Institut für Informatik

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Grant proposal SlideWiki

Motivation

Digitization increasingly penetrates more and more aspects of society. The transformative pressure it exerts doesn't stop at the gates of the university. On the contrary, both for scientists and teachers, as well as for students, the need to reflect on its societal pressure is ever more crucial. Due to the scope and versatility of its foundational nature, its effects (and side-effects) are not yet fully understood.

Digitalization further goes beyond being 'merely' a technical challenge and a pressure on societal change; Its most challenging aspect is a methodological one, manifesting in the question as to *how* to understand - or even to approach to understand it.
What appears to pose a challenge to the research community in particular, has its most drastic effect on the educational praxes: Computer scientists and social scientists need to be able to not only talk to, but understand one another (interdisciplinarity), develop and understand a common vocabulary (infradisciplinarity), understand the foundations of their own field in order to see further than the end their own noses (intradisciplinarity), as well as participate within a societal dialogue (transdisciplinarity). The need for infradisciplinarity becomes particularly crucial in the frame of a discussion about the digital transformation and creativity / creative problem solving. This is because these are highly ambiguous terms that are understood very differently in different frameworks of terms. This is especially true for a dialogue between (and within) computer science and the humanities. Establishing a basis of a common understanding of the terms, or at least developing sensitivity to the problems raised by it, are decisive for a constructive discourse.

Understanding the aforementioned aspects on the level of the fundamental union of teaching and research (or, more precisely, learning and research in the context of life-long learning), necessitates developing innovative modules / teaching paradigms that need to take into account the aforementioned four disciplinarities. Being in the midst of the ongoing process of the digital transformation, we believe that teaching and research need to be part of scientific training, both methodological and didactical, as well as regarding the course contents.

Additionally, digitization is a strong force on the professional world. This poses a challenge to both computer scientists and social scientists: With crucial aspects of computer science becoming more and more an integral part of society, computer scientists and programmers need to understand and reflect the society / their societal context and the consequences of their actions, even being just in their role as project

managers. Social scientists need to understand the basics of digitization in order to be able to ground social theory and criticism (as design, organization and development).

Current Concept

We believe that approaching this multi-facetted and multi-layered issue is done best from a range of perspectives, as well as involving different methodologies, actors and formats. At the least, an approach should include

- an open, inclusive and trans-academic discourse, anchored within the civil society,
- an intra-university process utilizing formal educational practices through introducing transformative fundamental concepts in order to allow for expounding critical issues, to pervade them reflectively, establishing argumentative praxes, and to practically implement aspects as the object of one acts,
- and a concept tying together the inner- and outer academic context.

The concept of the interdisciplinary complex of the Institute of Informatics of the University of Leipzig takes shape through a number of formats, institutionally situated within the modules “Interdisziplinäre Aspekte des digitalen Wandels” (Interdisciplinary Aspects of Digital Transformation), “Kreativität & Technik” (Creativity and Technology), “Wissen in der modernen Gesellschaft” (Knowledge within Modern Society), “Philosophische Aspekte des digitalen Wandels” (Philosophical Aspects of Digital Transformation), as well as the “Interdisziplinäre Gespräch” (Interdisciplinary Symposium), with each of the modules having roughly 40 students per cohort and the discussion forum featuring around 20 participants per edition, with actors from academia, the free economy and NGOs and (former) students. For the official page of the format the interested reader is referred to its website (in German).

The course features four formats, namely:

- A lecture series as an interactive research platform with an open concept in order to establish the fundamental terms of the discourse on the societal transformation of the digitization,
- A seminar, in which students take on the role of teachers, presenting their chosen topic (as a group task of both the presentation and the moderation of the consecutive discussion). This format emphasizes the student as a teacher and the interdisciplinary discussion to equal parts,
- A lab course, where students work together in a project to create a product in cooperation with academic or non-academic institutions (for examples see Appendix: Topics lab course). This is not only to provide a practical perspective on the issues raised in the lectures and seminar, but also to foster practical skills and experiencing multi-disciplinary praxes / methods and the skill to approach problems. The projects further mirror the change of praxes within the discourse; most tangibly by introducing modern project (management) methodologies, e.g. through agile approaches such as scrum,
- An interdisciplinary symposium, which includes actors from a wide variety of contexts, such as scientific and academic institutions (i.e. numerous

