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Cita:

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ARK: https://n2t.net/ark:/13683/pzWg/vwA

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Open, Equitable, and Minimal: teaching digital scholarly editing North and South

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Abstract

What if minimal computing extended beyond “computing done under some technological constraints”, as described by the Minimal Computing Working Group, but also were at the core of a global digital humanities commons? Could it model a set of shared principles and technologies to empower students and scholars to work autonomously on their own projects? Having these questions in mind, researchers from the University of Maryland (United States) and CONICET (Argentina) are designing a joint course that will be taught for the first time September-November 2020, in which they will teach minimal computing approaches to North and South American students. The class will introduce digital publishing and textual scholarship, with minimal computing presented as a shared set of values: use of open technologies, ownership of data and code, reduction in computing infrastructure and, consequently, environmental impact.

Minimal computing can be a solution for the development of projects in the Global South, where access to infrastructure such as web hosting or even reliable and affordable Internet access is almost non-existent for humanities students and faculty. This course, additionally, offers minimal computing as an approach that can bring together students from the North and the South in the same class (through videoconference and other means) to discuss and deal with the barriers and opportunities for a more open and equitable global Digital Humanities.

In this essay we will discuss: 1) the open and minimal technologies we will use for teaching the creation of a digital scholarly edition and why we have chosen them; 2) the specific bilingual teaching materials on which we are working together and why they were chosen; 3) how students will collaborate online in small cross-institutional groups using texts from early colonial times of the Americas both in Spanish and English.

By preparing for and teaching this course, we are not only offering training on specific minimal computing skills, but we are also contributing to a much needed analysis of the different technological and academic contexts around the world: issues related to infrastructure, language, digital literacy, open access policies and open research practices. This work will raise awareness about the different kinds of digital humanities around the world, which will both benefit our students and make a case to the global DH community that technology has to be owned by no one, but used and contributed to by all.
1. From Global to Open Digital Humanities

While the Anglophone digital humanities (DH) has established itself as part of many graduate and postgraduate programs, summer schools, centers, labs, books, and journals, the Latin American and Spanish Humanidades Digitales (HD) is still defining itself and pondering how to devise a curriculum of its own (del Río Riande, 2016). However, both DH and HD share a defining feature: their continuous growth as part of our contemporary digital and digitized world. This shared feature has led many scholars to redefine their work under the impact of the digital and to consider the consequences of a global turn that has put into question many aspects of their academic, linguistic, and technical practices (Earhart, 2018).

The debate on a global digital humanities resulted in a considerable shift in 2013 when the Global Outlook Digital Humanities (GO::DH) Special Interest Group of the Alliance for the Digital Humanities Organizations (ADHO) was founded. GO::DH pointed out the importance of problematizing DH as a field built and understood from multiple perspectives (Gil and Ortega, 2016), something that the Alliance for Digital Humanities Organizations (ADHO) addressed both in DH2015 in Australia—named Global Digital Humanities—and in the panel on DH diversity at DH2016 in Kraków (O’Donnell et al., 2016). This trend is also confirmed by the annual Global Digital Humanities Symposium that has been taking place at Michigan State University since 2016, or in initiatives such as the IFLA Special Interest Group, or in the Asociación Argentina de Humanidades Digitales (AAHD) 2016 conference named Local Constructions in Global Contexts (del Río Riande et al., 2018). Another relevant event that proved how the global dimension of DH has had an impact on its organizational core is the process initiated in 2016 with the goal of changing the governance and the financial model of ADHO, expanding its boundaries to regions of the Global South (Fiormonte and del Río Riande, 2017).

Nonetheless, despite the benefits that we could expect from a global DH, it should not be forgotten that as a concept, global is complex and even contradictory, especially when related to technology. The term global is itself a paradox: global impacts are perceived differently at local and regional levels, and there is no single and unique process of globalization, but rather a set of different processes with global dimensions. As an example, while Global North DH scholars have focused on understanding diversity and awareness of linguistic privilege, interrogating the degree to which global technological practices can exclude participation in the field (Fiormonte, 2017; Fiormonte and Priego, 2016; Risam, 2018; Gil, 2015; Earhart, 2018), the HD situation is multifaceted. Undoubtedly, even though Spain and many countries in Latin America and the Caribbean share a language, their social, cultural, epistemic and economic contexts are completely different. Spain is a country in the European Union, while Latin America is the most unequal region in the world that groups more than twenty countries that have been suffering the impact of labor-saving technological change since the beginning of the century. It is important to note that debates on open research practices started a long time ago in Latin America: the free, public dissemination of research has long been understood primarily as a public good managed by the academic community. Scielo, the largest open access harvesting platform in the region, was founded in 1997, five years before the 2002 meetings in Budapest, Bethesda, and Berlin that

