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A REVIEW OF ETHICS IN THE DESIGN OF SELF-SERVICE WEBSITES AMONGST LOW-COST CARRIERS IN IRELAND

Chris Barry
Department of Accountancy and Finance
National University of Ireland, Galway
University Road
Galway, Ireland.
Direct Dial: + 353 - 91 - 750301
E-mail: chris.barry@nuigalway.ie

Ann M. Torres
Department of Marketing
National University of Ireland, Galway
University Road
Galway, Ireland.
Direct Dial: + 353 - 91 - 492710
Email: ann.torres@nuigalway.ie

COMPETITIVE PAPER

TRACK: INFORMATION MANAGEMENT

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INTRODUCTION

Although ethical issues related to the Internet has been a widely debated topic, little has been written on subtle ethical questions such as the exploitation of Web technologies to inhibit customer service. Increasingly, some firms are using Websites to create distance between them and their customer base in specific areas of their operations while simultaneously developing excellence in sales transaction completion via self-service. This paper examines the low-cost, Web-based self-service airline industry in Ireland.

The paper notes the manner in which information system (IS) design and marketing practice are taught assumes ethicality and encourages fair and appropriate processes. While these business disciplines are central to the success of self-service Websites, there is in some cases, a discontinuity between the normative view and actual practice. This paper outlines the normative approach to IS design and marketing, follows with a review of questionable ethical practices used by low-cost carriers (LCCs), and concludes with a look at the implications for research, teaching and practice.

THE SUCCESS OF LOW-COST CARRIERS (LCCS)

Economic deregulation of the global airline industry has meant airlines are examining carefully their cost of operations, resulting in lower fares and higher levels of productivity by removing the airlines' restriction on pricing and destinations (Kahn 2002). Without these restrictions, intense price competition has spurred airlines to seek improvements in efficiency (Kahn 2002). The low-cost operation has been a highly successful model in the airline industry over the last decade and in Europe, LCCs are growing 20% to 40% annually (Alamdari and Fagan 2004) and currently hold 33% of the overall market (de Neufville 2006).

The basic LCC model is to achieve cost leadership to allow for flexibility in pricing and realize higher operating margins. This strategy requires the carrier to examine every function and service performed and to eliminate those considered as superfluous frills or to charge for them separately as an addition to the basic fare. The sophisticated information systems LCCs employ for dynamic pricing and revenue management have contributed substantially to their healthy profit margins. In pursuance of eliminating inefficiencies, customer service is one function that is perceived to have declined in importance. The justification some LCCs give for neglecting customer service (i.e. managing complaints and concerns) are the low airfares they offer customers.

HOW IS SHOULD BE IMPLEMENTED

Information systems have for many years been developed and implemented using structured or object-oriented methods. Both methods are based on a systems development life cycle that contains a number of stages, checkpoints and tasks. Information systems development (ISD) involves systems analysis, systems design, construction and implementation as major stages that are facilitated with a range of techniques from process modelling to data modelling to object-oriented modelling (Constantine and Yourdon 1979; DeMarco 1979; Martin and Finkelstein 1981). The critical importance of the user and their interaction with the computer system has been recognised and great effort has been expended to ensure the experience is engaging and productive. This area, known as human computer interaction (HCI), has long held its basic goal is to improve the interaction between users and computer systems by making systems more usable and amenable to the users' needs.

The fields of ISD and HCI are taught to students with the aid of popular texts on virtually every IS/IT college programme with a universal supposition that a central objective of systems development is to improve usability and deliver a satisfying user experience. An

examination of widely used texts on the principles of Web design (Nielsen 1999; Rogers, Sharp and Preece 2002; Sklar 2006) supports the hypothesis that IS professionals adopt a benign and moral posture in designing and developing IS. No advice or guidance was discovered that there exist design strategies or instructions that set out to inhibit customer response or impede interaction. The authors would argue that amongst some practitioners, the supposition that they adopt a considerate and user-centred approach is no longer a central tenant.

HOW MARKETING SHOULD BE IMPLEMENTED

As a means to achieving organisational success, marketing's central premise is to satisfy customer needs and wants more effectively and efficiently than the competition (Boone and Kurtz 2004; Brassington and Pettit 2006; Kotler and Armstrong 2007; Jobber 2007). This marketing management philosophy clearly distinguishes between those firms which merely have forms of marketing, such as the presence of a marketing or customer service department, from those firms which are market-focused and customer-driven in implementing their strategies. Firms successfully employing this management approach pursue a delicate balance between satisfying customers' needs by creating more value, while simultaneously achieving organisational objectives by accruing profits.

