DIGITAL HUMANITIES | RESEARCH ARTICLE

Manifesto sprint on biocultural diversity: an experimental approach to knowledge co-creation, discourse design and collaborative writing

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Abstract: New methodological and co-creation approaches are needed in Digital Humanities (DH) for cross-disciplinary collaboration oriented to sustainability. More specifically—in the context of Environmental Humanities and regarding biocultural diversity—a key challenge is to set effective and engaging ways of rapid knowledge generation for public awareness and policy-making. According to the 2019 United Nations report on biodiversity, the world will lose one million species in the upcoming years. In parallel, it is acknowledged that the degradation of biological diversity also threatens cultural and linguistic diversity, as declared by UNESCO. In an attempt to contribute to knowledge safeguarding this diversity, a hybrid approach combining the tradition of participatory design with DH tools and with the collaboration of a variety of scholars and stakeholders, has resulted in the co-creation of a manifesto on “biodiversity in connection with linguistic and cultural diversity”. We outline the design thinking methodology applied for this experimental case study, and in parallel apply software-aided discourse analysis of the manifesto co-writing process—from a “sprint” collaborative writing format to an online publication, moving from a face-to-face context into digital collaboration channels. Results highlight the importance of facilitation, flexibility and adequate ways of visualization “in progress” (via analogue materials and DH tools) during the co-writing sprint process, as well as the need to set basic co-creation protocols in such transdisciplinary context, considering synchronous and asynchronous collaboration. We discuss the importance of advancing between DH and sustainability-driven experimental co-creation, connecting practices with opportunities to develop collaborative writing and knowledge generation in the margins of academic settings.

Subjects: Environmental Issues; Environment & Society; Subcultures

Keywords: biocultural diversity; co-creation; discourse analysis; collaborative writing

PUBLIC INTEREST STATEMENT

In today's world, people increasingly collaborate online, working together to create new content, text, and knowledge. In this paper, we present an experimental case of such collaborative creation: The Manifesto on Biocultural Diversity. In it, we show how a combination of the principles of participatory design with modern tools subsumed under the umbrella-term Digital Humanities can be used to facilitate collaborative creation, in this case oriented to specific calls to action for protecting both cultural and biological diversity. The tools we use draw on text and discourse analysis with appropriate visualizations. Results highlight the importance of facilitation, flexibility, and incremental visualization during the co-writing process, as well as the need to set basic co-creation protocols considering synchronous and asynchronous collaboration.
1. Introduction

In recent years, the field of digital humanities (DH) has been expanding through numerous works and heated scientific debates (Gold, 2012). This history of the field itself has been challenging to explore (Dalbello, 2011), and a clear vision of DH still needs to be built by researchers coming from various disciplines (Svensson, 2012). It is within this context—which also relies on the development and use of specific DH tools and methods (Gibbs & Owens, 2012)—that the present paper develops its research questions, focused around how to combine cross-disciplinary approaches and creative methodologies to stimulate collaboration processes between scholars of different backgrounds and other stakeholders, contributing from various disciplines and points of view, to produce alternative knowledge formats beyond academic papers or educational materials.

Furthermore, in recent years, there has been growing interest in the disciplinary connections between the Humanities and environmental studies, originating at the intersection of indigenous studies, history, anthropology, political theory and nonfiction writing, in what has been progressively established as “Environmental Humanities” (Emmett & Nye, 2017). This trend has also been present in recent connections between “environmental thinking” and DH tools and approaches, addressing how to respond to issues related to humans and the environment with digital text analysis, visualization studies or collaborative methods, among other approaches from DH (Posthumus et al., 2018). In this vein, a relevant trend of studies in the context of Environmental Humanities, as well as related publications and journals, has advocated for alternative ways to tackle the pressing issue of biocultural diversity loss in the current context of climate emergency responses (Hartman et al., 2017; Robin, 2018; Travis & Holm, 2016).

