

Web Development And Its Ability To Manage Academic Services In Low-Income Schools In Times Of Pandemic

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Abstract: *Due to the current situation, many students must take classes online, and because of this, teachers must adapt to this type of virtual education, it goes without saying that many of them carry out their activities in a traditional way, so it is expected that is supportive to record the progress of the students and generate participation from them. In the circumstances in which we find ourselves, a pandemic scenario, technology is required to support our Peruvian educational system, and offer alternatives that help improve conditions and reduce limitations for students in educational centers.*

For this, it is necessary to search for bibliography, for web development within academic management in low-income schools that require the use of information technology to be able to implement it in an orderly and systematic way.

It is worth mentioning that the web development showed that the logistics processes increased their efficiency, obtaining better results, as well as those that are reflected in developing them in low-income schools, which have more students, for a teacher it is more comfortable to review in the same way, parents are also involved in the development of their children.

Keywords: *Web platform, social field, intellectual field, virtual education, COVID19 pandemic.*

1. INTRODUCTION

Currently, the world is facing a crisis in different areas, one of which is education, and it is in underdeveloped countries such as Peru who are most affected.

When we think about the impact of the implementation of a technological development in any type of educational institution, we analyze all the positive and negative factors that it would bring with it, as well as the acceptance of this by those involved.

The success of web services provided by web portals depends on the acceptance of the technology by the people. (Ganley, 2011)

Technological progress is becoming faster and faster, so that new ways of transmitting information are much more efficient, and this is vital in the educational field. Those involved in the training of a person have more means by which to transmit teaching and experience. This in turn facilitates the access that an individual has to the information they require, whether to monitor progress, evaluate or simply verify that everything should be as it should be.

2. THE PROBLEM

Due to the situation faced by countries that adopt traditional teaching methods, it has affected the life of teachers, who, not being digital natives, are immersed in this digital world to teach their doctrines. On the contrary, digital natives can easily cope with this new way of learning. In other words, it is easy to say that the new generation always understands that technology is useful.

3. PURPOSE OF WEB DEVELOPMENT

The purpose of developing these systems is to promote and accelerate the routine tasks performed by human beings. Due to the correct use of the system, the image of the institution will be affected. Nowadays, the working society already has these systems, they are part of their daily life and job functions. A person uses different types of channels to transmit information in daily life, so even older people can understand the way they work.

In addition, we mentioned that in any field or category in which the organization is located, that is, whether it is a public or private institution, or whether it is dedicated to education or simple business. These systems represent a competitive point depending on how they are used. By using virtual channels to transmit information, whether promotions or offers, this system must be optimal so that any type of person can manipulate it at will, and therefore increase their sales (in the case of commercial systems) and manage academic and educational information (in the case of institutional systems, both schools and universities).

4. PREVIOUS CONCEPTS

4.1. Business Process Model and Notation (BPMN)

This concept is used in various organizations to facilitate the understanding between business design and implementation.

Basically this structure that is realized is a means that helps to understand the processes that take place within the organization, or between projects that involve a considerable amount of employees.

Initially, these models drive communication between co-workers within the organization, helping them to achieve a shared understanding. In a small organization, this is relatively simple to achieve, as employees tend to share a common culture and set of values. But in a larger organization, especially where employees are spread across different physical

locations, achieving a common understanding of what the words actually mean is often difficult. (White & Miers, 2009).

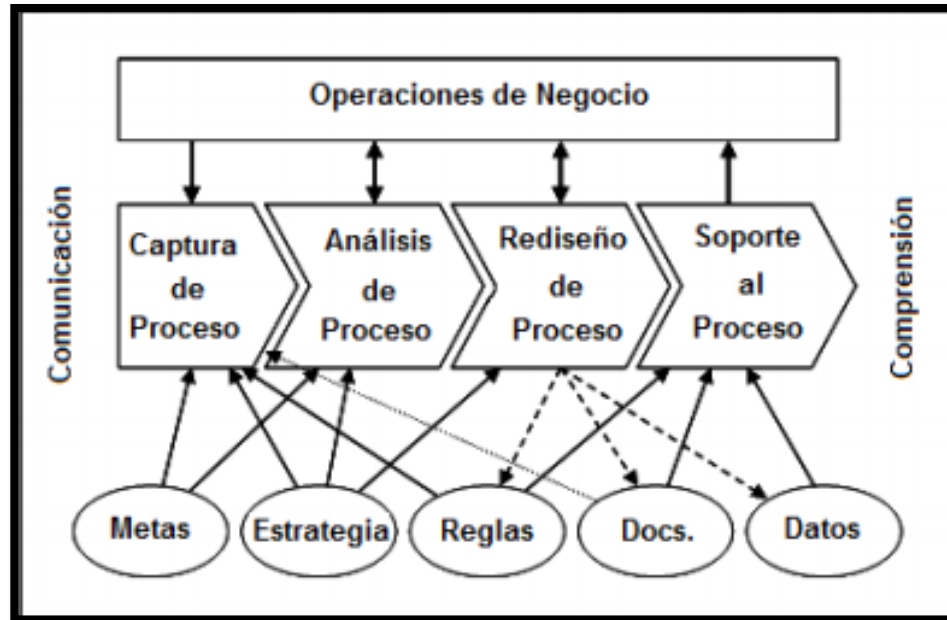


Figure 1: Process Models. Source: (White, S. & Miers, D., 2009)

4.2. Structured Query Language (SQL)

This is a data manipulation model for various types of work. The main reason for using it is to search for certain data in a large database, in addition to being able to locate it, it can also be easily manipulated or modified. Some organizations choose to use existing applications or pages to simplify the process, but these are not always as effective as the platforms created for the specifications required by the organization. Considering the contemporary times, similar functions to the networked learning platform can be projected on the learning video game. This will help students' interest in performing tasks and participating in the classroom.

