ABSTRACT

Recently, multiple collaborative initiatives have been established which all aim to incorporate and enhance the representation of multilingualism into discussions on the otherwise largely English-dominated “field” of digital humanities. Taking sensitivity to multilingualism as an overarching concept, the present paper introduces and analyzes some recent, and ongoing, collaborative initiatives (mainly with a starting point in Europe) to show how these projects conceptualize, handle, and strive to strengthen language diversity in DH. More specifically, the examples featured in the article include preliminary insights from the Disrupting Digital Knowledge Infrastructures collective, lessons from my pilot graduate course (Digital Humanities and East Asian Studies: Theory and Practice), as well as the role and significance of the DARIOH-EU supported OpenMethods platform. Ultimately, the paper, which also features interviews with Erzsébet Tóth-Czifra and Cosima Wagner from two of the abovementioned initiatives, argues for the importance of language sensitivity in research, teaching, and knowledge dissemination to create a more inclusive, and collaborative, basis toward multilingualism in DH.
In the still predominantly West-, more precisely Anglophone-, centric ‘field’ of digital humanities (DH), working with non-Latin scripts in general still constitutes a relatively niche phenomenon. I have discussed the state of the field elsewhere from the perspective of East Asian studies and DH, where I argued for the need for a “modern hitsudan,” or “modern brush talk,” a more active exchange between the different subfields of East Asian studies in the context of DH, focusing on Japanese, Chinese, and Korean studies. In that paper, I focused more on what I called “spatial and temporal divide,” which impacted, and still impacts, the nature, the challenges, and the outcome of such DH projects, and I explained the role of digitization problems in that context. While these issues, to a large extent, still prevail (with some emerging transnational East Asian DH initiatives), rapid changes in the field, particularly in relation to the broader question of multilingualism in DH, have entailed a number of further perspectives to consider for future purposes.

In my previous paper, I briefly mentioned the importance of collaboration as a potential, but still often theoretical, solution for the future. However, with the shifting dynamics and development of the DH field in general, one thing I realized is that beside the importance of meaningful and effective collaboration, raising awareness of the peculiarities and challenges that those dealing with non-English texts and non-Latin scripts in a digital context regularly face is also key to the development of this area. Further, I would also argue that while area-specific DH workshops and other events are useful venues for discussion, the effectiveness of knowledge dissemination about the practicalities and realities of engaging in DH beyond the Anglophone scene could be enhanced by extending its reach and scope to the broader scholarly community.

In this vein, the focus of this paper will be on the critical introduction of initiatives that aim to foster inclusivity in DH through visibility from the perspective of multilingualism, in this case through the promotion of non-English voices. My background is in East Asian studies (with a focus on Japanese, Chinese, and Korean history) with a PhD from an American institution, and I am currently employed in Europe which both enables me to discuss this topic through my own experience but also necessarily limits the scope of my approach in terms of area of study, research interests, linguistic focus, and geographical embeddedness. Therefore, while the initiatives discussed below as case studies mostly have a broader linguistic coverage, the concrete examples and comments in my analysis will often be related to East Asian studies, my own field of study. While this may seem narrower than the broader context of multilingualism and the usage of non-Latin scripts, my approach aims to also show one way to handle the question of how the integration of such aspects can work in practice on a variety of platforms.

From the perspective of East Asia-related DH publications, the growing scholarship both in Asia-specific journals, such as the Journal of Asian Studies, the Journal of Chinese Literature and Culture, and the Harvard Journal of Asiatic Studies, and in DH-focused platforms, for example the Digital Humanities Quarterly and the Journal of Cultural Analytics, has contributed to the strengthening of the presence of non-Western voices in DH. The most recent pieces either

---

1 I use the term ‘field’ in quotation marks to describe the digital humanities as a reference to existing debates about its most suitable definition. Due to its complexity, DH has been defined in a variety of ways, some of which have been collected by Matthew Kirschenbaum, among others. In his essay, he mentions that “digital humanities is more akin to a common methodological outlook,” but it can also be considered “a social undertaking” and even a “movement”. In addition, Kirschenbaum points out that some platforms have treated DH as a “network topology”, and for a number of scholars, it is an “instrument for real resistance or reform” (Kirschenbaum 3–11). For further essays on this topic, see Gold (ed.), particularly Part 1. Joining these discussions about the most appropriate definition of DH is beyond the scope of the present paper, therefore I decided to use the term ‘field’ because I consider it sufficiently diplomatic in our context, but I have also added quotation marks to acknowledge the shifting and flexible nature of this notion.

2 Here, I refer to the following book chapter: Horvath, “Digital Brush Talk,” forthcoming publication.

present insights on the state of the field of DH or use DH to explore questions on a variety of topics, from Korean literature to Chinese philosophy and religion. Moreover, in addition to these analytical studies which utilize digital methods to interrogate East Asia-related research questions based on Japanese, Chinese, and Korean primary sources, the proportion of more ‘technical’ papers with a focus on tool development also continues to grow. The examples I mentioned above seem to demonstrate the dominance of China- and Korea-related papers, but interestingly, the last (technology-centred) category appears to show a significantly higher concentration of Japan-related contributions. This can be witnessed, for instance, in the case of Yuta Hashimoto et al.’s KuLA (Kuzushiji Learning Application) and Tarin Clanuwat et al.’s much-needed innovation, the KuroNet project which both aim to facilitate the digital recognition and reading of kuzushiji (premodern Japanese cursive handwriting) (Hashimoto et al. “The Kuzushiji Project” and Clanuwat et al. “KuroNet”).

The emerging existing scholarship thus showcases the growing representation of East Asian languages in DH both in terms of technological development and practical application. At the same time, these pieces also demonstrate increased attention and the intention to facilitate and improve the experience of East Asia scholars with digital methods by targeting some of the most challenging problems of the field, particularly with regard to digitization techniques and OCR (Optical Character Recognition) processes. In a broader sense, though, the particular needs of those working with East Asian language materials and non-Latin scripts in general, still remain in the background, and the proportion of scholars actively engaged in such research is also in the minority in DH. That said, while this phenomenon can be witnessed, for example, in the dominance of ‘Western-language’-related presentations in the programs of most DH conferences, such events also provide an effective platform to cast light on ‘non-Western’ perspectives—often offering a revelatory experience to the audience about the realities of conducting digitally enhanced research in a non-English and non-Latin context. The projects below also constitute promising examples of how the questions of dealing with non-Latin scripts and with languages beyond the Anglophone realm, such as in the case of East Asian languages, in the context of DH could be integrated into broader discussions by giving these issues more visibility. Through the examination of various projects that intend to draw the scholarly community’s attention to the challenges, processes, and methods of conducting digitally enhanced research, this paper also aims to contribute to the existing scholarship that focuses on strengthening inclusivity in DH that is more sensitive to multilingualism.

Recently, a number of international initiatives, such as the DARIAH-EU (Digital Research Infrastructure for the Arts and Humanities)-supported OpenMethods platform or the NEH (National Endowment for the Humanities)-funded New Languages for NLP: Building Linguistic Diversity in the Digital Humanities project, organized by Princeton University, Haverford College, the Library of Congress Labs, and DARIAH, have emerged to address the problem of ‘digital monolingualism’ by aiming to strengthen the abovementioned underrepresented voices through the power of collaboration (“DARIAH EU” and “New Languages for NLP”). With a focus on language inclusivity, these projects emphasize the importance of multilingualism in digital research and in the development of digital infrastructures (depending on their respective scope) by drawing attention to the perspectives of scholars beyond the context of English-language corpora and tools. As a scholar working with Japanese, Chinese, and Korean texts, I consider these initiatives very promising and highly forward-looking, since they have the potential to not only advocate for more linguistic diversity in DH, but to also accelerate the creation of a more balanced language representation in both research and technology.