An effective interaction between a buyer and seller may result in a satisfied customer, but to retain customers over the long-term means managing customer relationships consistently. In today's technology rich environment, marketers facilitate their individual interactions with customers through customer relationship management (CRM) systems. CRM is the systematic combination of people, process and technology and enables firms to find, acquire and retain customers. Finding and acquiring customers cost firms money, but retaining existing customers is substantially more profitable than seeking new customers for new

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transactions (Keaveney 1995). CRM is meant to facilitate the full spectrum of customer interactions, including complaints and concerns. Marketers view customer complaints as opportunities for service recovery that can turn angry, disgruntled customers into loyal, vocal advocates for the firm. Indeed, good service recovery typically translates into higher sales than if all had gone well in the first place (Smith, Bolton and Wagner 1999). As many firms handle customer complaints poorly, those firms that succeed in offering excellent service recovery may secure an unrivalled source of competitive advantage.

POOR PRACTICE AMONG LCCS

LCCs offer value to customers through their low fares, and achieve profits by calibrating costs carefully to achieve attractive margins. A number of LCCs would appear to use their information systems in a conflicting manner when managing customer interactions. The Websites for these LCCs smoothly engage and facilitate customers through the self-service process to purchase tickets and ancillary products, such as insurance, accommodation and car rental. However, consumer groups, government agencies, regulators, the press and most importantly consumers, increasingly complain LCCs are remiss in certain practices, as their Websites are 'gummy', awkward and sluggish in facilitating customer concerns and complaints. The websites do not readily display contact details, such as telephone numbers, e-mail addresses to register concerns and complaints. Customers are given only an address and, on occasion, a fax number, which delay the customers' opportunity for a timely response. A central question needs to be put forward: is this gumminess is an intentional design feature? If it is intentional, this gumminess is contrary to the ethos of designing a 'good system' to facilitate the full spectrum of customer service.

EXPLORATORY STUDY REVIEWING 'GUMMY' PRACTICES

Heuristic Evaluation and Task Analysis

An exploratory study was conducted to evaluate the usability and functional design of six LCC Websites: Aer Arann, Aer Lingus, bmibaby, easyJet, Jet2.com and Ryanair. Four of these carriers operate out of the Republic of Ireland and two out of Northern Ireland. The methodology was based on heuristic evaluation, which is well established within the HCI field. It is a usability inspection technique that systematically assesses a user interface design for usability (Nielsen 1999). Heuristic evaluation is guided by usability principles (i.e. heuristics) that examine if interface elements conform in practice to those principles. The technique is adjusted for evaluating Websites (Sharp, Rogers and Preece 2007). The heuristics were customized for identifying usability issues for the low-cost airline industry based partly on Nielsen's set and the authors' knowledge of relevant issues, as well as ethical problems emerging from the sector (Alter 2003; Clark 2006; ECC Network 2006). The analysis, however, goes beyond the assessment of the 'goodness' or otherwise of usability and makes judgements on the concordance of Website features with broader expectations of IS design and marketing principles. The heuristics developed are shown in Table 1 in the Appendix. Given the heuristics, a number of tasks were established (see Table 2 in the Appendix) to gauge the effectiveness of each of the LCC Websites. These tasks are commonly conducted activities that users would be expected to use as part of an online, self-service Website. They are representative pre-sale, sale and post-sale activities.

WEBSITE EVALUATION

Quotes, Bookings and Referrals

Destinations

A principal task a LCC Website needs to facilitate is getting a quote for a specified flight and leading the user through to sales completion. Where the user begins the process of identifying the destinations the carrier serves, all of the LCCs afford advanced design features such as 'hub and spoke' route maps that superbly assist users in visualizing what would otherwise be complex flat information. What is also interesting is that each airline made it easy to find the map and used consistent language; the button was called either 'Where We Fly' or 'Destinations'. Figure 1 illustrates the similarity of this feature in each LCC's Website.
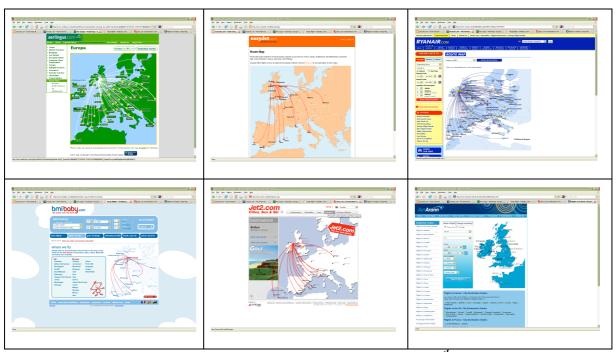

Figure 1: Hub and Spoke Route Maps (accessed 13th July 2007)

Pricing Flights

Pricing is achieved by using the booking systems of all airlines, rather than a separate quote facility. For this purpose, the LCC Websites afford a high level of usability, assisting the user to complete the task quickly and effectively. There are many design features that accelerate the process, from giving users available flights around the preferred date retaining user dates and details during an interaction. As an example, Aer Lingus even allow the consumer to select departure and return flights for specific dates, where a screen is presented for which the priced flight is, in fact, the cheapest of a selection of other flights.

