# POST DOCTORATE INTERNSHIP AT PORTUGUESE LAND: EXPERIENCE REPORT

### Claudia Machado\*

\* Member of the Research Centre on Didactics and Technology in the Education of Trainers, University of Aveiro. Post-doctorate from the Department of Education and Psychology, University of Aveiro. Ph.D. in Educational Sciences, with specialization in Educational Technologies, from the University of Minho. Aveiro, Portugal. Email: aclaudiamachado@ua.pt

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### Abstract

This article presents a report of postdoctoral internship experience held in Portugal at the University of Aveiro. During the internship, the development of several activities created a useful path which opened the horizons, sharpened scientific curiosity and committed to research. The focus of the research work developed during the internship was the use of social networks by higher education students. It concludes by encouraging more researchers to develop internships in Portuguese educational institutions.

Keywords: Report. Internship. Postdoctorate. Portugal.

# 1. Introduction

The opportunity to continue the development of autonomous research work is a responsibility and a challenge "based on the need to keep up to date and produce useful knowledge for society" (SILVA, 2012). Thus, after completing a doctorate in 2015, a topic that began to draw attention was the use of social networks. From then on, it was found that there were specific studies that dealt with the use of social networks by higher education students from the perspective of privacy and security. In order to contribute to the production of knowledge about the current state of the use of social networks by students, as well as the promotion of responsible and safe use of social networks, the work plan began with the purpose of conducting a postdoctoral internship at the University of Aveiro (UA).

The choice for the UA was due to the recognition of the competence and quality of the professors, the excellence

in research, the wide educational offer and the high level of interaction with other institutions. Thus, UA is an important reference in the European and world panorama. Research courses and projects have strong international recognition.

In this sense and after preparing the work plan, this author sought contact by email, in April 2016, with Professor TMBC, in addition to presenting and showing interest in pursuing a postdoc in the UA under her supervision, included the work plan and the author's curriculum. On the same day, she sent a reply to the email to make herself available for what would be the first conversation, which happened two days later.

At the first meeting, some points to be considered in the work plan were discussed and some changes to be performed were considered, and after the changes made and the necessary forms were filled in, the postdoctoral internship was applied on May 5th. Having been accepted by the UA Scientific Council, the internship began on June 1st, and since then several activities have been carried out. The internship period was from June 2016 to May 2019.

The activities developed and the intellectual production produced during the internship period are described here, meeting the stated goals of the activity plan. The goal is to encourage other researchers to undertake internships in educational institutions, not only for their ease of language, but for their "open-mindedness, scientific curiosity and innovative stance", which "make this international ,dive' a useful way to go" (SILVA; FERREIRA; APOSTOLIDIS, 2014, p. 786).

# 2. The postdoctoral internship - the BeSafe project

Digital literacy encompasses, besides access to digital media and information and communication technologies (ICT), the critical understanding and evaluation of contents The popularity of social networks is recognized and crosses borders of age, gender, culture or social status. Being a space in which people tend to be more relaxed, social networks, as a phenomenon, raise, however, issues that should be known and reflected, namely, on security and privacy management.

Given the importance of the theme, the BeSafe project was aligned with two initiatives of the Portuguese government, namely the Portugal Digital Agenda (2012) and Portugal INCoDe.2030 (PORTUGAL..., 2017), whose background is to stimulate the digital literacy of the Portuguese population. In this sense, it is considered that digital literacy encompasses, besides access to digital media and information and communication technologies

(ICT), the critical understanding and evaluation of contents, thus contributing to the full exercise of Portuguese citizenship by using the Internet in a positive, informed and secure manner.

The project's target audience was the Portuguese higher education students. Thus, its general objective was to contribute to the higher education students to fully exercise their citizenship by using social networks in a positive and informed manner, namely regarding privacy and security. The following research questions were assumed:

- What are the knowledge, practices and perspectives of higher education students regarding the dangers of social networking?
- To what extent are higher education students aware of the risks and dangers they face in providing personal information, posting photos, comments, videos and sharing posts on social networks?
- How to promote the dissemination of the theme "Dangers of Social Networks" among higher education students?

Underlying the research questions, the following objectives are:

- Identify the knowledge, practices and perspectives of higher education students regarding the dangers of social networking;
- Identify to what extent higher education students are aware of the risks and dangers they face in providing personal information, posting photos, comments, videos and sharing posts on social networks;
- Promote lectures on the theme "Dangers of Social Networks" with students.

To achieve the objectives, a work plan was elaborated (Figure 1), which contained the actions to be developed, as well as the period.



#### Figure 1 - General summary of activities initially planned in the internship

### 3. Developed activities

For the development of the internship and according to the work plan, several activities were performed, listed below. At the same time, there was participation in various training events and interaction with the scientific community, to reinforce knowledge and skills in the field of scientific research and its dissemination. It should be noted that the first activity performed was the establishment of an agenda of preliminary meetings with the supervisor and definition of the work and study regime.