In the following, I will introduce two relevant case studies, OpenMethods and the Disrupting Digital Knowledge Infrastructures (DDKI) collective that I have been involved in as a member of the editorial team and as contributing researcher, respectively (since 2020), to discuss in more concrete terms how these initiatives aim to diversify DH through the lens of multilingualism. Beside advocating for multilingualism, another shared characteristic of these initiatives is the idea of sensitivity, which manifests itself here in the process of raising awareness and in the
creation of enhanced visibility through collaboration and towards linguistic inclusivity. Since I am currently based in Hungary, the following case studies will present predominantly Europe-focused developments in this regard. As a scholar in East Asian studies, I see my role in these projects as an advocate for the enhanced representation of non-Western and non-Latin (primarily East Asian) voices in a Western DH context from the perspective of linguistic diversity. However, these projects are collaborative by nature, and the contributors of both OpenMethods and the DDKI initiative show a very high degree of diversity in terms of location, linguistic background, and institutional position, which all shape their perspectives. Therefore, the relevant sections of this paper will intertwine my critical analysis with the reflective insights of other participants in the form of interviews with Erzsébet Tóth-Czifra (chief editor of OpenMethods and open science officer at DARIAH-EU) from the former project and with Cosima Wagner (academic librarian at Freie Universität Berlin) from the latter initiative, in order to create and showcase a more holistic and multifaceted picture. These initiatives have a focus that extends beyond the immediate context of East Asian languages but, owing to the relevant background of its participants, aims to enact a form of what might be called ‘language sensitivity’ by also incorporating such voices into their engagements. In addition, they all constitute useful and thought-provoking platforms that can serve as effective means to help scholars dealing with texts in East Asian languages, for example, give visibility to the methods and realities of their research processes to a broader audience concerned with the importance of multilingualism in DH. It should be noted that while the interviews are both rich in content, embedding them in the analysis in their entirety would exceed the limits of the paper, hence I have incorporated only specific, and closely relevant, excerpts from these conversations into the main discussion and included the full interviews in the appendix.

At the same time, I also believe that the abovementioned point on the role of language sensitivity could (and should) include areas beyond research and research communication through the expansion of its scope to the realm of teaching. Thus, I will also dedicate a section to some preliminary lessons learned from my recent graduate course on digital humanities for students in East Asian studies at Eötvös Loránd University as an example regarding the intersections of sensitivity, inclusivity, and multilingualism. As a final note, the projects introduced here aim to approach inclusivity and sensitivity from multiple perspectives language- and content-wise, but the present paper, while acknowledging this diversity in interpretation, will place particular focus on language-related aspects. Further, it should also be mentioned that fully covering the state of the field is beyond the scope of this paper. Hence, the following case studies will concentrate predominantly on Europe-based projects, while also seeking to be of interest to the wider scholarly community as promising and potential solutions.

MEDIATING DIGITAL MULTILINGUALISM: THE OPENMETHODS PROJECT

As mentioned above, aside applied digital research (collaborative and otherwise), raising awareness of the procedural mechanisms and realities of conducting such projects beyond the Anglophone realm is also crucial to the development of a more inclusive DH environment. At the same time, finding the most effective methods to advance digital practices and research communication in a multilingual environment also constitutes an important, but challenging, undertaking. The OpenMethods platform (openmethods.dariah.eu) aims to connect these two aspects by collecting and publishing openly accessible and online-available content featuring DH methods and tools in a multilingual and multidisciplinary format. The project is inclusive of all digital content types (research articles, but also blog posts and videos, among others) and has been sustained by DARIAH-EU in collaboration with OPERAS (open scholarly communication in the social sciences and humanities in the European research area) (OPERAS).

OpenMethods is an ongoing project and strives to serve as a multilingual hub and point of reference for researchers looking for existing tools that might be relevant to them. This is important because scholars contributing to digitally enhanced projects still often feel the need to also create a new digital tool to achieve their research goals, instead of utilizing existing software. One could name numerous reasons to explain this phenomenon, but sometimes this

---

5 Both interviews took place in a written format on 18 December 2020 and on 31 December 2020, respectively.
occurs due to the lack of visibility regarding the range of available tools, making it challenging for scholars to discover them.

According to my discussion with Erzsébet Tóth-Czifra, chief editor of the project and open science officer at DARIAH-EU, the raison d’être of OpenMethods is to help “arts and humanities scholars navigate and reflect on the dynamically evolving landscape of digital humanities. […] Content can be proposed by community volunteers and the Editorial Team, which currently consists of 30 members from 12 countries” (“Who we are”).

The OpenMethods project represents an effective example of sensitivity, which manifests itself in practice in the form of mediation, while also speaking to the importance of multilingualism in action. Before delving into the exploration of the latter point, however, I will first introduce the multifaceted characteristics of the platform through the concept of sensitivity.

OpenMethods aims to serve as a bridge between linking a broad scholarly community by offering curated visibility to openly accessible and reusable digital methods and tools while also exploring means to effectively expand the platforms of research communication in the twenty-first century. Intertwining language sensitivity with inclusivity, OpenMethods strives to create an inclusive platform in terms of the diversity of its contributors and its scope, while remaining sensitive to the needs and diversity of its target audience too, which consists of well-established experts of DH, scholars who are just beginning to familiarize themselves with the field, and DH journal editors. An additional strength of OpenMethods in this regard is that it aims to intertwine inclusivity with collaboration and visibility. Tóth-Czifra seems to share this view by approaching the question from a procedural perspective to highlight the practicalities and mechanisms of collaboration to create inclusive content. According to her:

OpenMethods has been designed to filter the growing discussion around DH tools and methods and to help scholars and practitioners navigate this landscape. Community review and curation is key to fulfill this ambition. That said, the platform is open for anyone to nominate content to be republished (“Submit a content”), but […] all suggested content is first discussed and reviewed by our Editorial Team. […] Further, one of the editors adds a brief introduction to each post in English on the relevance of the republished content in the context of DH practices.

It should also be noted that in the case of OpenMethods, the idea of collaboration is not limited to the context and inclusive nature of the project workflow, but also extends to broader, and more theoretical, questions regarding the significance, characteristics, and dynamics of DH research and DH as a phenomenon in general. According to Tóth-Czifra:

One important question is how to reflect the collaborative nature of DH research in publication patterns and how to properly acknowledge and credit the many contributors to DH scholarship: the archivist whose insider knowledge is, in many cases, instrumental in data collection, the developer who writes the code, engineers of crucial infrastructural components, translators, data cleaners, etc.

As I mentioned earlier, an important issue in the development of a more inclusive DH environment both in terms of the practice of research and of knowledge dissemination is related, among other aspects, to the ability to find the most useful method for the purpose. This form of ‘thematic inclusivity’ is the point where the intervention of OpenMethods appears to be the strongest, and probably clearest, since the platform effectively intertwines visibility and sensitivity as a form of raising awareness to critical discussions of, and about, digital methods and tools which are still underrepresented in the DH realm. The goal here is not only to draw attention to existing DH methods and tools, but also to stimulate and mediate much-needed discussions on the questions of method criticism and DH research processes by also giving more visibility (and credit) to existing conversations in this context, which, as Tóth-Czifra remarks, “are happening via dynamic content types such as blogs, videos, and podcasts […but] are almost entirely invisible in formal academic recognition systems”.

So far, we have discussed the role and importance of sensitivity in enhancing inclusivity (thematic and otherwise), collaboration, and visibility, taking the OpenMethods project as a case study. Yet one of the most original aspects of the platform sheds light on another layer of sensitivity and inclusivity by emphasizing the importance of multilingualism in DH and by
aiming to show how that might work in practice. In an era still heavily dominated by English in the context of DH, OpenMethods represents a fresh platform to share content in a variety of languages, which also constituted one of the main reasons that led me to join its editorial team in mid-2020, as I was experimenting with and searching for effective communication channels to raise awareness of the importance of multilingualism in DH. OpenMethods clearly represents a promising platform for the purpose, although it is currently still dominated by ‘Western’ languages. As the only East Asian studies scholar on the current editorial team, one of my major goals is to draw more attention to East Asia-related voices and, in a larger sense, the situation of non-Latin scripts in DH.

