

## Developing musical skills at Digitópia

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In this paper we briefly present Digitópia and analyze how this environment catalyzes the development of communities around the creation of digital music. We describe how the exchange of knowledge and skills amongst users, as well as between the facilitators and the users, happens naturally and in a very informal manner, present some specific cases worth mentioning and further explain the paths we developed to nurture this environment of knowledge exchange.

**Keywords** music; education; software; technology; creativity

### 1. Introduction

Some of the most interesting recent developments in music are related to the fact that ordinary computers and mobile devices acquired capabilities to make, record, store and spread music, while becoming available to a greater number of people. An “active relationship” with music is nowadays within the reach of people that did not go through the process of formal musical education, due to an increasing number of software applications that allow creating and making music in a friendly and intuitive manner. We are thus witnessing a true worldwide revolution in the way we create, perform, spread, listen and learn music.

The project Digitópia - Platform for the Development of Digital Music Communities - aims to explore these surges of development in a facility implemented in Casa da Música’s main entrance hall, which aims to contribute: 1) to develop music and creativity amongst a range of ages and social conditions, and mostly amongst youth; 2) to foster the development of free music software; 3) to promote social inclusion, and lead to the emergence of multicultural communities of music makers/lovers; 4) to promote free musical content. Digitópia opened in 2007 and is an ongoing collaboration between Casa da Música, INESC Porto, ESMAE and Escola das Artes - UCP.

A full description of this project is beyond the scope of this paper and can be consulted in [1] and [2].



Fig. 1 a) Digitópia. b) Assistant.

### 2. Informal music education at Digitópia

Digitópia is open everyday for free use by anyone aiming to fulfil any musical goal. Casa da Música, itself an exciting venue, home of a broad range of musical styles, sets a standard that Digitópia embraces and expands, by allowing people with or without previous musical experience to express themselves through music. We seek to provide an environment where new musical experiences can flourish easily and without barriers, while avoiding the risk of being too trivial or frivolous.

The user can find at Digitópia some of the tools that professionals use, from a sequencers like Propellerheads Reason [3] all the way to modular programming languages like Max/MSP [4], and a selection of open source software, including some applications developed on purpose for Digitópia [5]. He can also find some physical controllers to interact with the software. Additionally, and most importantly, he will find a place where a growing community gathers to share ideas and knowledge about music. This rich environment is a fertile ground for questions and desires to surface, thus creating the need to know more. We believe that this compelling need, in particular when connected to something that is part of everyone’s life as music, constitutes the basis for an effective, yet informal, music education at Digitópia. In a similar way to the one that is quickly becoming the

main paradigm for knowledge transfer online, the community provides the answers to those questions, or at least a suitable path to find them. This community works in a very similar fashion to the way open source communities work: everyone is free to join in and play a role. The relevance and scope of each contribution is of course different, but every single one of them adds value to the group and, most significantly, a new and fresh perspective that helps the overall balance. Some key figures of this community had to be implemented from the beginning, to ensure a stable start. A curator for the project was designated and is still active, but is nowadays increasingly more of a particularly active contributor as opposed to a manager. The most relevant members of our community for the topic of this paper, however, are the assistants at Digitópia.

### 2.1 The assistants

During three hours in the day, between 16h00 and 19h00, an assistant is available to explain and introduce the project, as well as to help people dealing with the computers and software. The profile of these assistants is quite broad, as are the musical styles that are found on site, ranging from young composers and music teachers at Universities or Conservatories to digital musicians without formal musical training. For many users, the assistants are the first gate to the project itself, beyond the first impact of the physical space. The distinctiveness of characters is thus one of the driving forces for the local communities to gather around them, as they help to ensure that each user can find an approach more tuned to their expectations. Nevertheless, every assistant has a deep knowledge of the available tools and the ability to confidently help users fulfil their musical goals. Each assistant, regardless of his own musical taste, should be able to listen, comment and help any user, despite of their own musical choices. He doesn't teach music and he is not a software tutor, yet he transmits musical and technical knowledge applied to each user's needs. As this needs tend to increase over time, each assistant is, in fact, teaching music and composition techniques in a very informal way. This is not an alternative to regular schools, of course, as there is no educational project at Digitópia, as a consequence of its openness. Nevertheless, some Digitópia users are now regular students at music schools, some of them in classes taught by some of Digitópia's assistants. Summarizing, these assistants are a repository of knowledge available at Digitópia, with the added value that they can have a pro-active role and adapt their approach to better suit each users needs. The regular users have learned to rely on the assistants' expertise and keep coming to Digitópia, some even after acquiring a home studio for themselves.