universities, the Institute of applied Informatics (InfAI) Leipzig, the URZ (data and computation center of the University of Leipzig), the Laboruni (project by the study in Leipzig StiL program, funded by the federal ministry of education and research)), actors from the economy (freelancers, ip-sharemedia, askemos, Wissenswerke Dr. Best, eastpress media, Energie-City Leipzig and ciT GmbH) and civil society (such as the ASG Leipzig, the Arnold-Sommerfeld-Gesellschaft, Gemeinschaftskeimling, BUND, Inspirata, BIP Kreativitätskindergarten & -Schule, LJBW Dresden, Haus der kleinen Forscher, TÖP Rabutz and Deutsche Erfinder-Akademie), the LIFIS (Leibniz institute for interdisciplinary studies), political parties and the MINT-Netzwerk (STEM network), among others. It serves as a feedback mechanisms from the world outside of academia into the academic teaching and research. It further promotes the discourse within the civil society, in particular in the context of life-long learning.

The modules focus on developing an analytic view to enable rational argumentation, particularly in the context of thinking outside the box / within the walls of one's discipline. Another aspect of this important for the module is the skull to manage ambiguity. We deem this competence as crucial for creative problem solving, which we find an essential requirement for the digital age on a global scale.
The aforementioned formats represent a wealth of sources of educational materials for the discourse within and outside of academia and their interaction. These include:

- The lecture materials,
- The "dorfwiki" content; A wiki to collect a range of material, including a wealth of in-depth commentary on past discussions (mostly from lectures, seminars and the interdisciplinary symposium), mainly authored by Prof. Hans-Gert Gräbe (initiator of the interdisciplinary tradition within the Institute of Informatics),
- Student (and teacher) presentations from the seminar, as well as their corresponding paper (Ausarbeitung),
- A number of publications originating from the seminar, published in notable scientific format (e.g. Leibniz Sozietät),
- Material stemming from the discussions and evaluations of the seminar,
- Project reports of the interdisciplinary student projects,
- Educational material related to the interdisciplinary student projects (such as scrum-guides or code documentation guidelines),
- Papers and presentations stemming from the interdisciplinary symposium

Whereas the material and methodological basis of the course / context is well established, a number of shortcomings are apparent. For one, the material is dispersed over a number of places. The dorfwiki page collects a lot of material mentioned above, but is rather document-centric. Although participation, feedback and collaborative is possible, in practice it is barely used, and the wiki is rather used as a well-structured and documented document store than a participatory space. Furthermore, a lot of interaction and participation takes place within the individual formats, but is usually only captured in commentaries by the lecture organizer, and the discourse is not preserved instead of being held active through comments and discussion. Seminar presentation and project feedback is bound to the physical evaluation event within the

course. Due to the restricted digital availability and the physical situatedness of the dialogue within the course, the non-academic public is excluded. Finally, due to the mono-lingual material and the textual form of the data, non- (or poor) German speakers, as well as reading impaired (e.g. sight-impaired) people are excluded from participating in the discourse in the fullest capacity.

Due to this, we are excited to participate in the SlideWiki tender, and would love to contribute to the project in order to improve the implementation of our concept and provide feedback for the platform from a unique perspective.

Future Concept

The concept sketched above was developed over the course of many years, and works very well, as history has shown. However, as mentioned above, there is still room for improvement, and the format of this tender gives us the opportunity to improve the (university bound) module in particular and the form of the discourse in general. Especially the shortcomings mentioned above can be addressed through an appropriate platform and its correct usage. This gives us the opportunity to try out new concepts to take a step further towards our vision.