As part of this endeavor, and as a form of further ‘humanizing’ DH, we have introduced a novel, and experimental, interview series on the platform, named Spotlight. The episodes of the series are closely connected to other ‘standard’ posts introducing a specific tool or method, but the goal is to showcase the thought process, the context, and, perhaps most importantly, the individual(s) behind a certain digital tool. As another channel to provide visibility to non-Latin perspectives as well, the Spotlight series debuted with an interview with Hilde De Weerdt, professor of Chinese history at Leiden University and a key figure in the Asia-related DH community, on MARKUS, her multifunctional digital tool compatible with Chinese (and now Korean) texts. The fact that this first Spotlight interview was translated into Japanese by Nobuhiko Kikuchi (another notable member of the Asian DH realm as associate professor at Kansai University) shortly after its publication indicates the need for contents covering non-Anglophone topics and their promising impact for the future.

On the other hand, despite OpenMethods’ clear focus on visibility and inclusivity regarding DH methods and tools while remaining sensitive to multilingualism, the practicalities of raising awareness of the importance of the latter still constitutes a challenging undertaking. Speaking about the realities of what it means to foster a multilingual DH environment, Tóth-Czifra also pointed out:

> Multilingualism is a key value in digital humanities, but it also constitutes a great challenge. As a team, we understand that by far not all knowledge that is important is in English. Coming from very different geographical and scholarly backgrounds also means [for the team] that we are embedded in digital humanities discourses in different languages, including those that use non-Latin scripts. It is an important goal for us to showcase the richness and peculiarities of these multilingual discursive spaces: we (re)publish content from all languages our editorial team is able to curate. In each case, we add an introduction to the posts in English (as a sort of lingua franca) and offer preliminary insights into the content also for those who are unfamiliar with the given language. At the same time, our posts are still heavily geared towards English for at least two reasons: due to broader accessibility reasons, the non-English speaking communities themselves often ask us to rather highlight the English version of their content (if available). Not to mention, in many cases, the curation and publication of non-English content requires specialized knowledge and extra effort from the curators.

To build upon Tóth-Czifra’s point, it should be noted that while the majority of the contents on OpenMethods have so far appeared either only in English or in combination with other languages, such as German and Spanish, the projects introduced in the posts cover a significantly greater range of languages, such as Chinese, Greek, Latin, Hebrew, Arabic, Italian, Coptic, and Dutch.

On the other hand, multilingualism represents an important factor to take into account regarding the future of the platform as well, particularly in relation to the question of access. As Tóth-Czifra explains:

> In general, multilingual/native language publications or outputs of local or of culturally specific relevance should be rewarded to overcome the distortions favoring...
Anglophone publications. Even more importantly, it is really the future of the richness of our knowledge representation capabilities that is at stake when we talk about optimizing DH tools to different languages.

OpenMethods thus aims to build upon its intermediary role in knowledge dissemination through its focus on strengthening the discourse on DH tools and on the question of how to make them more inclusive in terms of languages while remaining sensitive to the needs of a broad and diverse scholarly community in order to experiment with using these tools for more effective research communication and for enhanced visibility.¹

**ADVOCATING FOR DIGITAL MULTILINGUALISM: THE DISRUPTING DIGITAL KNOWLEDGE INFRASTRUCTURES COLLECTIVE**

Over its multi-year history, the *OpenMethods* project has established itself as a platform for the collection, curation, and dissemination of open access content on DH tools and methods. As we saw above, it operates and aims to achieve its mission through the effective intertwining of sensitivity, inclusivity (in terms of content and languages), enhanced visibility, and multilingualism. In this case, multilingualism, that is the promotion of diversity and the inclusion of non-English voices, sometimes appears ironically through the usage of English as lingua franca. Due to the linguistic background of the team behind the project, the majority of the posts published on *OpenMethods* have so far concentrated primarily on ‘Western’ languages, although the platform has recently started to broaden its horizon to languages that use non-Latin scripts as well.

Compared to *OpenMethods*, the newly established *Disrupting Digital Knowledge Infrastructures* collective demonstrates an elliptic example with a shorter history, but with a more explicit focus on advocacy for the strengthening of non-English and non-Latin representation in DH and in the development of digital infrastructures (“Language Acts Theme One Summary” and “Language Acts Theme One Biographies”). Established in June 2020 under the title “Linguistic and geocultural diversity in digital knowledge infrastructures” and in conjunction with the *Disrupting Digital Monolingualism* symposium, a much-needed event organized by King’s College London, the group initially served as a starting point for discussion to identify and collect concrete issues and challenges that hinder the completion and effectiveness of digital projects based primarily on non-Latin scripts. With the participation of Cosima Wagner (Freie Universität Berlin, University Library), David Joseph Wrisley (New York University Abu Dhabi), L.W. Cornelis van Lit (Utrecht University), and initially Kiyonori Nagasaki (International Institute for Digital Humanities in Tokyo), Pascal Belouin (Max Planck Institute for the History of Science), and myself, this ongoing collaborative project aims to formulate a set of guidelines for universities, libraries, relevant organizations, and developers to consider towards a more language-inclusive digital environment, sensitive to the needs of scholars working with non-Latin scripts.

Akin to *OpenMethods*, the DDKI group also builds on sensitivity, inclusivity, and collaboration, prioritizing multilingualism, but its tone is, to some extent, different. The mission of both projects stresses visibility, but while *OpenMethods* serves more as an important bridge in the process of knowledge dissemination, the idea connecting language inclusivity and collaboration in the case of the DDKI collective is more related to advocacy tinged with sensitivity. “Sensitivity” appears here in a somewhat similar manner to what we saw in the case of *OpenMethods*, describing a key characteristic and target goal of the group which is about raising awareness and creating a more inclusive multilingual environment. Cultivating language sensitivity can help various stakeholders become more aware of and more attuned to the perspectives of underrepresented communities, in this case scholars with a background in non-English and/or non-Latin scripts, and it can also serve as a basis for the enaction and sustenance of diversity and inclusion.

The DDKI is a collaborative endeavor. Therefore, in order to further enrich the analysis of the role of this group and the problems it aims to handle, I have interviewed a core member of the project, Cosima Wagner, for additional insights on the significance and meaning of

¹ For more information on services to enhance visibility in this context, see Tóth-Czifra (2019).
multilingualism in theory and in practice and how the ddKi collective might deal with these questions. Wagner reflects on the meaning and realities of multilingualism by pointing out:

based on my experience, when introducing the topic to a DH-related audience who does not have experience with non-Anglophone languages and/or with non-Latin scripts, I often hear critical remarks that in their understanding (at times with a reference to computational linguistics), the term ‘multilingualism’ is connected primarily to the ability to speak in more than one language—not to the matter of different scripts. Furthermore, it is frequently mentioned, that with regard to software development, ‘multilingualism’ would mean the ‘localization’ of an Anglophone computer system or software to other ‘local’ languages (particularly commercial software). For me, these remarks show that it is necessary to lobby for a more inclusive understanding of the term ‘multilingualism’, which emphasizes that ‘multi-linguality’ also includes non-Latin languages and scripts beyond the Anglophone sphere and that we should not take the ‘Anglo-American mother tongue’ of computers and databanks as the ‘master’ layout of digital systems (Steiner xvii). This is especially important when designing multilingually enabled knowledge infrastructures for universities, libraries, and in the context of DH research and teaching. [...] In the end, I think that multilingualism in DH is strongly connected to a more critical view on monolingual knowledge infrastructures surrounding us in academia in general and in DH research and teaching in the context of area studies in particular.