A distinctly useful feature on Jet2.com is a 'low fare finder' that allows a customer with flexible dates to play with all available flights for a month at a glance. The flights, all priced, can be seen for both flight segments on one screen. This feature (see Figure 2) contrasts markedly with other carriers, which make it difficult to find the cheapest combination of flights for customers who have date flexibility.

Figure 2: Jet2.com's Low Fare Finder (accessed 13th July 2007)

Handling Fees, Taxes and Charges

The main difference between getting a quote and booking the flight is the imposition 'handling' charges and negotiating a series of opt-in and opt-out services. These handling fees, taxes and charges are for the most part unavoidable and inconsistently levied by the LCCs. Hence, there is significant uncertainty as to what constitutes a 'final price' due to baggage fees, taxes, and a plethora of 'services' for which extra charges are levied. All airlines quote a price that suggests it is either 'Final' or 'Total' whereas, in fact, it is neither. Consequently, these design features with respect to pricing adversely affect usability and trust. Some airlines are more transparent than others; bmibaby is the only airline that claims to include taxes and charges, but they appear high and are not broken down and explained to the user during the booking process. However, despite repeating the claim on six consecutive screens that "all prices now include taxes, fees and charges", at the final screen a charge of €5 for credit card payment is applied (see Figures 3(a) and 3(b)).
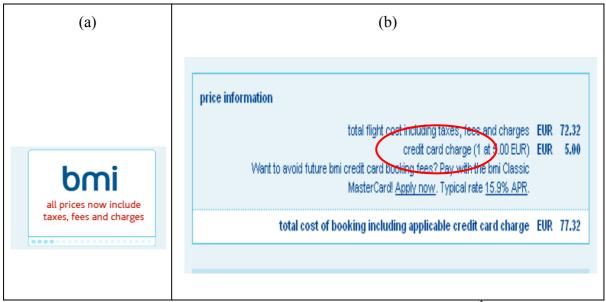

Figure 3(a) and (b): bmibaby's Taxes and Charges (accessed 13th July 2007)

The taxes and charges that each airline applies subsequent to the first quoted price, except for bmibaby, are all substantial and generally unavoidable. Most LCCs (Aer Lingus, Aer Arann, easyJet and Jet2.com) do not break down the cost during the quote or booking process. As an illustration Figure 4(a) reveals that Jet2.com can turn an €88 return flight into €137.50, a 56% increase without any effort to inform customers how this happened. But it does not end here; choosing one piece of hand luggage costs €8 per segment bringing the "Total Payment amount, inclusive of card handling fee" to €153.50.

(a)

Pricing	
Outbound flight	**per adult/child**
Fare	€ 44.00
Charges	€ 21.00
Total	**€ 65.00**
Return flight	**per adult/child**
Fare	€ 44.00
Charges	€ 28.50
Total	**€ 72.50**
Total per adult/child	**€ 137.50**
Total for 1 passenger	**€ 137.50**

(b)

The page at https://booking2.jet2.com says:

Total Charge is EUR 153.50.
- Please accept additional charges per passenger per sector.
- Total CC_VISA EUR 6.00

OK

Figure 4(a) and (b): Jet2.com's Taxes and Charges (accessed 13th July 2007)

However, once again this price is wholly misleading because it is not either a total charge, nor is it inclusive of a card handling fee. On selecting a credit card from a drop down box it

emerges that it costs €3 for each segment for each passenger. The alert box that appears (in Figure 4(b)) plays further with the currency of language by calling the charge 'total' and then informing the user the credit card charge is also 'total'. This additional charge brings the actual real final charge to €159.50, or at least it would appear so, since the authors did not commit their cards in service to their research.

To their credit, Ryanair does provide some degree of explanation of their charges. However, it is accessed via a 'details' link that reveals a pop-up alert box displaying a partial explanation of charges as a graphics image rather than text, illustrated in Figures 5(a) and 5(b). This last point is quite troubling; the design feature means a customer cannot print or even highlight and copy the charges. In practice, if one wishes to examine such charges one can read them when the box is open and then write the charges down on paper. Can this feature be anything other than deliberate?
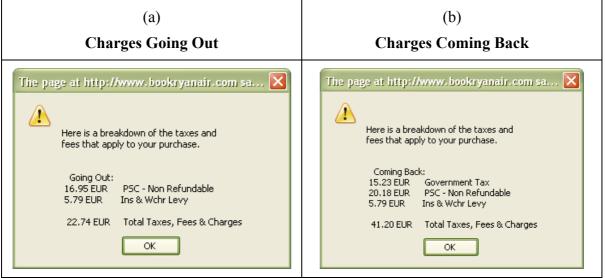
(a)	(b)
Charges Going Out	**Charges Coming Back**

