Toward a Repository Template for Music Technology Research

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Abstract

Documenting and sharing research output is essential to construct the critical discourse on new music technology. Documentation feeds the knowledge and the values with which to evaluate and discuss current achievements and musical creations as well as to plan for the future. Besides publishing our research in conferences and journals, sharing research materials and outcomes like software, hardware, instruments, and datasets is important. This allows others to use the latest technology and improve it. For this purpose, the repository is increasingly commonly used by researchers and artists to store and share their works. However, creating repositories does not follow a clear and organised structure like the one we find, for example, in papers. The heterogeneity of repositories makes it hard to use both practically and for analysis. Although the variety and differences of research products in the field of new musical technologies are obvious, we believe that defining repositories with common guidelines could significantly improve the critical discourse in this area. This issue has been discussed at the NIME conference through workshops and papers. In this article, we want to continue this discussion and propose a flexible repository template to organise and present research materials and outcomes in the field of musical technologies research.

The article provides a short and focused review of how repositories are currently used at the NIME conference, with special attention to the platforms used. Based on this study, we introduce a repository template that will be applied to case studies. We hope this proposal will encourage further discussion and advancement on this issue and, at the same time, support and facilitate the creation of new repositories.

Keywords

Repository, Documentation, New Music Technology Research, Digital Musical Instrument, Critical Discourse

1 Introduction

Music technology research is a multi- and interdisciplinary field focused on developing original multimedia technologies for music and sound contexts. In this field, researchers design, develop, and use new software (applications, firmware, libraries, etc.), hardware, systems that combine software and hardware (such as digital musical instruments), tools, and datasets, which are either the results of the research itself or the tools used to conduct it. Besides the new technological devices, the outcomes of this research encompass new music, sound and performative applications, possibilities and understandings, as well as musical creations. The results are usually shared through dedicated conferences, such as the Digital Audio Effects (DAFx)[1], New Interface for Musical Expression (NIME),[2] Sound and Music Computing (SMC),[3] Audio Mostly (AM),[4] and dedicated journals, such as Journal of New Music Research (JNMR),[5] Organised Sound,[6] and Leonardo.[7]

The community of researchers and the outcomes in this research area are constantly growing. For example, participation in these venues is overall increasing. Fasciani and Goode have shown that the literature has grown steadily since the NIME conference began in 2001. Since 2005, there have been over 100 new authors each year, reaching a peak of 202 new authors in 2014 [12]. Although outdated, Hamadicharef's analysis [14] shows that the DAFx conference has consistently grown in both literature and participation (at least until 2009). Mauro and colleagues [17] outlined that participation in the SMC conference, especially in terms of submissions, has not shown a significant increase but remains steady.

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[1] https://www.dafx.de/ (last accessed: 2025-02-02)
[2] https://www.nime.org/ (last accessed: 2025-02-02).
[3] https://smcnetwork.org/ (last accessed: 2025-02-02).
[4] https://audiomostly.com/ (last accessed: 2025-02-02).
[5] https://www.tandfonline.com/journals/nnmr20 (last accessed: 2025-02-02)
[6] https://www.cambridge.org/core/journals/organised-sound (last accessed: 2025-02-02)
[7] https://direct.mit.edu/leon (last accessed: 2025-02-02)

To trace the content and values of this research, we must refer not only to the bibliographic content but, more importantly, to the critical discourse. Every community, conference, journal, or network engages in a critical discourse where the research values are embedded and from which its outcomes are produced and generated [3, 8]. The bibliographic record is only one element (a cause and product) of this discourse, which more generally "is a continuous process of exchange which includes [...] the instruments we make, the conversations we have, the relationships we maintain, trends that emerge, and so on" [3, 8].
The need for documentation that goes beyond just publishing an article (which is still an important document) has been advocated to promote critical discourse [3, 8]. Calegario discusses documentation to promote the replicability of a Digital Musical Instrument (DMI). Although he doesn't use the term "discourse," he explains that replicability (or the documentation that allows us to replicate a tool) helps us avoid "reinventing the wheel" and enables us to explore under-explored areas of the design space or adjust designs that have been considered interesting or "successful" [8]. Documentation helps preserve research results with their development, updates, and long-term engagement. In other words, documentation allows the critical discourse and the research field to grow and mature.
Furthermore, as proposed by Bin [3], in order to unfold a critical discourse, the documentation should be *collaborative* by relying on collective input, *ongoing* to support continuous development, *flexible* to adapt to changing circumstances, *open* to allow accessible and unrestricted contributions, and *complete* to ensure that all contributions are fully represented.