### 2.2 Digitópia reports

As no registration was needed to use Digitópia, we had no way of knowing our users, their needs and, perhaps most importantly, their expectations. Also, only the assistants had real and extensive contact with the users, but, on the other hand, they had little to no contact with each other, as they usually work one at a time. To help bridge these gaps, the assistants were asked to submit a very informal daily report to the project's mailing list. These reports quickly became a success amongst the whole community, as they enable the team to get involved in the daily life of the project and thus have a better understanding of its expansion. They also provide a quick and effective way for the assistants to share relevant information about regular users, so other assistants can be of better help to them. Through this reports, we are able to follow the expansion of the project and now realize we do have a growing number of regular users, besides being a success amongst foreign visitors, Erasmus students and the community of skaters that everyday gathers outside of Casa da Música. Most of these users come to Digitópia to have some fun making music, but some of the recurring users are now developing their new musical identities even further, either through traditional musical education or by pursuing a local musical career.

## 3. Results

The main conquests of Digitópia are the daily ones: the whole community rejoices with the report that narrates the story of the middle-aged man that made his first successful active contact with music; every assistant follows enthusiastically the experiences that some regular user is building with the help of other assistant; everyone gathers quickly online to brainstorm ideas to help some user with more specific needs.

Nevertheless, Digitópia is increasingly being recognized as a ground breaking project: its software received a «Mention for the whole of the pedagogical work» in the Lomus 2008 – International Music Software Contest, the project itself received a praise from the jury of the Future Places Festival, in 2008, it has been presented and very well received at several international conferences and it has been under close attention from the Portuguese media. If many users discover Digitópia while visiting Casa da Música for other purposes, it is increasingly true that many visitors come to Casa da Música because they want to make music at Digitópia.

#### 4. Traditional learning at Digitópia

Despite being an informal learning platform, some very successful collaborations with more traditional ways of learning have been implemented at Digitópia. Some workshops of the Education Service of Casa da Música take place at Digitópia and use its tools extensively [6]. We are also organizing a series of Workshops on programming and physical computing applied to digital arts. Beyond that, we receive some graduate students, from our partners as well as from other universities in Portugal, aiming to develop their own projects with our cooperation. While we can't provide an academic supervisor or all the tools that the students might find at an University, we can make them special members of our community, collectively providing them with many ideas, knowledge and references. This fertile ground has given many fruits to date, with Phonobooth, by Diogo Moreda, a graduate student from the School of Arts of the Portuguese Catholic University, being perhaps the most striking example so far. His project is now on permanent exhibition at Digitópia and consists on a retrofitted arcade machine one can use to effect his own voice or instrument in an exploratory and interactive way.

#### 5. Conclusion

Digitópia fulfils an important role in Casa da Música's educational programme and is expected to have an impact well beyond its actual location. We believe we have created an interesting resource, which is producing results within its initial aims, but also providing experiences and tools that are already changing the approaches we have in other areas of creating and making music with schools or communities. Above all, we believe this an interesting idea that will grow and develop further and we look forward to share our experience and results with those interested in contributing to facilitate the access of a wider range of people to musical discovery.

#### References

- [1] R. Penha, P.M. Rodrigues, F. Gouyon, L.G. Martins, C. Guedes and A. Barbosa (2008), "Digitópia – Platform for the Development of Digital Music Communities", Proceedings of the Digital Resources for the Humanities and Arts Conference 2008, Cambridge.
- [2] R. Penha, P.M. Rodrigues, F. Gouyon, L.G. Martins, C. Guedes and A. Barbosa (2008), "Studio Report: Digitópia at Casa da Música", Proceedings of the International Computer Music Conference 2008, Belfast.
- [3] <http://www.propellerheads.se/products/reason/>, accessed in March 2009
- [4] <http://www.cycling74.com/products/max5>, accessed in March 2009
- [5] R. Penha (2009), "Towards a free, open source and cross-platform software suite for approaching music and sound design", under revision.
- [6] P.M. Rodrigues, F. Lopes, A.P. Almeida, N. Peixoto, M. Mónica, J. Branco, P.J. Neto, J.A. Gomes and R. Penha (2009), "How Computers shape Educational Activities at Casa da Música", under revision