In the scope of the research activities, literature review focused on published works (papers, books, theses and dissertations) which deal with the use of social networks in the world and in Portuguese context and with issues related to privacy and security in social networks, seeking an overview of what has been happening in the world and Portuguese context. It also contemplated a broad literature review regarding the research methodology, allowing to investigate several procedures, namely regarding data collection and analysis.

The questionnaire was applied to a representative probability sample of the universe of Portuguese higher education students Moreover, the construction, validation and implementation of student questionnaires were carried out from the literature review, within the scope of the research methodology and the processes of construction and validation of data collection instruments, namely the questionnaire, and we proceeded for its construction and validation. The planning of the questionnaire was elaborated, taking into consideration the objectives of the study and the application of the questionnaire, the dimensions of analysis to consider, as well as the time required for the application. The questions were also defined and an introductory text with presentation and objectives of the study was elaborated, as well as the declaration of consent. Finally, the questionnaire was formatted.

The questionnaire survey helped in identifying the knowledge, practices and perspectives of higher education students regarding the dangers of social networking. Information was collected based on a series of planned and ordered questions, which were answered online by the subjects (CARMO; FERREIRA, 2008; COHEN; MANION; MORRISON, 2007; HILL; HILL, 2000; MARCONI; LAKATOS, 2003). In this sense, the elaboration of the questionnaires ensured their accuracy, seeking to define the types of questions and appropriate answers, the measurement scales to be used and the methods for data analysis. The questionnaires were subjected to a content and form validation process by experts. After introducing the correct answers considered necessary, the final version of the questionnaire was drafted. The questionnaire was then implemented in the UA online questionnaire system.

At the stage of implementation, data collection and analysis of the questionnaire survey, the questionnaire was applied to a representative probability sample of the universe of Portuguese higher education students. Thus, to send the questionnaire to the students, e-mails were sent to the Portuguese Higher Education Institutions

and Student Academic/Associations requesting the collaboration in the disclosure. Also, there was an announcement on the Facebook page of the BeSafe project. The data collection process started in January and ended in July 2018. The extended period for data collection was due to poor student participation in the questionnaire response. In this regard, to encourage student participation, three prizes were offered to be drawn at the beginning of August, after the deadline for responses, which was July 30, 2018. For data analysis, Microsoft Excel software was used, since the database transferred by the online questionnaire system of the University of Aveiro provides the file in .xlsx format, in addition to the fact that almost the entire questionnaire had closed questions. And for the few open questions were performed content analysis.

To survey the material to be made available on the project's website, a thorough study of the materials (texts, videos, images, etc.) on the theme Privacy and Security in Social Networks was carried out, involving the stages of material selection and classification and analysis to meet the characteristics, needs and objectives of the project.

The BeSafe project website was based on a pedagogical and technological proposal. In this regard, in the planning of the website, the project objectives, and the target audience were considered. The colors, menu structure and pages have been defined. The choice of information and materials (text, video, image) to be made available. The website structure was developed, and the contents were inserted. And for the implementation of the project website, we proceeded to purchase the domain projobesafe.pt, which was hosted on Hostgator1. After setting up, the site was launched online.

To evaluate the usability of the project website, we observed the grid designed by Bottentuit Junior (2010). In this sense, the grid was divided into three groups: (I) Interface and visual/graphic aspects; (II) Navigation and information architecture; and (III) Pedagogical content, interest, and potential. The evaluation grid was designed for ease of use and was therefore not extensive (RUBIN; CHISNELL, 2008). After the grid was conceived, an email was sent with the request to 3 (three) specialists in the field of Educational Technology for the evaluation of the website. The email, in addition to the request, contained the link that gave access to the site and the evaluation grid that was made available online.

Considering the evaluators' considerations, some changes were made to the site, namely regarding the amount of information available, as some data regarding the partial results of the questionnaire applied to higher education students were inserted and links were added beyond from the navigation menu. Another aspect that has changed is related to the insertion of the project contact email on the page "Contacts". Regarding the items of the menu "Products", the submenu "Publications" was removed, as there is no information yet to be made available. To improve the usability of the site on mobile devices, a review was conducted to improve the arrangement of links. Thus, the results of the site usability assessment served to

make important changes to make the website better for users. It should be noted that after the usability evaluation, more content was inserted during the internship, namely video about social networks, texts, and information. After the usability evaluation, the project website was made available and published by both social networks and scientific events with the author's participation.

A Facebook page was created that served to publicize the project's website, events, as well as publications, videos and news related to the project. In mid-September 2018, a video was created dealing with the theme "Privacy and Security on Social Networks", available on the project's website and Facebook social network.

It should be noted that the face-to-face working meetings with the supervisor were crucial for the internship to be developed with quality and rigor. Having averaged six meetings a year, making a total of 18 meetings.

It was made a slide used in two classes and a lecture, which included, in addition to the theme "Privacy and Security in Social Networks", the results of the questionnaires applied to students. They were used in two classes and one lecture.