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1 https://www.ifla.org/ES/node/25695
2 https://www.aacademica.org/aahd.congreso
produced the first Open Access declarations (Wikipedia contributors, 2019a, 2019b). Non-Commercial —meaning without Article Processing Charge (APC)— Open Access publication is the standard method of dissemination and is widely understood as a key engine of democratization.

Reflections on how DH could benefit from open approaches such as these have been part of manifestos and debates in the last ten years, but have rarely been systemized. Pressner (2009) made the first emphatic assertion: “[t]he digital is the realm of the open: open source, open resources [...]. Anything that attempts to close this space should be recognized for what it is: the enemy.” One year later, the Paris Manifesto (Dacos, 2010) focused on the technical aspects of what open means in DH: “[w]e call for open access to data and metadata, which must be documented and interoperable, both technically and conceptually.” However, many other scholars used the term open as representing values of collaboration (Spiro, 2012; del Rio Riande and Tóth-Czifra, 2019) or authority (Fitzpatrick, 2010).

In the past few years, in part due to the influence of Southern scholars in DH, the concept of open DH scholarship has been given greater consideration. In one of ADHO’s workshop at the 2018 conference, the debate was framed in this way: “[w]hat would it take to bring DH into a more global openness, not only in terms of access but also in terms of methods, best practices and opportunities for collaboration? And what could this openness look like set against the backdrop of the long-standing and highly developed open access movement in Latin America and the Caribbean?” (Schallier et al., 2018). Any reflection on a global DH should think and teach our students about the many important questions related to power and inequality, like the extreme asymmetry in research outputs between scholars from well-resourced and not-so-well-resourced countries, sometimes understood in terms of Global North and South (Chan, 2016). And by outputs we do not only mean articles or books, but also the core of DH: online web based projects and the way in which we teach them.

2. Open and Global Digital Scholarly Editing through Minimal Computing

In recent years, open science has emerged as a “movement to make scientific research, data and dissemination accessible to all levels of an inquiring society”. Open science can be defined as a grouping of principles, such as transparency, re-use, participation, cooperation, accountability, reproducibility of research, and open source software and infrastructure. Digital technologies and infrastructures play a significant role in open dissemination of knowledge. Surprisingly, even though “digital humanities is a technologically embedded field” and “epistemic technologies are bound to play a significant role” (Svensson, 2016), DH critical literature hasn’t focused much on the benefits of open science for enabling collaborative, scalable, and long

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3 An APC is a fee paid to the publisher to make an article free at point of access. Whilst Open Access principles promote free availability of research and scholarly output, research papers are not cost free to produce. The cost of publication is moved from the reader (via subscriptions and pay-walls) to the author (via the APC) (Tennant and Mounce, 2015).

4 “The key problems that we face again and again are social rather than technological in nature: problems of encouraging participation in collaborative and collective projects, of developing sound preservation and sustainability practices, of inciting institutional change, of promoting new ways of thinking about how academic work might be done in the coming years” (Fitzpatrick, 2010).

5 https://www.fosteropenscience.eu/toolkit
lasting global research. For example, digital scholarly editing and digital scholarly editions (DSEs) are not always perceived as open.

If editing is “without doubt one of the oldest scholarly activities within the Humanities” (Pierazzo, 2016), DSEs are at the core of DH (Earhart, 2012) and while not all textual scholars might rely on the same definition, they recognize their features and uses (Sahle, 2016). Free open standards such as the ones developed by the Text Encoding Initiative (TEI), but also XML (eXtensible Markup Language) technologies such as XSLT (eXtensible Stylesheet Language Transformations) and XQuery, and dedicated software have characterized the digital editing field; the scholarly editions themselves, however, haven’t always been successful in being open products of research. Bodard and Garcés (2009) posed this issue when they claimed that, analogous to the Open Source Software movement, DSEs—called by them OSCE or “Open Source Critical Editions”—should be licensed for reuse, including all sources, data, methods and software. It is common practice to make TEI data publicly available, for example, but the debate on how DSEs need to be structured to be truly open is still ongoing and best practices are yet to be established. Hannesschläger (2019), to give an example, has recently surveyed licenses appropriate for DSEs powered by TEI and singled out Creative Commons ones as appropriate for an international context and for enabling an open culture of reuse with a global impact.

