What's Changed in a Decade of BIT Projects?

Scott Morton
SIT
133 Tay Street
Invercargill, Southland
Telephone number, 0064 3 211 2699
Scott.morton@sit.ac.nz

ABSTRACT
This poster looks back over a decade of final year projects carried out by BIT students. The aim was to see how the projects had changed and progressed over that period of time. The students carry out the project within groups, normally three within a group over the last year of study at SIT. The projects can be sourced by the students or by the staff, but the end goal is to create a working design for the customer. There have been a wide variety of projects over the past ten years but there has always been a pattern of the types of projects the students choose.

Keywords
IT Education, Project, Collaboration

1. INTRODUCTION
The project module for the bachelor of Information Technology is compulsory for final year students taking the Bachelor of Information Technology at SIT. This module is run over two semesters in their final year making up 30 credits towards their degree. Normally the project is carried out within a group environment of three or sometimes four students, all taking specific roles within the team [3]. Each team tenders for the project that they believe suits the skills that particular team possess. All teams have a tutor who will act as a mentor. This allows the tutor to keep track of the team and the progression of the project. During the project there are many key milestones that the teams have to accomplish within the project, such as presentations, reports and monthly status updates [2].

2. RESULTS AND FINDINGS
Between 2003 and 2006 many of the projects chosen were database designs for management systems and inventory systems using Jade. This was the approach taken by many polytechnics, for example, Otago Polytechnic at the same time had software projects to support the business infrastructure [3]. Between 2007 and 2009 the projects moved away from Jade and started using Visual Studio and C# as the programming language of choice. Most of the projects during this period were focused on web presence for customers. This was different from other polytechnics that were looking at software and hardware projects [4][5]. From 2010 onwards there has been a big influence on the projects from the pressure on industry to become mobile and this led to many projects producing mobile and cloud based apps along with the dynamic website for the company.

The change from using Jade to Visual Studio as a platform was due to a change in staffing and the new staff member not having knowledge of Jade but having in-depth knowledge of Visual Studio. From 2007 onwards the industry advisory committee started to have a bigger involvement within the degree and our approach to IT, which had an impact on the types of projects that the students produced. Many other polytechnics around New Zealand were also moving towards this type of software infrastructure [1]. There has always been an underlying pattern within the projects to produce front-end design such as a website and a database back-end to manage the data from the site. This type of project made up the majority of the projects over the last five years. Seven out of the 20 final year projects in the last two years, have integrated mobile applications within their design either for smart phones or tablets.

3. CONCLUSIONS
With the change in technology over the past couple of years and the introduction of the tablet and smart phone, students and customers are increasingly moving into this mobile world. There is always a diverse output of projects from all the polytechnics carrying out projects within bachelor degrees and the types of project depends on the location and industries available. We expect that we will always have database and hardware system projects for customers but in the coming years more projects will be focused on mobility and the customer expectation, rather than just the web presence. The final year projects are driven not only by the staff's knowledge of cutting edge technologies but also by the industry advisory committee and the customer, who in today's market need to have a point of difference from their competitors. Customers need to stand out in a very congested environment, so anything that can put them above the competition is a bonus.

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