The manifesto for biocultural diversity we present here is rooted in this approach, and in the way knowledge and narratives can be explored, built and shared through collaboration practices for DH open innovation processes (Therón & Wandel-Vogt, 2016) in alternative cross-disciplinary contexts (Senabre Hidalgo, 2019). Departing from the need to combine different knowledge backgrounds and perspectives from scholars and practitioners beyond DH, we describe and analyze here the collaborative writing process of a manifesto on biocultural diversity topics and proposals, which after being published online at the end of 2021 evolved collaboratively and has reached, as of this writing, over 50 signatures of personal and institutional support, and has been translated (by volunteers) to more than 20 languages.

The rationale for this approach, in connection with the need to progress from a plurality of voices in the emerging field of Environmental Humanities (Haraway, 2015), is twofold. Firstly, to apply participatory design as one of the key practices of co-creation (Sanders et al., 2010) so as to manage the diversity and complexity of transdisciplinary collaboration (Brandt et al., 2013), and especially adapt it to the experimental format of “writing sprints” (Hawkins, 2016) and “writing retreats” (Benvenuti, 2017). Secondly, to develop and analyse a manifesto as an interaction-based outcome from a DH perspective, by considering it a performative textual and narrative format (Hanna, 2019) that can bridge scholarly and expert knowledge with wider audiences as an outreach strategy (Freedman, 2018). From well-known examples in the political and artistic domains, such as the Communist Manifesto in 1848 (currently part of UNESCO’s Memory of the World Programme) or the Futurist Manifesto in 1909, to more recent examples of the disruptive reframing of the digital, such as the Cyborg Manifesto in the 80s, the persuasive features of manifestos are usually counterpointed to traditional academic language (Ashby et al., 2017). However, manifestos as cultural artifacts (Robertson, 2018) have on many occasions depended on facts, on their interpretation and on the ability to navigate meaning between the humanities and science perspectives, with its spirit “less about measurable change than … about imagined effects and about reconceived communities” (Davis & Morris, 2007).

In that sense, our case study tries to (1) reflect the design principles behind the collaborative development of a manifesto on an urgent and pressing issue as a process influenced by co-creation methods and specific digital tools; (2) illustrate its key stages as an intensive participatory
and discursive format—developed ad hoc from researchers as practitioners; and (3) discuss key features and implications of a “manifesto sprint” as a replicable strategy and methodology.

2. Research questions and methodology

Co-creation and participatory design techniques, based on the broader paradigm of design thinking practices, have proven to be an effective way to combine multiple voices, as well as a practical approach to enabling transdisciplinary collaboration and as a process for “shaping processes” (Lindberg et al., 2010). Increasingly valued as an opportunity to create a “third space” (Björgvinsson et al., 2012), co-creation facilitates discussion and collaboration among diverse actors involved in creative and knowledge-generation processes, ranging from initial ideas to final, structured outcomes. A key element of participatory design sessions is the use of physical prompts and ideation support to help participants have a starting and pivoting point in their creative collaboration process (Sanders & Stappers, 2014). These supports can have many formats, but they must be able to help participants connect their current practices and shared approaches with the rest of the group, and also allow them to move from analogue, paper-based content to digital-supported formats in a progressive refinement of outcomes (Stelzle et al., 2017).

In close relation with DH practices, this main characteristic of participatory design as a collaboration-enabler makes it especially suitable for developing—in rapid and agile ways—new knowledge-generation dynamics and content formats (Senabre, 2018). In the context of needed narratives and evidence-based action to stave off the global loss of biocultural diversity, a question arises of how these types of co-creation approaches can help facilitate, in space and time, the collaborative writing of a common manifesto. To what extent can intense offline co-creation interactions set the basis for both collective authorship and the integration of different points of view and disciplinary perspectives, in a single text? In order to make this possible, what specific strategies from participatory design and DH can be combined regarding knowledge sharing, distributed collaboration and visualization?