Figure 5(a) and (b): Ryanair's Taxes and Charges (accessed 13th July 2007)

It is also worth noting the charges going out and coming back are, in this case, significantly different for each segment and little effort is made to explain the differential. To reveal, as far as is possible, what these charges are composed of it is necessary to burrow deep into the

Website. The strangest charge is the 'Passenger Service Charge/Airport Tax' denoted 'PSC' in Figure 5, which is "a charge made by the airport authority to an airline for the use of the terminal, runway, emergency services, security facilities etc." One would wonder how fair it is to publish prices for flights that do not include the use of an airport terminal.

Similar to Ryanair, Aer Arann uses pop-up alert boxes to display different fare types denoted as 'E', 'K', 'O', 'V', 'W' and so on. Figure 6 demonstrates the incomprehensible nature of these fare types. The crammed information cannot be printed, copied or stored, and disappears when a user wants to check a different fare type. Spotting the differences between the various fares is not for the poor sighted or those lacking in short-term memory. Indeed, in one interaction it was discovered the conditions for E, S, T, V and W fares were exactly the same. Such a scenario makes it difficult to square the phenomenon with one condition found to be common to all fares: "changes allowed in the same fare class". The logic of Aer Arann for designing such a wholly confusing mechanism for communicating the fare conditions to users is difficult to understand. The evaluation found no explanation on the Website of what differentiates these fare types. Such lack of clarity in design camouflages the real nature of the flight for users.
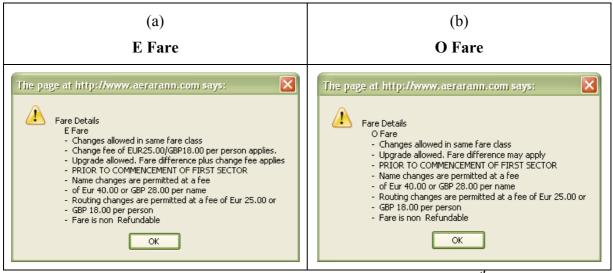
(a) **E Fare**	(b) **O Fare**

Figure 6(a) and (b) Ryanair's Taxes and Charges (accessed 13ᵗʰ July 2007)

Opt-in and Opt-out Fee-Based Services

Another gummy feature is the series of fee-based services which customers must negotiate throughout the website. Typically, the onus is placed on customers to opt-out of fee-based services. Most airlines are guilty of using this feature, which is well-known among commercial Websites, and is by no means exclusive to the LCC industry. To illustrate:

- Aer Lingus, easyJet and Ryanair make users opt-out of travel insurance.
- Jet2.com force customers to opt-out of a €16 charge for one checked-in bag.
- Aer Lingus force one to opt-out of receipt of "occasional emails about our services…"

The feature that violates the most heuristics during the analysis was the process of trying to choose the number of bags with Ryanair and whether the user wished them checked-in online or not. When the user enters passenger details, the number of bags is chosen from the drop down box, which quite clearly advises that should a user select '0' bags, they are automatically choosing 'Online Check-in/Priority Boarding' (see the circle in Figure 7(a)). Thus, it would appear a charge is unavoidable even if one is travelling with only hand luggage. This feature is not just misleading or vague; it is an intentional design feature to propel users into paid-for Online Check-in. Once a bag-less user has pondered their options, they will find there is no way to progress unless '0 Bags - Online Check-in/Priority Boarding' is selected. What happens next is quite remarkable, text instantaneously appears beneath the drop down box that allows the user to 'Remove' the choice the system has led them to select (see the smaller circle in Figure 7(b) and the text below).

> "You have selected our Online Check-In/Priority Boarding service, passengers who qualify for this service can avoid check-in queues and be priority boarded onto the aircraft. Don't forget to check-in online from 2 days up to 4 hours prior to the scheduled flight departure time. Click to Remove this service and just travel with 0 bags."

