In times of digitalization, the Internet and mobile communications, the humanities have access to new computer-aided and empirically driven methods of knowledge acquisition. What impact this will have for research inquiry, methods of investigation and, not least, their role in society – these were the questions posed during the Herrenhausen conference that brought together over 210 researchers from 20 different countries. The aim of the conference was to initiate dialogue between representatives of the digital humanities and the “established” humanities: What kind of new knowledge can we expect? What knowledge is in danger of disappearing? Is there any foundation for a new knowledge culture?

In his opening talk, Jeffrey Schnapp (Harvard) asked “How do we make data matter? How do we make culturally meaningful arguments?” In his opinion, these were the questions that should primarily occupy the humanities. It constitutes a seemingly new aspect, since in the digital age knowledge no longer assumes a given form: Statistical methods, on the one hand, and visualization on the other, as well as the collaborative work procedures of humanities scholars in interaction with the normal user moved the significance of knowledge design into the center of focus. In view of the fact that some 95% of the huge collections gathered in museums are lying around in archives and perfectly capable of being accessed digitally there is a pressing need to develop new concepts to make this possible. How doing this will make it possible to “tell new stories” was illustrated by Schnapp, who went on to present the Curarium platform that is attempting to do precisely this with the project entitled Homeless Paintings of the Italian Renaissance Collection hosted in Villa I Tatti.
The aim is not merely to scan objects of art and culture but also to create added value by furnishing supplementary information that ultimately provides an interface rather than divorcing it from the social network of things. These days, studying and learning no longer takes place in places of retreat like a library, for instance. An example of how the new learning spaces of the future might be configured is illustrated by the Library Test Kitchen in Harvard’s Graduate School of Design. To round off his optimistic vision of the future, Schnapp introduced Harvard’s Arnold Arboretum, where by means of QR codes the viewer enters into quite a new knowledge world: The purpose is no longer to pass on established knowledge, but rather for individuals to produce knowledge themselves.

The opportunities opened up by the new digital methods were also the topic of the first section “What kind of knowledge can we expect?” A hefty debate was triggered by the thesis put forward by VIKTOR MAYER-SCHÖNBERGER (Oxford) to the effect that more data = better data. His motto is: “Let the data speak!” To illustrate his point of view he referred to the machine translation Google Translate that dispenses with grammar rules and bases its translations on the text masses that exist in the Internet. Big Data entails a categorical difference – much the same as a photo of a horse is a photo, but 15 photos of a horse per second morph into a film. Unlike Chris Anderson, Mayer-Schönberger does not perceive Big Data to be the demise of theory; but it could well herald the end of research led by hypotheses.

This notion was contradicted by DETMAR MEURERS (Tuebingen) in his talk. The larger the body of data, the more narrow today’s analytic approach. Google Translate, for instance, comes up with the following curious translation: “How to can your own tuna fish?” It fails to recognize the difference between a full verb and a modal verb. Such examples underscore the need to integrate expert concepts and categories into the analysis of data. In addition to data driven access there is still a need for theory, and hence for expert knowledge.

This position is also held by IRYNA GUREVYCH (Darmstadt), who presented her vision of educational informatics: Modern society collects huge amounts of data like PISA and other studies. Beside Big Data we also have to cope with the heterogeneity of data and find ways to combine qualitative and quantitative methods; if this were to succeed, the research findings of the digital humanities would be able to impact on the political level. DANIEL KEIM (Constance) illustrated a number of cases to
show what visual analytics are today capable of contributing to the humanities. For instance, the question whether the book “The Road” published in 1907 was written by Mark Twain or Jack London can be categorically answered based on combining a whole series of investigations: The use of verbs, average length of sentence, Simpson’s Index, hapax legomenon result: It was Jack London! Keim headed his talk with a quote attributed to Einstein: “Computers are incredibly fast, accurate and stupid, humans are incredibly slow, inaccurate, and brilliant. Together they are powerful beyond imagination.”