Based on these criteria, public repositories are the most common way to create and maintain research documentation and related materials [8, 9, 13, 18]. In 2016, a workshop was held at the NIME conference to promote *NIMEhub*. The project aimed to build a design ecosystem focused on NIME, where instrument parts could be easily shared worldwide. It was planned to achieve this through the systematic use of repositories [18]. Unfortunately, this workshop has not produced any public and available outcome.
To follow these efforts, to encourage documentation, its maintenance, and thus the sharing and development of research in this specific area, in this article, we propose a repository template that follows and promotes the five characteristics of documentation [3] as well as the documentation features already defined in the literature. The goal is not to create a standard (which would limit the flexibility of documentation) but rather to provide a simple and adaptable architecture with requirements and essential information that can help create and use repositories for the various and heterogeneous parts of the research.
In the next section (section 2), we will present the results of a brief and focused literature review measuring the use of repositories and the main platforms used to archive and share research outcomes. In section 3, we will introduce our GitHub-based repository template proposal, and in the section 4, we will present two case studies demonstrating the application of this repository.

2 Reviewing the use of repositories

This article examines how repositories are used exclusively at the NIME conference. The overall idea is to analyse which platform is the most common one and how this platform has been recently used. We conducted two separate but related reviews. In the first review (section 2.1), we studied how often repositories are mentioned and the main platforms used for them, from the first conference in 2001 to the latest in 2024. In the second review (section 2.2), we studied the processes involved in creating and reusing repositories in the proceedings of the last three conferences (2022, 2023, and 2024). This second study is based exclusively on the platform, resulting in more iterations from the first review.

2.1 Review A

Methodology. To conduct the first review, we started with the combined bibliography of all NIME proceedings in .bib format.[8] In the first step, we downloaded all the papers in .pdf format. To do this, we created a simple Python script that extracts the "URL" field from each bibliography entry (the download link for the paper) and automatically downloads the files.[9] In total, we downloaded 2202 articles. For each article, we conducted a keyword search for terms such as "repository," "github," "gitlab," "bitbucket," and "google drive." The goal of this review is to count how many articles include these words each year at the conference.

Inclusion and exclusion criteria. We focused our research on the keywords "repository," "github," "gitlab," "bitbucket," and "google drive." The first keyword helped us understand how repositories are generally used, while the others showed which specific platforms are popular. The terms were chosen based on each platform's popularity. This popularity can be observed on the Wikipedia page https://en.wikipedia.org/wiki/Comparison_of_source-code-hosting_facilities (last accessed: 2025-04-29). We also confirmed this by checking user numbers reported by each platform. GitHub is currently the most popular, with over 150 million developers (https://github.com/about). GitLab follows with more than 50 million users (https://about.gitlab.com/company/, last accessed: 2025-04-29), and Bitbucket had around 10 million users as of 2019 (https://www.atlassian.com/blog/bitbucket/celebrating-10-million-bitbucket-cloud-registered-users, last accessed: 2025-04-29). This data is also supported by Stack Overflow's Developer Survey conducted in May 2022,[10] as well as Stack Overflow's Tag Trends service.[11] Since cloud storage services can be used as an alternative of repositories, especially when multimedia files are more important than software or source code, we have also included Google Drive. Google Drive has been one of the most widely used cloud storage platforms for many years [30].[12]

[8]The proceeding in .bib format can be downloaded at the link https://github.com/NIME-conference/NIME-bibliography (last accessed: 2025-02-02)
[9]We developed a Python script to download articles and extract data. The code can be found in this repository at https://github.com/alessandrofiordelmondo/mtr-repo-rev [1]. It is inspired by the *NIME proceeding Analyzer* created by Fasciani and Goode [11, 12]. We recommend using this analyser for more extensive reviews. The *NIME proceeding Analyzer* is available at the following link: https://github.com/jacksongoode/NIME-proceedings-analyzer. Our review is more focused and smaller in scope, so we needed a simpler, custom solution.
[10]According to this survey GitHub is the most popular platform, with 87.02% of users using it for personal purposes and 55.93% using it for professional purposes. GitLab is the second most popular, with 20.51% of users using it for personal purposes and 28.9% using it for professional purposes. https://survey.stackoverflow.co/2022/#section-most-loved-dreaded-and-wanted-programming-scripting-and-markup-languages (last accessed: 2025-02-02).
[11]https://trends.stackoverflow.co/?tags=github,gitlab,bitbucket (last accessed: 2025-02-02).
[12]https://www.stationx.net/cloud-security-statistics/?utm_source=chatgpt.com (last accessed: 2025-04-29)