Research in digital text corpora has produced analytical tools that have made text analysis a major thread in Digital Humanities. Software methodologies such as ALCESTE have developed in order to look for regularities and semantic networks within corpora (Reinert, 1990); such work has essentially given rise to computer-mediated text analysis (Marchand, 1998). Recently, text analysis and corpus studies have entered discourse studies. This has led to the development of finer analysis methodologies (Martínez, 2012), and the inscription of discourse studies within the field of DH (Longhi & Marinica, 2020).

But what can be the use of discourse and text analysis during a manifesto co-creation process? Why would scholars want to take a look at various stages of such processes? First, it is important to appreciate that the co-creation process of a manifesto is systemic in nature (Wagener, 2018): it relies on semantic nodes that are activated by participants in order to construct collaborative meaning, and it also draws on shared knowledge, emotions, experiences and conviviality. As such, the creation of a manifesto is as systemic as discourse can be (Wagener, 2019), and its goal is to make a text evolve from an early draft to a final version. In order to make this possible, a team of collaborators moves via a number of stages: they produce discourses about knowledge, discourses about their perceptions of knowledge, and discourses about the ongoing production. In short, they create ever-evolving representations of what is currently going on.

The manifesto sprint “Biodiversity in Connection with Linguistic and Cultural Diversity” took place during two consecutive days in October 2019, with a total of 18 participants from diverse backgrounds, nationalities and affiliations (mainly academics and professionals working in areas related to the fields of biology, linguistics, DH, sustainability, sociology, design, education, the arts and computer sciences), aiming not only for an cross-disciplinary effort but also a plurality of perspectives from a social innovation perspective (Carayannis & Campbell, 2015). The methodology applied to this case study is based, on the one hand, on qualitative participatory design
techniques, recognized as a key principle of proceeding in action research (Foth & Axup, 2006); and, on the other hand, in the textual analysis of the discourse produced during the co-creation process. The participatory design of the manifesto was based on an iterative protocol of moving from “divergence” phases of brainstorming and ideation, to “convergence” phases, in which to refine and select best approaches based on several decision-making mechanisms (Sanders & Stappers, 2014). This process was complemented by participant observation techniques (Dobrin & Schwartz, 2016), so as to reflect descriptive details of the process. In terms of the textual analysis component, we have chosen to use the copyleft software Iramuteq2 (Ratinaud, 2009), developed by the University of Toulouse (France), in order to take a closer look at representational networks of discourses produced for the manifesto. We posit that this methodology shows how the design of discourse and text around biocultural diversity can be enhanced through the use of lexical and semantic analysis tools.

Data used in the description and analysis forming part of the present case study come from both the digital support documentation adopted for collaborative writing, the graphic material and field notes produced during the sprint manifesto, as well as the visualization of the discourse corpora. This covers the process from the moment the digital document of the manifesto was first initiated all the way up to its final version. We present the results below divided into two different sections. We begin by describing in Section 3. below the steps adopted in our experimental co-creation. This combines the methodologies and principles of participatory design with those of “writing sprints”, as well as some relevant observations about the process. Following this, Section 4. offers a detailed analysis of how the discourse was structured and evolved during its incremental and iterative articulation, through the different versions of the manifesto.