The formats that we will address through the trials are as follows:

- The lecture series will focus on incorporating participatory and (more) inclusive concepts. The participatory aspects will be addressed through actively encouraging students (and remote learners) to engage in feedback and discussions. Discussions will be both slide-specific and (sub-)deck specific. This necessitates offering a place for commenting and discussing the individual slides and (sub-)decks the lecture utilizes, as well as implementing a culture of answering questions posted through direct messages. Ideally, the discussions regarding aspects of the lectures will prolong beyond the time slot of the lecture and provide a platform of discussions that could potentially result in topics for the seminar or future projects. The feedback also enables the lecturer to understand which topics need further explanations and which aspects need to be discussed more in-depth, as well as giving an understanding of what topics and aspects are most interesting to the students. Crucial aspects that need further engagement can be further addressed and evaluated through self-assessment questions.
  Issues of inclusivity will be addressed by opening the classroom to the general public / civil society through openly accessible slides, discussions and lecture streams. Furthermore are selected decks to be translated into third languages to support understanding and clarity of the contents of the lecture. Preferably, lecture contents should also be made accessible to visually impaired participants, if technically feasible. A further point of interest within this project would be how the slides can be made comprehendible for mentally challenged participants.
  Although the format of the lecture series will still be rather teacher-centric, participants are engaged to actively contribute to these new concepts as far as possible.

- The seminar is, at this point, the most student-centric format already. By giving the presentations and moderating the consecutive discussion, students take on the role as teachers. However, we believe that this aspect can and should be promoted even more. One option could be prolonging the students' role as moderator of a particular discourse beyond the seminar session. As with the extension of the format of the lectures, other participants of the seminar are encouraged to provide feedback and discussion in the deck and on the slides of the presentation. Part of the evaluation of the students' performance will be how they encouraged and fostered the discourse with their peers and the interested public beyond their presentations. This discourse (an analysis of it?) will also become part of their corresponding paper. This engagement with the scientific process is meant to strengthen their competences both as a scientist and as a teacher / professional. Through this they take part in an interdisciplinary scientific discourse while presenting their results in a structure and open environment.
  Having a platform of knowledge and discussion at their disposal (i.e. slidewiki) also provides the opportunity to foster research skills. This will become an integral part of the process of the presentation in the seminar. Where the current process is organized in two phases (preparation and presentation), this process will be extended by two more elements in the future: namely (re)search process evaluation and discursive engagement (as sketched above). For the (re)search process evaluation, participants will be encouraged to use the search function of the platform when researching their topic, in order to widen the basis of the material, refer to previous material and evaluate how accessible their own material is. This will provide both feedback for the search functionality of the platform and an insight and awareness of the visibility of their work.

- As mentioned above, the project lab course is (on the level of the artefacts to be created) focused on the product of the project and the documents related to project management. Since the end results of the projects are generally situated in their own technical environment as self-contained products, transferring them to the platform does not seem feasible; Project management documents, documentation and presentations not bound to non-compatible formats however are aimed to be incorporated in the platform. This not only allows future projects and seminar contents to be access relevant material and to profit from their experience, but also opens the way to engage members not situated in the projects. This not only increases participation and inclusion of the civil society or other students, but also provides the project team with a multitude of different perspectives.
  The responsibility for the project lab course lies with different actors. Within the context of this tender we aim to integrate these new forms with these possible sub-contractors / multipliers in order to extend the visibility of the SlideWiki platform as far as possible.

- The interdisciplinary symposium meetings already are a very participatory, inclusive and well-documented format; yet, we believe that this format can further be improved. Participation in the discourse has a low barrier during the meetings. However, interested actors that cannot be physically present can only read the summary / commentary and go through the slides of the presentations. We believe that these two aspects are handles on how the accessibility can be improved. A platform interested actors can discuss on and engage in a discourse about the slides, topics or ideas covered would preserve the discourse outside of the physical meetings; For actors not being able to be physically present, forms of accessing / archiving the discussions would be interesting. It is important to us to preserve the culture of free speech at the symposium; We aim for accessibility of the contents and strive to draw new participants to the SlideWiki platform.

We hope that all of this will improve inclusion, participation and dialogue, as well as enrich the discourse by relating the different formats through material and human interaction, while at the same time help archiving them through a dialogue within the community. We see interdisciplinary understanding and cooperation as a key for the success, not only for academic (and non-academic) projects in the future, but as well for the students' development as a member of the civil society.