Literary scholar THOMAS ANZ (Marburg) and art historian HORST BREDEKAMP (HU Berlin) were invited to give their opinion of the talks in this section and the development of (digital) humanities. While outside a storm was raging over Northern Germany, inside Herrenhausen Palace Anz quoted a poem by Jakob van Hoddis called “Weltende” [End of the world]: It is a traditional task of literary studies to render individual, whole, high-quality, virtually incomprehensible texts readable and easy to understand. By way of contrast, Anz sees the potential of the digital humanities in analyzing epoch style, the arrangement of discourse, genre conventions etc., whereby the latter threatens to take on a life of its own. Referring to the colorful and beautifully designed visualizations displayed during the talk by Keim, he posed the question as to whether this constituted a depiction of a result of analysis, or a new object of analysis? For his part, Horst Bredekamp warned of two dangers: On the one hand the presentism dominant in the digital humanities: the cult of the present might lead to a collective loss of memory. On the other hand, the digital humanities would be reduced to pure ideology if they were to negate the difference between computer and man (with his body and his anthropological forms of perception). In the subsequent discussion, Detmar Meurers postulated the following difference: Where the digital humanities address the question: What is characteristic?, the humanities are traditionally occupied with the question: What is unique?

Section 2 was dedicated to the question “From art to data – what’s the impact of going digital?” from the points of view of visual, literature and music studies. Along the same lines as Mayer-Schönberger, LEV MANOVICH (New York) postulated: “Don’t start with research questions! Look at the data instead”. He put forward his approach of leaving individual assumptions and concepts behind and escaping from the prison of language: He did so using an electronic compound visualization of all of Time Magazine’s cover pages from when it was founded in 1923 up to the present day and a
comparison of the range of colors used by the impressionists Monet, Pissarro, Renoir and Sisley. At the same time, by means of incorporating all individual objects within a compound image and zooming in and out he attempts to avoid the loss of information and reductionism that occurs in the course of analysis. The result of this research approach is not a text, but rather a — most aesthetic — image from which the observer is left to form his own conclusions. In the subsequent discussion different sides implored Manovich to bear in mind that it is not possible to leave one's own concepts and previous perceptions behind without finding prior knowledge. Neither the form nor structure of his ‘resulting images' would be conceivable in the absence of (background) knowledge.

Literary scholar JULIA FLANDERS (Northeastern University) had another answer to the question posed in this section. Accepting loss of information and reduction, she pointed out a similarity between the digital humanities and artistic approaches, i.e. the conflict with rules and the “play with constraints” — be it through human perception, or through artistic conceptions of form. This play is reflected in data models like the Text Encoding Initiative (TEI), whose formalism is based on a disciplinary consensus. “The resulting model makes explicit the formal structures that were at work in the original object”. The real task of the digital humanities therefore lay in simultaneously permitting different data models of a work of art in order that diverging interpretations may be discussed in future.

In her contribution, ELEANOR SELFRIDGE-FIELD (Stanford) introduced different digital approaches in musicology: Here, notation based search and analysis procedures are contrasted with procedures based on audio recordings. The latter are particularly prone to the consequences of unresolved issues of data protection in the area of science. In the USA only audio recordings of maximum 30 seconds are available free of charge — what to do, though, when an arc of harmoniousness lasts longer? She also pointed out a pending problem for research: Now in the Virtual Manuscript Library of Switzerland students are able to access the very first music ever written down, Hucbald’s “De harmonica institutione” (around 880). But are they able to understand Latin?

In six parallel workshops the conference participants were invited to draw up answers to some fundamental questions concerning digital humanities; these were subsequently presented in a plenary session. They were all of the opinion that the digital humanities were in a wider sense to be grasped as research on and with digitalized sources/data, and in a narrower sense as the
implementation of quantitative computer methods in the humanities. On the one hand, the digital humanities constitute a discipline in its own right, and on the other hand they were a sub area of all disciplines in the humanities — with the consequence: “We all will use dh tools, but we will not all become digital humanists”. The need was stressed to position and define the digital humanities more clearly; after all, there are many points of tension with the traditional humanities and one should — with the exception of some individual areas like linguistics — be prepared to concede a certain “lack of impact on the humanities” as a whole. The digital humanities represent a fundamental innovation: A way of thinking in terms of algorithms. The innovations were identified in pattern detection, new research questions, corpora and tools; as new results of research, and collaborative work procedures — also in the humanities. The digital humanities, libraries and informatics will have to learn a common language and be prepared to treat each other as equals without trying to instrumentalize each other. Building a community is on the agenda. This calls for a form of public funding of information infrastructure that is not tied to specific project results, as well as the scientific recognition of corpus building and tool development as results of research.