At this point, it is worth returning more closely to the ddKi project to highlight some of the activities and key findings that the group has identified so far. Here, I would point out that the group has been engaged in setting the foundation of a comprehensive set of guidelines by searching for the most effective means to familiarize themselves with the ‘state of the field’—that is, the realities and needs of those working with non-English and non-Latin texts—and to collect as much data and as many concrete examples to consider as possible. This process has so far included a preliminary survey conducted in a relatively short period within the framework of the related symposium mentioned above and was shared online on various DH-related networks and on social media. The survey aimed to gather information about the languages and scripts used by the respondents, the difficulties they often encounter in their work, the needs and goals that they wish they could accomplish with appropriate digital tools, as well as any workaround methods to remedy—or at least mitigate—their existing challenges.

The preliminary (soon to be published) analysis of the results have already shown two overarching trends: an extremely high diversity in languages and scripts used by the respondents in the sample, as well as in the interpretation of what it means to conduct ‘digital research.’ The first aspect is of importance because it reveals the heterogeneity and multifacetedness of these underrepresented communities, prompting us to reconsider the meaning of the ‘margins’ in this context. On the other hand, analyzing the latter factor in more depth will likely be of interest not only to scholars working with non-English and/or non-Latin scripts and other stakeholders whom the guidelines aim to target, but also for anyone interested in DH because the diversity of responses, particularly with regard to the needs of the participants, can contribute to existing discussions on the realities of using digital tools beyond the Anglophone realm, as well as on the very meaning of DH in general.

Further, while a broader distribution of the survey and a more thorough examination of the results is still necessary, our initial analysis has revealed that the challenges the scholars in question often experience and the wishes they have can be as ambitious as a large-scale digital text analysis with proper OCR processes (which may not necessarily be a particularly complicated undertaking in an Anglophone context, but it does have numerous potential pitfalls in other cases) or as fundamental as simply being able to properly type and digitally display the special characters of a specific language correctly. These insights are clearly revelatory in terms of the realities of digital research processes for a large group of scholars with the potential to open up novel directions in broader discussions on imbalances in accessibility and the importance of creating a more language-inclusive—and sensitive—environment.

Further details on the more thorough analysis of the survey constitutes the focus of the ddKi collective’s collaborative paper in progress.
In the interview, Wagner also reflected on the realities and practical impact of issues related to “monolingual/Latin-script-based knowledge infrastructures,” referring to concrete examples, such as “library discovery systems, which do not sufficiently support the retrieval of catalogue data in non-Latin scripts, missing metadata standards, or a lack of research software engineering staff for supporting multilingual DH projects,” adding that “this is the point where the issue of how a university library can better support the internationalization strategy of its institution arises and makes the overall importance of multilingually enabled infrastructures obvious.” From the perspective of a researcher in East Asian studies, one could also mention here the problems of finding the most effective OCR methods that produce consistently high levels of accuracy (even in the case of premodern texts), as well as the need for text analysis techniques that make processing non-Latin corpora smoother by being sensitive to the nature of such languages, for example the lack of white spaces and punctuation in many cases.

In terms of visions for the future, and akin to the analysis of the OpenMethods project, it is worth discussing the question regarding the enhancement, cultivation, and sustenance of multilingualism in DH and how all this can be connected to the engagements of the DDKi collective. Wagner enumerates multiple concrete factors to consider, such as “the lack of sustainability regarding multilingual services and solutions,” only “locally known” multilingual best practices, “the Anglophone dominance of all computational and software infrastructure [and] the lack of participative co-design” in the context of the latter, “as well as the issue of increased dependency on corporate solutions, and fundamental problems with the practicalities and challenges of lobby activities.”

Wagner shares my view on the importance of collaboration in this regard, enhanced by a sensitive attitude towards true and effective multilingualism in DH. This could take multiple forms, for example among multilingual DH practitioners also in cooperation with librarians and relevant software developers, or even “between academic librarians with a special focus on DH infrastructure support and management.” Here, akin to the aims of the OpenMethods platform, the idea and importance of effective communication about the methods and processes leading to the execution of relevant projects cannot be stressed enough as a means to enhance the visibility of the mechanisms of multilingual DH research practices and to create an environment that is more sensitive to the needs and realities of DH projects beyond the Anglophone sphere. As Wagner also emphasized, “multilingual DH projects mostly report on results, and less on infrastructures, methods, and processes that lead to these results. However, this information would be crucial for any researcher or student embarking on a multilingual DH project and searching for best (and worst) practices.”

Moving forward, with regard to the DDKi collective’s future, one task for the project is to continue the large-scale gathering and a more thorough analysis of information about the realities and needs of multilingual DH practitioners with the goal of creating a more systematized and organized set of guidelines for institutions to consider. Wagner elaborated on this idea by envisioning the project “as an active node point towards making a change and for encouraging networking [while also] showcasing more concrete ‘user stories.’ […] [A] significant future task for us is to bring together more voices from the community, to analyze and structure these user stories, and to collect the recurring and individual needs they have” while also considering “sharing expertise across the boundaries of our institutions, countries, and disciplines.” I should add that this might entail more active collaboration with existing communities and networks of relevance, such as the Multilingual DH group, various organizations of ADHO (Alliance of Digital Humanities Organizations), such as the Japanese Association for Digital Humanities and the Taiwanese Association for Digital Humanities, among others, as well as

---

10 For instance, the LIBER DH and Digital Cultural Heritage working group: “LIBER Digital Humanities & Digital Cultural Heritage Working Group,” LIBER Europe: libereurope.eu/working-group/digital-humanities-digital-cultural-heritage. From the perspective of East Asian studies, the International Conference on the Cyberinfrastructure for Historical Chinese Studies at Harvard University in 2018 also sought to open up discussions on collaboration in relation to infrastructure development: International Conference on the Cyberinfrastructure for Historical Chinese Studies, projects.iq.harvard.edu/cbdb/international-conference-cyberinfrastructure-historical-china-studies.
ENACTING SENSITIVITY IN MULTILINGUAL DH: TEACHING DH IN THE CONTEXT OF EAST ASIAN STUDIES

So far, we have examined how inclusivity and collaboration can foster multilingualism in digital humanities from the perspective of mediation and advocacy. The two case studies introduced above both effectively show possible methods and practices to promote and advocate for language diversity in DH through the concepts of visibility and sensitivity. In this last section, I will add a third layer to the discussion by pointing out the importance of education, and will argue that it also has the power to contribute to the cultivation of sensitivity as it pertains to multilingualism in DH. This part will focus on East Asia-specific considerations but seeks to be relevant to the broader context of non-Latin scripts and DH in general as well.

Pedagogical considerations represent a growing platform for debate in the existing literature of DH. Efforts to juxtapose different approaches to the methods of teaching DH have so far translated to multiple contributions, such as Brett D. Hirsch’s edited volume, *Digital Humanities Pedagogy: Practices, Principles, and Politics*, certain essays in the Debates in the Digital Humanities series, as well as the edited volume of Jennifer Travis and Jessica DeSpain, which connects DH pedagogy to nineteenth-century American literature. These works unequivocally constitute an important segment of DH literature and in many ways contribute to the strengthening of the role of DH in higher education. However, with some exceptions, such as Celeste Tng Vy Sharpe and Timothy B. Powell’s piece which approaches DH by arguing for “a more culturally specific and nuanced model of Iroquois or Haundenosaunee temporality to more accurately represent how Indigenous peoples tell their histories,” the majority of these essays have a tendency to remain in a predominantly Anglophone context (Sharpe and Powell 167–84). This phenomenon is not necessarily surprising, considering that DH education, for the most part, takes places either in English programs or within the framework of separately established digital humanities centers, particularly in the ‘West’. A move towards discipline-specific discussions can certainly be observed, for example in the case of archaeology or public history, but multilingual perspectives, particularly regarding non-Latin scripts, have not yet become the center of scholarly attention—neither in terms of publications nor in pedagogical practices.

The question of DH pedagogy in area studies could constitute the subject of an entire paper, but it is still worth mentioning it here as another concrete platform to raise awareness and to cultivate an inclusive environment, sensitive to the significance of multilingualism in DH. DH courses in area studies are still in the minority in the current range of related offerings. In the case of East Asia-related DH (which, at most institutions, focus on the study of Japan, China, and Korea), for example, the few courses that have taken place so far were offered through East Asian studies departments (at least in the ‘West’) and, presumably due to the background and proportion of specialists, were focused primarily on Chinese.