Results. Figure 1 illustrates the keyword analysis results. The term "repository" is used more often (in 13 papers last year), especially in relation to the GitHub platform. In 2023, the word "github" appeared at least once in 52 out of 99 papers; in 2024, it appeared in 40 out of 93 papers.

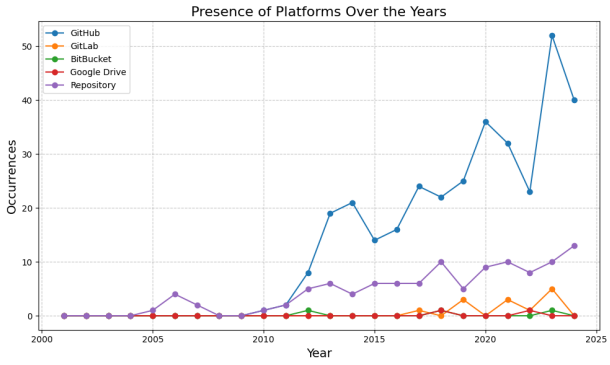

Figure 1: Results obtained from the keyword search "repository," "github," "gitlab," "bitbucket," and "google drive" within the all NIME proceedings (from 2001 to 2024)

2.2 Review B

Methodology. To understand in detail how repositories have been used in NIME, we further analyse the use of the platform GitHub in a smaller sample consisting of the papers from the last three years (2022, 2023, and 2024) and in which the "github" word is present. We extracted a total of 115 papers. These papers have been analysed to contextualise the use of the keyboard and thus find if the repositories belong to the presented research (i.e. whether it is created in the function of documenting and sharing that specific research) or belong to other research (i.e. reused or analysed in the paper). We often find cases where authors provide a repository where readers can download and view the research materials and outcomes: e.g. "Schematics, CAD, and code for this system is distributed in the following repository, such as https://github.com/aschmidt99/LorentzLapBrass" [21], "The code is all available on GitHub (https://github.com/yannseznec/periodInstrument) and a video can be viewed on YouTube (https://youtu.be/vOGdXnA11Is)" [22]. In these cases, we label the repository as "Created." In other cases, authors use repositories made by others to present the current state of the art –e.g. "Apart from the long tradition of network music tools in SuperCollider (e.g. HyperDisCo[13], the Republic Quark,[14] [...]" [29]–, to reuse code and software– "An open-source machine listening plug-in for Unity[15] is used to extract audio features continuously from the Quest microphone" [24]–to adapt the code–e.g. "The patch used in the instruments is an adaptation of Yann Seznec's Granular Sampler[16]" [20]– and in rarer instances, also as tools for analysis –e.g. as caption of a Figure: "Figure 1. GitHub commits to the ChucK core repository from 2010 until February 2024". [25]. In these cases, we label the repository as "Reused."

[13]Originally as footnote in the mentioned paper https://github.com/aiberlin/HyperDisCo
[14]Originally as footnote in the mentioned paper: https://github.com/supercollider-quarks/Republic
[15]Originally as footnote in the mentioned paper: https://github.com/sicklincoln/MusicalMachineListeningUnityPlugin
[16]Originally as footnote in the mentioned paper: //github.com/yannseznec/Granular-Sampler-MICA

Finally, in the last step, we collected the mentioned repositories to analyse a possible iteration of the same repositories and users.

Inclusion and exclusion criteria. For this review, we considered only the papers from the last three proceedings since we focused on the latest trends in repository use.
To contextualise the "github" keyword, we excluded the links referring to GitHub's web pages, usually in the form https://username.github.io.[17] These types of links are out of our scope because they lead to real web pages that differ from the typical use of the repository.

