

Global Unification Model of Studies based on similar subjects

Habib M. Fardoun
Faculty of Computing and
Information Technology
King Abdulaziz University
Jeddah, Kingdom of Saudi Arabia
Email: hfardoun@kau.edu.sa

Daniyal M. Alghazzawi
Faculty of Computing and
Information Technology
King Abdulaziz University
Jeddah, Kingdom of Saudi Arabia
Email: dghazzawi@kau.edu.sa

Lorenzo Carretero González
Faculty of Computing and
Information Technology
King Abdulaziz University
Jeddah, Kingdom of Saudi Arabia
Email: lgonzalez@kau.edu.sa

Abstract—We propose a Global Unification Model of Studies where the subjects, which follow a same educational plan inside of a specific state or country, can be selected by students from any place inside of that state/country. This proposal increases the university's flexibility providing to the students the option of selecting subjects given for teachers of other universities. In addition we promote the unification of studies' plans to facilitate the subjects' selection and to step forward for a future global unification.

I. INTRODUCTION

WE have to take into consideration the current trend to a high education studies globalization to allow students of different places to work in a foreign country without problems derived from their curricula or previous studies. Therefore, a particular student that had done his/her studies in Spain could go to any country of the European Union without to normalize the degree or the titles obtained previously. It facilitates a fluent movement of prepared people inside of the continent. At the same way that frontiers and different kinds of currency made difficult the transactions and emigration, different kinds of studies make that students of separated areas don't have the flexibility and freedom needed to continue promoting a globalization.

To contribute to continue with a studies' globalization, we propose an approach that consists of unifying most of the subjects of a specific degree, which will allow students to choose among different universities the subjects that they think is better for them. In other words, a student will be able to have many subjects of different universities.

At the following sections we are going to explain the content of this approach, where will take into account the current state of the high education studies, the benefits of our proposal and other interesting issues related with it.

II. CURRENT STATE OF HIGHER EDUCATION

The most common way of doing a high education degree is to study all the subjects proposed by the university's plan for that degree, and doing it assisting to the classes of that

specific university. However, the current trend of e-learning is updating the existing model, mixing the face to face classes with online lessons [1][3]. Indeed, some degrees allow students to perform their practices and to read material from their homes through an e-learning platform. In addition, there are diverse kinds of agreements to send students to other countries for studying there, and after that, their passed subjects will be ratified with the local ones in their base university. This program is called Erasmus (European Community Action Scheme for the Mobility of University Students), and as its name says, it consists in generate a mobility environment for students who want to study some of their subjects out of their country to improve their foreign language among other characteristics. It is a beginning of globalization outside of the frontiers, but it still continues being so far to reach what we are talking about.

Therefore, with the introduction of new technologies and the current bandwidth of internet connection we are able to modify our style of doing learning [2]. Thus, everyone can take advantage of the benefits provided by the new models and the new trends.

III. GLOBAL UNIFICATION MODEL

The first step to achieve a globalization of higher education contents is to unify the contents into the own country. Once unified inside of a particular country, it is easier to talk about unification outside of it because there are not too many different studies' plans to discuss. Therefore, we are going to start with a local unification to reach a future global unification. However, our main goal is more focused on the students, which will be able to select subjects from many universities to promote the choice freedom and a more flexible learning.

If we take a specific degree from two different places into a specific country like Spain, we can find some changes among them. For this example we are going to take the studies' plan from the University of Castilla-La Mancha and from the University of Barcelona related with the Computer Science degree.

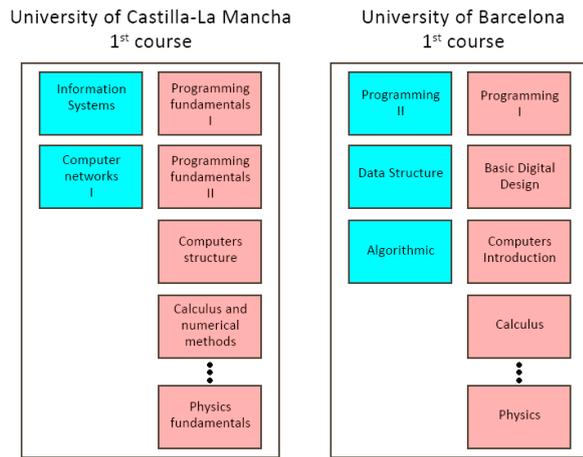


Figure 1. Studies' plan for the first course at the UCLM and UB.