---


12 Hirsch ed., Travis and DeSpain eds, also see Fyfe 104–17, Selisker 194–98, Earhart and Taylor 251–64, Cordell 459–74, and Gold ed., particularly Part Five. It should also be mentioned that DH pedagogy and the usage of the digital in teaching constitute an integral part of the annual Digital Humanities Summer Institute in the form of an aligned conference (organized by the ADHO Special Interest Group for Digital Humanities Pedagogy and Training and the INKE Open Social Scholarship Cluster), entitled “Open/Social/Digital Humanities Pedagogy, Training, and Mentorship,” and through multiple courses as well. Recent offerings in this regard have included courses on “Critical Pedagogy and Digital Praxis in the Humanities,” “Pedagogy of the Digitally Oppressed: Anti-Colonial DH Critiques & Praxis,” and “Digital Humanities Pedagogy: Integration in the Curriculum.” For more details on the content of these programs, see Digital Humanities Summer Institute, [dhsi.org/](http://dhsi.org/).

13 For example, Donald Sturgeon’s course in 2016, entitled “Digital Methods in Chinese Studies,” at Harvard University and Molly DesJardin’s East Asian Digital Humanities course at the University of Pennsylvania in 2018. On the other hand, the Digital Humanities Summer Institute (DHSI), held at the University of Victoria, has offered relevant hands-on training under the title “Digital Humanities for Japanese Culture: Resources and Methods” (2019), led by Kyonori Nagasaki, Satoru Nakamura, and Toshinobu Ogiso. For further information on the workshop’s content and structure, see [DHSI Digital Humanities Summer Institute](http://dhsi.org/wp-content/uploads/2019/09/12.-Digital-Humanities-for-Japanese-Culture-Resources-and-Methods.pdf).
When I started working at my current institution, Eötvös Loránd University’s East Asian Institute, I almost immediately approached the Center for Digital Humanities (now department) to discuss possible modes for collaboration (“ELTE BTK TI”). This has so far translated to a special issue to explore the current state of the field in East Asian studies and DH for the International Journal of Digital Humanities, for instance, coedited by Hilde De Weerdt and me (scheduled to be published in 2022). In addition, I also find it laudable that (rather unprecedentedly) Eötvös Loránd University has recently decided to integrate DH education into the BA and PhD curricula for all programs in the Faculty of Humanities in the form of one mandatory course.

Meanwhile, due to my own experience in mastering various skills from coding to visualization, I considered it important to build up a course specifically geared towards students studying languages with non-Latin scripts. My course, first offered in fall 2020 as a PhD-level unit was organized for students in the Japanese, Chinese, and Korean programs (due to my own background, language skills, and departmental affiliation) and, to the best of my knowledge, became the first DH course in area studies at the university.

The main motivation behind the creation of this course was related to my experience both as a learner of practical skills often used in DH and as a participant of numerous relevant workshops and conferences where, as Cosima Wagner also pointed out previously, I also found myself in the minority (‘on the margins,’ if you will) as a scholar working with non-Latin texts. Further, in the case of East Asian languages, which is the area that I am most familiar with, there is often still a frustrating gap between the broad range of generally available digital tools and methods and their actual applicability to non-Latin corpora, a phenomenon that still receives relatively limited attention. Based on my experience and on conversations with scholars (affiliated mostly with Western institutions) with or without experience in DH, an important consequence of the abovementioned situation is related to access: a number of students in East Asian studies do not (or cannot) explore the potential of DH in detail (or at all) because they often do not feel addressed by the available literature and course offerings, since these are often overly generic and rarely address the issue of multilingualism and the added challenges of dealing with non-Latin scripts. Not to mention, a number of students find the payoff of mastering DH skills, particularly programming, on top of having to deal with non-Latin (often premodern) texts (while also having to focus on completing their graduate studies within a set timeframe) questionable—resulting in sometimes ambivalent approaches to the practicalities of DH, which is worth addressing (or at least being mindful of) when organizing similar courses.

Thus, I built up my specialized course in order to mitigate the abovementioned problem and to introduce students to what DH is or can look like in a “non-Latin” context, with a focus on Japanese, Chinese, and Korean. I envisioned a course that intertwined learning about and learning with the digital through concept-based discussions and practical experimentations with concrete tools and aimed to cover various segments of DH to allow students to identify the most useful tools and methods for their respective projects and interests. In addition, the course also served the purpose of creating an environment that is mindful of and sensitive to the characteristics of conducting digitally enhanced research using texts in Japanese, Chinese, and/or Korean. The readings assigned to the entire group consisted primarily of English-language publications, and the language of instruction was also English as lingua franca (since part of the group was international). That said, almost all the readings represented examples of the manifestation of DH based on Japanese, Chinese, or Korean corpora as “precedents” to show them its relevance in these contexts. Students were not required to speak or read more than one of these languages, and I strove to create a balanced representation of readings related to either of the three languages in order to bring the topics discussed throughout the
course closer to them, while also creating a platform for exchange between students with diverse linguistic backgrounds. Through the intertwinement of more theoretical discussions based on the existing scholarship and some practical experiments with concrete software that can handle the relevant scripts (such as Palladio or Voyant), the course thus aimed to introduce students to the versatile repertoire of what ‘digital humanities’ has to offer while being sensitive to the peculiarities of conducting DH using Japanese, Chinese, and Korean materials.

However, through the weekly discussion-based sessions with the students, who, for the most part, joined the class with very limited or no familiarity with DH, I realized that while such a course can certainly be a useful introduction preceding more specialized modules, it can also mean much more than an introductory unit. This is because selecting a course that is focused on the cultivation of a specific skill can seem challenging for beginner students with no clear knowledge about what exactly in DH would be particularly useful for their individual needs, and a class with a broader scope with relevance to a specific language (or languages) can help effectively remedy this issue by serving as an eye-opening means for junior scholars to enrich their methodological skillset. Equally importantly, showing students techniques and tools compatible with Asian characters can reveal a curious dual approach to thinking about the intersection between multilingualism and DH and their impact on each other, which is both realistic and empowering. Realistic because it does not hide the challenges and limitations of such inquiries, but also empowering because such approaches provide a promising channel for knowledge dissemination and for critical experimentation at the intersection of inclusivity, collaboration, sensitivity, visibility, and multilingualism—and this is what ultimately all the projects introduced in this paper are about.

APPENDIX
(SLIGHTLY ABRIDGED) INTERVIEW CONDUCTED IN WRITING WITH ERZSÉBET TÓTH-CZIFRA ON 18 DECEMBER 2020

1. What is OpenMethods?

A paramount challenge in present-day humanities knowledge production is to communicate research results in ways that align with increasingly digital research workflows. The OpenMethods metablog aims to explore and deliver a solution for this need in a digital humanities (henceforth DH) context. It provides a platform to bring together all formats of openly available digital publications. To this end, the OpenMethods metablog provides a convenient and easy way for DH experts from around the globe to select, propose, curate, and highlight online published content. Suitable online content may be proposed by Community Volunteers. The OpenMethods platform is intentionally interdisciplinary and multilingual to facilitate a timely disclosure and spread of knowledge and to raise peer recognition for the related research results. The group of DH experts, known as the OpenMethods Editorial Team, currently comprises 30 editors from 12 countries.

2. How and why was OpenMethods created?

It would be lovely to say that OpenMethods was a genuine bottom-up initiative, fulfilling the need to reflect on and create pathways to the increasingly complex landscape of digital humanities tools and methods. But this is not completely true. Although helping arts and humanities scholars to navigate and reflect on this dynamically evolving landscape is indeed our mission, OpenMethods is originally coming from a H2020 (Horizon 2020 – The EU Framework Programme for Research and Innovation) project called Humanities at Scale. This project had been strongly affiliated with my organization, DARIAH and when the project concluded, DARIAH saw value in OpenMethods and decided to sustain it. ‘Sustaining’ in this sense has technical components, e.g. by hosting the platform (through

---

14 For further information on this, see “About,” OpenMethods, openmethods.dariah.eu/about; and “Welcome to HoS”, DARIAH, has.dariah.eu.

