Journal of Ubiquitous Music

Editorial

Volume 1

Damián Keller*, Victor Lazzarini, Luzilei Aliel, Ivan Simurra, Marcello Messina, Leandro Costalonga

The Ubiquitous Music Journal (j-ubimus) has been in the making for quite a few years. Given the variety and the breadth of edited ubiquitous music (ubimus) publications released during the last decade, how could a ubimus-specific journal furnish something that's not just a collection of materials, while helping to expand the boundaries of our research community? Should we post an open call for papers and wait to gather proposals as they come? Should we invite our research partners to act as guest editors? How many topics should we target for each volume? Should we also adopt non-standard formats? And what about the language? Should we employ only English or should we apply the usual UbiMus Symposium options of Portuguese, Spanish, and English? Should we expand the range to encompass most languages available within our community? These were some of the dilemmas we faced during the elaboration of this project.

These are not easy questions because they trigger a chaico of decisions that shape our working methods with potential impact on the end results. Multiple languages imply the need for enough expert readers who can handle both the technical and the idiomatic aspects of academic writing. If ubimus research groups were limited to the Luso-Iberian countries, a bilingual journal following the model of the special issues published by our community on Sonic Ideas (6), Vortex (8) and (7) or JDMI (10) would be sufficient. This is not the case. Several of our partners are located, for instance, in Australia. And the presence of other partners based in Europe indicates that a diversified language base is one of the prerequisites of an inclusive ubimus publication.

Another highly polemic topic involves adopting alternative formats for our brand-new venue. From an artistic perspective, this would make sense. A key byproduct of ubimus research is sound. But it is, of course, not the only product. Several ubimus projects highlight the multimodal dimension of the musical experience. Hence, for instance, a podcast-based format would not do justice to the diversity of byproducts featured in ubimus projects. Audiovisual outcomes are also prominent. This format supports aspects of musical-interaction knowledge that are difficult to describe in words. Still, something is missing. Recent ubimus endeavors, such as gastrosonics, explore the potential for crossmodal information exchanges, including senses such as taste and smell (cf. 7). The tactile dimension of creative practice has also been supported through the development of ecologically grounded frameworks, recently featured in a theme-oriented Organised Sound volume (3).

The support for alternative formats was not discarded. Our publishing policy strives to include artistic products while attempting to accommodate the diverse demands that characterize ubimus artistic practice. Nevertheless, we opted for the standard text-based report of research results because this seems to be a reliable way to handle peer-reviewing. Given the multidisciplinary characteristics of ubimus research, focusing purely on sonic or audiovisual presentations would have added a new layer of complexity to the assessment of the research outcomes.

Furthermore, despite the advances in indexing techniques of the last few decades, effective citation of sonic and audiovisual resources is not sufficiently reliable yet. As state-funded, open-access repositories become a standard feature of research sharing, we plan to embrace non-textual resources as fully citable material. Given that six corporate conglomerates control half of the worldwide internet exchanges, the current internet is definitely not a ubimus-friendly platform.[1]Beyond language and format, there were other aspects of the initially drafted proposal that triggered multiple questions. A tendency toward an ecosystem of ubimus venues and activities has emerged as a result of the decentralized and the strongly collectivist endeavors of our community. Despite a Brazilian origin and active presence that gave an imprint to the first ubimus initiatives, the current ubimus community cacrries on activities in multiple countries. Take, for instance, the profile of authors of the UbiMus Symposium held in 2023. Given the locale of the event, Ulster University in Derry, Northern Ireland, European submissions were the majority. There were also some proposals from Asia and Africa. Of a total of 59 authors, 11 were from Brazil. The only region missing was North America. So despite the prevalence of European presence, the international profile tended to be balanced. Thus, basing a ubimus publication in Brazil is not an obvious choice. What factors were decisive regarding the chosen home of the j-ubimus? A key consideration was sustainability, not just toward a short cycle of publications but also toward the survival of the initiative given any changes in the support team. This requirement implies the existence of an institutional base, ideally a university press.

