

CollaboFramework

Framework and Methodologies for Collaborative Research in Digital Humanities

DHN Workshop

Organizers:

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Approximate Number of Participants: 20+

| Approximate Schedule |
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| <p>30 min D+H = DH: The needs of transdisciplinary collaborative research. Challenges and benefits from merging science and the humanities, merging their methodologies and knowledge bases.</p> |
| <p>30 min CollaboFramework: Presenting concepts and methodologies for transdisciplinary collaborative research. Presenting DH related tools for collaboration and structured research.</p> |
| <p>15 min Break and informal Q&A</p> |
| <p>45 + 30 min</p> <p>Collabo-in-vivo (45): Practicing transdisciplinary collaboration with CollaboFramework (a set of methodologies and tools). Practicing at-place (located) vs. dislocated collaboration and real-time vs. asynchronous (offline) collaboration.</p> <p>research-flow (30): Practicing analyzing research experiments, visualizing and sharing results with CollaboFlow (on the example of Bukvik).</p> |
| <p>Last 30 min dialogue * dialogue = dialogue: discussion on the fundamentals of transdisciplinary collaboration, its sustainability, improvements and systemic approach.</p> |

Workshop Info

This workshop addresses the needs and challenges of collaboration in transdisciplinary research, as presented through the use case of Digital Humanities.

The very nature of Digital Humanities calls for interdisciplinary collaboration between the Humanities and science. The collaborative process requires assimilating across the digital-humanities gap, but also a socio-technical gap. These two academic communities are distant on the academic landscape, which very often results in misunderstanding, causes difficulties in communication and can even reduce the quality or correctness of research results. During the workshop, we present **problems, possible approaches and research scenarios** in DH and interdisciplinary research in general. We present concrete usecases and guide participants through the collaborative research process.

***CollaboFramework (CF)* integrates a set of methodologies and tools that (among other aspects) promote **research dialogue**, a **shared knowledge space**, and a **structured and replicable transdisciplinary research environment**.**

We utilize CollaboFramework for addressing the aforementioned requirements and challenges. CollaboFramework is aiming to create a collaborative space for transdisciplinary academic and creative **CoI** (Community of Interests) in which it will - *through continuous research dialogue, co-creation, and mediating mechanisms* - garden the interdisciplinary research process. Through this process, CollaboFramework helps to evolve interdisciplinary understanding, knowledge, creative solutions, and concrete actions. **CollaboFramework** is methodologically forked for different domains - **CollaboScience** and **CollaboArte**, among others.

Technology-mediated continuous change of collaboration space - *CollaboDialogue*

Understanding the importance of **dialogue as defined in David Bohm's work** and as a means of an incremental mechanism of collaborative research, we recognize dialogue as a **paradigm shifter** in DH research. In inheriting the semiotic essence of the term dialogue, it calls for a continuous change of collaboration space, support for evolutionary rather than revolutionary changes, or in other words, a mechanism for non-intrusive, but rather constructive changes. We practice this concept across the whole framework, affecting, among others, knowledge production, shared understanding, research structuring and research evaluation. CollaboDialogue being a paradigm shifter, it helps us in grounding principles for **transformation of the very socio-technical cyberinfrastructure used for DH tools**

“CollaboFramework aims for low-friction and non-disruptive mechanisms for performing the sustainable loop of research-dialogue (Figure 1)”.

In that way, practicing both analytical and synthetical phases of collaborative dialogue, we are capable of continuous creating/collecting and curating data and finally converging toward knowledge and insights, while we are iterating through the loop.

Through the workshop, we will present this iteration and its benefits by using **prepared**

examples. We will demonstrate both *at-place (located) vs. dislocated* and *real-time vs. asynchronous (offline)* collaboration dialogue.