However, the user would need to be quick-sighted to catch the manoeuvre since it happens so swiftly and the 'remove' option is embedded deep within the text so the unwary customer could easily miss the presentation of an opt-out priority boarding service.
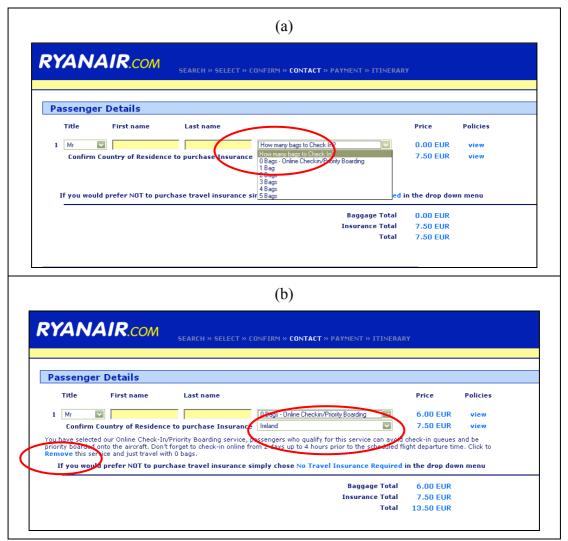
Figure 7(a) and (b): Ryanair's Gummy Baggage Selection Process
(accessed 13th July 2007)

Timed Out Sessions

Another notable feature that limits the 'completion of tasks' heuristic is Aer Lingus' timing out of a user's session after a few minutes (see Figure 8). Sessions time out whether one is casually browsing the site or one has paused during the booking process, thus losing all flight details. The explanation for a timed out session is odd by suggesting one might have "tried to use an invalid bookmark from a previous visit". Timing out "after a certain period as a security precaution" has some merit, but users are unnecessarily inconvenienced by this feature.

Figure 8: Aer Lingus' Timing Out Screen (accessed 13th July 2007)

Pressure Towards Increased Price Transparency

Hidden costs and the exclusion of charges that are unavoidable is becoming an increasingly contentious issue that has attracted the attention of several bodies. The Office of Fair Trading (OFT) in the UK has threatened to take legal action against airlines including easyJet, Ryanair and Thomas Cook, to stop the LCCs quoting fares without including extras such as taxes. The OFT argue extras and surcharges can significantly change the price of travel for consumers and therefore they could be making the wrong choices. The BBC found the OFT deadline for compliance of mid-summer 2007 was not being met by several low-cost carriers who were still quoting flight prices net of non-optional charges. In response to extra charges in Ireland, the Consumers' Association of Ireland has said airlines should be forced to quote fares on an all-inclusive basis. Similarly, the European Commission has proposed fares should be more transparent and should include all extra charges so passengers are informed up front of the full flight price.

Despite such attention, in what would appear to be an escalation of the movement of flight prices into opaque or hidden charges, there have been many recent changes by LCCs. These changes include: the introduction of baggage charges; hefty excess baggage charges; non-transferable baggage allowances; upgrade charges; online check-in charges; seat selection charges (one airline, Are Lingus, even charges up to €30 per segment for increased leg room);

and priority boarding. These changes may help explain why the cost of flying seems to be rocketing in Ireland. The consumer price index for May 2007, which uses the final fare price rather than the quoted price, noted a 37% increase in the past year.

Overall, the gumminess in the LCCs' reservation process leads to ambiguity and a lack of clarity for users. The booking process is now clustered with disaggregated products that users need to re-assemble themselves to construct a flight of infinite variety and all predicated on the user, by obligation, spending time and money doing so.

Finding Cheap Flights

In the past, many consumers have found some advertised cheap fare to be 'elusive' (Whitehouse 2001). This evaluation discovered that generally advertised 'cheap' flights can be found. However, the process may involve considerable time as well as some trial and error. Most LCCs have headline offers with the usual charges added on. Of the LCCs evaluated, easyJet's Website is the most straightforward and transparent. Prices are quoted as return flights per person with all taxes included except for final card charges. Generally, easyJet's Website has internal consistency, is welcoming and easy to use. Moreover, most features in its Website work in the manner they appear to suggest.

'About Us'

For many of the airline Websites, the 'About Us' link was easy to find, as it was usually located at the top of the homepage as a tab on a prominent navigation bar, or at the bottom of the page. As expected, 'About Us' offered a variety of information ranging from the airline's mission, its history and fleet, milestones in its operations, opportunities for employment and recruitment, its partnerships with other organizations (e.g. airlines, tourism boards, car rental agencies, hoteliers and media partners), to newsworthy information on the airline's activities, such as business awards and charitable efforts. In the case of bmibaby, the 'About Us' information was found under the link 'Corporate', which may not be as immediately intuitive

to users looking for information about the airline. In the case of Aer Lingus, the 'About Us' link led to the firm's contact details, while other company information was found in a menu located on the left of the page.

'Contact Us', Compliments and Complaints

Locating information to contact the airline, was relatively easy in some Websites, but could be highly problematic in others. In a couple of Websites, the 'Contact Us' information could be found through links on the navigation bar, as well as within the site map. For example, in the Aer Lingus Website contact information is found through the 'About Us' and 'Need Help' links at the top of the homepage's navigational bar, as well as the site map. The contact details for Aer Lingus' reservation desks and pre-flight help desks are organised by country and include phone numbers, opening hours, and in some cases include fax numbers, postal addresses and email addresses. However, if consumers want to compliment or complain about an Aer Lingus flight (i.e. post-flight assistance), they are asked to write (see Figure 9) to the nearest Aer Lingus office and to include a copy of their ticket or boarding card. No telephone numbers or email addresses are provided for post-flight assistance.