15 For further information on this, see “DARIAH EU,” DARIAH, dariah.eu.
our French partner, Huma-Num) or providing IT and infrastructure-building support that is done by my colleague, Yoann Moranville, who is among the founding members on the OpenMethods Editorial Team. But sustainability also comes with a community aspect and this is where (and when) I joined OpenMethods: DARIAH decided to provide workforce to fulfill the chief editor position, someone whose presence is stable and is independent from the project funding cycles that come for short periods in time and can never be taken for granted. OpenMethods had been officially launched at the end of 2017 and I joined the team in March 2018, when our previous chief editor, Delphine Montoliu, started her maternity leave. It was a truly exciting period in my life, and the OpenMethods team was the very first community I met in this new role of mine as DARIAH’s open science officer.

I am extremely grateful to the founding members, Claudia Engelhardt, Claudio Leone, Nicolas Larousse, Delphine Montoliu, Yoann Moranville, Pierre Mounier, Jenny Oltersdorf, Paulin Ribbe, and Ulrike Wuttke for their trust and to DARIAH for their rather unprecedented sustainability decision.

3. How does OpenMethods foster multilingualism in DH?

Multilingualism is a key value in digital humanities but is also a great challenge. As a team, we are well aware that by far not all the knowledge that counts is in English. Together we speak a total of 19 languages (Chinese, Croatian, Czech, Dutch, English, French, German, Greek, Hungarian, Italian, Japanese, Korean, Polish, Portuguese, Russian, Serbian, Slovak, Spanish, and Swedish.) Coming from very different geographical and scholarly contexts also means that we are embedded in DH discourses in different languages, including non-Latin ones. It is an important goal of ours to showcase the richness and special flavors of these multilingual discursive spaces: we (re)publish content from all languages our editorial team is able to curate. In each case, we add an introduction to the posts in English to open them up to the lingua franca and give at least a preliminary insight about the content also for those who are unfamiliar with the given language. But I also have to admit that our posts are heavily geared towards English for at least two reasons: due to broader accessibility reasons, in many cases the non-English speaking communities themselves are asking us to rather highlight the English version of their content if that is available. Second, the curation and publication of non-English content in many cases requires specialized knowledge and extra effort from the curators.

In general, multilingual/native language publications or outputs of local or culturally specific relevance should be rewarded to overcome the distortions favoring Anglophone publications. Even more importantly, it is really the future of the richness of our knowledge representation capabilities that is at stake when we talk about optimizing DH tools to different languages.

I am especially proud of our recent opening towards the better representation of Asian languages and non-Latin scripts in digital humanities. In the first episode of our newly launched Spotlight series, where we highlight people behind the DH tools and methods, is an interview with Professor Hilde De Weerdt about MARKUS, a tool that offers a variety of functionalities for the markup, analysis, export, linking, and visualization of texts in multiple languages, with a special focus on Chinese and now Korean as well. Just a couple of days later, we received a Japanese translation on our text from Kikuchi Nobuhiko!

4. How would you characterize the significance of this project?

The platform itself had been built on very simple and largely open content management tools. Clearly, the real power of the platform lies in the community around it: our editorial team currently comprises 30 editors from 12 countries who, as I mentioned earlier, are representing very diverse DH communities.

---

16 For further information, see “Huma-Num et votre projet de recherche.” Huma-Num, huma-num.fr.
17 On the beginnings of OpenMethods, see Engelhardt et al. (2017).
Our goal is to reach and engage the widest possible range of DH communities, ranging from scholars taking the first steps towards going digital in their research to DH experts who are shaping specific research areas as representatives of particular methods. Furthermore, DH journal editors are a special target group within the community as we are giving them a possibility to browse our content, and if they find a blog post or slides that might fit well in their journals, the platform may help them get in contact with the authors and encourage them to write up their content in a research article.

5. How would you summarize the scope of the content published on the platform?

We realized that finding and selecting the most relevant tools and methods for our research is not necessarily an easy task for many reasons. First, because of the information overflow. There is an enormous amount of information available today, especially online, and it is not easy to stay on top of it, navigate yourself through the pile, and select what to read. Second, what we saw is that critical discussion on methods and tools is important but currently underrepresented in the DH literature. Of course, if you are reading a research article, the methodology section gives you an idea, but it rarely has the capacity to provide a detailed and critical discussion and evaluation of the research methods and tools, what their alternatives and reuse potentials are, how decisions were made, and so on. So we wanted to bring more visibility to this type of discourse. Third, sometimes we see a conflict between the very dynamic and multimodal nature of innovations in DH and the relatively slow pace of academic publication. That is, we see in many cases that by the time results are getting published, there might be a new version of the software available or the achievements can get enhanced drastically.

By contrast, we see rich professional discussions going on via dynamic content types such as blogs, videos, podcasts. These are almost completely invisible from the formal academic recognition systems, and we wish to change this for the better and make them more visible.

Bearing all this in mind, we do not publish original content (apart from our new Spotlight series). OpenMethods is a metablog which means that we bring together, curate, and highlight all forms of open access content about DH methods and tools to spread the knowledge and raise peer recognition for them. And we are deliberately very inclusive with all sorts of content types. In addition to open access research articles, we also republish and bring together blog posts, videos, and podcasts because we see that these are becoming increasingly important aspects of scholarly work. They are not only accelerating discussions within and outside of academia but are also flexible enough to follow the dynamically evolving nature of DH.

6. There are a number of open access platforms for the dissemination of DH-related projects. What makes OpenMethods original in this regard?

Our inclusivity with all kinds of content types and our clear focus on methods and tools and the multilingual character of OpenMethods are clearly our main distinguishing features, but let me also mention something else. As I commented earlier, OpenMethods has been designed to filter the growing discussion around DH tools and methods and to help scholars and practitioners navigate this landscape. Community review and curation is key to fulfill this ambition. That said, the platform is open for anyone to nominate content to be republished (here or by tagging @openmethods_dh on Twitter) but unlike most aggregation platforms, on OpenMethods not everything is getting automatically republished—suggested content is first discussed and reviewed by our editorial team. The curation of the content does not stop there: as a form of enrichment, successful nominations are categorized with tags based on TaDIRAH [Taxonomy of Digital Research Activities in the Humanities] taxonomy, and one of the editors adds a brief introduction in English to each post, in which they explain the relevance of the republished content to DH practices. Then it is ready to go to users, consumers, and creators!
7. Is there anything you find particularly challenging regarding the development of OpenMethods? If so, what could be improved? And how do you envision the future of the platform?

Of course, to reach our goals to benefit the whole DH community, we have to overcome some of the challenges we are facing right now. These include reaching broader and broader readership and, probably even more importantly, finding solutions to best reward the volunteer work of our editorial team. We need to ensure that they are recognized for their contributions also in their immediate institutional settings. Further, as I mentioned earlier, there is a strong bias towards English-language content to overcome. We are also thinking a lot about how to build bridges and establish a bidirectional exchange between traditional journal publishing and novel components in scholarly communication, such as blogging. Most of our ideas for innovation come from our editorial team meetings when we enjoy the luxury of synchronous thinking. A particular direction of this is that we are seeking ways to put DH tools in service of more effective content discovery and enrichment, and create plugins for this purpose that are openly reusable to all WordPress users.

8. At our OpenMethods meetings, collaboration constitutes a recurring motif. How do you see the nature and importance of these collaborative projects?

We are all familiar with the mythical-allegorical figure of the lone single author but in reality, knowledge is very rarely, if ever, produced by individual human beings. Building on each other’s resources, ideas, needs, and failures is an absolute precondition of research. This becomes more apparent in DH, where we usually work in teams of professionals with different disciplinary, academic and, in many cases, also different geographical and cultural backgrounds. Or we borrow tutorials, tools, data, concepts, and knowledge from a commons that is available online and have been enriched from all corners of the world.