History of the Interdisciplinary Complex

The interdisciplinary format sketched here can look back to a long history beyond 2012. The history of this module can roughly be structured into four phases.

pre-2012

Prof. Hans-Gert Gräbe has been pursuing an interdisciplinary perspective on the digital transformation of the society at the Department of Computer Science well before 2012. In the young stage of the format, the module did not yet feature a lecture series, and consisted solely of student projects and the seminars. This stage can be seen as the *creation* phase of the module.

2012-2014

The second phase of the teaching project can best be described as the experimentation and adjustment phase. The project was enriched by the introduction of the lecture series in this phase, and the three formats were integrated and adjusted to one another. This phase also implemented the concept of students as teachers, and employed the interdisciplinary and infradisciplinary perspective. The inclusion of teaching and research was fostered, and (at the latest since then) stayed an integral component of the format.
At the beginning of this phase Ken Kleemann joined the teaching staff of the project, and fostered many of the aforementioned aspects together with Hans-Gert Gräbe. In 2013, Simon Johanning participated in the seminar as a student and wrote a seminar paper that resulted in a publication with the Leibniz-Sozietät der Wissenschaften zu Berlin (titled "Der Realität auf der Spur: Eine Reise ohne Ziel? Eine Kritik der Realismusvorwürfe an die wissenschaftliche Modellierung").

2014-2015

In 2014, the interdisciplinary teaching project “Gesellschaftliche Strukturen im Wandel“ got chosen to be part of the Labor-Universität Leipzig in 2014/15 (an initiative to support innovative teaching concepts). This phase established the technical and didactical foundation of the project and the method employed within it. Minor changes were made to the concept and best practices established. This phase can be coined the *excellence* phase.

2015-2018

The focus of the current phase of the teaching project crystalizes mostly in three aspects. Firstly, the project was implemented further within the curriculum of the computer science department (e.g. being an obligatory part of the computer science teacher’s education). From a perspective of development of the format, the most important point was back-adjustment of the format and the adaption of the method. A third focus was connecting it with the forming digital humanities profile of the department. However, this period was not just characterized by looking inward and gaining recognition from insight of the department, but also from outside. This is exemplified best by the invitation of Mr. Kleemann to the “National Big Data Science Conference” in China in 2017.
Summarized in one word, this phase could be called the *curriculum* phase.

Trial topics

We are confident that within the scope of this project we can cover all offered aspects of the trials mentioned in the tender. In the following we will qualify what aspects of the concept to be implemented covers the respective trials.

Search

The search functionality will be evaluated in a number of forms. As mentioned above, using and evaluating the search functionality will become an integral part of the seminar preparation and project reporting workflow for the students, both for research purposes and for understanding how own results can be found and incorporated in the future discourse. The remarks and feedback collected will be structured by a lecturer / student assistant, and evaluated in a structured way (S1), so the feedback can be readily used by the SlideWiki consortium. Transferring the slides / incorporating existing material in the SlideWiki, as well as the translation of the slides (C1) will be done alongside an evaluation of the findability of the incorporated content (S2). We will particularly focus on decks translated into other languages (T1), and evaluate how well results of multi-lingual decks / deck groups work.
Specific search queries, strategies and terms will be tested, e.g. search phrases where word order or context is relevant, and will be exemplarily evaluated (S3).

User / Deck groups

Due to the number of sources, thematic and organizational aspects, the relation between the different formats and the multi-lingual requirements on the material, as

well as the envisioned discussions within the context of the material, the organization of the material is neither straightforward nor unimportant. Exemplarily, different organizational approaches will be employed and evaluated, and their advantages and disadvantages will be evaluated within a report (G1). This will be done with a particular focus on how well (synchronized) multi-lingual decks work (G2). We hope that this will provide insight both for us as well as for SlideWiki what structural requirements an interconnected ecosystem of discourse material poses for an OpenCourseWare authoring system.

User profiling

We believe that a good discourse lives off user engagement. However, we are also aware that people have different characters and different ways they engage in a discourse. With less vocal participants it would be interesting to understand how much different types of material they were engaged in, but also what material was challenging. For this, engagement statistics are a valuable tool to receive (more indirect) feedback on the teaching material (both for the formal teachers and the student as teachers (e.g. in the seminar), or the project groups trying to promote their project results). These statistics need to be evaluated and related to the material for an evaluation on how to improve the course and the engagement of students. A report about the engagement statistics is to be created within the scope of the project (E1).