Figure 9: Aer Lingus' Customer Relation Contact Details (accessed 13th July 2007)

Jet2.com and bmibaby follow the same policy as Aer Lingus when it comes to pre-flight assistance, which are sales-related inquiries and post-flight assistance, which relates to complaints.

Among the six airlines reviewed, Aer Arann provided the most complete contact information (see Figure 10). Not only were there full contact details for the head office in Dublin airport, but also contact information for Aer Arann's reservations desks across Europe, where in each instance, an address, phone number, fax number and email address was included. Moreover, Aer Arann uniquely facilitated post-flight assistance by offering email addresses for feedback, customer relations and refund queries.
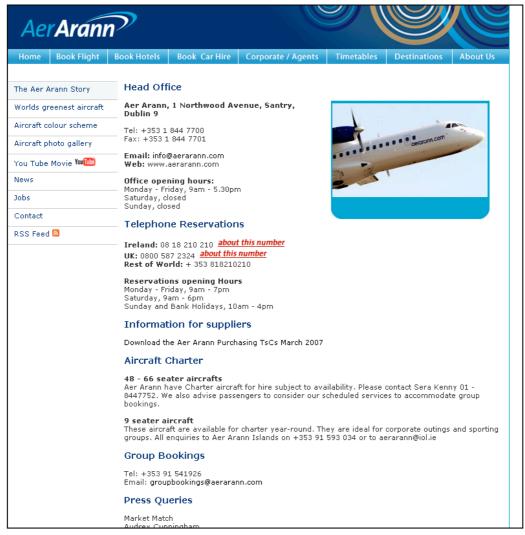

Figure 10: Aer Arann's Contact Details (accessed 13th July 2007)

With easyJet, although the 'Contact Us' link was easy to find at the top of the homepage, it led to a list of FAQs with a search option. Thus, in searching for contact details consumers are directed to a list of premium-rated telephone numbers for Web support, customer services as well as sales and changes to existing bookings (see Figure 11). As well, national premium telephone numbers are given for other countries. It was not possible to contact the airline by email or fax, but a postal address is given for easyJet's headquarters in Luton Airport.
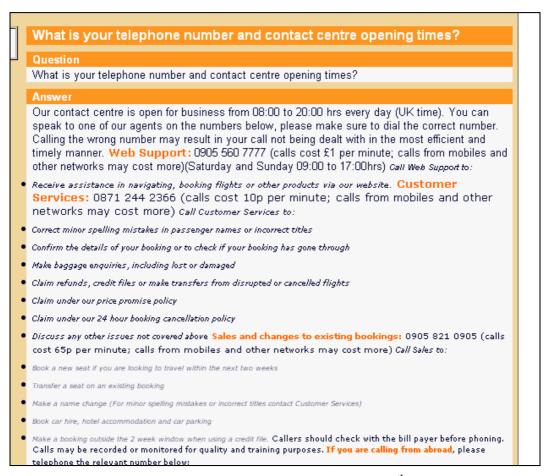

Figure 11: easyJet's Contact Details (accessed 13th July 2007)

Ryanair proved to be the most challenging in locating the 'Contact Us' link, as there is no such link on the home page. The most direct way to find contact information is through the site map, where 'Contact Us' is listed under 'About Us'. Indeed, if a consumer clicks on the 'About Us' link on the homepage's navigational bar, the main horizontal navigational bar changes to include 'Contact Us'. The page cites 'Reservation Contact Numbers', but on the

left panel another 'Contact Us' link appears. When this link is selected a user finally gets 'real' contact details via 'Contacting Customer Service', which is nestled in between 'Contact for Disability Requirements' and 'How do I register with Ryanair for special offers?'. There is no order or apparent logic to this design and it makes no sense if one wishes users to find contact details; it is either exceptionally poor design or deliberately gummy. The heuristic that Websites should be designed so they are shallow rather than deep (Larson and Czerwinski 1998; Shneiderman and Plaisant 2004) is clearly violated in this instance.

Similar to easyJet, the Ryanair Website provides a list of FAQ links. Thus, for pre-flight assistance consumers may find the relevant information through the 'Reservation Contact Numbers' and the 'Internet Support' links, which list premium telephone numbers by country. For 'Contacting Customer Service', the link directs users to a series of postal addresses according to the nature of the issue, such as complaints, EU 261 cancellations and delay complaints, refunds for cancelled flights and baggage claims. Complaints are to be written in English and provide full flight details (e.g. dates and routes) and passenger names. A key word search on the Website for customer service returns another link for 'How can I contact Ryanair' where a fax number is given for post-flight assistance. Again, faxed letters should be written in English and full flight and passenger details provided.

