

# Using a Live E-Commerce Retail Site Improves Teaching E-Business

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## 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-Business 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 worldviews.

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 technical features requiring a higher level of engagement and time for some students.

## 1. INTRODUCTION

Teaching an E-Commerce course presents the challenge of trying 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. While many of our students achieve a good understanding through our IT degree of the skills and knowledge of how to build an interactive website, it was believed that many did not appreciate the complexity 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

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 websites is widely used in website development papers. However, it is not usually possible for students to experiment with a live e-commerce website and to engage in technical and marketing changes and study the effects of these in a real business. A live case study was used by Corich (2003) where e-commerce students tracked the importing of a car for Japan using the exporters web-based ordering and tracking system, but this did not involve a stand-alone business.

As Hackney (2003) outlines, 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)?”* (Hackney, 2003)



Quilt Doll Fabric buttons Campaign Ended | Pause Ad Group | Delete Ad Group

Current maximum CPC: NZD \$0.09 [edit]

Apr 1, 2005 to Apr 30, 2005

Tools: Filter Keywords | Add Keywords | Edit Keywords | Keyword Tool

Keyword	Status	Max. CPC	Destination URL	Clicks	Impr.	CTR	Avg. CPC	Cost	Avg. Pos
<b>Search Total</b>				<b>94</b>	<b>9,190</b>	<b>1.0%</b>	<b>\$0.09</b>	<b>\$0.45</b>	<b>3.9</b>
<b>Content Total</b>				<b>289</b>	<b>80,411</b>	<b>0.3%</b>	<b>\$0.09</b>	<b>\$25.11</b>	<b>3.1</b>
<input type="checkbox"/> Quilting patterns	Normal	\$0.09	<a href="http://www.theingerkat.com/algua.php">http://www.theingerkat.com/algua.php</a>	93	8,608	1.0%	\$0.09	\$8.36	3.6
<input type="checkbox"/> Doll patterns	Normal	\$0.09	<a href="http://www.theingerkat.com/supplier8">http://www.theingerkat.com/supplier8</a>	0	193	0.0%	-	-	6.2
<input type="checkbox"/> Cloth Dolls	Normal	\$0.09	<a href="http://www.theingerkat.com/supplier8">http://www.theingerkat.com/supplier8</a>	0	163	0.0%	-	-	5.1
<input type="checkbox"/> Quilting Fabric	Normal	\$0.09	<a href="http://www.theingerkat.com/126toen18">http://www.theingerkat.com/126toen18</a>	0	140	0.0%	-	-	17.7
<input type="checkbox"/> craft buttons	Normal	\$0.09	<a href="http://www.theingerkat.com/116toen12">http://www.theingerkat.com/116toen12</a>	1	39	2.5%	\$0.09	\$0.09	9.4
<input type="checkbox"/> Wooden buttons	Normal	\$0.09	<a href="http://www.theingerkat.com/116toen12">http://www.theingerkat.com/116toen12</a>	0	30	0.0%	-	-	7.5
<input type="checkbox"/> Quilting New Zealand	Normal	\$0.09	<a href="http://www.theingerkat.com">http://www.theingerkat.com</a>	0	17	0.0%	-	-	1.6

Figure 1. The Google Ad-Word Campaign that students accessed.

The case method does involve additional time and effort from lecturers to setup 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 knowledge around the subject. Care should be taken to ensure adequate knowledge content is woven around the practical realities of the case.

### 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 selling these products through a student-run website at a profit. However, the logistics and bureaucratic issues surrounding this setup were deemed to be 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 website and marketing campaign.

### 3.1 TOWARDS AN ACTIVE TEACHING MODEL

The case study for the level 6 E-Commerce paper involved an online craft supplies retailer called Thegingerkat.com. This pure e-tail business aimed at a niche market of quilters and craft hobbyists.

Firstly, a written description backgrounding the business and website was submitted to the students as part of a major assignment. The website address was also given to the students with instructions to them 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 ad-word facility. Further investigations by the students included viewing the database back-end of the website including the product catalogue, orders, and site statistics. Of particular interest to the students was seeing the relationship between the use of certain keywords on a daily basis and the visitor and sales statistics on the website. Email contact between the business owner and the students was established with students able to ask questions ranging from finance to operational issues.