[1] dkeller@ccrma.stanford.edu - Ubiquitous Music Group

[1] Google, Meta, Netflix, Amazon, Microsoft and Apple control 56% of the current flux of internet-based information, worldwide.

Table 1: Profile of authors that sent submissions to the last UbiMus Symposium (N = 59).

Country	Authors
Argentina	1
Australia	1
Austria	1
Brazil	11
China	1
Cyprus	1
Estonia	1
Finland	3
France	1
Germany	1
Ireland	15
Italy	2
Kenya	1
Macao	3
Portugal	7
Russia	2
South Korea	1
United Kingdom	6
Total	**59**

Why a university press and not, for instance, an international press, such as Elsevier, Springer or Routledge? The second option would involve a financial barrier either to publish or to access the materials. Ensuring funding for artistic research outside of the central countries has always been difficult and there are no signs this reality will change in the foreseeable future. The adoption of the misleading label "open access" by corporate publishers, in practice means the enforcement of a quality metric based on wealth. Research groups that have access to generous funding may afford APC charges ranging from 2000 to 9000 US dollars per article. The average income per capita in Brazil (a country considered a mid-level economy and consequently excluded from waivers) is around 400 US dollars. A productive group, with a yield of around 10 papers per year, would need a minimum of 20000 dollars just to cover publication expenses. The chances of securing this amount of funding in the arts in Brazil are almost nil.

Thus, the choice of a public university press as a home for the Ubiquitous Music Journal was mainly motivated by sustainability and accessibility. Furthermore, the choice of location carries a message regarding the values being discussed within our community. In this respect, simplistic labels, such as those adopted by the corporate news outlets, are not necessarily accurate or useful. Consider the geopolitical label "The West".

Does Western mean located in Europe? Does it include North America? Does it also include some former British colonies such as Australia? If so, how do we classify places like Jamaica or Saint Lucia? And if the territories or former colonies are fair play, why not add the French Guyana or Martinique? What about the Seychelles or Mauritius? Despite the limitations of such labels, handling multiple locations as a single construct may enable analyses of social and economic trends, thus this usage is justified in some areas of ubimus research. Furthermore, there have been developments in ubimus that address aspects of geopolitics and its impacts on design. These factors have also been mentioned in archaeological ubimus initiatives. Despite a potential for development, geopolitical aspects of ubimus practice have not yielded a comprehensive framework yet. In any case, the choice of a peripheral region within a peripheral country as a home of the j-ubimus seems to be aligned with the counter-hegemonic tendencies of humanities-oriented ubimus perspectives (cf. 14).

This first section has addressed part of the motivations that set into motion the project of a journal dedicated to ubimus research, highlighting the constraints and dilemmas faced by the editorial team while planning and organizing the tasks for the proposal. Beyond the language and format, there were other aspects of the initiative that triggered multiple questions. A tendency toward an ecosystem of ubimus venues and

activities has emerged as a result of the decentralized and strongly collectivist ways of doing adopted by our community. The financial constraints implied in a project that encompasses practitioners located in low and mid-income countries, the specific demands of supporting practice-led and artistic manifestations and the diversified traits of an international community of practice were factors that shaped the organizational and procedural paths trodden toward a choice of location. We now turn to the actual contents of the volume. After addressing the topics of the anchor article and the accompanying critical commentaries, we will provide an interpretation of how this research may lead to new developments, given a fast-changing landscape of post-2020 creative practices.

1 The impact of DIY and DIT perspectives on ubimus practice

The topic of this volume is centered around Do-it-Yourself (DIY) perspectives, together with the wider idea of Do-it-Together (DIT). These approaches to creative practices and music making have been central to ubimus from the very beginning. While the hardware approach implied by DIY was not part of the earlier research work published by the members of the group, the concept of doing things from scratch with whatever means available and in a collective setting was an important characteristic of early ubimus activities. Much of this is reported in Keller et al (9), leading to experiments in DIY such as the Memories Tree (18), a telling example of the types of artistic actions and interactions promoted by ubimus. The idea of DIY practices as a means of exploring creativity while supporting more sustainable ways of utilizing hardware and software for music has been explored in many ubimus publications (cf. 11) and it has become central to the emergent approaches on ecologies of ubimus.