3. The manifesto co-writing sprint as experimental co-creation

3.1. Space and materials of the manifesto sprint

The physical space and setting of the manifesto sprint was located in a large room adapted to the needs of such a format and the proposed co-creation interactions: an open area where tables and chairs can be easily rearranged, surrounded by clean walls to display large-format printed text and allow for brainstorming with sticky notes. In planning the process, the researchers-as-facilitators appreciated that the meeting should take place in a well-illuminated and comfortable space, with coffee and continuous catering, and plants scattered around the space. Upon arrival, participants were presented with posters outlining the “Norms of the space” for a manifesto sprint, inspired by the protocol of Open Space Technology (Owen, 2008): “(1) Writing is more important than talking!— (2) Reading (our own work) is even more important than writing)—(3) We are aiming at a manifesto/ declaration (not an article, nor a book or other format)—(4) Let’s be flexible but respect timing in each iteration phase”. The rationale for including these guidelines and reminders was to promote a shared “mindset” from the beginning of the process until the final objective, while emphasizing the aim of a flexible but planned sequence. This contributed to highlighting the primacy of producing textual content on biocultural diversity over theoretical discussions or personal positions that could hinder the dynamics. Although there were times when some participants tended to sidetrack the discussion with offtopic interventions or dwelled excessively on their personal opinions, the presence of the guidelines generally allowed participants to stay on track to ensure a satisfactory completion of the two-day sprint event.

3.2. Visualizing the diversity of backgrounds

In order to present the background of each participant to others, we included a “Do-It-Yourself accreditation” activity prior to collaborative writing interactions, based on a previously tested technique in co-created citizen science (Senabre et al., 2018). As participants entered the space and registered, they were asked to add to their name-and-affiliation badges three profile stickers related to writing, research and communication skills, to indicate the self-perceived roles and skills that they might bring into the sprint process. The labels were deliberately ambiguous in some cases, and included the following role designations: Experimenter; Copy editor; Crossreader;
Figure 1. “Do-It-Yourself accreditation” badge as given to participants.

Qualitativer; Explorer; Connector; Techie; Questioner; Literature reviewer; Quantitative; Commenter; Artistic, among others (Figure 1). These were used during a short round of introductions, so that the session could proceed with a shared understanding of the group’s composition, introduced in an informal yet informative fashion. This would prove useful in the co-creation process, and at the same time provide an ice-breaking activity promoting empathy and trust within the team. By revealing that some skills and traits were more universally present than others (e.g.: working with documentary sources, connecting concepts, copyediting and “a taste for experimentation”), this opening exercise served to underscore, at later stages, the importance of self-organized writing groups taking into account a good balance and diversity of expertises.

As a first step towards a shared vision on the issue of biodiversity loss with respect to linguistic and cultural diversity challenges, participants were presented with four related existing manifestos: The Declaration of Belém (1988), the UNESCO Declaration on Cultural Diversity (2001), the Tuggoz Declaration on Climate Change and Mountain Indigenous People (2015) and the North American Regional Declaration on Biocultural Diversity (2019). These previous documents were displayed as large posters on one of the walls, in their original format. Guided by one of the researchers as main facilitator, participants could indicate on each of the texts those perspectives or arguments that seemed most relevant using dot-voting (Senabre Hidalgo, 2018) and sticky notes. They also identified aspects that seemed important but were not sufficiently reflected in previous statements on biocultural diversity (Figure 2). At the same time, this exercise served to identify and discuss the canonical formal structure of a manifesto, which includes an introduction, diagnosis, statement of goals, and specific calls to actions.

Following the activities centred around previous manifestos, and leading up to collective writing through a common vision and an initial outline of content, a brainstorming ideation sequence was articulated. It consisted of annotating on sticky notes of different colors and sizes the participants’ specific visions and key challenges regarding biocultural diversity. As notes accrued, participants annotated and relocated them, generating new clusters of thematic affinity, following a hybrid technique that combined card-sorting (Wood & Wood, 2008) and think-aloud-protocol (Hu & Gao, 2017), both common in user-oriented design. This direct and visual way of seeding collaborative work, building upon comments by the more active participants on the clustering or differences between ideas, allowed the group to begin to discuss and decide on a sort of “proto-structure” of the manifesto. In this way, salient areas or pivots emerged (such as education, economy, or natural resources) as a cross-disciplinary perspective of “Environmental Humanities” on the loss of biological and cultural diversity and their interrelationships.
3.3. Co-writing stages and outcomes

