

Music Technology: The Social Network as a Learning Resource

MICHELE DELLA VENTURA
Department of Technology
Music Academy “Studio Musica”
Via Terraglio, 81
TREVISO (TV) 31100 Italy
dellaventura.michele@tin.it

Abstract: Social Network is on everyone’s lips at the moment. Social Networking Platforms and online communities are an integral part of our students’ everyday life: students can exchange opinions, reply to or make suggestions to “friends”, share resources as useful links, audio and video content and so on. This environment with didactic activities, if we take into consideration the opportunity to compare and interact with others, may increase motivations, creativity and knowledge. The aim of this paper is to describe and discuss the possibility to use the Social Network to support the teaching of Music Technology in the High School, highlighting its criticalities (Weaknesses) and potentialities (Strengths).

Key-Words: didactic, interactivity, music activities, music technology, online learning, social network.

1 Introduction

During the last few years, a big transformation has occurred in the way in which people use Internet. At the same time, this transformation has created a new dimension in whole education scenario through the change from a “read only” media into a “read/write” media. Internet is not only used to deliver information: individuals have become creators of information content. This change has been reflected, in the domain of Music Education, in the ways in which people listen and learn music, and how musicians could collaborate [1].

Social Network, like Facebook or Twitter, have created possibilities for people to share experiences, to distribute expertise and to learn from one another [2] [3]. In this environment the relations amongst members are often horizontal and reciprocal [4]. The motivation to take part to different activities within these on-demand based environments seems to be internal.

The Social Network offers pedagogical possibilities for an important change in music learning and teaching practices.

In the music education it is very important to create supporting structures: knowledge often results from the existence of non-institutional learning environments that permits institutional music education to take advantage of positive characteristics of those environments [5]. If we ignore it, there is a great risk that students will consider school irrelevant and boring, especially our methods of teaching [2].

In these new learning environments, it is difficult for a teacher to identify connections between learn-

ing and motivation: motivation influence learning and learning brings changes to motivation [6].

This article will present a method used in the high school, to improve the learning of new music technology, using the Social Network. The main aim is to identify the motivation of students for learning in the computer environment and to establish whether the students achieved better results in the area of Music Technology.

This paper is organized as follows.

Section 2 describes the field of Music Technology. Section 3 describes the Social network. Section 4 shows an experimental test that illustrates the effectiveness of the proposed method. Finally, conclusions are drawn in Section 5.

2 Internet as Music Technology

Music technology is any technology used by a musician to help him making music, especially through electronic devices and computer software to facilitate editing (of music scores), composition, recording, analysis, and performance. Furthermore, music technology includes the technical and scientific aspects of music such as acoustic science and programming.

Music technology is a fast-moving area of the music industry, which is constantly changing and expanding.

Music technology has developed in tandem with the development media and communication technology. New equipment and changing ways of expression

have also affected the worries and concerns of educators [7]. We should be especially concerned about the relationship between the school knowledge and the knowledge surrounding us, because the schools are suffering from both lack of knowledge and cultural significance.

Modern technology offers new versions of old tools and aims [8]. The technology is important but it is useless without the appropriate ability to use it. This means that the know-how and practical skills in the use of technology is the main core, while the technology mainly is the knowledge about it.

In this scenario, it is impossible for a teacher to show to the students all music technologies and the main aim of the teacher should be (in addition to teach the use of main technologies) *to help the students to learn to find the information about the use of the technologies.*

In this regard, Internet represents an important support: knowledge of an exorbitant informational universe, growing progressively to such an extent as to be able to satisfy, partially or entirely, any kind of curiosity or interest [9], it is probably the most striking element for the usual or occasional user of the internet.

The essential idea of Internet teaching and learning is to widen the possibilities, to bring new flexibility and especially to decentralize the learning into common processes [4].

The abundance of content available online is impressive and the number of references that come out after every interrogation on the search engines proves it well enough [9]. The issue, for those who want to use the internet for studying purposes, is *the heterogeneity of the retrievable content* [10] and that in some way responds to the formulation of a question launched on the search engine.

In other words, it is a problem how to evaluate, in terms of objective importance, a useful "resource" for study.

The Internet environment facilitates its own development thanks to its flexibility, the research should be accurate and compliant with the syntax of the system, in order to avoid retrieval of a high number of non-relevant documents (the so called "noise"): it is, therefore, necessary to use certain techniques as filters in order to select the documents.

The most frequently used technique is the one based on the so-called **Boolean operators (AND, OR, NOT...)**, which allows a complex research among the inserted terms, logically correlated to one another by the operators (Fig. 1).

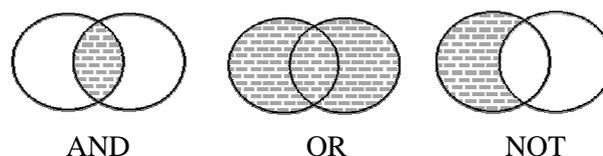


Fig.1: Boolean operators. **AND** only retrieves the entries that contain both specified terms. **OR** only retrieves the entries that present at least one of the provided terms. **NOT** only tracks down the entries that fulfill a specific criterion, excluding some other criteria expressed in the query.