From this perspective, it is natural that the first volume of j-ubimus focuses on questions of DIY and DIT. The current issue is structured around an anchor article with commentary papers. Brown and Ferguson's "DIY musical instruments: From Handmade Electronic Circuits to Microcontrollers and Digital Fabrication" sets up the context for this volume. This article discusses the digital fabrication side of DIY, looking at the making bespoke devices that produce sound electronically. It considers the practical aspects of the process: 3D printing, custom printed circuit boards (PCBs), among other techniques and how these methods can sustain ubimus activities. The article makes an interesting parallel with another important change in DIY practices which happened in the early years of the century, when the advent of accessible programmability of inexpensive microcontrollers replaced the common practices of fixed circuit development. The article also reflects on the rise of the Maker Culture, considering how the practices of digital fabrication are enabling the efforts within various communities of practice. The conclusions indicate that the ideas explored in the paper may help our field to achieve increased refinement and sophistication, which will enable the development of more complex DIY musical hardware designs.

The featured commentaries appraise and critique the anchor article, providing their own perspectives to key questions raised by Brown and Ferguson. In the first companion article, Timoney puts forward an appraisal of the proposed techniques, examining them from the perspective of a DIY practitioner. In his commentary, he emphasizes central points in relation to ubimus. For example, from a historical perspective, the DIY movement demonstrated a democratization of access to technology impacting how people could apply it as a means to diversify musical expression. Timoney also discusses the digital fabrication process, noting some of the caveats involved, alerting that time consumed making tools should be balanced by time spent exploring their musical possibilities. His argument highlights the dangers of research agenda purely focused on "gadgets" or "new instruments" rather than on supporting meaningful musical experiences.[2]

In his companion article, Kramann discusses an issue associated with a ubimus thread relevant to DIY musical practices: the concept of *comprovisation*[3] within the context of lay musicians (that is, people with little formal or informal experience of music-making). The author makes the point that constructing instruments or interacting with newly designed instruments may not be actually meaningful from a creativity-oriented perspective. Through a series of examples from existing projects, he arrives at a notion that, particularly when engaging lay participants in comprovisation, the presence of a compositional framework, presented via for instance a virtual environment, can furnish more effective support. The author concludes that the incorporation of a compositional theory may be an important addition to some scenarios provided by DIY instrument making, also noting the importance of the social and community-building aspects of ubimus approaches.

As a counterpoint, Merendino's article provides yet another perspective on the digital fabrication of bespoke instruments. He argues that fabrication can enhance DIY practices, bringing these to a higher level. Through a good overview of the area, he makes the point that fabrication can be traced as far back as the Futurists and Russolo's intonarumori. Embracing the Free, Libre, and Open Source Software (FLOSS) culture has benefited the musical communities in ways that could not have been anticipated (cf. 16 on this topic). The article provides case studies to complement the ones presented in the anchor text. These serve to exemplify and amplify the proposed concepts. Finally, the argument against the user-designer dichotomy is made very clearly, as Merendino emphasizes that with the creative practices of music and DIY, we have the emergence of a designer-as-user concept. Highlighting what ubimus practitioners have been proposing, it becomes very hard

to draw lines between, for instance, a musician and an instrument maker.

In his insightful commentary, Hofmann shares several ideas on the use of DIY projects for educational activities. He brings in the example of the COSMO project, which aims to build a framework for DIY users as a means to support workshops on instrument design and development. This project has given him hands-on experience of what works and what is more challenging. Hofmann notes it is imperative that activities within the DIY sphere attempt to connect with life outside academic institutional boundaries. He reports on a project that built bridges with an existing community of musicians and makers in Nairobi, demonstrating that DIY ubimus approaches have much to offer beyond the conceptual and geographical borders of eurocentrism.