Finally, the co-writing process began in small work groups reflecting the diversity of knowledge and skills mentioned in the previous section, working on the initial development of content in the areas identified (Figure 3). Spread around the workspace, autonomous groups of between four and five people discussed and developed initial content, starting with a synthetic format using “bullet points” and lists of concepts. At this stage, each group worked with their own digital document, in a co-creative phase of “divergence” that promoted collecting as many ideas as possible. Following this phase, but prior to merging the different sections into a single digital document (so as to move forward in an integrated way), all but one member of each group rotated to another group’s table to review and try to improve or expand on previous drafts. This type of agile “peer-review” followed the “World Cafe” methodology (Steier et al., 2015), so that one member of the original group remained in place to present and clarify what was previously written in that specific section of the manifesto draft.

After repeating one more review sequence on a rotating basis, at the end of the first day there was already a first joint draft reflected on a single digital document, which would serve as a starting point for the next sprint day. This was aided by a first discourse analysis session (see, Section 4.) of the previous-day draft to gain an overall idea of the status of the document. Then, copies of previous-day version of the manifesto printed on large-format A3 paper, were placed on all the tables (Figure 4), so that groups of participants in the same composition could continue working in parallel on the text (via analogical reading and annotations), following again a key principle of design thinking, with physical prompts as visual and accessible channels for co-creative work (Sanders & Stappers, 2014).

All this resulted in subsequent phases of discussion, correction and various improvements applied to the manifesto draft, from major reorientations in its initial structure, to expanding or reducing specific sections, citing sources or additional data on biocultural diversity, and also attending to grammatical issues, style and tone. At the end of the second sprint day, after transferring from paper to the digital format the annotations and conclusions derived from the parallel discussions, a second discourse analysis visualization took place (Figure 5), tracing the changes to the manifesto compared to the previous draft, and to identify where improvement was still needed. At day end, the final version of the text was agreed upon, allowing for subsequent
editorial touch-up on a Google Documents cloud-shared version to an agreed deadline of eight
weeks, but already including the signatures expressing participants' consent for publication and
dissemination.

4. Biocultural manifesto discourse analysis
As described above, during the manifesto sprint the co-creation process was supported by
moments dedicated to discourse analysis, in order to compare the production of the manifesto
to the original corpus that inspired its writing process. This step-by-step discourse analysis was
done by using the software Iramuteq, in order to share representations of the semantic network of
corpora, and thus help the group through the iterative analysis and development of the manifesto
content. The idea was to help improve the writing of the manifesto and to compare it to other

Figure 3. Participants working
in small groups, next to the
previous shared diagram.

Figure 4. Reading and com-
menting on large format
printed versions of the
manifesto.
texts. To this end, a semantic take on discourse analysis, based on semantic data, was used in an experimental manner. The use of specific tools for the study of specific corpora can be considered relevant, insofar as these tools are based on lexical frequencies that also include collocational co-occurrence measures, and the way such collocations constitute a semantic nexus that unveil the meaning cartography of the corpus, especially regarding the semantic distribution of topics and concepts (Longhi & Marinica, 2020; Ratinaud, 2009; Reinert, 1990).

In order to get a clearer picture of the previous model manifestos, a Source Corpus was constructed by combining the following documents: the Declaration of Belém (1988), the UNESCO Declaration on Cultural Diversity (2001), the North American Regional Declaration on Biocultural Diversity (2019) and the Tuggoz Declaration on Climate Change and Mountain Indigenous People (2015). The idea was to understand how the polarity of content and meaning was distributed within this corpus regarding biocultural diversity.

In this representation, it is clear that diversity is located at the center of the way the corpus functions as a network. Meaning is then distributed according to two specific polarities, based on the number of textual collocations (meaning the number of times words occur close to each other in the text): a polarity linked to indigenous people (knowledge, practice, traditions, social systems, climate change adaptation, community, people, development), and another one linked to cultural items, which is in fact heavily linked to the structures that support and publish declarations (as it is to policies and heritage). The term “culture” itself is closely linked to “diversity”, thus located at the center of Figure 6. This visual cartography maps out the way in which the texts in the corpus are structured in terms of meaning and argumentation.