The identification of the terms becomes, therefore, the crucial point of the research. This identification may be time-consuming and may, however, not lead to the desired result (sometimes because of shortcomings of the person).

3 The Social Network

The social network has completely opened and modified the frontiers of digital communication [11]. It presents itself as an internet site but it allows people to connect with one another, prefiguring itself, therefore, as a virtual agora that expands the possibility to communicate.

Every day, most of the students [12] enter this agora and exchange opinions, describe everyday facts or personal situations, reply to or make suggestions to the so called "friends"...

This environment by itself can guarantee the students the opportunity to enhance their knowledge and their level of information (given the vast possibility to trace and to share resources as useful links, articles, audio and video content and so on), to the point where they become efficient in the learning process, if we also take into consideration the opportunity to compare and interact with others, be them peers or not [13].

As shown in the previous paragraphs, in order for a search engine to retrieve satisfying results, more than using the content filtering techniques described above, it is important to know what word, words or phrases to use for the research. At this point, the shering becomes the focus point, because the knowledge of everybody is involved, infact knowledge derives from different fields of study, from personal interests and hobbies [14], from knowledge of a foreign language...

Therefore, the "friends" in the Social Network can:

- directly provide links to specific online resources, as a consequence of a personal research or information supplied by other "friends" who are not in the list of the student performing the research;
- make suggestions with regard to the word or the words to be used for the research, on the basis of their own knowledge or information supplied by other "friends" not in the list of the student performing the research. The recommended work might be directly or indirectly correlated to the topic forming the object of the research (and derived from personal knowledge).

An interactive community works as an excellent information channel for discussion of different questions about software or any other musical problems. Internet is very useful, especially in self-access music learning as it is easy to find any information whenever it is needed [15]. Internet can be classified as a requirement-based learning environment. Those, who are learning music using the Internet, might easily also become producers of information [16].

4 Results and discussion

The method proposed in this article consist in the use of the Social Network in order to improve the performance of students in the area of music technology.

Forty-eight students of a third class of a High School are involved in the use of new software for music editing, without a guide lines: they could use only Internet for their researches.

The process was organized in four weeks: in each week the students received an exercise with new concepts in progressive order of difficulty.

At the end, the students received an exercise including all concepts proposed in the first four weeks and a survey to know

- the method used to solve the problems,
- the time required to solve the problems,
- their opinions about the process.

The result of the experiment has been very satisfactory. It revealed a significant advantage for the use of Social Network as compared to the simple use of a search engine.

In fact, the 71% of students (34 students) used the Social Network to find information about the problems: in many cases (68%) the friends of the Social Network helped them directly; in some cases (23%)

the friends suggested to consult specific communities; in other cases (9%) they didn't help or answer. From the survey, it emerges another important element: for the students who used the Social Network the time to solve a problem was minor to the students who used only the search engine.

Concerning the possible benefits (Strengths) of the Social Network, we summarized above the results emerged from the surveys:

- students learn in self-directed way,
- preparing research musicians of the future,
- instructional approaches that promote critical thinking,
- sharing of ideas and effectiveness in online communication,
- increase in information and sharing of knowledge,
- increase in personal trust,
- Experience in research that can inform educational research,
- Building of Music Community,
- Personalized interests,
- Increased training opportunities,
- Professional skills development.

On the other hand, we can't mention the obstacles (Weaknesses) in the use of the Social Networks listed by the students:

- a better support around instructional technology,
- decrease in face-to-face interaction,
- mistrust of the parents of the students involved, with regard to the use of Social Network (in that it is perceived as a tool that disperses attention),
- reluctance to change,
- information pollution,
- security problems.

Generally, all students made correctly the exercise proposed at the end of the process.

5 Conclusions

There is no doubt that technology has become integrated into our everyday lives. As teachers, should we ignore them or chase after them?

Education has also been influenced by the integration of technology as it is fast becoming the only way to reach students. There are several tech advancements that have changed the face of education but, at the same time, there are other tech advancements not considered in this domain such as the Social Network.

We tried to use the Social Network like support in the teaching of Music Technology and the results have been very satisfactory. By using social media platforms, such as Facebook or Twitter, in the classroom teachers have seen an increase in grades and classroom participation: even less sociable students have become more participatory. Students who begin the learning process by activating favourable beliefs, particularly mastery-orientation and self efficacy beliefs, need less encouragement from others to get started. Moreover, favourable motivational beliefs draw students' attention to focus in the environment that elicit further interest and confidence in their own capacity to do the task.

The Social Network presents an opportunity to integrate activities, which take place in informal and formal environments, and provides all users the possibility to act as constructors of knowledge, instead of just receivers.

Technology should not and will never replace education, but it assists educational practice, improves teaching efficiency, and enhance student learning experiences. Only if advantages in comparison to the classical teaching are observable, new media will have a chance in teaching.

The future technology integration in education should focus on what students use instead of what the school wants them to use to guarantee maximum efficiency.

Music educational technology undoubtedly changes teaching of music.

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