# Improving the Communication of the Game Design and Development area

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Learnings Report

Abstract—This activity focused on improving the communication aspect of the Game Design and Development of IST. To achieve that goal most of the work was based on improving the dedicated website, looking to solve the problems and deficiencies that it had. These changes involved a restructuring of the website and also the underlying structure. The end result is a website that is more clear and automatized, allowing students to have a better understanding of the area and the opportunities offered by it.

Index Terms—Game Design and Development Area, Communication, Restructuring, Automation, Database, Javascript, HTML, PHP, Content Management System, Wordpress).

# SOFT-SKILLS Z SOFTWARE SKILLS

#### 1 Introduction

In this report I will first present the activity and the planning that followed the initial meeting. I will also talk about the work process and finally the results of my work for the Game Design and Development area. I will talk about the communication and teamwork aspect but also about some technical issues without every going into detail. I will also talk about the knowledge and experience acquired during my work.

## 2 ACTIVITY

Currently the website for the Game Design and Development Area does not satisfy the goals pertaining to the communication of the kind of content that is produced and offered by this masters degree area. On one hand it is outdated, offering only news that are a year

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old and on another hand it every single piece of content must be introduced in a fairly manual way into the website. This also includes the catalog of games developed each semester by the students of this area, mainly through the classes of Game Design and Development and Technology of Games and Simulation. This means that each time a game is added to the catalog, it needs to be coded into the page instead of being automatically added from some repository, like a database for instance.

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The approach taken mainly focused on improving the visibility and maintenance of the catalog, with the goal of attracting more students to the area but also divulging the work being done during the classes of Game Design and Development and Technology for Games and Simulation. We were provided with the catalog of previous years, with detailed information of each game, like descriptions, screenshots and also videos. This is the information that should be readily available for anyone browsing the website and also should be simple to add.

There was already a new version of the website that had been started previously however it was still incomplete and also had some issues, mainly regarding the listing of games that had to be done manually which in return made the catalog impossible to conduct searches on and

(1.0) Excellent	LEARNINGS						DOCUMENT						
(0.8) Very Good	$Context\!\times\!2$	$Skills\!\times\!1$	$Reflect{ imes}4$	$Summ\!\times\!.5$	$Concl{\times}.5$	SCORE	Struct $\times .25$	$Ortog{\times}.25$	$Exec\!\times\!4$	$Form \times .25$	$\text{Titles} \times .5$	$File \times .5$	SCORE
(0.6) Good (0.4) Fair (0.2) Weak	0.6	0.6	0.7	0.5	0.5		0.6	1.0	10	1,0	0.8	1.0	

also very hard to maintain in the case a domain transfer was necessary.

The way the content was presented also had some flaws regarding which content was highlighted.

This report presents the proposed goals, the solution that was developed in conjunction with my team mates and if the implementation of the solution managed to fulfill the proposed goals.

#### 3 PLANNING

At the start of the semester we had a meeting after the group members were assigned with professor Rui Prada. The group consisted of me, Nuno Reis, João Santos and Francisco Nunes. In this initial meeting it was discussed which changes were necessary to improve the website. These changes were already discussed in the previous section but mainly consisted of automating the website and changing its layout. In this meeting it was said that the previous iteration of the website was outdated and was only capable of being updated manually. This means that each time a game was added to the website, it had to be coded manually onto the page, which isn't ideal especially with the growing number of games. It also brings problems regarding the maintenance of said games because it isn't trivial to replace outdated or broken information. This meant that a full restructuring was necessary, building the website from the ground up. We had to decide which were the main tasks that we should be focusing on. Since we were three group members we decided to break up the brunt of the work into three major task. These three major tasks consisted of automatizing the website, facilitating the introduction of new games and finally filling out the content for the remaining sections while also restructuring the websites layout. We decided that I would be in charge of the automation, João Santos of the introduction and Francisco Nunes of the layout and content

These tasks were mostly independent except for one common point which is the database aspect. This meant that before we could start working on our individual tasks we had to create the database, which lead to some discussion regarding which information should be stored. This process will be discussed in the next section.

#### 4 SOLUTION

The website itself is built on a Content Management System, Wordpress, that facilitates database usage. This is extremely important for the creation of the game catalog, which is the main focus of the website Because of this, the automation and introduction tasks are simplified. Since the catalog is the main focus it also meant that it was the section that needed more work, which is why we decided to have two people working on it. Even though we had clearly defined tasks that were mostly independent we still had to coordinate teamwork, especially in the early and late stages of development. We first laid out a basis for the automation, which consisted of creating the necessary database tables to store the websites information. This was necessary for both the automation and introduction tasks since one is based on presenting the contents of the database in the form of a game catalog and the other is based on inserting the content into the database.

The first part of my task consisted in creating the database using mySQL. We had to decide which tables to create and also which fields to store in said tables, since the game introduction needs to know the structure into which it is insert the information. Since we kept in permanent contact through Skype it was quite easy to coordinate teamwork and to keep the work-flow steady. For the second part of the task I used HTML combined with PHP and Javascript for the presentation side. I designed a grid layout that showed each game with its cover image while trying to maximize the amount of games shown on the screen. After creating this initial grid layout we had a team discussing to decide on the finishing touches and if there were any changes that we felt were necessary before I could continue with my work. Most of these changes were on the visual side, after which I moved on to the next task. For the second task I created a

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pop-up that gave detailed information about the selected game, while never leaving the catalog page, making it very fast and simple to browse different games without having to leave said page. This page generated more discussing because since it shows all of the game information, it is also essential that the most relevant information is given more focus. After discussing which changes were necessary the most time consuming parts of my task were complete.

For the final part of my task I also created a search page that allows the user to browse the catalog for specific games. For this page we had to discuss which parameters should be allowed into the search. We decided on using both game names and game genres, which enables the user to search for specific games or specific genres. This concluded my individual task, the automation of the website.

After we all completed our individual tasks it was time to combine all the work, which was quite simple apart from some server-side issues on the server which is being used to host the website.

### **5** EVALUATION

we had a final meeting with the professor, Rui Prada, evaluating the work developed and also changes that were necessary. Apart from minor changes, like changing section names, the website was well received by the professor since we met the main goals of the task. The website now only requires games to be introduced into the database through a simple page and will be shown automatically without having to manually add them to the pages. We also allow users to search for specific games, which was an added extra that made the professor quite satisfied. Overall the feedback was very positive. For future work it was asked of us to insert all the game information into the database and also enable students to submit their own games to facilitate the process, by not having only one person introducing games.

#### 6 CONCLUSION

I am quite pleased with how the activity went, the group communication and cooperation was very good. Since we all were Skype users it was quite simple and easy to stay in contact without having to schedule meetings throughout the semester. Every time an issue was identified, technical or not, we were able to quickly find a solution since we were permanently in contact.

The end result is a flexible website that focuses on the games developed by the students of the Game Design and Development area that accomplished the goals set at the beginning of this activity.

#### 7 ACKNOWLEDGMENTS

First I would like to thank professor Rui Prada for allowing us to work on this activity even though the application process was already finished and also for being always there to answer any questions or help solving any issues that came up during the development.

Finally I would like to thank my colleagues, João Santos and Francisco Nunes for being very cooperative and always available to discuss and solve problems and also help with issues that came up during my task and the development of the website.

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