2 Post-2020 trends and avenues of investigation of second-wave ubimus

This volume focused on emerging perspectives for the expansion of musical hardware from a ubimus DIY perspective. The four critical commentaries and the contents of the anchor article showcase the diversity of techniques available for ubimus practitioners. According to Kramann (this volume), "approaches that introduce languages for manipulating musical structures open the possibility for the user to pursue the symbolic foundation of the respective language, thus the comprovisational activity is decoupled from the tool." Kramann's views can be paired with an emerging trend in ubimus that strives to enable access to music programming to casual participants, whether improvisatory or geared toward asynchronous interaction. This is what ubimus practitioners define as lite coding (22). Kramann's criticisms reflect the preoccupations of second-wave ubimus researchers with the constraints on pliable design imposed by the notion of a fixed instrument. Thus, his criticisms are valid to a certain extent.

If a proposal involves just designing and sharing a material instrument, then it tends to incorporate the genre-oriented restrictions built into instrumentally oriented interaction. Nevertheless, in the cases presented in this volume we are witnessing a different approach. Brown and Ferguson provide a recipe rather than a material instrument. Instead of sharing the outcome, they share the know-how necessary to build the hardware. Therefore, in theory, this proposal is as pliable as a shared algorithm or language. The limitations are linked to the ability of the stakeholders to access the material resources. This is a potential caveat. But the fact that the necessary know-how is already available offers our community a fresh set of research questions that weren't as meaningful or potentially fruitful before the publication of this work.

There is a significant gap between the availability of infrastructure and the development of innovative artistic practices. Sometimes the extant material resources enable changes in musical thinking. Other times, artistic needs trigger technical advances. These misalignments are hardly free of consequences. Artistic practices carry a strong component of social identity. Music, in particular, has been implicated both as a tool of oppression and as a means of resistance (4, 19). Therefore, design choices not only impact our ability to fulfill musical intentions. They also carry an ideological baggage that may either limit or boost our ability to imagine, implement and deploy musical worlds.

Consider, for instance, the computational resources available in the early 1990s as compared to the resources available today. Post-2020 creative endeavors feature challenges that were absent or less conspicuous in pre-internet, pre-mobile and pre-embedded digital music-making. A simplistic take on musical interaction would suggest that "instruments" drive the artistic expansion of the last few decades. This may have been true until the early 1990s. The introduction of connectivity protocols, such as MIDI and the internet protocol, and significant advances in audio synthesis and processing techniques enabled the application of a chamber-oriented music-thinking to computer-based creative activities, thus giving undue emphasis to "realtime" musical interaction.[4] This instrumentally oriented vision of how to make music was later inherited by music genres tailored for specific infrastructure such as networked music performance (15). In spite of ubimus efforts, post-2020 music practices still carry the weight of pre-embedded, pre-mobile, pre-internet and in some cases of pre-computational musical thinking. These views are materialized in the application of legacy resources for knowledge transfer. In fact, an emphasis on transfer rather than sharing is one of the features of acoustic-instrumental thinking. Typical legacy forms of group decision-making include "the orchestra" and "the master-slave" models. Thus, a set of hierarchical approaches strongly criticized by various musicians since the late 1990s (2, 5, 12), resurfaces with adjectives like "intelligent", "smart" or "deep".[5]

Typical legacy resources for musical knowledge transfer include the score and the preset. The former is usually treated as a fixed set of symbolic instructions tailored for a specific device or a set of devices (an instrument or an instrumental ensemble) that when deployed yields a musical product (a piece or an artwork).

[2] Regarding this issue, the ironic term engenhoca (a play of words connoting awkward engineering) has sometimes been applied by ubimus practitioners to device-centric design.

[3] There is an ongoing thread of ubimus artistic endeavors that embrace both compositional and improvisational techniques, while exploring the caveats and opportunities of this fusion. This has led, for instance, to a framework labeled ecomprovisation strongly rooted in ecologically grounded creative practice (cf. 1).

[4] "Real time" was the term historically adopted for any form of music-making that resembled the behavior of acoustic instruments. Current ubimus terminology opts for the more neutral label "synchronous", which stands on an equal footing to "asynchronous" and "quasi synchronous".