According to 'Ryanair's Passenger Service and Lowest Fares Charter', the airline will respond to written complaints within seven days from the date of its receipt. It is interesting to note Ryanair will respond to these written complaints to the email address provided at the time of reservation, however, their manner of response is not outlined in their charter, and is given elsewhere on the Website under 'Contacting Customer Service' (see Figure 12).

Figure 12: Ryanair's Contact Details (accessed 13th July 2007)

It is baffling that Ryanair can respond to complaints by email, but it cannot receive complaints by email. Additionally, a key word search for either 'customer charter' or 'passenger charter' does not elicit any results. The charter exists, but is not easily found; it can be located under 'About Us', where in the left hand panel there is a link to the 'Passenger Charter' (see Figure 13).
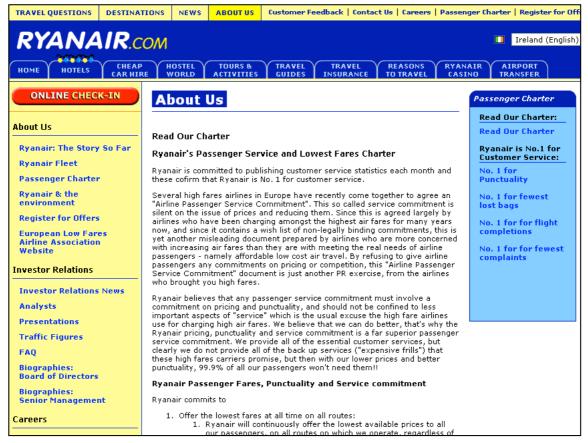
Figure 13: Ryanair's Passenger Charter (accessed 13th July 2007)

Although, it is common sense that making Websites gummy when consumers have complaints or concerns will increase the level of customer dissatisfaction, most LCCs are prepared to take such risks. While Ryanair claims on its Website to have the fewest complaints in the industry, a 2006 study by the European Consumer Centre Network (ECC Network 2006), found Ryanair was the subject of a five-fold increase in complaints over the last two years. Ryanair does not readily facilitate customer complaints; indeed, it is extremely difficult to complain.

Changes to Bookings

Most of the LCCs have a facility to 'Manage Booking' or 'Change Booking', where dates and destinations may be changed. During the booking process many LCC Websites highlight that passenger names must be the same as they appear on passports. Name changes on tickets are a pre-flight form of assistance, where users are directed to contact sales desks, which are often

premium telephone numbers. Although the per minute charges for these premium telephone lines are typically given, it is more difficult to find out the charge incurred for changing a name on a ticket. In the case of some airlines (e.g. Aer Arann and bmibaby), at the time of booking the user is notified that name changes are possible for €40 per person. On the easyJet and Jet2.com Websites, the FAQ link provides users with information on how to change a name and the associated cost; however, easyJet is the only LCC that allows name changes online, provided the user is a registered member. With all LCCs, changing a misspelled passenger name is the same as changing a passenger name, so there was virtually no flexibility in accommodating such minor errors.

DISCUSSION

For LCCs, it appears many non-sales related activities are simply removed or distanced from the operations of the organization. This deconstructed, 'no-frills' business model is reflected in the design of the supporting IS. That the IS should reflect the business model is precisely how a 'good' IS should be designed. LCC self-service Websites are thus primarily aimed at capturing revenues and appear highly effective, as they focus on sales completion and minimizing effort on the part of the customer. However, there remains a gap between the functionality one would expect to find in sophisticated, Web-based IS and what they actually offer. Similarly, some of the features are unorthodox in their design. The differential cannot be explained by Ogburn's cultural lag thesis which proposes that material culture generally advances more rapidly than nonmaterial culture. Thus, physical and operational systems first appear while ethics, philosophy and belief systems surface much later (Marshall 1999). Certain questions arise from this analysis.

How is one to interpret these design strategies? They are not accidental; the clear focus on assisting users in closing sales contrasts radically with strangely ineffective, poorly accessible or completely missing functionality. It is evident that some firms are quite deliberately using

Web technologies to design out features one might expect in 'traditional' information systems and to obfuscate or complicate others. To cite the most obvious examples: why do LCC firms not use email or web forms to facilitate customer communications; why is it so difficult to quickly find contact details; and why are the structures of additional charges so fragmented?

What is it about self-service Websites that lend themselves to this type of customer service? Such Websites have certain unique characteristics that are different to bricks and mortar operations. The channel is indirect and certain features can be designed in (or out) in a way that would not be tolerated with face-to-face or telephone-based models. It is possible to de-market the business model far more effectively when direct contact is avoided. Self-service Websites also devolve tasks to customers, delegating responsibility for accurate data entry and the initiation and cost of remedial procedures when things go wrong.

