

THE PROCESS OF CONTENT PROSPECTION IN STEAM AREAS AIMED AT HIGH SCHOOL STUDENTS

Beatriz Freitas de Souza¹ and Jucimar Maia da Silva Junior²

¹*Department of Production Engineering, Amazonas State University, Brazil*

²*Department of Computer Engineering, Amazonas State University, Brazil*

ABSTRACT

The present work seeks to find a suitable process for the prospection of content intended for STEAM areas, which have simple and efficient steps to be used in a development project located in the Amazon. Taking advantage of social media as a means of propagation of this educational content, one tends to carefully and cautiously choose topics that are attractive and that convey veracity in their posts. Therefore, the care that must be taken in the process of searching for this content and in its stages is of paramount importance and becomes decisive to achieve your goal.

KEYWORDS

Social Media, Content, Teaching, STEAM

1. INTRODUCTION

The STEAM methodology is a movement that proposes an education based on five specific disciplines (science, technology, engineering, arts, and mathematics), integrated in an innovative interdisciplinary approach. In this sense, D'Ambrosio (2020, p. 155) states that the STEAM approach favors broad appropriation of the subjects about the concepts of the components that compose it and, therefore, "(...) it is a transdisciplinary and transcultural proposal for Education". The search for an efficient and dynamic tool to disseminate STEAM content to young people and teenagers becomes indispensable. One of these tools that can be used are social networks.

Social networks are one of the most effective and widely used means of communication in the 21st century. For Torres (2009, p.44) "the internet is a network of millions of people, from all social classes, who search for information (...), interact and interfere in any and all activities related to society and business" and with this immense variety of applications, it has become over the years an ally of student education. The process of inserting virtual learning through digital channels is growing on a large scale. For Leopoldo (2015, p.13) "Online learning opportunities and the use of open educational resources and other technologies can increase educational productivity by accelerating the rate of learning."

Taking advantage of social media as a means of propagating this educational content, one tends to carefully and cautiously choose topics that are attractive to this audience. Thus, prospecting, which originates from the Latin "prospectione" and means the action of prospecting and researching something, is a means of selecting the content that is posted on social networks, that is, seeking differentiated subjects and ideas in articles, websites, and network pages to achieve a set goal regarding the creation of content.

The way in which subjects are researched and their transformation into a post for the internet is given in a systemic way and divided into steps for the proper functioning, validation, and verification of these contents. So, this work aimed to find a more appropriate process for the prospection of content that will be used in the social networks of the project is a case to be studied exclusively.

2. METHODOLOGY

The content prospection process was developed and discovered through field research with people from the STEM Academy project's social media team. The STEM Academy is a project of the Amazonas State University (UEA) and has as one of its goals to increase the interest of high school students in STEAM (Science, Technology, Engineering, Arts and Mathematics) degree courses. One of the project's social networks is called ManoSTEM, in which all the content aimed at teenagers is posted.

For the development of the prospecting process, a mapping of opinions, suggestions and ideas for the creation of each stage was done through a brainstorm with all team members. From the ideas a flowchart of the stages of this process was developed (Figure 1). Finally, the collected data were equated and consolidated, thus determining the effectiveness of the process through the results of the conversion of content into posts from the prospection carried out.



Figure 1. The ideal process found for content prospecting

Having ideas for content is the first step of the process, thinking of interesting subjects or that are on the rise at the moment and that involve STEAM is the first step, with this we begin the bibliographic research on websites and articles, to prove the scientific nature of this idea. The validation of the information is given in a referential way based on what was found in the previous step, always checking two or more sources to ensure the veracity of the information is fundamental. The phase of presenting the content to the team is crucial for the good progress of the posts, to check if everyone thought this idea was cool, if it is feasible to use it, and if everyone agrees with the content presented. After the team's approval, a script is created for a possible educational video or digital art about the subject, where the format of the post is designed.

3. RESULTS

The predetermined process was used for 2 months. It was possible to observe the change that happened in content prospecting when compared to the previous scenario. During this period about 95 types of STEAM-themed content were prospected, and of this number about 57 were used as posts on the project's social networks, distributed between videos and digital arts. In relation to the previous scenario of this methodology, with the same number of 95 prospected contents only 32 were used for posts (Figure 2).

Therefore, from these results one can observe an increase of approximately 30% in the use of the content found through the proposed process, with this process being more assertive in terms of relevance and transformation of the researched subjects into posts for the social networks, thus showing its effectiveness for use in the studied social network.

With a high rate of utilization of the researched content, the rework time decreased and consequently its frequency. The number of assertive subjects that fit into the editorial line of the ManoSTEM social networks increased, consequently the engagement in the posts was proportional to what was expected. The contents presented a high rate of acceptance by the followers, reflecting directly in the number of likes and comments that were made.

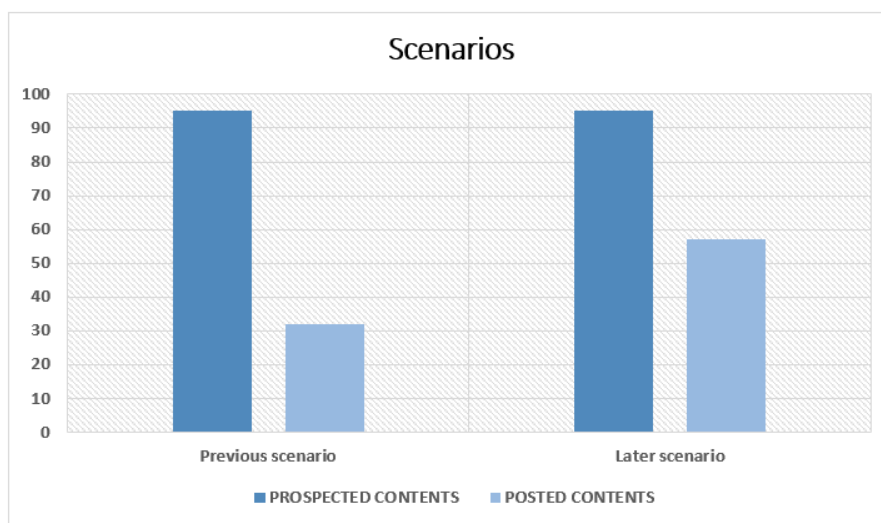


Figure 2. Presentation of the scenarios before and after the use of the process found

4. CONCLUSION

Therefore, it is noted that the process of content prospection found for use in one of the STEM Academy project's social networks proved to be effective and efficient to the proposed objectives. With this process it was possible to obtain an increase of posts up to 30% in the prospected content, thus reducing the time of rework, increasing the rate of acceptance of the content, and generating greater engagement in the project's social network.

ACKNOWLEDGEMENT

This article is the result of the "STEM Academy" project, carried out by the Amazonas State University (UEA), in partnership with Samsung Eletronica da Amazônia Ltda, using Samsung resources, resulting from the Informatics Law for Western Amazonia (Federal Law No. 8.387/1991), and its publicity is in accordance with the provisions of Article 39 of Decree No. 10.521/2020.

REFERENCES

- D'Ambrósio, U. (2020) On STEM and STEAM curricular proposals and the Ethnomathematics Program. *Revista Paradigma (Fortieth Anniversary Edition: 1980-2020)*, vol. XLI, p.151-157.
- Leopoldo, L. P. (2015) *New Technologies in Education: Reflections on the practice Teacher training and new technologies*. 2nd ed. Maceió: Editora Ufal
- Torres, R. C. (2009) *The digital marketing bible*. 1st edition. São Paulo: Novatec.