During the internship, scientific dissemination activities were performed, being 1 (one) text published on journal: (MACHADO; BETTENCOURT, 2018c); 4 communications in minute books: (MACHADO; BETTENCOURT, 2017c, 2018a, 2018b, 2018d); and 3 posters presented without text publication: (MACHADO; BETTENCOURT, 2017a, 2017b, 2018e). There were two communications invited by the organizers of scientific and unpublished events, whereas one of the events, "Under Investigation: Psychology & Education" 2018/19 (5th ed.), which took place at the University of Aveiro, on November 28, 2018, and the other, the E-Tech Portugal Congress, in the panel "Citizenship and digital security - what is the role of the school?", which took place in Setúbal, on May 12, 2018.

Regarding the activities of interaction with society, collaborations were made with periodical scientific publications by issuing four opinions, as follows:

- 2019 Issue of 1 opinion for the "Senac Journal of Education and Work", edited by the National Service for Commercial Apprenticeship (Senac) - ISSN 2448-1483. URL: http://www.bts.senac.br/index.php/bts;
- 2018 Issue of 1 opinion for the journal "Indagatio Didactica", edited by the Research Centre on Didactics and Technology in the Education of Trainers (CIDTFF/UA) of the University of Aveiro - ISSN 1695-288X. URL: http://indagatiodidactica.web.ua.pt/;
- 2018 Issue of 1 opinion for the journal "Amazônida", edited by the Graduate Program in Education of the Federal University of Amazonas - ISSN 2527-014. URL: http://www.periodicos.ufam.edu.br/amazonida;
- 2017 Issue of 1 opinion for the magazine "Indagatio Didactica", edited by the CIDTFF/UA of the University of Aveiro ISSN 1695-288X. URL: http://indagatio-didactica.web.ua.pt/.

Considering the objectives of the activity plan and the activities initially outlined in the internship plan, two classes were given to inform the project and its results, as well as inform, clarify and make students aware of the risks and dangers of the social networks:

- 3 hours of class on May 14 of the 2017/2018 school year in the 3rd year of the Degree in Basic Education;
- 3 hours of class on May 8th of the academic year 2018/2019 in the 3rd year of the Degree in Basic Education.

One of the underlying objectives over the period was the acquisition of new knowledge regarding the internship performed. In this sense, the participation in several events took place: ticEDUCA 2018; EDULEARN18 Conference; Congress International Education and Technologies - ICLS EnPED; II CIDTFF FORUM; E-Tech Portugal'18 Congress; Meeting "Portugal and the Digital Participation of Children and Youth"; I CIDTFF FORUM; Research Day 2017; IX Conference on Information and Communication Technologies in Education - Challenges' 2017. In 2018, there was also participation in training courses: "How to prepare your manuscript"; Module "Systematic reviews 101"; Training session "Nature Research Editorial Session Seminar".

## 4. Final considerations

Interest in the internship was based on the following questions: What is the knowledge, practices, and perspectives of higher education students regarding the dangers of social networking? To what extent are higher education students aware of the risks and dangers they face in providing personal information, posting photos, comments, videos and sharing posts on social networks? How to promote the dissemination of the theme "Dangers of Social Networks" among higher education students?

Thus, the reflections arising from the postdoctoral internship conducted point out that students are users of social networks, but do not seem to be aware of the risks, particularly regarding privacy and security, which are facing their attitudes, because using social networking consciously and safely involves understanding the inherent risks and adopting certain attitudes to minimize those risks.

In this sense, it was considered that the promotion of sensitization actions among students could fulfill this urgent need in a society increasingly involved in social networking sites. However, in this process, it is extremely important that the Universities/Polytechnic Institutes give back to the requests that researchers make, as they may impact part of their research, as was the case presented here.

It should be borne in mind that when being part of a social network it is necessary to revise the concept of privacy because in this context users are keen to promote themselves and thereby endanger both their privacy and their security. It is always a challenge to leave one's comfort zone

The internship that gave rise to this article allowed us to answer the research questions formulated and achieve the proposed objectives. At this final level, however, it is recognized that it was not possible to achieve one of the initial objectives of the activity plan, namely that it was able to promote awareness-raising actions, through lectures, on the theme "Dangers of Social Networks" with students, these lectures to be given during November 2018 to May 2019. An objective that could not be achieved, given the difficulty of contact to schedule lectures with the University/ Polytechnic Institutes.

It should also be noted that the internship conducted under the supervision of Professor Ph.D. TMBC exceed the expectations, not only regarding her professional side, as regards the work and follow-up given throughout this journey, which above all made it possible an opportunity to learn and continue the scientific-investigative course, but especially its human and always welcoming side, which allows to affirm that these were one of the great benefits and one of the reasons that led to this stage.

Thus, it is believed that this experience may motivate other researchers, especially Brazilians, to seek a postdoctoral internship in Portuguese universities. However, it is always a challenge to leave one's comfort zone and go to another country, even for those who are already at an advanced level of research, such as postdoctoral internships, which are autonomous studies.

### Note

<sup>1</sup> Further information at https://www.hostgator.com.

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