Using a live site to teach e-commerce


Abstract

Could a live e-tailing business with student access to the back-end and other live e-commerce data improve the satisfaction and quality of an E-Commerce course? IT students often reflect that case examples within courses are arbitrary and do not allow full disclosure of commercial and technical details. This paper examines a second year E-Commerce course where a case study was both live technically and economically. A case study approach was used to examine the effects of using a live business example on one class of students. Related research on case study based teaching approaches was used to synthesise academic and business world views.

This E-Commerce class investigated the back-end database of the e-tail site, experimenting with a Google Ad-word campaign and monitored numbers of hits and sales. This provided a high level of interest and findings indicated a richer learning outcome for all students. Preliminary results indicate a greater student satisfaction with their learning and industry readiness. However some frustration was indicated with the complexities of learning a real business processes and with technical features requiring a higher level of engagement and time for some students.

Keywords

E-Business, E-Commerce, case study, teaching, live Web site

1. Introduction

The challenge of teaching an E-Commerce course is to present the topic through a variety of viewpoints, including business management, marketing, internet features, security as well as back-end database and other technical aspects. Nesbit (2004) discusses how E-Commerce can encompass business, technology and social science. While many of our Information Technology (IT) students achieve a good understanding of the skills and knowledge needed to build an interactive website, it was believed that many did not appreciate the complex nature of maintaining an active business website in conjunction with a real business. A case study approach was chosen to remedy this situation.

2. The Case Study Approach

As Varden (2002) points out "most business case studies courses involve reading and analysing a number of third party descriptions of company situations with the objective of drawing out of the case certain concepts or insights that will help the students understand the subject at hand. I chose to build my own case study and put the students right in the middle as participating role players." This was the sort of approach that teaching staff believed would be most effective.

Contemporary live E-Commerce Websites are commonly used as case studies for assessment in E-Commerce studies. At the other end of the technical spectrum, prototyping of developmental Web sites is widely used in Web site development papers. However, it is not usually possible for students to experiment with a live e-commerce Web site and to engage in technical and marketing changes studying the effects of these in a real business. A similar live case study was used by Corich (2003) where e-
commerce students tracked the importing of a car from Japan using the exporters Web-based ordering and tracking system, but this did not involve a stand-alone business.

As outlined by Hackney (2003), there are questions to address before choosing and implementing any particular case in conjunction with a specific information systems course. "Is the case considered relevant to the subject; is it substantive and complex enough to reflect a real situation and is it stimulating enough to provoke discussion and subsequent learning (involve me concept)?"

The case method does involve additional time and effort from lecturers to set up the resource material about the organisation under study and the benefits need to be clear and substantial. Teaching staff should also develop skills in the use of case studies interwoven with course objectives and assessment. There can be a problem with case studies dominating the subject and diverting time away from studying the wider area knowledge related to the subject. Care should be taken to ensure adequate knowledge content is woven around the practical realities of the case.

Jelassi & Enders (2005) discuss at length the creativity and analytical development that can be experienced by the student through the use of practical case studies in e-commerce. This learning can be equated with aspects of real-world industry experience which tertiary students are keen to accumulate. At a more practical level Turban, King, Viehland, and Lee (2005) outline, in a business case template, the steps for an enterprise to launch a successful online business including building the Web site, Web site hosting and content management.

3. Selecting The e-Commerce Site

Initially, staff investigated the concepts behind the Youth Enterprise Scheme for senior high school students, where a small enterprise could be set up by students, a real product produced or purchased, then the products sold through a student-run Web site at a profit. However, the logistics and bureaucratic issues surrounding this setup were deemed too problematical. An opportunity arose, where a new E-Commerce company was starting up, and the owner was known to the lecturer and was willing to allow access to the Web site and marketing campaign.

The case study for the "level 6" (a second year undergraduate) E-Commerce course ("paper") involved an online craft supplies retailer called Thegingerkat.com. This pure "by e-tail" business aimed at an online audience of quilters and craft hobbyists was well suited to illustrate aspects of the marketspace with a defined market niche (Laudon & Traver, 2003).

Firstly, a written description giving the background of the business and Web site was submitted to the students as part of a major assignment. The Web site address was also given to the students with instructions to investigate the site as if they were a potential customer. Students were able to complete an entire shopping cart procedure and "purchase" goods to test the consumer experience as these "orders" could be deleted by the owner or lecturer. Students were also able to view the online advertising campaign that was setup by the business owner through the Google AdWords facility. Further investigation by students included viewing the database back-end of the Web site (product catalogue, orders, and site statistics). Of particular interest to the students was being able to observe the relationship between the use of certain keywords on a daily basis and the visitor and sales statistics on the Web site. Email contact between the business owner and the students was established with students able to ask questions ranging from finance to operational issues.