A video game is a different program from conventional programs. It must run in real time, at all times while it is running, the game must be performing some task. It must also be waiting for some event to occur, to see if a certain key has been pressed, if the mouse has been moved or a mouse button has been pressed, and then act accordingly. All this, and more, must occur in a cycle. (Martín, Remesal & Rivera, 2007)

4.3. ASP. Net Web.

This component is one of the pillars when developing a web page, whatever its use.

In order to keep the user interface and the logic associated with the application independent, the implementation of the ASP. NET pages will be divided into two files. In a file with extension .aspx we will specify the aspect of our interface, using both standard HTML tags and specific tags to make reference to the ASP.NET controls that we want to include in our page. In a second file, which will be a code file with .cs extension if we use C# language, we will implement the application logic. (Berzal, Cortijo & Cubero, 2007)

So that we can understand a little more about this we must know what ASP is, since ASP.NET arose after this one to improve some things.

The ASP language. It is a language created by Microsoft ASP which is in English "Active Server Pages", like PHP is used to create dynamic web pages. For this one to work correctly it needs to have installed the services of Internet Information Server (IIS). Its code is executed on the server side. The files have the extension (asp). (Apaza, 2019)

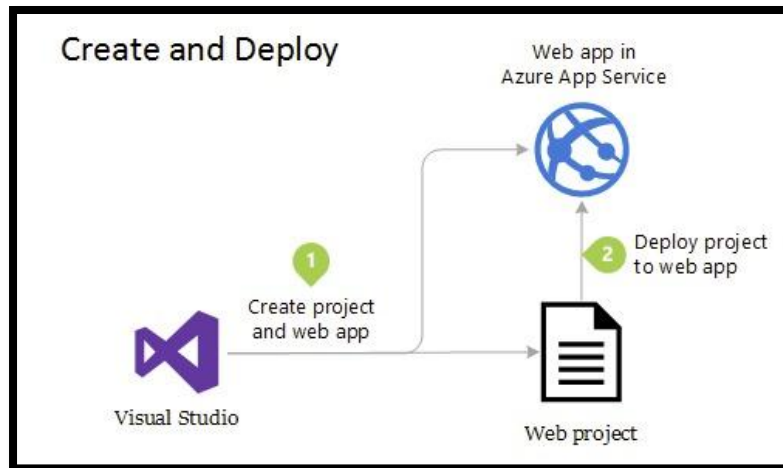


Figure 2: Simple implementation of a web application. Source: (Smith, S. 2020)

4.4. SOA Architecture

We understand that every network system must have a structure to operate correctly, to make this structure the SOA architecture is used, which allows easy access to the services or options provided by the company through the website. The SOA concept is what many organizations are currently looking for in terms of web features and enhancements. Many of these organizations do not understand or are not responsible for their website area, so their pages are lacking or have few features, and after a while, even their own members stop using it.

The current scenario shows, however, that companies are entering SOA with few web initiatives and focused on projects with core standards such as WSDL, SOAP and XML. However, organizations that are pursuing global SOA initiatives should look for deeper standardization to ensure interoperability within and across departments. The ability to put governance on a standards-based network is a great advantage in relation to the creation and management of the SOA concept. (Sanabria & Tascón, 2008)

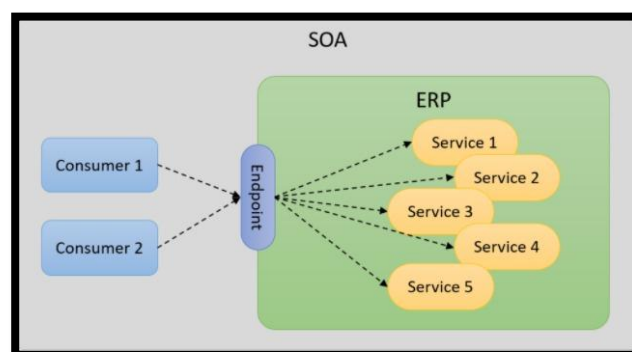


Figure 3: How do SOA services work? Source: (Oblancarte, 2018)

4.5. Mobile application

Mobile applications are developed to meet the demand in a fast and accessible way, although some of these applications require payment to access them, there are also many applications that provide their content or services for free. People in daily life not only use apps out of obligation, but they also use them to simplify the tasks or responsibilities that must be completed. Once we have delved into mobile apps, we will understand why schools have decided to use some apps to promote student learning. Using these for teaching means that the institution believes it is related to streamlining and strengthening its processes, to achieve this it must also study the pros and cons that this will bring.

The implementation is costly in a total way in the educational system. There are many causes that teachers allege for not incorporating them. The first and most important is the lack of attention that this circumstance may cause. Children do not have in their hands a purely educational element, but have the possibility of being in remote places, far away from the subject being taught, or simply talking to their friends through instant messaging products. (Bartolomé, 2013)

5. CONCLUSIONS

When we analyzed the characteristics and purpose of providing high quality academic services, we emphasized that the faculty and staff are willing to help and provide services, and the administrative service staff understands how to meet the needs of students; now, in addition to this, we must provide integrated technology during the pandemic The process used; because, at all times, it is necessary to provide personalized attention, empathy and the ability to support and help workers. In this way, Vega-Robles, A., Mejías, A., Cadena-Badilla and Vásquez, J. (2015) point out that the predisposition of the administrative staff to be able to give good attention, punctuality and resolution to the students' problems should be notorious, even more so that we have a virtual attention, then there should be a documentary and above all academic control of each of the processes related to them. (Vega-Robles, A., Mejías, A., Cadena-Badilla & Vásquez, J., 2015)

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