User Interaction

As pointed out numerous times before, engaging in the discourse through discussions and comments is a crucial aspect for this research & teaching project. This trial gives us the opportunity to foster the discussion culture already present within the modules, and to investigate different forms and technical implementations of discussions. The report on this trial will be the most extensive, since we expect it to be highly insightful both for the development of the format and evaluating and improving the OCW platform.
As sketched out before, the seminar presentations and the project assignment already focus on collaborative editing. However, we believe that within the format described above, we can foster a discourse through collaborative editing, discussing and commenting even further.
The same goes for reusing existing SlideWiki content in decks. Through encouraging the students to engage actively with existing content, searching for related content and archiving their work for future cohorts, we hope that more and more content will be reused and further developed in the future. Assessing their own material for reusability and findability will be part of the feedback for further research of the students, and we hope to encourage this culture of reusing, especially for material on the platform and newly created material.

The interaction of the users with the material will be evaluated and reported in the scope of this project (I1).

Interactive Learning Analytics

As with User Profiling, one of ours aims within the course of this project is to understand the students' interaction with the material more thoroughly. For this goal, student participation and usage statistics would be very helpful, and gladly appreciated for improving the quality of the modules in particular and the interdisciplinary complex in broader terms. These will be evaluated by the project team and incorporated in future iterations of the course (P1).
Representing the different user profiles for the students would be interesting as well, in particular with regards to the discussions the students engage in, and for including participants from the civil society that can't be physically present during the lectures and seminar sessions. Providing them with a place where they can present themselves and engage with one another would make course more participatory, and foster the trans-disciplinary nature of the course. How the user profiles support the teaching staff will be evaluated and reported as well (P2).

Statistics Examples

As with the User Profiling and the Interactive Learning Analytics, statistical insights into the behavior and the engagement of the students and other participants in the teaching and research project could provide very valuable for the evaluation of the course material and the formats of the course. This will be evaluated and reported, in order to understand how users behave and engage in the platform (D1).
Complementary with the search topic, which focuses more on how students search and what awareness of these aspects does to their process of knowledge curation, also the subject of their searches would be interesting. A report on this question could include the terms, and derived from it the topics and related concepts that were of interest, which could shed another light on the search functionality of the platform (D2).
How they engaged on a quantitative level could provide insight about what topics were interesting or challenging, and provide feedback on improvements of future courses. Engaging with comments and discussions, in particular about the usage of decks can provide further understanding of these issues.

Learning materials

As mentioned before, there exists a wealth of educational materials in the context of the interdisciplinary discourse from (at least) eight sources, mostly in the form of written text and (slide-based) presentations. We plan to transfer as much material as possible to the SlideWiki platform, and generate all novel content from the modules within SlideWiki. This will include around 20 student presentations (C3), lectures (C1) and the material of former student projects (C5), publications (C6) and dorfwiki content (C7).

The following table shows the estimated size of the corpus of the migrated material:

Format / source	**# slides**
Lecture series	~ 500
Interdisciplinary symposium	600-700
Current seminar	~ 300
Former student projects	~ 250

Migrated dorfwiki contents	~ 200
Publications and educational material	~ 150

We further plan to translate exemplary core material into different languages in order to ease access and make it more participatory (T1). In the course of this process we will evaluate the semi-automatic translation capabilities of the platform, and revise the content with native speakers where available (T2). We will evaluate how well parallel multi-lingual presentations work (G2), and how different organizational approaches work for these ends (G1).
The insights we gain from migrating the material as well as the translation process will be reported back to the SlideWiki consortium.
Through encouraging discussions, reuse, aspects of findability, collaborative editing and related multi-lingual presentations we aim to create an ecosystem for an open course that is guided by the teaching approach, but where every learner can find their own learning path.
Inclusive and participative teaching & research is achieved primarily through opening up the course to the general public in the context of life-long learning, by providing multi-lingual slides and by looking into lower-barrier access for participants with disabilities (C4).
The course will keep on using the OLAT portal for course organization, enrollment, internal information and certain course administrative tasks, but will refer to the SlideWiki platform of the course for everything regarding content (unless specific content is not yet migrated).
As becomes clear from above, learning activities with the participants are thought to be fundamentally interactive (not only during the training period), and we hope that SlideWiki will promote this goal.