As we can see at the previous figure (Figure 1) there are similar subjects but with different nomenclature. It could confuse students when they want to compare among universities' plans to choose a specific subject. The first approximation to reach the globalization is to unify the subjects, in other words, we have to allow that subjects of different universities but which correspond with the same degree, can be ratified on any university with the same degree. It is the beginning to let the students to choose a specific subject from other university. Therefore, if we get the goal, students will have the freedom to choose in case they want a subject of another university because of the teacher's quality or the methodology followed.

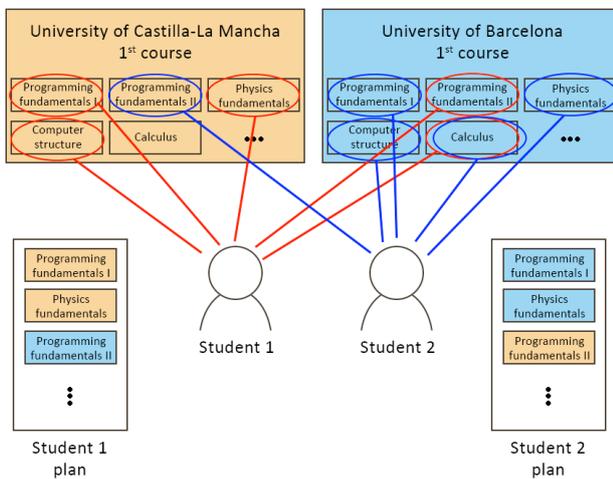


Figure 2. Unification model.

At the figure 2 we can see how two different students (one enrolled in the University of Castilla-La Mancha, and another one enrolled in the University of Barcelona) choose the subjects that they think better for them due to particular circumstances. One aspect to take into consideration is that any student enrolled into a specific university has to select

always at least a minimum percentage of subjects of that university, for example the fifty percent. Thus, the student will belong to that university and s/he will be able to take advantage of the benefits promoted by it.

Obviously, each university will have their own specialties, but we are talking about a unification of the bases and main subjects of a specific degree. Thus, the common aspects, which form the degree, will be kept; and each university will propose their own specific areas that make it different [6].

Once we have unified the subjects of a determined country, we can face the challenge of unifying the subjects and plans of the European Union in an easier way. However the scope of this paper is focused firstly on local universities, but in the future we will step forward to reach the European scope [7].

IV. BENEFITS OF THE GLOBAL UNIFICATION MODEL

The unification of subjects' nomenclature and studies' plans makes easier for students to select them from each university. But the question could be, Why would a student want to choose the same subject from a different university?. Each student has a diverse set of motives that could bring him/her to a determined decision. For example:

- Could happen that a subject is taught by a teacher of another university that explains very well the content.
- Maybe the practices performed in another university are clearer than the practices provided by the current university.
- Due to that more content is explained at the other subject, or in the opposite side, due to that less content is explained at the other subject.
- Maybe the relation with a specific teacher is not as good as a student would want to have and s/he prefers to take the lessons from another person.
- If the student prefer an online learning, it is possible that a subject from another university provides a better experience with that kind of contents.

Previous sentences are related with possible reasons that a determined student could have in mind. However, the student could study the whole set of subjects at the university where s/he is enrolled. This model provides to the students with the possibility of choice, which makes universities' plans more flexible and adaptable to each student [5]. Moreover, depending of the amount of students in a determined subject, it can show that something is happening in relation with that subject. It gives the possibility to the educational institution to pay more attention on it and to find out more about the motives of the lack or excess of students. Therefore, universities can get a lot of conclusions in relation with the enrolments and all the aspects related with them.

This solution is in line with the current trend of emerging technologies and new models of learning related with the online learning [4]. Therefore, it is a modern model that facilitates the access to the university to people that cannot deal with the expenses related with housing or another issues

related with higher studies. In other words, students have the possibility of studying from their homes, saving a big amount of money. Something to take into account is that obviously they have to go sometimes to the university to perform exams or other necessary aspects that cannot be made from home.

The result of promoting the e-learning offers some benefits for both students and university. Some of them:

- A bigger amount of enrollments, due to opening the possibility of studying to more people. It gives more money to the university.
- Less people at class due to the division among offline and online students. It facilitates the personal learning and the university doesn't need big classes to perform the lessons. Fewer students at class allows them to have more attention from the teacher and the labor of teaching is easier for him/her.
- In case of necessity of computers or another type of hardware, with less people the quality of the practices is better because those students have more possibility to use those elements.