Results. Table 1 shows the number of papers that created new GitHub repositories belonging to their research ("Created"), those that used external repositories ("Reused"), and those that both created and reused the repositories ("Both") for each year.

Table 1: Number of papers that created and/or reused a GitHub repository in the last three years of the NIME conference.

Year	Created	Reused	Both
2022	13	16	8
2023	25	31	11
2024	22	21	9

Tables 2 and 3 show the main users and repositories reused and cited in the papers.

Table 2: Most cited GitHub user in NIME proceedings (2022, 2023, and 2024).

User	Iterations
libmapper	11
IDMIL	7
NIME-conference	3
Intelligent-Instruments-Lab	3
nexus-js	2
malloch	2
dktr0	2
atom	2
acids-ircam	2
alexdrymonitis	2
v7b1	2

2.3 Discussion

From these two short and focused reviews, we can conclude that the use of repositories is continuing to grow, with GitHub being the main platform for hosting them. This observation aligns with broader trends beyond the NIME community and music technology research, as shown by the previously mentioned resources from which we extracted the research terms for the first review. One of the second review's most interesting findings is the use of repositories created by others and included in new research contexts. This data shows that repositories are essential tools within the NIME community and, therefore, essential elements of its critical discourse.

[17]Major detail about the GitHub Page can be found at https://pages.github.com/ (last accessed: 2025-02-02).

Table 3: Most cited GitHub repositories in NIME proceedings (2022, 2023, and 2024).

Repository	Iterations
IDMIL/T-Stick	5
NIME-conference/NIME-bibliography	3
libmapper/mapper-max-pd	2
libmapper/MapperUGen	2
libmapper/Mapper4Live	2
libmapper/webmapper	2
atom/atom	2
alexdrymonitis/neuralnet	2
v7b1/sigmund_64bit-version	2

Another very interesting finding from the second review results is that IDMIL (Input Devices and Music Interaction Laboratory at McGill University) is the second most frequent user in Table 2, and their T-Stick repository is listed with the most iterations in Table 3. This data is notable because the T-Stick is probably the longest-running NIME instrument, developed and maintained since 2006, and probably the repository has played an important role in such longevity.[18]
Finally, one thing that goes beyond the main focus of this analysis but was still noticed when looking at the keyword "github" is the increasingly common distributed structure of repositories. These structures also relate to what was suggested in [8]. We see repositories spread across multimedia platforms like YouTube or Vimeo (e.g. [22, 28]), and we also find projects that are documented and stored using various repositories linked together (e.g. [26, 27]).

3 Repository template

We propose a repository template as an adaptation of the *Multilevel Dynamic Preservation* (MDP) model, which is developed for time-based media art conservation (already introduced in the context of NIME [13]). The adaptation uses the studies regarding replicability conducted by Calegario [8, 9] as guidelines, where the organisation of materials and documentation was discussed. In presenting the repository template, we will not go into the more specific functions of the GitHub platform and Version Control System (VCS) tools, nor the low-level details of research projects. The goal is to provide a high-level and flexible tool with essential elements that can be used at different levels of expertise and for a variety of projects. The main idea is to establish the repositories' key hierarchical and temporal structure with the required information. To achieve this, we will focus on DMIs, as they have an extensive structure which comprehensively represents new music technology research.
We present our repository based on four essential actions:

(1) Organise all materials and documentation
(2) Provide information about the project and how to use the materials
(3) Track changes over time
(4) Promote sharing and collaboration.

3.1 Organise

Organise all project materials and documentation.

When working on a project, especially when finished, we often end up with many different types of materials, such as videos, pictures, notes, source codes, and multimedia files. To organise everything, we can break down the structure of the project into four main parts: the physical part (hardware), the logical part (software), the knowledge part (the multimedia content or training data for systems like AI), and the documentation.
We can structure the root folder of the project considering these parts:

- **software**: Contains the source code, compiled code, firmware, and software.
- **hardware**: This includes information about the physical parts, such as microcontrollers and sensors, and files for building the hardware (mechanical structure and electronics), such as CAD files and 3D models.
- **files**: Contains multimedia files like audio and video and datasets used by the software.
- **documentation**: Contains text, images, videos, instructions, and other data produced during the project.