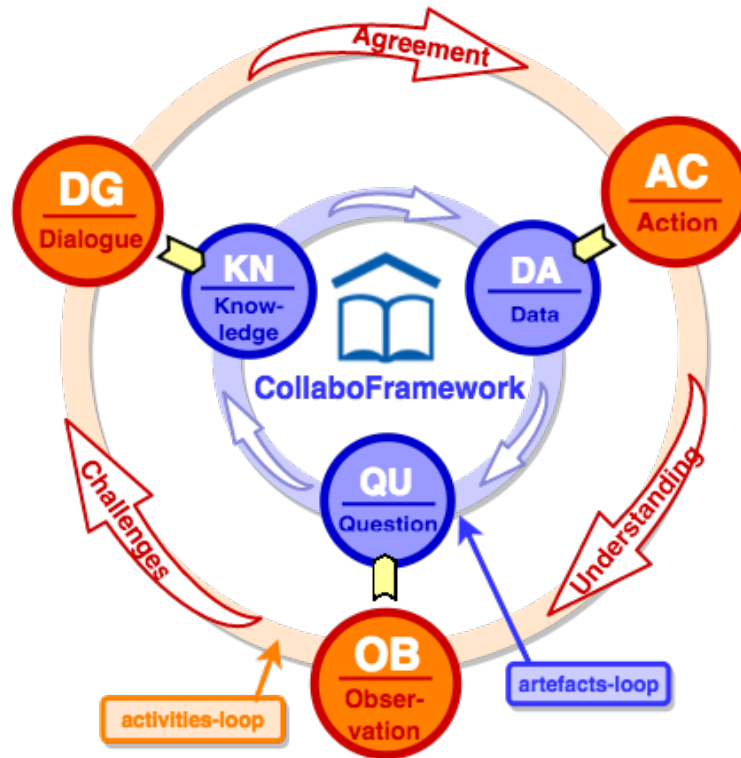


Figure 1: Principles of *CollaboFramework - the spiral of sustainable research collaboration*

KnAllEdge - a Collective Knowledge space

KnAllEdge is a knowledge layer that resides under the CollaboFramework and unites all the components of the framework in a low-friction collective knowledge space. In this sense, CF tools are continuously extending, modifying and improving the collective knowledge space, rather than producing isolated heterogeneous artefacts that would require constant additional maintenance work (articulation work). In order to support transdisciplinarity, ambiguity and convergence of shared understanding, KnAllEdge support fuzziness, multi-truth/opinion, and semantic richness and extendability. Through a set of extensions, it supports semantic searching, argumentation (dialogue mapping), boundary objects, RIMA (community interests mapping and filtering), real-time chatting, real-time knowledge management moderation, voting, namespacing, notifications, etc.