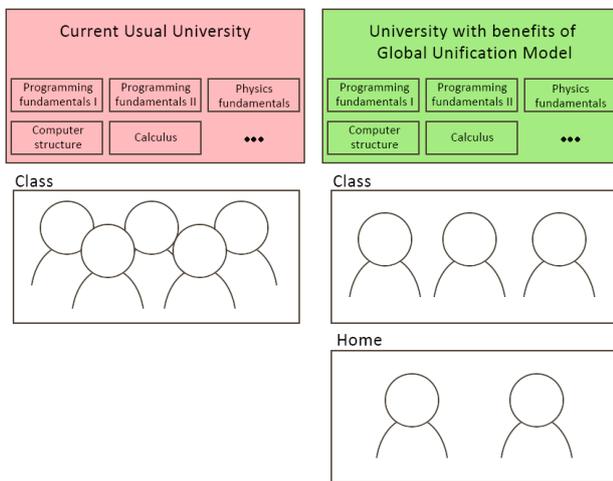


Figure 3. A benefit of the Global Unification Model based on the e-learning.

At the figure 3 we can observe how the density of people at class is lower, which benefits to students and teachers. We also have to take into consideration that each of the students of the university with the Global Unification Model can use his/her right to use the e-learning with his/her own university and obviously it becomes necessary when we talk about the classes of the other university.

However although this model provides some benefits, we have also to take into consideration that teachers have to pay more attention to the online platforms because a part of students use them to make the learning labor. Therefore, they have to get used to the use of these platforms and to the interaction with people outside of the class.

V. CONCLUSION

Technologies, methodologies and models are evolving to improve the learning; therefore educational institutions have to do the same and don't leave aside this trend. Moreover, the current trend is focused on the globalization and unification of studies plans into the higher education, for that reason we have proposed this model, which pays special attention to improve the flexibility and quality of educational institutions. Students will have more options to choose what they want to study and where they wish to do it. In addition, students that have fewer resources or that don't have the possibility to study in a different place where they live, will be able to make higher studies through internet connection and the e-learning platforms provided by the university. Therefore we are not only globalizing and unifying the subjects and studies' plans, but we are extending the education to the student's home.

In future studies we are going to face the challenge of adapt the model to the European scope. Once unified the model at local scope, the adaptation and unification in a wider environment is easier. However, it will create new issues that have to be faced through negotiations among affected countries inside of the continent. Into these negotiations, the best statistics and results derived from the application of the model proposed will have more weight. Thus, we will have real feedbacks to take into consideration and to improve both the model and the learning methodology.

REFERENCES

- [1] Habib Fardoun, Francisco Montero, Víctor López Jaquero. eLearnXML: Towards a model-based approach for the development of e-Learning systems considering quality. *Advances in Engineering Software* 2009 Elsevier, pp 1297-1305.
- [2] Habib M Fardoun, Antonio Paules Ciprés, Daniyal M Alghazzawi. CSchool-DUI for Educational System using Clouds. *Proceedings of the 2nd Workshop on Distributed User Interfaces: Collaboration and Usability*. In conjunction with CHI 2012 Conference Austin, Texas, USA, pp 84-695.
- [3] H Fardoun, Francisco Montero, V Jaquero. *Designing e-Learning Systems to Support new Teaching Techniques*. *Journal of Computer Science and Engineering*, 2010.
- [4] Habib M Fardoun, Sebastián Romero López, Pedro G Villanueva. *Improving E-Learning Using Distributed User Interfaces*. *Distributed User Interfaces, Human-Computer Interaction Series*, 2011, pp 75-85.
- [5] Robert F. Arnove, Carlos Alberto Torres, Stephen Franz. *Comparative Education: The Dialectic of the Global and the Local*. Rowman & Littlefield Publishers, 2012, pp 472.
- [6] David A. Gruenewald, Gregory A. Smith. *Place-Based Education in the Global Age*. Routledge, 2014, pp 408.
- [7] Frank Newman, Lara Couturier, Jamie Scurry. *The Future of Higher Education: Rhetoric, Reality, and the Risks of the Market*. John Wiley & Sons, 2010, pp 304.