4. The Investigation

Students were shown a selection of keywords criteria and were asked for ideas for good high-use keywords. They were then able to "walk-through" setting up new keywords, select the price the business would be prepared to pay per click, and re-visit the campaign manager as shown in Figure 1 to view the previous days or weeks click rate and "impression" rate. Students were interested in seeing how much a modest campaign cost (in this case a limit of $4.00 per day) over a month. A search in Google on these keywords demonstrated the difference between the text advertisement and
the non-paid results for Thegingerkat.com site.

None of the students had previous experience of paid advertisements, so this experience was particularly valuable.

Statistics for site visits, exit URL's and country of origin were made available to the students (Figure 2). They could then make correlations between the advertising campaign and the traffic generated on a weekly/daily/hourly basis. This generated a high degree of interest, as the students were able to view the online business from the owner's perspective. Different countries displayed on the site statistics such as France, Australia, the Netherlands, demonstrated the correlation between clusters of countries chosen in the Google AdWords campaign and actual hits.

Students were given the opportunity of investigating the product catalogue as shown in Figure 3, and gave advice on improving the logical hierarchy of the catalogue. Students were shown the order system with options for credit card payment, cheque or Internet banking options. This gave them a clearer understanding of the Merchant side of E-Payment mechanisms within E-Commerce. With less risk, students were able to
view/edit the Guest book entries, Gallery (where finished craftwork is displayed by customers) and the Links page. Students dealt with the ethical issue of guest book entries – should they all be original entries from site customers/visitors? Research was undertaken by students on the best way to present links and instigate in-bound links through exchange with other similar businesses.

![Figure 3. Back-end management of Thegingerkat.com](image)

All of these hands-on practical experiences gave the students insight into running a small e-business and viewing this through the owner's eyes. The depth of analysis by the group was deeper than a textbook based case study and allowed development of particular skills in advertising, Web site configuration and business marketing.

**5. Discussion**

Feedback from the students after the assignment related to the case was mainly positive. Many reported that they had not realised the difficulty that a business-to-consumer Web site has in attracting site visitors and generating sales. All students were generally positive about their experience with the case study; with most reporting the most unique experience was viewing the online advertising campaign and the database portions of the Web site.

Comments included:

- "Didn't realise how costly a paid advertising campaign was."
- "Creating a Web site for a business and going live is obviously just the start."
- "As well as the Google ad campaign, I would like to be able to improve the normal search engine rankings."
- "Amazing to see the many countries showing on the visitor site statistics."
- "At first I had no interest in a craft shop, but after a while I found that being a Webmaster for a real site was really absorbing."
- "This assignment was better than a written case – we could interact with the site, see it working live, ask the owner questions, and just really see things through the business-owners eyes."
- "This assignment took me more time than a normal written case, but it was probably worth the extra time."
- "It was hard to believe that a real business was able to give us such access to their valuable data and set-up."

**5.1 Commercial Sensitivities**

A large degree of trust was given by the business owner to the group of 2nd year degree students to allow them to view and investigate the back-end of the Web site and the Google AdWords campaign. Factors which helped to establish trust included the size of the student group (18), the close involvement of the lecturer in the process, and the small size of the business. The business owner had an open attitude towards the risk of
students misusing this information. There was no formal documentation seeking risk minimisation on this live case study as it was seen as a small pilot study but probably a second case study of this nature would see the institution document the acknowledgement of risk by both parties. Any passwords used were changed shortly after the access to the Web site and advertising campaign ended.

Commercial risk to the owner would include mischievous alteration of the Google AdWords campaign to include offensive or ridiculous keywords and accidental deletion or changes to the product catalogue. A potential worst-case scenario of students collecting orders or credit card details was impossible because the e-payment system operated under the control of the bank.

6. Conclusion

The client appreciated marketing and Web site usability feedback and advice from the students. Whilst the lecturer marked the main assignment associated with the investigation of the case business, the business owner also provided some brief feedback to each student on their ideas in their reports.

When using live case studies within IT courses it is necessary to ensure good choice of case, and be vigilant the case does not “crowd-out” the learning of the full breadth of course content. There are also ethical boundaries and commercial sensitivities that need to be respected regarding the company's commercial information of the company and the misuse of that knowledge by students.

The benefits of using live interactive case studies in IT courses are evident for students, teachers and industry. Students benefit from a richer learning experience seeing a business operating in the field of study. They also learn to apply their knowledge directly and are more motivated to investigate the application of IT in organisations. Lecturers can benefit from liaison with industry while setting up the case study, and gain opportunities to enhance their real world skills. Industry can benefit from advice offered to them by student reports and the brainstorming ideas that are often generated and presented by students investigating their business.

Finally, an unintended outcome for the lecturer involved was to consider adding initial marketing and maintenance requirements for final project students involved in Web design projects as this live case illustrated the necessity of active maintenance of any B2C Web site.

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References


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