These sections can be further organised with subfolders and README.md files (section 3.2). Since uploading multimedia files directly to GitHub is discouraged, it's better to create distributed repositories [8], use platforms like YouTube or Vimeo for videos, SoundCloud or Bandcamp for audio files, and Google Drive or Zeonodo for datasets, and link them back to the repository. This approach can also be used to link other materials and documentation, such as connecting software to other repositories. To use a Git repository within a project, we can use the *submodules* system provided by Git.[19]

3.2 Inform

Provide information about the project and how to use it.

GitHub's **About** section provides the first level of information. It is visible on the right of the repository's main page and can be filled out when creating a new repository or later by editing the repository details. The section offers basic information, such as a brief description of the project, a related website, and a series of keywords.
To extend the information about the project, we use the README.md files to describe and explain the project better, how to replicate and use it, as well as to provide information about the repository's content. The README.md file in the root folder is the most important. It should give an overall view of the entire project and repository.
Our template suggests including these main sections in the main README.md file:

- **Abstract**: A short but complete project description (e.g., DMI, code, study).
- **Demo**: Visual demonstration (image, gif, or video) to show what the project looks like (required for tangible instruments).
- **Technical notes**: A brief description of how the project works, links to different parts of the repository and details on any dependencies.
- **Instructions**: This section should explain how to use the project (e.g., installing software, compiling code, or building an instrument). If the instructions are long, we can put them in a separate file in an "Instruction" folder inside the

[18]The T-Stick's GitHub repository has been created in 2020.

[19]Learn more about *submodules*: https://git-scm.com/book/en/v2/Git-Tools-Submodules (last accessed: 2025-02-05).

Documentation folder. But the main README.md should always link to these instructions.

Other sections could be added, such as "Contributions," "License," "How to cite," "Funds," and "Acknowledgments." The first three are especially important for promoting the project repository's sharing, collaboration, and openness. If they exist, they must link to specific required files like **LICENSE**, **CONTRIBUTION**, and **CITATION.cff** (section 3.4).
Additional README.md files can be added to the main subdirectories to describe the specific content of each folder. Within the **software**, **hardware**, and **files** subdirectories, the README.md can list the folder's specific content with information about dependencies and requirements. The README.md within the **Documentation** folder can link to external documentation, such as videos of performances and a bibliography or web references. When there is a stand-alone instruction folder, the README.md must be used to compile the exact instructions.

3.3 Keep track

Track changes over time.

To keep track of a project's history, we recommend using Git's *Tag* function. Tags allow marking specific points in a repository's timeline to highlight key stages or versions in the project's development. The tag represents different milestones or versions of the project's progress. They help collaborators and users easily return to earlier versions, modify them, or reuse them if needed. We recommend using annotated tags with clear and related names (e.g. dmi-v1.0, dmi-v1.2, dmi-v.2.0, etc.) and short descriptions (see the repositories in section 4).
We can also create *Releases* from tags, which are especially used to package and share software versions with users, along with any associated metadata (such as release notes, binaries, or other assets).
Both tags and releases can be easily accessed from the repository's main page.

3.4 Share

Promote sharing and collaboration.

GitHub and the open-source community have created guides to encourage collaboration and sharing repositories.[20] These guidelines suggest adopting specific files and specifications so the community can easily engage with projects. In the context of music technology research, we recommend making at least three of these files:

- **LICENSE**: Defines what third parties can and cannot do with the project. We strongly recommend adding a license; sharing a project can be more difficult without one.[21]
- **CODE_OF_CONDUCT**: Outlines expected participant behaviour, helping to create a positive and welcoming environment. It also describes a) Where it takes effect (e.g., issues, pull requests, events), b) To whom it applies (e.g., community members), c) What happens if someone violates it, and d) How to report violations (refer to GitHub's open source guide for more details).
- **CONTRIBUTING**: This file provides guidelines on how people can contribute to a project. It invites third parties to participate and can help build a community around a project.[22]

To allow others to cite a repository in their work, the Citation File Format (CFF), developed by Druskat [10] and fully supported by GitHub, can be used. Creating a file named CITATION.cff in a project's root folder and including the necessary metadata makes it easy to cite a repository. The CITATION.cff file can be easily converted to BibTeX or plain text using a dedicated converter [23], which GitHub also has built-in. If a CITATION.cff file is added, a "Cite this repository" command will automatically appear on the right side of the GitHub page. External references (e.g., software, repositories, articles, etc.) can be added to the same file.