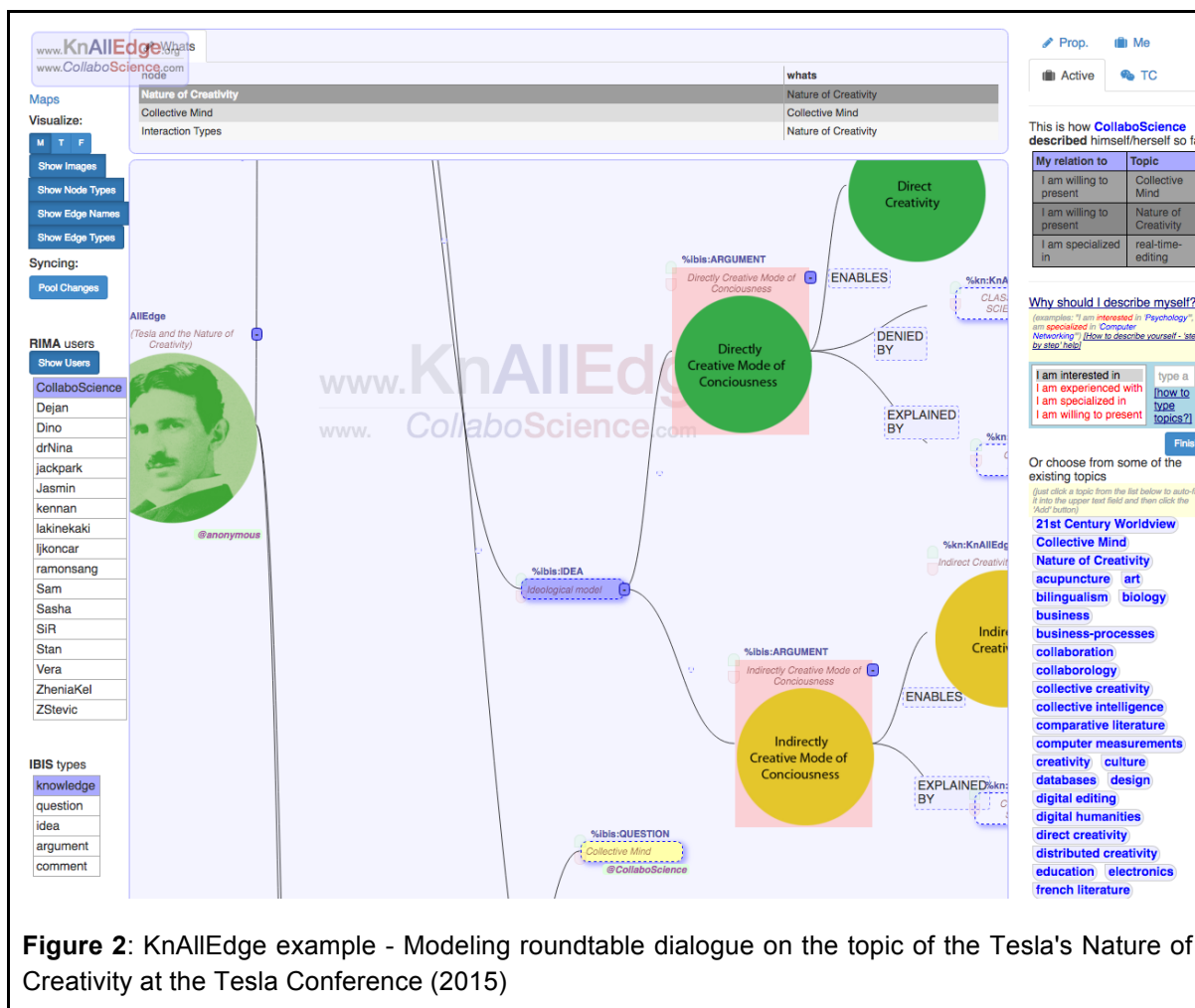


Figure 2: KnAllEdge example - Modeling roundtable dialogue on the topic of the Tesla's Nature of Creativity at the Tesla Conference (2015)

CollaboFlow - structured expression of research experiments

CollaboFlow - is a component that promotes structured expression of research experiments through **workflows** that are capable of capturing different aspects of a research experiment, while providing flexibility of collaborative discussion of a research process, proposing changes and eventually creating/forking research experiment replications and versioning of both experiment and datasets. In this way, it supports **research reproducibility** and encourages falsifiability.

Bukvik - an online environment for DH scholars

During the workshop, we will **demonstrate** it through real examples of stylistic research experiments of bilingual writers, realized with **Bukvik** - an online environment for DH scholars interested in textual (stylistic) corpora analysis (and the subject of a pre-conference workshop at DHN). Bukvik integrates CollaboFlow for experiment design together with presentation and collaborative discussion of research outcomes.