One important question is how to reflect the collaborative nature of DH research in publication patterns and how to properly acknowledge and credit the many contributors to DH scholarship: the archivist whose insider knowledge is in many cases instrumental in data collection, the developer who writes the code, engineers of crucial infrastructural components, translators, data cleaners, and so on. The ever-wider implementation of inclusive authorship and contribution guidelines such as the CRediT (Contributor Roles Taxonomy) taxonomy help us a lot in this respect, but clearly, these should be better integrated with academic tenure and promotion criteria.

The other question that I find really interesting is what we can uncover from the complexities that are inherently linked with collaboration: how power dynamics are arranged, what mental and emotional challenges need to be overcome, how translations of different kinds of experience (all of which counts and are relevant) happen, and how a great deal of tacit knowledge is uncovered. What we hope is that OpenMethods contributes also to opening a bigger window on these aspects of collaboration.

(SLIGHTLY ABRIDGED) INTERVIEW CONDUCTED WITH COSIMA WAGNER IN WRITING ON 31 DECEMBER 2020

1. What does multilingualism in DH mean to you?

First of all, thank you very much for giving me the opportunity to connect to your paper through this written interview! Indeed, I like your first question as an introduction to the topic of ‘multilingualism and DH’ very much, as it gives me the chance to touch upon two aspects, which are at the core of my occupation with the topic.

First, there is the definition of what ‘multilingualism’ means in general and in DH in particular. When introducing the topic to a DH-related audience who does not have experience with non-Anglophone languages and/or with non-Latin scripts, I often hear critical remarks, that in their understanding (at times with a reference to computational linguistics) the term ‘multilingualism’ is connected mainly to the ability to speak in more than one language—not
to the matter of different scripts. Furthermore, it is frequently mentioned, that with regard to software development, ‘multilingualism’ would mean the ‘localization’ of an Anglophone computer system or software to other ‘local’ languages (especially with regard to commercial software). For me, these remarks show that lobbying for a more inclusive understanding of the term ‘multilingualism’ is needed, which emphasizes that ‘multi-linguality’ also includes non-Latin-based languages and scripts from outside the Anglophone sphere, and that we should not take the ‘Anglo-American mother tongue’ of computers and databanks as the ‘master’ layout of digital systems. This is especially important when designing multilingually enabled knowledge infrastructures of universities, libraries, and especially for DH research and teaching.

What is more, if we understand DH as “the result of a dynamic dialog between emerging technology and humanistic inquiry”19 then the question of how DH technology development is shaped by languages and the effect it has on the selection of research topics, the availability/development of tools, and the discoverability of results must as well be an important aspect of humanistic inquiry.

This is the first meaning I associate with ‘multilingualism in DH’ and it leads to the second meaning for me as an academic librarian for the East Asian studies departments at Freie Universität Berlin with a focus on DH and research data management. Here, I experience the effects of monolingual/Latin-script-based knowledge infrastructures and the problems this produces for area studies researchers, students, as well as librarians—from library discovery systems which do not sufficiently support retrieval of catalogue data in non-Latin scripts to missing metadata standards or a lack of research software engineering staff for supporting multilingual DH projects...

At this point, ‘multilingualism in DH’ is a kind of ‘work assignment’ for me to collaboratively enhance and (re)design knowledge infrastructures for my patrons in the area studies departments, which support their needs for successfully pursuing research and teaching not only in DH projects with non-Latin scripts, but also in general for supporting their internationally connected research and teaching endeavors. Here, the issue of how a university library can better support the internationalization strategy of its institution arises and makes the overall importance of multilingually enabled infrastructures obvious.

So, in the end, I guess both aspects show that for me ‘multilingualism in DH’ is strongly connected to a more critical view on monolingual knowledge infrastructures surrounding us in academia in general and in area studies DH research and teaching in particular.

2. How do you see the ‘state of the field’ from the perspective of multilingualism?

This question is difficult for me to answer as I am rather a ‘newbie’ to the field of DH, and my take on it originates from an academic librarian perspective of ‘enabling’ DH research and teaching, supporting networking activities, and conducting lobby work for multilingually enabled knowledge infrastructures. I am not a DH practitioner—neither as a DH researcher nor as a research software developer. But I know that among the supposable readers of your paper there will be a number of experts like Domenico Fiormonte, Quinn Dombrowski, Alan Liu, Simon Mahony, or Elika Ortega and many others who have published widely on the topic already.20 Therefore, I would recommend all readers to refer to the selection of papers [in the relevant footnotes] as a starting point for voices on the state of the field.

However, if you allow a few comments about what I learned from participating in DH conferences in Germany as well as internationally, from organizing networking workshops for DH in non-Latin scripts, and from trying to keep up with the literature, then I would say that—in a nutshell—I see a growing international, transdisciplinary community of scholars who are highly interested in collaborating when they meet in workshops and conferences, but who, in

---

18 Here, Wagner refers to Steiner 1998: xvi.
19 Here, Wagner references Hswe and Varner 2016: 1.
many cases, find themselves quite alone and marginalized when conducting research/teaching on multilingual DH at their home academic institutions.

In his 2012 paper “Towards a cultural critique of Digital Humanities,” Dominico Fiormonte elaborates on the basic challenges and the blind spots in the field of DH, most of which remain unchanged today, I would say. He stresses the limitations of the field, which concern “the geopolitical and the cultural-linguistic composition of the discipline, and hence the tools used” and identifies two main problems: “the composition of the government organs, institutions etc., inspiring and managing the processes, strategies and ultimately the research methodologies (thus affecting also the visibility of the results)” and “the cultural-linguistic nuances and features of the tools” which are deeply connected with the “cultural and political problem of software and platform (e.g. social networks) almost exclusively produced in the Anglo-American environment”, and “the cultural-semiotic problem of the different tools of representation: from the icons of the graphical interfaces to the Unicode standards, from the proxemics of the Second Life to the universal concept of usability etc.” (Fiormonte 2012: 3).

He also cites the research of the Italian linguist and anthropologist Antonio Perri and his analysis of “the cultural bias of the Unicode character representational system, showing the concrete risks of oversimplifying and drying up the ‘phenomenological richness of human writing practices’.” In particular, Fiormonte highlights Perri’s findings on encoding solutions for non-Latin scripts like Chinese, Arabic, etc. which were proposed by the Unicode consortium and which he criticizes as being “based on a ‘hypertypographic’ concept of writing, i.e., western writing embodied in its print form and logical sequencing. By neglecting the visual features of many writing systems this view overlooks their important functional aspects.”

The latter aspect of the visual features of many non-Latin writing systems, the interplay of text and images (i.e. Chinese characters), and especially its absence or difficulty of representation in digital environments has frequently been mentioned in workshops I organized together with my colleagues Esther Asef, Martin Lee, and Andreas Gräff.

However, despite the rather persistent geopolitical power structures of Anglophone-oriented software development and the impediments regarding an adequate representation of non-Latin script sources in the digital sphere, it is also important to note that networks of multilingual DH practitioners have already been formed, for example the Special Interest Group (SIG) of the Alliance of Digital Humanities Organisations (ADHO) on “Global Outlook::Digital Humanities” (GO-DH) or the “Multilingual DH”-community website https://multilingualdh.org/en and of course summer schools, conferences, and workshops been organized. A special highlight for me in 2020 was the virtual workshop on “Disrupting Digital Monolingualism” convened by Paul Spence, Renata Brandao, and Naomi Wells from King’s College London, where it was fascinating to see that, despite the diverse scholarly and institutional backgrounds, the “multilingualism and DH” stakeholder group shares a kind of activism and motivation to shake the keystones of the Anglophone digital supremacy worldwide (for a report on the workshop see https://languageacts.org/digital-mediations/event/disrupting-digital-monolingualism/reports/).