In order to get a clearer view of the Source Corpus, it is helpful to examine the way the textual data is organized in terms of topics represented within the manifesto corpus. Iramuteq reveals that the corpus is divided into two distinct parts (Figure 6). The architecture shown in Figure 7 displays links between meaningful ensembles, thus leading to the following analysis:

- Class 5 comprises parts of discourse linked to the way communities are experiencing their traditions and need to adapt them to climate change, thus putting the focus on people and their ways of life.
- Class 3 is entirely dedicated to biocultural conservation and the link to nature, whilst its sister-class (class 1) is focusing on the political management and preservation of land itself and its resources.
A distinct cluster of two sister classes emerges within the corpus, comprising a class dedicated to non-governmental organizations trying to foster biocultural diversity (class 2); and another one rooted in the social and economical structures that may be able to support it (class 4). Both classes are more organizational and are drawing on social structures, as opposed to the communities depicted in classes 5, 3 and 1.

This broader picture of the initial corpus was presented to the participants of the manifesto sprint to help them appreciate the specificities of such texts, as well as their limits in terms of conveyed representations. This visualization was proposed also to stress the importance of textual design of the manifesto itself, showing that the text is not a mere collection of ideas, but they are interconnected within a semantic nexus. Several questions were discussed relating to the distinct polarities of the Source Corpus, notably the way communities and organizations were clearly separated. In editing, the text of the manifesto, the group was guided by these findings and tried not to reproduce this semantic rift. This way, the co-creation of discourse entered a phase of semantic and pragmatic design.

To support the collective design of discourse during the period following the initial session, Iramuteq was also applied to the emerging text of collaborative manifesto under development. Analyses were done on three consecutive versions of the new manifesto as input corpora: the first
draft (Version 1, 23 October 2019), an intermediate version (Version 2, 10 November 2019) and the final online version (Version 3, 13 December 2019).

Figure 8 reveals that the first draft of the manifesto places diversity at its core: Iramuteq shows that the word diversity is one most used in relation with other terms, thus building specific semantic clusters. However, while diversity is linked to numerous terms (culture, resources, species, sustainability and world), education seems almost disconnected from these terms, thus focusing on itself as a process and, for instance, separating language (in the north-western part of the visualization) from culture (in the north-eastern part of the visualization).

The argumentative structure of this first draft (Figure 9) shows that two classes share the same representational kinship (class 1 on sustainability, and class 2 on education), while cultural biodiversity (class 3) seems to be isolated from the rest. These figures provided some insight on the text itself and allowed the group to make subsequent changes regarding their preferences and aims for the manifesto, also thanks to the comparison with the Source Corpus of the previous manifests and its semantic distribution of terms and topics.

The second version showed that significant improvements had been made within a few weeks, combining work done during the manifesto sprint and during the continued collaborative co-creation process in the cloud. Figures 10 and 11 show significant evolution from the early Version 1.

The form and distribution of the semantic network in Figure 10 indicates the following developments to the text:

- While diversity and education are part of the same main area in both versions, culture is more closely tied to both in Version 2.
Figure 8. Representation of the semantic network in Version 1.

Figure 9. Argumentative structure in Version 1.
Figure 10. Representation of the semantic network in Version 2.

Figure 11. Argumentative structure in Version 2.
Biodiversity has now become a semantic area in its own right, more structured than previous areas that were all pointing towards it but without clearly naming it.

Community and sustainability have become parts of the same area, which was not the case before and was considered to be a meaningful change by the group.

The area centred around world has also disappeared and has become absorbed by the main semantic area, suggesting that interconnectedness and complexity were now more integrated.

Knowledge and practice still retain their own area, which was considered to be relevant by the group.