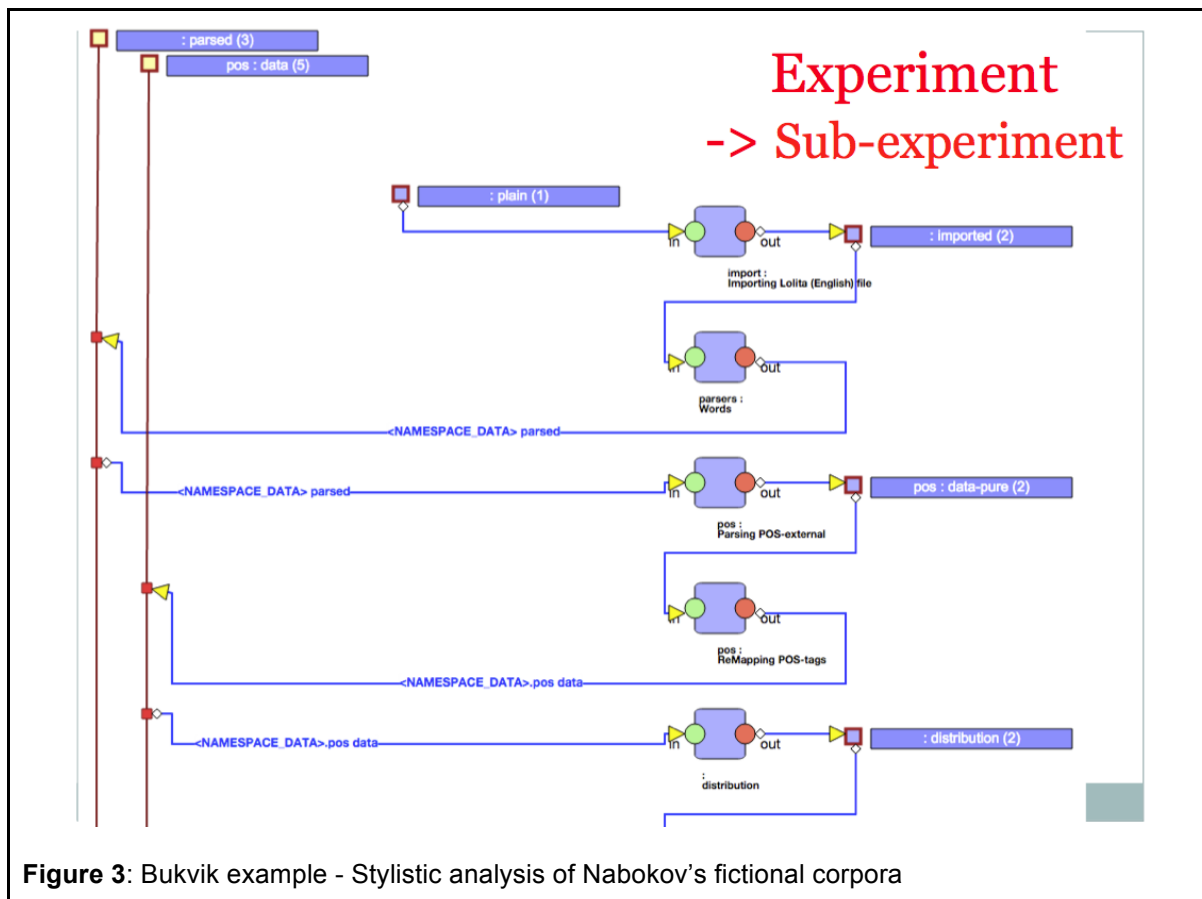


Figure 3: Bukvik example - Stylistic analysis of Nabokov's fictional corpora

Organizers

Institutions supporting the workshop: Oslo University, ChaOS (Cultural Humane Art Of Science), Knowledge Federation, and Centar za digitalne humanističke nauke (CDHN) Belgrade.

Saša Mile Rudan is completing his Ph.D. in Computer Science at Oslo University. He is affiliated with Serbian DH center and cofounder of ChaOS organization. He specializes in complex collaborative socio-technical systems (be it architecting and conducting research on them, leading transdisciplinary production teams, or taking an entrepreneurial role), social processes, and knowledge management. His interest in literary analysis lies in bridging the socio-technical gap for scholarly research, in the Qualitatively Augmented Quantitative Analysis (QaQa) methodology, cross-lingual and cross-cultural comparison and in supporting under-resourced languages. These interests led to his involvement in projects: LitTerra (www.LiTerra.info; augmenting books, providing a literary-ecosystem with deep in-book and inter-book insights) and Bukvik (Bukvik.LiTerra.info), a research infrastructure for literary scholars.

Sinisa Rudan is cofounder of ChaOS organization and owner of MagicWand Solutions. He is an independent researcher in the domain of collaboration, social-psychology in socio-technical systems, and leadership; an entrepreneur and an artist. He was coordinator for academic community of the The National Council for Serbian Language and Script and on several positions in lecturing, editing specialized magazines and conferences, jurying competitions in the area of multimedia and IT, as well as leading teams on transdisciplinary projects. His work and research is focused on creation of

methodologies and tools for transdisciplinary collaboration of arts, science, and humanities professionals.

Dino Karabeg is a professor at the Oslo University Department of Informatics. With a PhD in computer science and a MS in environmental system analysis, he has been active in the area of complex systems and knowledge representation for more than 20 years. He is the creator of the concept and methodology of "*Knowledge Federation*" (<http://www.knowledgefederation.org>) a sound framework designed to integrate disparate worldviews into coherent and operational systems.

Eugenia Kelbert is a Lecturer at Passau University in Germany. She completed her PhD in Comparative Literature at Yale University in May 2015. Her current book project is based on her dissertation, and focuses on the phenomenon of literary translingualism in the 20th and 21st century, and included extensive quantitative results on bilingual writers' work in different languages. She has written on Brodsky, Nabokov and Romain Gary, as well as other translingual writers. Her interests include Digital Humanities, translation theory, stylistics, national and identity discourses, poetry, and quantitative approaches to textual analysis.