Task schedule

The following tasks will need to be addressed within the scope of the project:

Task code	**Task description**	**Time expenditure (estimate [h])**
C1	Migrating existing lecture slides to SlideWiki	66
C2	Migrating material from the interdisciplinary symposium to SlideWiki	75
C3	Accompanying the content generation within the seminar	29
C4	Evaluation of accessibility of the material for impaired participants	8
C5	Migrating material from former student projects	66
C6	Migrating material from publications and educational material	25
C7	Migrating material from the dorfwiki	33
T1	Translating selected (sub-)decks of the migrated material into other languages	135
T2	Evaluation of the semi-automatic translation capability of SlideWiki	21
S1	Collecting and evaluating feedback regarding	12

	the search function of SlideWiki	
S2	Evaluation of the accessibility / findability of the migrated slides within SlideWiki	25
S3	Testing of specific search queries, strategies and terms	25
G1	Evaluation of organizational approaches to deck groups	12
G2	Evaluation of how well (synchronized) multi-lingual decks work	12
E1	Evaluation of user engagement in the slides and discussions	37
I1	Evaluation of User Interaction	29
P1	Evaluation of student participation and usage statistics	29
P2	Evaluation of user profiles	12
D1	Report on statistics examples	17
D2	Evaluation of searched topics and concepts	21
R1	Writing of the final report	66
O1	Project management and coordination	83

Estimated project impact

The following table shows an estimation of new users reached directly in the time period of the project:

Format	**Estimated # new users reached**
Lecture series	25-40
Interdisciplinary symposium	20-40
Current seminar	25-40

However, we expect that the projected reach noted in the table above is highly underestimated, since the project is directed at multipliers. The majority of the students reached through the format are studying to be teachers and researchers, and through continuing to work with SlideWiki, we believe that generations of students can be reached.
Furthermore, with the interdisciplinary symposium we bring together stakeholders from a wide range of contexts, and we expect that through these SlideWiki will disseminate widely.
As mentioned above, through opening up the teaching concept, we also direct this format at actors usually not participating in the academic discussion. Through this we expect to reach a lot more users than the estimation above suggests.

Project timetable

The project will run from Mai 2018 to October 2018. Tasks involving students within a formal context will be done primarily through the semester (April – July), with some tasks stretched out through the semester break (July – September). The reports

mentioned above will be written in October with the full project report being submitted by the end of October 2018.

Applied grant sum: 33264.65 € (see attached sheet for a more detailed calculation)

Appendix: Topics lab course

Term	Topic
WS[i] 17/18	Datenschutz bei PC‘s und Smartphones
SS[ii] 2017	Visualisierung in den Digital Humanities
SS 2016	Radikalisierung der Flüchtlingsdebatte in sozialen Medien Textanalyse Gebäude-Navigator für Leipzig Partizipatorisches Virtuelles Museum
WS 2015/16	Partizipatorisches virtuelles Museum Leipziger MINT-Orte online
SS 2015	Semantische Stadtteilplattform auf Drupal-Basis für den Leipziger Osten Fundstücke-Projekt Open Data Strategien ausgewählter europäischer Städte
WS 2014/15	Haushaltsdaten der Stadt Leipzig Musik, Künstler und ihre Fans
SS 2014	Auswertung kommunaler Haushaltsdaten in Sachsen Gentrifizierungsprozesse in Leipzig Wörterbuch Altägyptisch
WS 2013/14	Energiewende in Leipzig E-Mail-Analyse
SS 2013	Online-Jugendstadtplan Leipzig Prozesse der Leipziger Kreativwirtschaft

Appendix: Team

Prof. Hans-Gert Gräbe

Prof. Hans-Gert Gräbe is a professor of computer science at the University of Leipzig, with a main interest in software engineering. He studied mathematics, graduated in computer algebra and has further interests in the areas of knowledge engineering, semantic technologies, economic value theories and philosophical aspects of modern development. He is involved in the projects symbolicdata.org and leipzig-data.de that

apply semantic technologies to the organization of science and to regional development.