3.5 Template

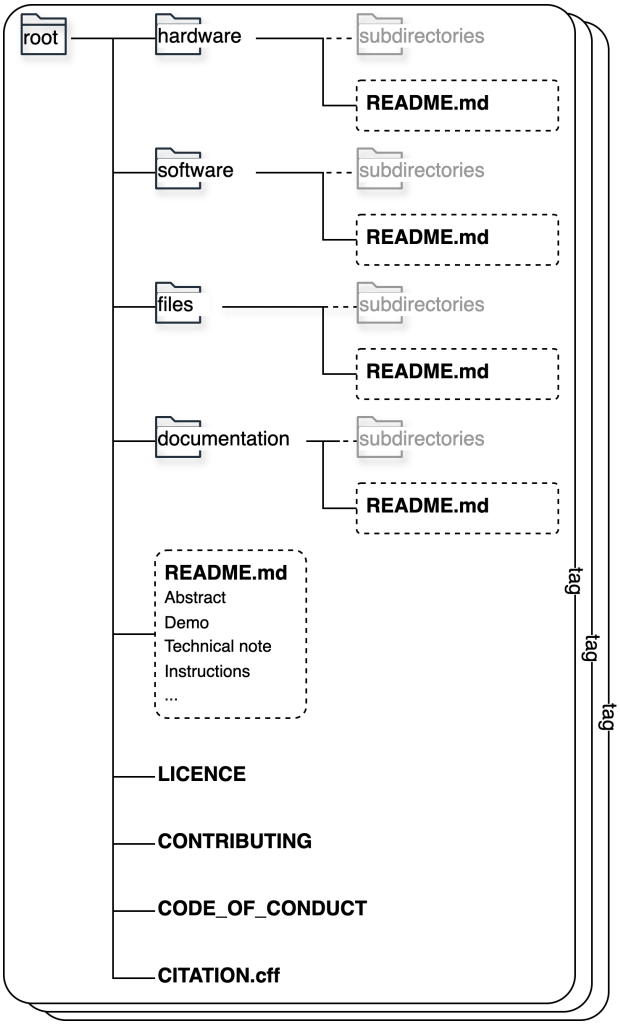

Figure 2: Structure of the GitHub repository template for music technology research projects.

[20]The *Open Source Guide* can be read at the following link: https://opensource.guide/ (last accessed, 2025-02-05).
[21]To choose the appropriate license for a project, we recommend visiting the website https://choosealicense.com/ (last accessed 2025-02-05).
[22]These three main files along with the main README.md are considered at the top level of an open repository by the Open Source Guide https://opensource.guide/how-to-contribute/ (last accessed 2025-02-05).

Figure 2 summarises the structure of our proposed GitHub repository template for music technology research projects. The template can be found at the following link: https://github.com/CSCPadova/MTR-template [2].

The **LICENSE** file was created using the *MIT License*, which allows unrestricted template reuse. The only condition is that if the template is changed or further developed, it must be republished under the same license.

For **CONTRIBUTING**, we used a template developed by Nadia Asparouhova, published in the repository https://github.com/nayafia/contributing-template and distributed under the *CC0 1.0 Universal license*. It includes essential elements for customising a specific project's contributing guidelines.

For the **CODE_OF_CONDUCT** files, we adopted the *Contributor Covenant Code of Conduct v2.1*,[23] which GitHub and various open-source communities also suggest. However, the **CODE_OF_CONDUCT** can be customised as needed. Other examples are the *Django Code of Conduct*[24] and the *Citizen Code of Conduct*,[25] which can also be used as templates.

Although the presented template was developed with DMIs in mind (since they often include both hardware and software), it can be easily adapted and scaled for different projects in the music technology research field in general. An example is the repository of the Python code used for the reviews in Section 2 [1].

4 Case studies

We present the template application with two DMIs presented at NIME in 2020 and 2021: the *Electronic_Khipu_* and *Kanchay_Yupana/*.

The *Electronic_Khipu_* [4, 7, 15] is an instrument that creates live experimental sound by tying knots in conductive rubber cords. Inspired by the ancient Incan *Khipu*, it goes beyond using the device purely as a numerical system, transforming it into a tool for new messages and sound narratives. The instrument uses conductive rubber sensors as variable resistors, measuring tension each time a knot is tied.