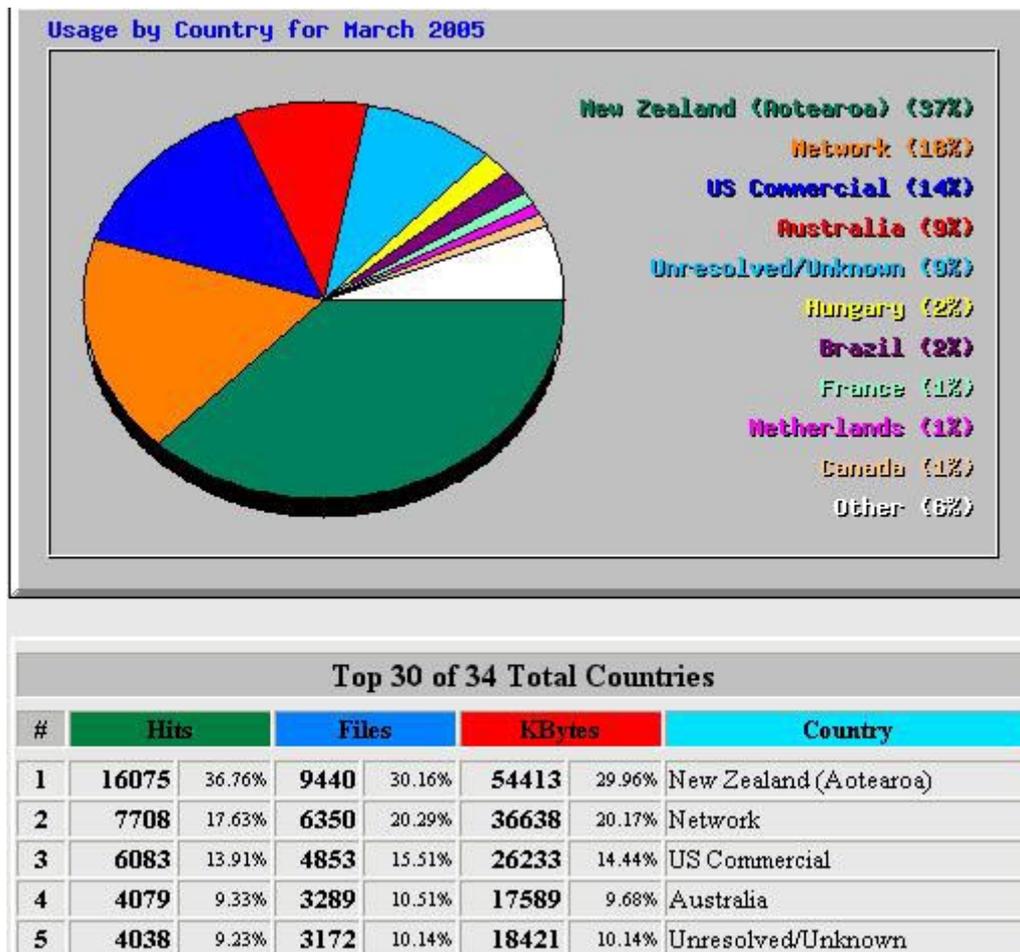


Figure 2. Site Statistics for Thegingerkat.com website

#### 4. THE GOOGLE AD-WORD CAMPAIGN

Students were shown a selection of keywords criteria (and were asked for ideas for good high-use keywords) and 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.

#### 5. THE BACK-END INVESTIGATION OF THE E-COMMERCE SITE

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.

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 orders system with options of 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



Figure 3. The Back-end Management of Thegingerkat.com

instigate in-bound links by exchange with other similar businesses.

## 6. 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 website and the Google ad-word campaign. Factors helping this trust included the size of the student group (18), the close involvement of the lecturer in the process, and the small-scale 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 EIT document the acknowledgement of risk by both parties. Any passwords used were changed shortly after the access to the website and advertising campaign.

Commercial risk to the owner would include mischievous alteration of the Google ad-word campaign to include offensive or ridiculous keywords and accidental deletion or changes to the product catalogue. A worse scenario may include collection of orders, however because

the e-payment system operated under the bank control no credit card details could be captured by students.

## 7. STUDENT FEEDBACK

Feedback from the students after the assignment related to the case was mainly positive. Many reported that they had not realised the difficulty of a business-to-consumer web site to attract site visitors and generate 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 website.

Comments included:

*"Didn't realise how costly a paid advertising campaign was."*

*"Creating a website 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."*

## **8. CLIENT FEEDBACK**

The client appreciated marketing and website 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.

## **9. CONCLUSION**

The precautions of using live case studies within IT courses would include ensuring good choice of case, and being vigilant the case does not "crowd-out" the learning of the full breadth of knowledge of the course. There are also some ethical boundaries and commercial sensitivities that need to be respected between the 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 website.

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