From a Global South perspective, the DSE field is perceived as being dominated by standards and technologies that are still unfamiliar to scholars; not surprisingly, those methods are typically described in the context of anglophone projects (Allés-Torrent and del Rio Riande, 2020). Indeed, beyond some very specific projects and initiatives, multilingual resources related to DSEs, such as tutorials, software, books, and articles, are generally difficult to find in other languages than English. Moreover, the almost de facto use of proprietary software for most of the editorial work has become a barrier for extending the DSE practice beyond Northern academies. Indeed, “[d]igital scholarly editions are expensive to make and to maintain” (Pierazzo, 2019): as such, long term web hosting and preservation and access to servers pose a significant obstacle for not-so-well-funded scholars who are not able to apply for specific DH grants. Overall, DSEs require substantial infrastructure and advanced technical skills, but also, at a global scale, diverse needs, capacities, priorities, languages, and academic traditions may require different features from DSEs.

How can, therefore, one of the crown jewels of DH (Pierazzo, 2016) become global? From our perspective, it can do so by establishing its own “digital commons”. When GO::DH Minimal Computing Working Group started a debate on power and inequality in DH from a technological perspective, its intention was not simply criticizing or mourning the lack of diversity, but to establish an alternative discourse and create a new set of commons, namely technology of

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6 Knöchelmann (2019) argues that there is not an open discourse in the humanities comparable to those in the sciences.
7 Just to name a few, TEI Boilerplate, Juxta, Versioning Machine, TextGrid, Ediarium, eLaborate, Edition Visualization Technology, CETEicean.
8 Most DSEs rely on TEI documents, which are encoded and processed with the help of the popular software Oxygen XML Editor, which at the time of writing retails at $99 USD for an academic license. Most training and teaching is also done using Oxygen, which has established a de facto monopoly on DSEs production in the Global North.
9 A commons can be defined as “resource[s] shared by a group of people that is subject to social dilemmas” (Hess and Ostrom, 2007).
disobedience, architecture of necessity, and the moral modulor (Gil, 2016), which turned into new ways of undertaking DH work and collaborating in building an alternative digital epistemology that found a practical outlet in minimal DSEs with Ed, a tool for building minimal DSEs without text encoding.

This discourse informed the design of a joint course between the University of Maryland (USA) and CONICET (Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina) that will teach digital publishing and textual scholarship with minimal computing and text encoding. Specifically, we intend to highlight minimal computing as a shared set of values such as the use of open technologies, ownership of data and code, and reduction in computing infrastructure. The following questions drove our development: could minimal computing model a set of shared principles and technologies to empower students and scholars to work autonomously on their own projects? Canagarajah (2002) writes in A Geopolitics of Academic Writing, “[p]eriphery students are taught to be consumers of center knowledge rather than producers of knowledge.” What if minimal computing extended beyond “computing done under some technological constraints” by standing at the core of a global digital humanities commons, overcoming notions such as center and periphery, North and South? Could minimal computing serve as a common ground for Northern and Southern digital humanists?

Latin American countries have the most unequal income distribution in the world which results in research inequalities across the region (Amarante et al., 2016). As expected, the allocation of resources for research in Latin America is in great disproportion with that in developed countries. This is the case of HD CAICYT Lab, the DH laboratory at Argentinian CONICET, which has been doing DH with very limited funding and technological support from the institution since 2016; doing so, however, in an open research context aligned with Argentinian national law on open access and the open science environment in Latin America. HD CAICYT Lab has been making minimal editions via a workflow built around Recogito, an open source semantic annotation software developed by Pelagios Network, incorporating TEI markup and rendering the edited texts in static sites built with Jekyll and GitHub pages. In 2016, Susanna Allés-Torrent led a minimal computing workshop at the Second International Conference of the Asociación Argentina de Humanidades Digitales (AAHD) in Buenos Aires, Argentina. Scholars who attended the event felt empowered by the possibility of working autonomously on their own editions, and minimal computing was understood as a solution for the development of projects where access to infrastructure such as web hosting or even reliable and affordable Internet access is almost non-existent for humanities students and faculty. For our lab, HD CAICYT, it turned into the solution for “computing done under some technological constraints”, but also for “producing our own scholarship ourselves” (Gil, 2015).