The evolution was even more noticeable when it comes to the argumentative structure of the manifesto, as shown in Figure 11:

- There were three distinct classes in Version 1 as opposed to five in Version 2, which suggests more diversity in terms of meaning and a finer approach to what the group intended to achieve with the text.
- Sustainability, education and biocultural diversity have morphed into the manifesto itself (as a textual identity of its own), which seemed important for the group. Linguistic biodiversity, cultural biodiversity (both separated entities), a positive engagement towards awareness, and
finally knowledge and practice represent a plurality of meaningful fields that highlighted the ongoing maturity of the production process.

- The graphic representation of these classes also shows an evolution: in Version 1, all three classes were separated (not closely linked), but this has changed within Version 2—particularly with the appearance of the term foster, which is particularly relevant to the mission of a manifesto.

- Further, two subgroups of classes emerge in Version 2. Class 5 (the manifesto and its very aim) and class 2 (biodiversity and language) represent two sister-classes, while another ensemble reunites class 1, 3 and 4. Class 1 (the mother-class of classes 3 and 4) represents the central topic of the manifesto (to share knowledge and practices), with class 3 focusing on fostering awareness, while class 4 brings together biocultural elements, education, diversity and the environment.

A further analysis was conducted with Tropes3 (a semantic and linguistic analysis software), showing that Version 1 had an argumentative style, whilst Version 2 was seen as descriptive by the software, meaning that there was less justification in the text. Another finding was that Version 2 involves the narrator (identifying as we), a device absent from Version 1. In Version 3, further changes are revealed by Iramuteq.

Figure 12 shows an interesting balance between two main areas. First, the educational dimension of the manifesto, linked to the environment on one hand, and practice and knowledge on the other, has evolved into its own area. Second, diversity is now shown as a valuable counterpart of education, and develops a variety of aspects: culture, language, bioculture, sustainability and preservation are all present in the figure. Moreover, the argumentative structure of the final version (Figure 13) is again brought down to three classes, all of which are equal in terms of textual frequency. Class 1 is the mother-class of the two remaining classes, which shows a clear architecture within discourse. Education comes first, and allows the development of class 3 (culture, biodiversity, sustainability and preservation) and class 2 (which is more about systems to be implemented, research and local actions). This shows that the purpose of the final manifesto is education to diversity itself and to actions that can lead to biocultural preservation.

5. Discussion
This case study of co-writing and discourse co-creation reflects a participatory, knowledge-generation intensive process bringing together practices and principles of two close but different disciplinary fields: participatory design and DH. This shared conceptual and methodological umbrella has resulted in a combination of narrative co-production strategies that have articulated collective authorship among 18 diverse participants in an iterative and dynamic step-by-step. For
this, a starting point was established from which to generate empathy, common visions and constructive discussion, within a physical space that combined printed materials serving as prompts with digital tools in the form of shared text documents or discourse visualizations. This shows how collaborative writing can be executed as a method of systematic and progressive inquiry (Gale & Wyatt, 2017), and how the core context of the writing process can be aligned with that of writing retreats (Maheux-Pelletier et al., 2019), insofar as interactional moments are important when contributors are physically present (Ritchie & Rigano, 2007).

Prior to the co-writing process conducted in small groups (which proved to be remarkably productive), a technique of familiarization with the environment was established, as well as with the topics to be addressed and with the rapid analysis of formal and stylistic issues. This was used alongside basic co-creation dynamics such as collective decision-taking using dot-voting and other heuristic techniques. Then, to establish the key components of the manifesto, different personal visions were analyzed and visually grouped, with discussions representing different points of view and disciplinary backgrounds beyond DH. The topic itself seemed to be a good fit for our methodology. However—and this could constitute a limitation of the present study—we cannot be sure that the text design itself has not generated more interest than it should have, especially given the captivating and insightful text visualizations that Iramuteq was able to provide. Another option that was not explored was to send out the manifesto at its various completion stages (i.e., original draft, intermediate and final versions) to non-participants, inviting them to complete a survey, which might have offered further insight into the pragmatic impact of the manifesto itself. This is an attractive methodological enhancement that could be included in similar future studies.