The *Kanchay_Yupana* [7, 16] is an instrument used to produce musical rhythms. It is based on an Andean device called the *Yupana*, a physical board similar to an abacus with carved geometric slots for placing seeds or pebbles to perform arithmetic calculations. The DMI has turned this instrument into a sequencer with digital LDR modules in each slot, triggering sounds when the slots are filled with seeds.

Like the technologies that inspired them, these DMIs complement each other during the performances. It is also important to note, especially in this context, that these two instruments are connected not only with ancestral Andean and Inca technological culture but also to new music technology research. The *Electronic_Khipu_* is inspired by the *MIDI Melody Maker*[26] and uses elements from the Conductive String-based Arduino Musical Instrument.[27] Similarly, the *Kanchay_Yupana* relies on a Pure Data patch inspired by Jonatan Carrasco's "Caja de ritmos" tutorial.[28] The goal of these instruments is to engage a critical discourse by merging new music technology research with ancestral ones, and with the creation of the repositories, we want to promote the continuation of this discourse.

The repositories of the instruments can be found at the following links:

- *Electronic_Khipu_* [5] https://github.com/lpatriciacadavid/Electronic_Khipu_ .
- *Kanchay_Yupana* [6] https://github.com/lpatriciacadavid/Kanchay_Yupana_ .

Like many DMIs, these instruments feature custom boxes with hardware (a microcontroller, sensors, etc.) and software (firmware, an Ableton Live project, and Pure Data patches). They also include audio files for use in performances. Building instructions, concert media (photos and videos), and presentation materials have been created and collected for both instruments.

The repositories include all the elements introduced in the template: a hierarchical structure, the About section and a README.md in the root folder, tags for tracking the versions,[29] and the files needed to share and promote the projects.

It is interesting to see how the more flexible parts of the repository template—those more specific to the project—were filled out—for example, the creation of README.md files in each subdirectory. The README.md files in the hardware, software, and files folders simply list the "components" (software, hardware, and multimedia files) with some metadata and dependencies. Meanwhile, the Documentation folder's README.md includes external links related to video and bibliographic documentation for the instruments. In this README.md, we also link the projects and research which inspired the instruments. Essentially, in that text file, we put all the documentation we prefer not to store directly in the repository and which is distributed on other platforms. In addition, we created an 'instruction' subfolder inside the Documentation folder, which has a README.md file with detailed steps on how to build and perform with the instruments. Finally, the *Electronic_Khipu_* repository demonstrates the use of tags. For instance, one can switch between the nine-cord Khipu version (khipu-v1-9s) and the five-cord Khipu version (khipu-1-5s). The entire repository content automatically updates according to the selected version.

5 Conclusion

With this article, we want to highlight the importance of repositories in the new music technology research field, especially in the context of NIME. In creating a critical discourse and defining this research area's values and development paths, we need more than just papers and conference participation—we need research materials and documentation that can be reused, developed, and analysed by a community. As seen in the reviews in Section 2, repositories are increasingly used both to archive research and to repurpose it in various ways. We noted many references to repositories in the articles. This study continues a discussion that began at NIME nearly 10 years ago [18] and has been carried on (though not continuously) by the community [8, 9], emphasising the importance of repositories for community building.

[23] The *Contributor Covenant Code of Conduct v2.1* can be found at the following link: https://www.contributor-covenant.org/version/2/1/code_of_conduct/ (last accessed: 2025-02-05).

[24] The *Django Code of Conduct* https://www.djangoproject.com/conduct/ (last accessed: 2025-02-05).

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Overall, the contribution of this paper is twofold: 1) a systematic literature review on the use of repositories in the context of NIME conferences and 2) a template to harmonise archiving NIME contributions. We believe a template, even if simple and flexible, can extend this important discussion. It could also serve as a starting point for both a structured use of repositories for creative and analytical purposes and for encouraging future discussions. Who knows—maybe in the future, we will conceive a flexible format similar to that of a scientific paper, which, while dynamic in structure (from Title to References), still has recurring elements within it.

6 Ethical Standards

This paper complies with the ethical standard of the NIME conference [19] and does not present a conflict of interest. The project propose an original template for creating repository in the context of Music Technology Research. The paper presents two case studies in which no human or animal participants were involved.

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