Minimal computing has become part of HD CAICYT Lab’s DH standards and commons, integrating with our principles of openness (open corpora, documentation, collaboration, software and publishing) (del Rio Riande et al., 2018). Since the Lab is unable to buy software or pay for

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10 [https://github.com/minicomp/ed](https://github.com/minicomp/ed)
11 [https://recogito.pelagios.org/](https://recogito.pelagios.org/)
12 [https://susannalles.github.io/workshops/edicion-con-Jekyll.html](https://susannalles.github.io/workshops/edicion-con-Jekyll.html)
14 See Jekyll’s perspective on openness, collaboration and code of conduct: [https://jekyllrb.com/news/2017/10/19/diversity-open-source/](https://jekyllrb.com/news/2017/10/19/diversity-open-source/)
servers and hosting, adopting minimal computing strategies created the conditions necessary for including our work in the global DH landscape. As such, we practice minimal computing beyond its definition of simply “computing done under some technological constraints” as it becomes our primary instrument for computing to do any form of DH.\footnote{See for example the project La Argentina manuscrita: https://arounddh.org/en/la-argentina-manuscrita}

The Maryland Institute for Technology in the Humanities (MITH) at the University of Maryland, where one of the authors works, has adopted minimal computing strategies primarily for digital preservation. We migrated a number of websites and web applications to static sites in order to reduce infrastructure demands and increase their longevity (Summers, 2016) and posed the minimal computing archetypal question “what do we need?” (Gil, 2015) as one of the guiding principles for our future and current projects. In working with communities in and around the University of Maryland campus, we work with and train collaborators around minimal technologies that will allow them to curate, maintain, and most importantly own community archives independently of MITH’s and the University’s infrastructure (see for example the Lakeland Community Archive project).\footnote{https://mith.umd.edu/research/lakeland/} More specifically to DSEs, our prominent Shelley-Godwin Archive (S-GA),\footnote{http://shelleygodwinarchive.org/} has adopted from the start technologies atypical for a TEI-based project, initially with an eye towards Linked Open Data integration,\footnote{Particularly in relation with the then nascent International Image Interoperability Framework (https://iiif.io).} but also towards the reduction of the infrastructural footprint of the project. This led to a case-study experiment aimed at enabling offline use of the archive inspired by minimal computing principles to “increase its availability to a larger number of communities with variable access to the Internet” (Viglianti, 2018). TEI publishing in S-GA is handled directly in the browser, avoiding server-side transformations typical of many TEI projects that require server infrastructure to be maintained and kept online long term. Partly informed by this experience, Raffaele Viglianti worked with Hugh Cayless on CETEIcean,\footnote{https://github.com/teic/ceteicean} a JavaScript library for publishing TEI (and other XML) documents within an HTML page (Cayless and Viglianti, 2018).

The different approaches to minimal computing and DSEs, broadly context-dependent for HD CAICYT Lab and strategic for MITH, formed the basis of our collaboration on the course that we will teach to undergraduate students in Buenos Aires and Maryland: Digital Publishing with Minimal Computing. Our combined experiences present our students with a perspective on minimal computing that is not entirely dependent on DH practices in the Global North, but rather one that is based on a shared digital commons.

3. The course: Digital Publishing with Minimal Computing, Humanities at a Global Scale

In December 2019 we proposed a course titled Digital Publishing with Minimal Computing: Humanities at a Global Scale\footnote{The bilingual public website for the course: https://mith.umd.edu/minimaldigipub} to the Global Classroom Initiative (GCI) program at the University of Maryland. This program offers support for the development of courses to be taught in collaboration with a higher education institution outside of the United States with the goal of...
establishing courses that expose students to work that is cross-cultural, project-based and virtual, which, they argue, mirrors the work students will encounter throughout their lives. While this outcome is somewhat dependent on the students’ career choices and opportunities, it is evident that “globalization shrinks the world, bringing a wider range of cultures into closer contact than ever before” (UNESCO, 2013) and preparing students to participate in a globalized world is a worthwhile goal, particularly if this can be done in a way that fosters intercultural competences.21