What seems more relevant for us in this case is how the process of conceptualization and sequenced co-writing and revision, adapting the rotating methodology of the World Cafe, was seamlessly integrated with DH visualizations offering insights into the discourse structure and narrative approach related to biocultural diversity. This contributed—at different stages of the elaboration of the manifesto—through design-thinking sequences of divergence and convergence contributions, to the text in its final version containing a series of outstanding elements. Channeling at all times the discussion and active contribution of the participants, our process of intellectual group work attained a significant degree of coherence and depth. The intensive two-day “sprint” proved an effective approach for our work on the manifesto, which has, after final editing, been published under a Creative Commons licence as a bona fide peer-produced text (Garriga et al., 2018).

This experimental case study shows in detail a step-by-step co-writing procedure that could not only be adapted by other similar manifesto writing initiatives, but also by other formats and knowledge generation processes that require collaboration between peers and other expert actors, and other texts that seek to combine complex or emerging topics. Likewise, from the observation and documentary analysis of this type of transdisciplinary co-creation process, we believe it could also yield interesting results if applied in distributed or constructivist learning contexts. Of course, the approach described herein also has limitations. It ought to be reproduced in other contexts in order to verify its relevance in terms of collaborative writing method, discourse design, and discourse analysis tools, which were here brought together ad hoc in a co-creation effort to combine an integrative experience and an cross-disciplinary research experiment.

Finally, we would like to reflect on possible other topics and applications that could be fruitfully addressed using the present approach to collaborative writing. An obvious candidate for any scholar would be co-writing academic publications, but might this methodology be usefully applied to write joint research proposals, particularly those involving many collaborators, such as those funded under the many European Union schemes? The relative success of our case study might also inspire teachers or scholars to try the approach in iterative, collaborative creation of learning programmes and curricula, representing a cohesive strategy to educational design. Further, an alternative set of tools might be tested in order to further investigate the impacts of such “textual” co-creation hybrid format.
Author statement: The interdisciplinary and co-creation research process behind this study and publication relates to ongoing research from the co-authors in the field of methodological innovations within Digital Humanities and in connection to issues of social interest about biocultural diversity, and the need to connect different areas of knowledge and practice within academia and beyond, enabling open participatory processes based on participatory design, collaborative writing and inclusiveness.

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- BERGER, Katja – Artist (Austria) - P: Artist - Austrian
- CARSENAT, Elian – NamSor (France) - I: Data Scientist, Entrepreneur - French
- CARSENAT, Gabriel – NamSor (France) - P: Teenager, Sustainability Activist - French
- DIAK, Penesta – Kunsteinuniversitat Linz (Austria) - A/P: Media Art Researcher, Lecturer, Curator - Croatian
- DORN, Amelie – Austrian Academy of Sciences (Austria) - A: Linguist - Austrian
- HAARICH, Max – Republic of UZupis (Germany) - GI: Ambassador, Artist, Ethic Technologies - German
- HABLESREITER, Martin – Honey&Bunny (Austria) - PI: Food Designer, Artist, Sustainability Activist - Austrian
- IGELE, Viktoria – Federal Environment Agency (Austria) - G.
- KNEZUL, Clemens – Global Institute for a Sustainable Information Society (Austria) - A.
- MENON, Nirmala – Institute of Technology Indore (India) - A: Digital Humanities Researcher, Techie - Indian
- PALMETHOFER, Gerda – Artist (Austria) - I: Designer, Sustainability Focus - Austrian
- PIRINGER, Barbara – Austrian Academy of Sciences (Austria) - A: Biologist, Lexicographer - Austrian
- PREZA DIAZ, Jose Luis – Austrian Academy of Sciences (Austria) - A/P: Data Scientist, Artist - Austrian
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