Lauer**, 1962, professor of German literature at Georg-August-Universität Göttingen. His academic career took him from the University of Saarland to Tübingen and Munich (M.A.), the University of Princeton, the Hebrew University, Jerusalem, and the University of Munich (Ph.D.)

to Göttingen. He is a founding member of the research group "The Multi-layered Text Protocol: Micro and Macro Level Structures in Written Discourse"¹, and co-editor of the "Journal of Literary Theory"². His recent research



concentrates on cognitive poetics and digital humanities.

What is your understanding of Digital Humanities?

DH means enhanced and new methods. Doing established research better with the help of digital methods and doing new things with the help of the computer.

Can you give some examples of your (daily) research regarding Digital Humanities?

Digital libraries and electronic text archives, even those that involve difficult to access material, improve the everyday work for a philologist. Complex electronic editions such as the Flaubert or Mozart edition give clues of Flaubert's or Mozart's way of writing and working; clues that were nearly unachievable before. More and more research papers, books, and monographs are available to browse in the different types of repositories.

Which new research questions can be answered by using Digital Humanities methods?

In some ways, Literary studies always involve close reading analysis. Really new is to carry out distant reading, i.e. not to read some mostly highly evaluated books but to do statistic analysis of a million books (Greg Crane: "What do you do with a million books?" *D-Lib Magazine* 12, 3 (2006)³. This will give new insights in the cultural history of reading and may, ultimately, offer insights in the logic of cultural evolution.

How could the classical/traditional humanities be encouraged to use Digital Humanities methods?

Only by doing significantly better research by these methods. Publishing the best papers in high ranking journals is the best argument for traditional humanities to widen their range of methods. Linguistics has already shown how such a disciplinary transformation is possible.

Where do you see your discipline in the year 2020?

By less importance of the humanities literary studies will be nearby the status of today. But a growing group of scholars will do digital humanities in their field and will cross the border between the so called two cultures. The more the cultural heritage is digital the more the humanities will go digital too.

How could Dariah help to support to develop a European research infrastructure?

By making reliable resources easily available (especially those connected with research papers), by integrating different types of objects and texts, and making them accessible and easy to use with different tools in one environment.

Focus on DARIAH partners

The Arnemagnæan Institute, University of Copenhagen



KØBENHAVNS UNIVERSITET

Den Arnemagnæanske Samling (The Arnemagnæan Institute), a section within the University of Copenhagen's Department of Scandinavian Research, has as its chief function the preservation and study of the manuscripts in the Arnemagnæan collection, one of the most important collections of early Scandinavian manuscripts. The academic staff are responsible for research and instruction in the areas of Old Norse (Old Icelandic, Old Danish and Old Swedish), as well as Modern Icelandic and Faroese language and literature.

¹ <http://www.uni-goettingen.de/en/108667.html>

² <http://www.jltonline.de>

³ <http://www.dlib.org/dlib/march06/crane/03crane.html>

Attached to the Arnamagnean Institute is a photographic studio and a conservation workshop which are engaged in long-term preservation and documentation of the manuscript collection. The institute has taken part in a number of projects to do with the digitization and text-encoding of medieval manuscripts and has a long-standing involvement in the work of the Text Encoding Initiative (TEI). Currently, the institute is a founding partner in ENRICH, a project funded under the EC's eContent+ programme dedicated to creating seamless access to distributed information about manuscripts and rare old printed books in Europe.

In addition to its project work, the section also organizes an annual international summer school in manuscript studies – alternating yearly between Reykjavik and Copenhagen – and a major conference every 18 months on the care and conservation of manuscripts.

In DARIAH, the Department of Scandinavian Research is the leader of the dissemination work package and participates in the technical work package. The project “Manuscripta runica in the Arnamagnean Collection” will be one of the two demonstrators for the research infrastructure and will exemplify the integration of TEI-based manuscript data into a research infrastructure.

The Academy of Athens



The Academy of Athens is the oldest national research institution for the sciences and humanities in Greece. It was founded in 1926 to promote learning and expertise by conducting research projects and by collecting and disseminating resources and research results. The Academy supervises fourteen research institutes, specializing in the arts and humanities, social and natural sciences. Its library houses valuable collections of old books, manuscripts and maps. The Academy of Athens is also the parent organization of the Medical and Biological Research Foundation, a research centre specializing in health sciences.

The Academy of Athens is currently involved in a number of national projects for developing a digital research infrastructure and for digitizing

its resource collections: printed and archival material, maps and databases covering a number of disciplines, including archaeology, classical studies, medieval and modern history and literature, linguistics, philosophy and social sciences.

As a DARIAH partner, it is contributing in developing the strategic framework for DARIAH. On the national level it is coordinating the newly established Research Infrastructure Network for the Humanities DYAS, a network including the major research, academic and technological institutions of Greece:

- Academy of Athens
- Research Centre Athena
- National and Kapodistrian University of Athens
- National Research Foundation
- Foundation for Research and Technology Hellas
- Directorate of the National Archive of Monuments-Hellenic Ministry of Culture
- Athens School of Fine Arts
- Image, Video and Intelligence Multimedia Systems Lab, National Technical University of Athens

DYAS will:

- Provide a platform for exchanging ideas, knowledge innovation and experimentation;
- Help overcome isolation of researchers and the duplication of research activities;
- Offer a collaborative environment in which research institutions will be able to enhance the quality of humanistic research.

The network will elaborate a proposal for linking the network with the European infrastructure DARIAH and will engage in a number of dissemination and training activities.

Learn more about DARIAH!

Visit the DARIAH website: <http://www.dariah.eu>

Send us an e-mail: info@dariah.eu