The current COVID-19 pandemic has also exacerbated the virtual nature of this contact, as we adapt to rely even more heavily on technological links to collaborate both locally and globally. The course, which involves students from the Universidad del Salvador in Buenos Aires and from the University of Maryland in the United States,22 will run a minimum of three iterations between 2020 and 2022, with a blend of online and in-person learning.23 It is centered around a group project in which students will collaborate virtually to create a bilingual (Spanish and English) digital edition of a multilingual colonial era text,24 while learning about Digital Humanities approaches to literary studies, digital publishing, and history. The course is built around a group project involving students from both institutions in order to facilitate the cross-cultural collaboration central to GCI courses. This also follows a more generally effective learning paradigm: “in project-based learning, students actively construct their knowledge by participating in real-world activities similar to those that experts engage in, to solve problems and develop artifacts” (Kraijic and Blumenfeld 2005).

This approach is not unfamiliar to Digital Humanities pedagogy (Clement, 2012), given that DH research itself tends to be scaffolded through project work that results in the development of artifacts such as a tool, or a digital publication (Burdick et al., p 124). It is also familiar to a multiliteracies approach (New London Group, 1996; Cope and Kalantzis, 2009; Clement, 2012). The term “multiliteracies”, coined in the mid-90s by the New London Group, joins concepts on linguistic diversity and multimodal forms of expression and representation in response to changes

21 “Intercultural competences refer to having adequate relevant knowledge about particular cultures, as well as general knowledge about the sorts of issues arising when members of different cultures interact, holding receptive attitudes that encourage establishing and maintaining contact with diverse others, as well as having the skills required to draw upon both knowledge and attitudes when interacting with others from different cultures.” (Unesco 2013)

22 The instructors in Argentina will teach at Universidad del Salvador, but are affiliated with the Argentinian Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET).

23 Our plan is to have in-person lectures with a shared audio/video link joining the two classrooms together. Given the current global pandemic, however, the first iteration of the course starting September 2020 will be fully online for all students.

24 This text is a travelogue written by a Basque trader called Acarette Du Biscay and its publishing history is truly multilingual. Acarete’s travels were published in his native language, French, in the Relation des voyages du Sr… dans la rivière de la Plata, et de-là par terre au Pérou in 1672, as part of volume IV of the famous Thvenot Collection of Relations De Divers Voyages Curieux, and in 1696, independently, in the Relation des voyages dans la rivière de la Plate. Two years later the 1698 London edition came to light in a collection entitled Voyages and Discoveries in South America, and later as an individual book by Samuel Buckley’s printing press as An Account of a Voyage up the River de la Plata, and Thence over Land to Peru: With Observations on the Inhabitants, as Well as Indians and Spaniards, the Cities, Commerce, Fertility, and Riches of That Part of America. It was later translated from English to Spanish by Daniel Maxwell, and published in La Revista de Buenos Aires, in May and June 1867, as Relación de los viajes de Monsieur Ascarate du Biscay al Rio de la Plata, y desde aquí por tierra hasta el Perú, con observaciones sobre estos paises.
in globalized technological environments such as the Internet, and the growing linguistic and cultural diversity due to increased transnational migration.

Teaching through a minimal computing lens, moreover, greatly benefits from having a project that exhorts students to think both globally and locally by recognizing the technological affordances they have access to (and why and how), and by confronting the limitations and constraints that work against them, either in hardware, software, education, network capacity, power, or indeed self-imposed limitations for pedagogical purposes. In other words, we will train our students to recognize the privileges of having access to state-of-the-art computational resources as well as devising strategies to circumvent limitations they may encounter by adopting minimal computing techniques. Students (and experts) from either cultural contexts are likely to encounter such limitations to varying degrees. Even those who have access to infrastructure through their institutions or future employers, will be faced with issues in preserving and transferring digital publication projects and learning to deploy minimal approaches when appropriate can make the difference in the viability of a DH project. This mimics and models to our students the role, as we have discussed above, that minimal computing can play in establishing open and global approaches for DH research and pedagogy that willfully reduces the gap between Global South and Global North contributions.