A problematic aspect of this restrictive notion of support for musical knowledge transfer is the implied persistence of the material base (an acoustic instrument or its digital emulation) and of the knowledge base (such as common practice notation or its simplified derivatives, e.g. chord progressions).

Given these limitations, to fit the emerging ubimus demands scoring would need to be redesigned as a stakeholder-oriented activity rather than as fixed media. Similarly to how automatic translation may be tied to a personal configuration of local usage, score deployment may be adapted to the profile of each stakeholder. Nevertheless, this human-centric approach to scoring does not solve the problem of sonic production. The procedural instructions may be understood, but if the music-maker does not have access to the material resources needed to render the sonic products then the quality of the outcome may be reduced and the rendition may become useless.

This link of the production chain is under high pressure for standardization. There is a strong tendency to apply pre-computational means, such as emulated acoustic instruments, or to adopt prepackaged solutions that may restrict the range of musical experiences – see for instance the negative social consequences of enforcing Non-Fungible Tokens as a standard format for internet-shared musical resources (13) or consider the constraints imposed by the uncritical repurposing of social networks as conduits for music creation (17).

The preset is another legacy resource widely employed in commercial packages, sometimes in- corporated in exploratory prototypes. The idea of providing ready-to-go and tested combinations of parametric configurations is potentially useful. But it carries the dangers of the black-box mentality (20). Casual or inexperienced participants may tend to stick to just a few choices of presets, yielding results that reproduce functional fixedness. This danger is compounded by a tendency to avoid a more de- tailed understanding of the procedures and their aesthetic consequences, which are seldom addressed by software documentation. A possible strategy to deal with this caveat is ASC. Creative semantic anchoring involves the usage of semantic resources that are tied to the procedural choices at various stages of the creative cycle (21). Their level of specificity is dependent on the subject's profile and the task at hand. Thus, a dosed incorporation of presets in the context of ASC-oriented creative-action metaphors might be an option worth exploring.

To conclude, the topic of this volume is particularly relevant to the ongoing discussions on knowledge sharing in ubimus activities. A key contribution of ubimus for post-2020 creative practice is the expansion and flexibilization of resources to enable collective music making. As mentioned before, musical activities are much more diverse than interacting with an isolated sonic device. Collective music-making involves exchanges of knowledge that may target on-the-fly decision making or that may feature very slow cumulative processes that eventually crystallize as consensual outcomes. Ubimus support mechanisms need to be specific: the former modality deals with volatile resources while the latter employs persistent resources. How to materialize these exchange mechanisms is an ongoing research preoccupation among ubimus designers and practitioners. Brown and Ferguson's proposal furnishes an elegant solution that retains the flexibility and replicability of open-source designs while featuring the materiality of deployed hardware.

Evidence-based research has always been a feature of ubimus methods. But some practical limitations have prevented the fast circulation of support strategies. The proposal featured in the anchor article may trigger an expansion of deployments which may boost the replicability of ubimus frameworks. The timely contributions of the critical commentaries included in this volume provide a panoply of perspectives that complement and expand the core proposal. We are confident that the contents of the first volume of the Ubiquitous Music Journal will trigger a productive dialogue with researchers and practitioners interested in a future of music-making without frontiers.

[5] The ideological and practical implications of attempting to recycle musical techniques for post-2020 musical goals are beyond the scope of this editorial. Nevertheless, this is an active avenue of investigations with threads emerging in the last few years, such as ubimus archaeologies and musicologies.