Just how multifaceted the research questions, forms and results of digital humanities have become was illustrated by junior researchers in the so-called Lightning Talks. Of the 187 applications submitted in response to the call for travel grants, 37 candidates were selected and invited to present their projects within the time of 3 minutes. The spectrum ranged from mapping projects like “The Pompej Bibliography and Mapping Project”, through documentations of languages like the endangered Haro in Ethiopia, and analyses projects like “Searching for traces of Korzeniowski in Conrad”, up to the political call to defend open source against data capitalism.

In Section 3 “Digital Humanities and the Public”, LUIS VON AHN (Carnegie Mellon University) presented his new project “Duolingo”, an open source language learning program that finances itself through the sale of the subsequently produced translations: The computer compares the practice versions of countless thousands of users to generate a proper final version that is fit for publication. Customers include for example CNN, that uses Duolingo learners to translate its television program into Spanish. JOHN WEITZMANN (iRights Berlin) presented the concept of Creative Commons Licenses as a first step towards resolving the issue of copyright for science and scholarship in the digital age, while at the same time pointing out the limitations of such an approach. He called for a legal solution
for the needs of science and scholarship; the fair-use principle applicable in the USA, that for example allows 30 seconds free use of sound material for scientific and scholarly purposes, is a step in the right direction, although still not nearly enough. GREGORY CRANE (Leipzig) then outlined his vision of the “humanities in the 21st century”: The task of the humanities continues to lie in advancing the intellectual life of society – but today the Internet has expanded the circle of addressees to include millions of users. His aim is to make difficult texts from the past accessible and easy to understand, a task in which he sees a continuation of the tradition of Humboldt. The fact that he, a scholar of the humanities, is working at the Institute for Informatics in Leipzig, that even his best students are unable to find a job in the area of the humanities, and he in turn is unable to find sufficiently qualified new staff, illustrates the current dilemma.

At the closing panel discussion moderated by WILHELM KRULL (Hanover Volkswagen Foundation), Greg Crane, CHRISTOPH CORNELIßEN (Frankfurt/M) and MANFRED NIEßEN (Bonn DFG) drew up an interim balance. Whereas Nießen saw the digital humanities running the risk of self-ghettoization – there is after all no digital natural science – Cornelißen addressed the problem that the epistemological limitations have yet to be clarified. This results in a high degree of uncertainty on all sides. Today, the digital humanities present a generational, status and career problem. He is confident that sooner or later it will manage to position itself at the center of disciplines, but pessimistic in respect of the German Research Foundation being the right partner in attempting to resolve the issue of information infrastructure. In his closing words Wilhelm Krull stressed that policy makers are called upon to secure the funding of the information infrastructure for the humanities in Germany and Europe.

All in all, this Herrenhausen Conference succeeded in bringing together outstanding international representatives of the digital humanities and resulted in a discussion on a high intellectual level. The first outlines of a methodological and epistemological clarification of what digital humanities can achieve in contrast to and together with the traditional humanities became visible. The differences can perhaps be reduced to the following antitheses: I-perspective vs. he-perspective, understanding vs. explaining, focus uniqueness vs. focus characteristics /patterns. To arrive at a differentiated explanation of these epistemological differences for the humanities and to operationalize them for research is the task for the future with the aim of integrating the two approaches and avoiding a
further splitting in the field of the humanities. The ideal solution would be tandem projects involving traditional and digital humanities from different disciplines publicizing their contradictions and similarities in a process of concrete research. Just how difficult it is, though, to initiate dialogue between the two branches was also a result of this Herrenhausen conference: For the most part the representatives of the digital humanities kept to themselves. The fact that in the digital age society and its culture produces large amounts of data will in the medium term shift the balance in favor of the digital humanities. Perhaps not by coincidence, the conference failed to answer the question regarding the cultural, literary or artistic quality of the research objects, or indeed whether the digital humanities have even started to address the quality issue. Notwithstanding, the meeting did quite pragmatically clarify another point: The conference language was German and English – science and scholarship are multilingual, especially in the humanities.

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MORE INFORMATION

FOR PICTURES AND AUDIOS:

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