The nature of the cross-border collaboration between students will be online and virtual given their geographical separation. They will attend virtual lectures and collaborate online via messaging and code sharing platforms, with the support of the instructors. This kind of engagement is often referred to as “Virtual Exchange” (Bassani and Buchem, 2019; O’Dowd, 2018) or “Collaborative Online International Learning” (COIL) (Guth, 2013). The COIL Institute for Globally Networked Learning in the Humanities at the State University of New York was among the first to explore the applicability of this approach to humanities disciplines through an National Endowment for the Humanities funded project. The final white paper (Guth, 2013) reports on the twenty four courses taught as part of the project and summarizes the surveys completed by instructors and students. The results highlighted how COIL courses offer a form of internationalization at home, and a “low-cost” alternative to study abroad exchange programs, which are typically accessible to a very limited number of students, at least in the United States (Li, 2013). More importantly, the study identified clear merits in a project-based, cross-cultural approach to education in the humanities:

To no surprise, most [survey respondents] cited the access to different cultural points of view as adding that ‘something extra’ to the course. They found that this element increased student motivation, led to more in-depth learning and helped students be more willing to see ideas, texts, works of art, etc. from different perspectives. In some ways it was as if the students felt they had to perform better because they saw their partner class as a new audience particularly during synchronous audio/video sessions and in asynchronous discussion forums (Guth, 2013).

Our course applies the COIL approach to teaching digital scholarly editing through the lens of minimal computing, which, in itself, we see as an instrument to foster international competencies in both student and expert work towards a more open and global DH practice. Creating a course of this kind is necessarily a collaborative process that takes time and requires exchange of ideas
among instructors. Over the seven months between the GCI project start and the first iteration of the course in September 2020, we have discussed our pedagogical priorities, developed the syllabus, and created multilingual student resources such as slides, tutorials, and guidelines.  

English is typically assumed to be the language of global communication, playing an important role in both disseminating and seeking out information. When it comes to scholarship, the results of the literature review undertaken by Balula and Leão (2019) underline that “[i]n terms of information availability, which underpins the co-construction of knowledge, the use of English as lingua franca promotes the dissemination of research outputs and breakthroughs”. Nonetheless, Giglia (2019) highlights the more localized nature of humanities discourse: “SSH [Social Sciences and Humanities] research is often grounded in specific cultural or geographical areas, hence the persistence of native languages opposed to English as lingua franca in STEM” (science, technology, engineering, and mathematics). Multilingualism and bibliodiversity, or the diversity of academic content, are essential both at the national and international level in order to preserve research in a wide range of global and local topics, studied from different epistemic and methodological approaches and inspired by various schools of thought and expressed in a variety of languages (Balula and Leão, 2019).

Shared lectures and communication between students in each group will be in English, but providing bilingual course material will facilitate both learning and project work. However, language is a primary medium in the transmission of culture and ideas; therefore, we will also assign readings in both languages, trying to find papers that deal with similar topics and allowing students to choose between them (see Allés-Torrent and del Rio Riande, 2020). This is meant to both facilitate content acquisition and to expose students to contributions that are not exclusively anglo-centric in learning about DH and DSEs in particular. Moreover, we hope that exposure to both languages will enhance the virtual exchange experience; in addition to learning from bilingual resources, the groups will create a bilingual website and will work with source material in both languages. In adopting this strategy, we are following UNESCO’s report on intercultural competences: “Multilingualism (communicative competence in multiple languages) and translation (conveying the same idea through different languages) are [...] requirements for intercultural dialogue, and indications of intercultural competences, enriching each group’s understanding of the other(s) as well of themselves.” (UNESCO, 2013)

In preparing bilingual materials for the course, we kept these principles in mind and invested time in the creation of resources that would be useful outside of the immediate course context. To date, our primary contribution has been the translation into Spanish of Amanda Visconti’s

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25 Including resources and materials we have previously worked on, like the TTHub, https://tthub.io/, a hub of tutorials, presentations and materials in Spanish related to TEI training, or the bilingual TaDIRAH-Taxonomy of Digital Research Activities in the Humanities/Taxonomía sobre Actividades de investigación digital en humanidades: https://vocabularyserver.com/tadirah/es/index.php.

26 In fact, Argentinian students will learn differently to the american students in the course, as they will go through a twofold process: they will learn new DH concepts and practices related to Minimal Computing and DSEs, while they improve or put into practice their English language skills.