He designed the courses "Interdisciplinary Aspects of Digital Change" and "Creativity and Technology" that have been taught for several years to an interdisciplinary audience at the University of Leipzig.

Ken Kleemann (MA)

Ken Pierre Kleemanns interests are centered on joining different perspectives to a wide ranged view, not only combining certain contents, but also sharing a developed common vocabulary. After living in the USA, being a peacekeeper in Bosnia Herzegovina and teaching children as a primary teacher in India, he started his university studies with archaeology, Byzantine art history and theology at the University Halle/Wittenberg.

In 2006 he changed to the newly created Bachelor courses in social science at the University of Leipzig, and focused on political science in particular. In 2009 he started a Master's degree in Philosophy and has been working on his doctoral thesis about the problems of positive philosophy since 2011. Meanwhile he was engaged in several projects as writing and publishing for the magazine of the Institute of Political Science among others, developing civil society initiatives, working for start-ups and being responsible for social networking and project care for small music labels and computer service businesses.

In 2012 he joined Hans-Gert Gräbe in the interdisciplinary project by researching about modern problems of enhancing science and questions about popularization of scientific results and developed with him the current format of the module.

His fields of research are to be found in analytic philosophy, theory of science, technology philosophy and in the history of philosophy and science.

Simon Johanning (MA)

Simon Johanning has been pursuing an interdisciplinary perspective throughout his entire tertiary education. After a bridging year of studying Media Technology, he started a course in Composition & Music Technology with a specialization on the intersection of composing, programming, interaction design and performance, creating technology to explore creative problems. Parallel to this in his final year, he started a masters in Design for Digital Cultures: Music Technology, during which he performed a research internship with the Music, Mind & Machine Group of the University of Sheffield, where he worked on the intersection of music perception and cognition, during which he took classes in computational neuroscience, music psychology, cognitive psychology and computer science. He wrote his master thesis on Conceptual Spaces in the perception of rhythms, which brought together music perception, semantics, cognitive psychology and performance.

After graduating from the Hogeschool voor de Kunsten Utrecht and the Open University UK, he started a course in Computer Science at the University of Leipzig in 2011, and consecutively started a course in Mathematics at the same university in 2012

(which he studied in parallel). In 2012 he attended the seminar “Wissen in der Modernen Gesellschaft” within the Interdisciplinary Studies of the Institute of Informatics, where he made contact with Prof. Gräbe and Ken Kleemann. His seminar paper was later published by the Leibniz-Sozietät, and he started working for Mr. Gräbe as student assistant, tutor and research assistant in several projects, keeping the connection to the Interdisciplinary Studies alive. From November 2015 on, Mr. Johanning worked at the Institute of Infrastructure and Ressources Management as a teaching assistant, and from September 2017 on as a research assistant at the chair of sustainability and energy economics, where he pursues different projects with an interdisciplinary perspective.

Clara Kruckenberg (Stud. Soz.)

Clara Kruckenberg is currently a student enrolled in the Bachelors degree of Sociology at the University of Leipzig. All through her studies she has taken a special interest in Digital Humanities and is currently working on two projects combining aspects of Humanities with new computing and digital technologies. For her bachelors thesis she collaborates with the citizen science project “The Prosecution Project” at the Griffith University Australia. Since her third semester Mrs. Kruckenberg has been working as a student assistant for the Institute of Sociology, being charge of the technical support at the Institutes of Sociology, Philosophy and Political Science.

In 2017 she took part in the Seminar “Interdiziplinäre Askpekte des Digitalen Wandels” as a student, and was particularly fascinated by the fact how the seminar brought together students form the Humanities and Computer Science, discussing how the rise of Digital Technologies is changing not only our daily live but also the academic world.

[i] WS: acronym for “Wintersemester” (winter term, 1st semester/trimester of the academic year)
[ii] SS: acronym for “Sommersemester” (summer term, 2nd semester/trimester of the academic year)