References

1. Aliel, L., Simurra, I., Messina, M., Keller, D.: Ecomprovisation: Project Markarian 335. Organised Sound 10, 1 – 10 (2024)
2. Bridges, D., Lazzarini, V., Keller, D.: Issue 3: Ecologically Grounded Creative Practices and Ubiquitous Music – Interaction and Environment. Organised Sound 28, 3, 321 – 327 (2024)
3. Cusick, S.G.: « « Vous êtes dans un lieu hors du monde... » : la musique dans les centres de détention de la « guerre contre la terreur » ». Transposition [En ligne] 4, 1, 1 – 1 (2014)
4. Keller, D.: Compositional processes from an ecological perspective. Leonardo Music Journal 10, 1, 55 – 60 (2000)
5. Keller, D.: Prologue/La mano en la masa de la creatividad musical/A mão na massa da criatividade musical. Volume Sonic Ideas, Musical Creativity 10, 1, 1 – 10 (2013)
6. Keller, D., Alcântara-Silva, T.R., Mesz, B.A.: Editorial: caminhos investigativos da música ubíqua, gastrossônica e bem-estar. Revista Vórtex 11, 1, 1 – 33 (2023)
7. Keller, D., Barreiro, D.: Editorial Seção Temática Música Ubíqua – Forças de atração e desafios na pesquisa ubimus. Revista Vórtex 6, 2, 1 – 33 (2018)
8. Keller, D., Lazzarini, V., Pimenta, M.: Ubiquitous Music. Springer Verlag, Berlin (2014)
9. Keller, D., Messina, M., Oliveira, F.Z.N.: Special Issue on Ubiquitous Music. Journal of Digital Media & Interaction 3, 5, 1 – 142 (2020)
10. Lazzarini, V., Keller, D., Otero, N., Turchet, L.: Ubiquitous Music Ecologies. London Routledge 1, 1, 1 – 258 (2020)
11. Lewis, G.: Too many notes: computers, complexity and culture in Voyager. Leonardo Music Journal 10, 1, 33 – 39 (2000)
12. Messina, M., C Filho, M., Mejía, C.M., Keller, D., Aliel, L., Simurra, I.: Things, objects, subjects and stuff: IoMuSt and ubimus perspectives on AI. IEEE International Conference on Big Data (BigData), 4503 – 4510 (2023)
13. Messina, M., C Filho, M., Mejía, C.M.G., Keller, D., Aliel, L., Simurra, I.: A internet do bagulho musical (internet of musical stuff)-iomust. Anais do Simpósio de Música Ubíqua 1, 1, 1 – 155 (2022)
14. Mills, R.: Telematics, art and the evolution of networked music performanc. Tele-Improvisation: Intercultural Interaction in the Online Global Music Jam Session 1, 1, 1 – 1 (2019)
15. Pimenta, M.S., Miletto, E.M., Keller, D., Flores, L.V.: Technological support for online communities focusing on music creation: Adopting collaboration, flexibility and multiculturality from Brazilian creativity styles. N. A. Azab (Ed.), Cases on Web 2.0 in Developing Countries: Studies on Implementation, Application and Use, 1, 1, 1 – 561 (2012)
16. Ribeiro-Neto, A., Castheloge, L., Oliosi, A., Mateus, A., Costalonga, L., Coura, D.: Memory Tree: Multimedia Interactive Installation (Árvore das Memórias: Instalação Multimídia Interativa). Proceedings of the XV Brazilian Symposium on Computer Music 1, 1, 1 – 11 (2015)
17. Scandrett, E., Soliman, M., Stone, P.: Cultural resistance in occupied Palestine and the use of creative international solidarity through song. Journal of Arts & Communities 12, 1-2, 41 – 56 (2020)
18. Schuff, H., Yang, H., Adel, H., Vu, N.T.: Does External Knowledge Help Explainable Natural Language Inference? Automatic Evaluation vs. Human Ratings. 'Proceedings of the Fourth Blackbox NLP Workshop on Analyzing and Interpreting Neural Networks for NLP 1, 1, 26 – 41 (2021)
19. Simurra, I., Messina, M., Aliel, L., Keller, D.: Radical creative semantic anchoring: creative-action metaphors and timbral interaction. Organised Sound 5, 10, 106 – 30 (2023)
20. Zheng, R., Keller, D., Lazzarini, V., Messina, M., Timoney, J.: Designing the emugel prototype to boost music-computational thinking. Proceedings of UbiMus2023 (2023)