Are LCC customers inured to the gumminess of LCCs? Can it be that LCCs have succeeded in convincing customers that they must expect some level of pain and suffering in exchange for cheap flights. Do users believe that somewhere along the road to their reservation destination they are going to get mugged? If users are expectant of little customer service, a lack of transparency, hidden costs, hard work and effort, and intense wariness when interacting, then LCCs have achieved a remarkable relationship with their customers – all of it enabled without the exchange of conversation.

Is the Web any less ethical than business practices elsewhere? Probably not, the practices outlined here are not illegal or, apparently, subject to regulatory sanction. Corporate codes of ethics have been widely adopted in ways that range from moderating business practices to guaranteeing the principles of fair trade in the supply chain. However, new Web technologies allow firms to develop obstacles and barriers that a bricks and mortar model would not facilitate.

Are ethics of IS and marketing professionals of any relevance? In a highly competitive industry that thrives on a low-cost strategy, simplicity and limited functionality are natural consequences for the design of IS. However, some IS/IT practitioners must be acutely aware that they are guilty of, at the very least, sins of omission in IS design practice. Furthermore, it is without evidence of disparity reasonable to assume there is a congruence of values between managers, marketers and IS practitioners. While there are well-established, if dissimilar, professional codes of ethics in the IS/IT field (Oz 1993), the notion of emancipatory ideals (Hirschheim and Klein 1994), once feted in the IS literature, finding a role in the design of low-cost airline Websites appears to have found little resonance in this area of practice.

CONCLUSION AND FURTHER RESEARCH

There are a number of implications of this study. While many business ethics issues are not manifestly new in Web-based IS, it is "becoming apparent that the ethical dimensions of IS-related business decisions cannot be safely ignored" (Smith and Hasnas 1999: 111). It is necessary to renew the articulation of ethics in view of the capacity of new technologies to affect dubious practice. Perhaps ethical guidelines and frameworks in IS design; corporate codes of ethics; professional IS/IT and marketing codes of ethics; and ethics in the IS and marketing curricula, also need to be re-visited.

There is assumed ethicality in how IS are designed and how marketing practice is conducted; such assumptions need to be challenged. Writers have advised practitioners and teachers to be worried if there is a 'complete absence' of contact information (Kassler 2002). This concern is largely focussed on the potential for deceit and fraud. It is not normally directed at 'reputable' firms who, obscure contact details to reduce interaction and dialogue. This oversight too demands some revision in how information systems and marketing are taught. Do teachers make students aware of gummy practices or should they demonstrate how they can be achieved to match the demands of business practice?

Social responsibility in corporate governance has become an imperative for many firms. Do LCCs using self-service delivery demand different standards because they are low-cost? Is there a layer of insulation that such operators enjoy because, to many non-technical observers, the nuances of intentional design practices remain unclear? The lowering of customer expectations that de-marketing has brought about have lowered the threshold of systems design. Is this benchmark acceptable? While all of these questions involve a much broader social discourse, it is timely to debate them.

APPENDIX

Table 1: Evaluation Heuristics

Heuristic	Description
Aesthetic and minimalist design	• *The Website should not contain unnecessary or rarely needed clutter.*
Navigation design	• *The means by which users navigate their way around the information structure should be clear.*
Internal consistency	• *Users should not have to ponder whether different terms or actions have the same meaning.* • *The language should be that of the user where possible and information should appear in a natural and logical order.*
Depth of navigation menu	• *The Website should be designed so that it is shallow rather than deep.*
Completion of tasks	• *The system should be designed so that users are able to efficiently and effectively complete a task to their expectations.* • *There are features that accelerate functionality for expert users but remain flexible enough for novice user.*
Clarity of feature functionality	• *A feature should fulfill the function implied by the dialog.* • *Dialog should be simple with no irrelevant or unnecessary information.*
Minimizing the user's memory load	• *The interface should not require users to remember information between one part of the system and the next.*
Help users recognize, diagnose and recover from errors or unintended actions	• *The system should be carefully designed so that it prevents a problem from ever happening rather than relying on good error or warning messages.*

Table 2: Analysis Tasks

Quotes Bookings and Referrals • Get a quote for a specified flight. • Book a specified flight. • Find an advertised 'cheap' flight.
'About Us' • Find and establish the nature of the firms 'About Us' details.
'Contact Us', Compliments, Complaints and Changes • Find and establish the nature of the firms 'Contact Us' details. • Find and establish the nature of the firms 'Customer Feedback' details. • Complain to the LCC about a negative experience you had with hygiene on a recent flight. • Change a misspelled passenger name.

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