3. What do you consider particularly challenging in the cultivation of multilingualism in a digital context?

From my perspective, the following points pose the main impediments for a sustainable cultivation of multilingualism in a digital context:

- Lack of sustainability of multilingual services and solutions;

21 Wagner is referring to Fiormonte 2012: 3.
22 Wagner is referring to Perri 2009: 747.
23 Wagner is referring to Fiormonte 2012: 9.
Knowledge about multilingual best practices/solutions is not widely connected, often only locally known: How to better distribute knowledge on best practices for multilingual digital knowledge infrastructures?

“Anglophone mother tongue” (Steiner 1998: xvii) of all computational and software infrastructure: not sufficiently addressed in research infrastructure management (missing STS-perspective → see Alan Liu 2012);

Lack of participative co-design of digital knowledge infrastructure by IT specialists, research software developers, librarians, faculty: increasing dependency on corporate solutions (market concentration, opaque black box-technology);

Lobby activities are not so easy to pursue: cross-disciplinary, geographically distributed community.

4. How do you contribute to the development of a more multilingual digital research environment?

As already mentioned, I am now in the fantastic position of an academic librarian at our university library with the shared mission to enable knowledge and to collaborate with, as well as support my community of area studies researchers and students as best as possible. Therefore, it will be my unending task:

– to be a lobbyist for more attention, services, and structures which support multilingual digital research at our university and beyond;
– to bring together stakeholders of multilingual DH in order to strengthen networking (and sharing of solutions, tools, experts...) as well as to help to formulate ‘meta-positions’ with regard to the diverse needs of East Asian studies, Arabic studies, or other area studies scholars;
– and to work towards the idea elaborated in the “Disrupting Digital Monolingualism” conference on developing a “certificate for multilingually enabled knowledge infrastructures” which could be used for evaluating repositories, discovery systems, and other knowledge infrastructures.

5. How do you think collaboration could contribute to the creation of a more multilingual digital environment?

As may have become apparent in the answers to the previous questions, I view collaboration as key to the creation of a more multilingual digital environment. This includes a sustainable collaboration:

– between multilingual DH practitioners in their respective ‘language/script’ communities but also transdisciplinary from the viewpoint of a non-Latin scripts expert community;
– between multilingual DH practitioners and staff employed in research infrastructure management (i.e. librarians, research software developers);
– between academic librarians with a special focus on DH infrastructure support and management (as an example, see the LIBER DH and Digital Cultural Heritage working group https://libereurope.eu/working-group/digital-humanities-digital-cultural-heritage/).

What I think would be particularly helpful is to share more information on project management for multilingual DH projects. Multilingual DH projects mostly report on results, not so much or in detail on infrastructures, methods, and processes that lead to these results. But this information would be crucial for any researcher or student starting to conceptualize their multilingual DH project and looking for best and worst practices.

6. How do you envision the future of our Disrupting Digital Knowledge Infrastructures collective and how do you see its significance?

I envision our group as an active node point towards making a change and for encouraging networking of our diverse community of DH practitioners from many disciplines, librarians, and research software developers. If we want to get a stronger foothold and effect change
in technical scholarly infrastructures, we need to bring forward more concrete ‘user stories’. The needs of multilingual DH practitioners must become part of requirement specifications (in German: ‘Pflichtenheft’) for knowledge infrastructure development and management. Therefore, I see a big significance and task for us in 2021 (and beyond) to bring together more voices from the community, to analyze and to structure user stories and formulate the general needs they share, as well as the special needs which require attention.

Of course, it is not realistic that every academic institution could hire experts for all non-Latin scripts; therefore, I regard it as another important task for us to think about solutions for how we can tackle this demand for sharing expertise across the boundaries of our institutions, countries, and disciplines.

**AUTHOR AFFILIATIONS**

Aliz Horvath [orcid.org/0000-0002-9131-5504](https://orcid.org/0000-0002-9131-5504)

Eötvös Loránd University, HU

**REFERENCES**


“Current Trends in Digital East Asian Studies.” *The Institute of Modern Languages Research, modernlanguages.sas.ac.uk/events/event/24079*

“DARIAH EU.” [OpenAIRE, dariah.openaire.eu](https://openaire.eu)


Digital Humanities Summer Institute, [dhsi.org/](https://dhsi.org/)

Dombrowski, Quinn. “Preparing Non-English Texts for Computational Analysis.” *Modern Languages Open* (1), 2020, p. 45. DOI: [https://doi.org/10.3828/mla.v0i0.294](https://doi.org/10.3828/mla.v0i0.294)


“ELTE BTK TI Digitális Bölcsészeti Tanszék.” [ELTE, elte-dh.hu](https://elte-dh.hu/)


Fiormonte, Domenico. “Digital Humanities and the Geopolitics of Knowledge.” *Digital Studies/Le Champ Numérique*, vol. 7(1), no. 5, 2017. DOI: [https://doi.org/10.16995/dscn.274](https://doi.org/10.16995/dscn.274)


Global Outlook: Digital Humanities, www.globaloutlookdh.org


Horvath, Aliz. "OpenMethods Spotlights #1: Interview with Hilde De Weerdt about MARKUS.”

OpenMethods, 13 October 2020, openmethods.dariah.eu/2020/10/13/openmethods-spotlights-1-interview-with-hilde-de-weerdt-about-markus/

Horvath, Aliz and Hilde De Weerdt. MARKUS開発についてヒルデ・デ・ウィールト教授に聞いてみた. 東アジア DH ポータル [MARKUS kaihatsu ni Tsuite Hirude De Weeruto kyōju ni kitemita Higashi Ajia DH pōtāru]. Translated by Nobuhiro Kikuchi, www.dh.ku-orcas.kansai-u.ac.jp/?p=944


International Conference on the Cyberinfrastructure for Historical China Studies, https://projects.iq.harvard.edu/cbdb/international-conference-cyberinfrastructure-historical-china-studies

“Japanese Association for Digital Humanities.” http://jadh.org/


“Multilingualvaj teksta analizo,” multilingualudh.org

“New Languages for NLP.” Princeton University, The Trustees of Princeton University, newnlp.deptcpanel.princeton.edu/


OpenMethods. OpenMethods, 18 December 2020, openmethods.dariah.eu

“OpenMethods Spotlights.” OpenMethods, openmethods.dariah.eu/openmethods-spotlights

OPERAS, www.operas-eu.org/


Horvath, Aliz and Hilde De Weerdt. MARKUS開発についてヒルデ・デ・ウィールト教授に聞いてみた. 東アジア DH ポータル [MARKUS kaihatsu ni Tsuite Hirude De Weeruto kyōju ni kitemita Higashi Ajia DH pōtāru]. Translated by Nobuhiro Kikuchi, www.dh.ku-orcas.kansai-u.ac.jp/?p=944


International Conference on the Cyberinfrastructure for Historical China Studies, https://projects.iq.harvard.edu/cbdb/international-conference-cyberinfrastructure-historical-china-studies

“Japanese Association for Digital Humanities.” http://jadh.org/


“Multilingualvaj teksta analizo,” multilingualudh.org

“New Languages for NLP.” Princeton University, The Trustees of Princeton University, newnlp.deptcpanel.princeton.edu/


OpenMethods. OpenMethods, 18 December 2020, openmethods.dariah.eu

“OpenMethods Spotlights.” OpenMethods, openmethods.dariah.eu/openmethods-spotlights

OPERAS, www.operas-eu.org/


“Submit a content,” OpenMethods, openmethods.dariah.eu/submit-a-content

“Taiwanese Association for Digital Humanities,” http://tadh.org.tw/

Tóth-Czifra, Erzsébet. “NERD and Isidore Services Bring More Visibility to Content on OpenMethods.” Digital Humanities Methods and Tools, dhmethhods.hypotheses.org/182


“Welcome to HaS.” DARIAH, has.dariah.eu.

“Who we are,” OpenMethods, openmethods.dariah.eu/who-we-are.