27 We plan to use the set of recommendations from GO::DH Translation Toolkit: the “whispering” approach (Gil and Ortega 2016), translating and writing (on board or chat) keywords, titles, words we may identify as obscure (https://go-dh.github.io/translation-toolkit/about/).
Jekyll tutorial on the Programming Historian.28 This translation not only involved lexical and grammatical choices but also extralinguistic adaptations such as changing the screenshots. This decision was not only motivated by the presence of text in English in the images but especially by the layout differences between Mac Operating System and Microsoft Windows. The original tutorial is based on MacOS, infrequently used by Latin American students because of the elevated price of Apple computers. In order to make the tutorial accessible to our public, we gave priority to installation instructions specific for Windows and reproduced all the visual aids on a Windows environment.29

At the time of writing, the course has yet to have its first iteration and the details of the syllabus are still being finalized. Nonetheless, since the majority of minimal computing aspects of the course are centered around project-based learning (PBL), we conclude this section by describing how we scaffolded the course activities through Krajcik and Blumenfeld’s (2005) five key features of project-based learning.

The first feature is identifying a driving question that relates to activities that researchers in the Digital Humanities (more specifically in digital textual scholarship) really do, such as: “How do websites help us give new life to historical texts?”. Second, the driving question will be explored via “situated learning” (Lave and Wenger, 1991), that is, by working in a real-world context. Minimal technologies for building websites will allow our students to learn by doing with tools that make it feasible to engage with the driving question, but that are also used by professionals to develop open DH artifacts. The third feature is to engage in collaborative activities to problem solving; students will tackle the question and the skill learning process in groups made of individuals from both institutions, which, as explained above, is essential to the development of intercultural competences. The fourth feature recommends that PBL should be “scaffolded with learning technologies that help [students] participate in activities normally beyond their ability” (p. 318); in our case these technologies will include bilingual learning materials and online collaboration channels that we will establish together with the students’ input. While minimal computing technologies should, by definition, be within the students’ ability, the goal is to have the students leverage them to answer the driving question and engage with textual scholarship work that will likely be unfamiliar to them. Finally, the fifth feature is that students should create artifacts that address the driving question and that are “publicly accessible representations of the class’s learning” (ibid.). Structured via regular assignments, each group will create a bilingual public website containing the encoded and edited text together with paratextual content documenting their collaborative process and their engagement with the driving question.


[29] This kind of translation labour related to DH tutorials or educational resources always involves a situated approach. As studied for TEI materials, “it is not enough for the Spanish-speaking community to translate [these texts], since it is necessary to re-create the problems and adapt existing materials to their own needs and examples” (Allés-Torrent and del Río Riande, 2020).
4. Preliminary Conclusions

In designing this course, we have had the unique opportunity to bring together Digital Humanities and Humanidades Digitales practices from the Global North and South; this joint effort has prompted us to reflect on what is common and shareable in our approach to digital scholarly editing. How, and in what ways, is knowledge exchanged in different cultural, linguistic, and technological literacies?

Minimal computing, understood not just as a response to technological constraints, but rather as an intentional methodological stance, strikes us as fundamental for building a shared commons that is both open and global. Moreover, we are building a bilingual syllabus (readings, tools, and project based learning activities) centered on minimal computing as a way of countering epistemic and knowledge inequity (Chan et al., 2019), purposely moving beyond a North-to-South approach to curriculum and knowledge exchange to a synergetic North-and-South one, and aiming at empowering knowledge creation in the language with which an individual is most comfortable.

We are aware that minimal computing, and to some extent project-based learning, are approaches developed in the North, and adopting them under the guise of an internationalization agenda comes with its risks such as overlooking local practices when building and sharing knowledge in the classroom. We are also conscious that, while technology can increase access to knowledge, it may entrench cultural imperialism. Nonetheless, we envision a middle ground by adapting tutorials and educational materials, and balancing Spanish and Anglophone authors in the bibliography students should be reading. In this sense, our course aims at emphasizing a pedagogy of multiliteracies and a polycentric DH perspective. By preparing for this course, we are not only thinking of training on specific minimal computing and text encoding skills, but we are also contributing to a much needed analysis of the different technological and academic contexts around the world: issues and perspectives related to infrastructure, language, digital literacy, open access policies and open research practices. Our challenge is uncovering how this proposal on minimal computing can actually be effective for a more open and global DH and not get lost in the course outputs. Although we will draw conclusions on the success of the course itself at a later date, after it has had one or more iterations, this paper has argued the main finding that we intend to communicate to both our students and the to the global DH community: that technology has to be owned by no one, but used and contributed to by all.

5. References


