An approach to developing a Web site for SME.

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An Approach to Developing a Web site for SME

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Abstract

Web site design and implementation is very often seen within companies and businesses as a 'technical task' whose realisation can improve their business operations dramatically and swiftly. At the same time they do not consider any additional investment or research prior to the design and implementation of their Web site. Using a case study of a small to medium sized enterprise (SME) and its local operativity in a Gatwick (Crawley) in West Sussex, UK, we describe our approach to developing a Web site based on extensive surveys, which helped us to reveal the feasibility, purpose and operability of the company's Web site design.

1. Introduction

This work has resulted from the author's industrial placement in *Aviation Aircraft Services (AAS)*, a SME that relies on major contracts from British Airways for cutlery, blanket and linen packaging, having headquarters in Gatwick (Crawley), West Sussex, UK. The company required a Web site in order to utilise its everyday business operations and was willing to co-operate in any aspect of Web site design and implementation. There have been many sources that could have helped us in any phase of our work and enhanced our Web site design [1-9]. However, it was decided to use our own approach in order to mirror the specific *local* business environment of a couple of big airline names such as British Airways and Virgin Atlantic operating in Gatwick (Crawley) area with the vital support of local/small business including AAS.

This paper describes our approach and the procedure undertaken, whose main role was to decide upon the purpose, content and role of the required Web site in a particular business environment. The work was divided into four stages:
(1)   We looked at as many businesses in the area as possible and asked them questions regarding the content, purpose and expectations of their Web sites. This gave us an insight into how many businesses are presently on-line, and what the nature of their Web sites is.
(2)   We also looked at businesses without Web sites and asked them about their views on what they would expect from their on-line presence and what they should consider to be the most important element within the site.
(3)   We collected the requirements from AAS through interviews and a detailed questionnaire in which they could make their own comments and requirements but also choose from our prepared suggestions/answers.
(4)   We interviewed randomly chosen Internet users in the same area in order to find out what aspects and elements most attract them to any Web site.

In order to carry out (1)-(4) above, we devised 3 questionnaires in Spring 2000, which were sent to companies and individuals. 34 replies were obtained from businesses and 40 from Internet users. Due to the constraint on the length of this paper we choose to show only the results of surveys from (1) and (4) above, which are given in sections 2 and 3. We think that these results will interest our readers because of the following: (i) they had a significant impact on our Web site design decisions and, at the same time, (ii) they illustrated the level and nature of businesses' online presence in the area. We conclude in Section 4 giving our brief comments on our Web site design decisions.

Section 2: Analysing the purpose and content of existing Web sites of businesses in the Gatwick/Crawley area
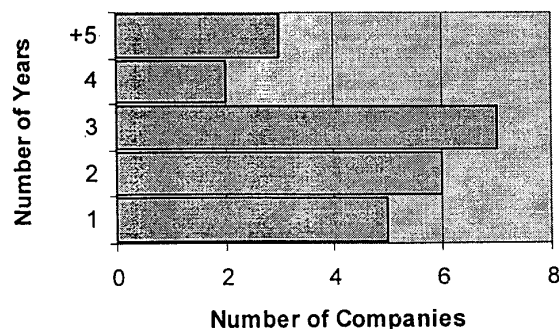
In this section we presents the results of our first survey, which was undertaken in order to find out the following:

  (a) how many businesses rely on their Web site for their business operations and for how long,
  (b) what is the purpose of their Web sites,
  (c) what are company's target viewers
  (d) which components/elements are rated as important within Web sites

This questionnaire was sent to 60 companies and produced a response rate of 53%. Nearly ¾ (71.9%) of the companies that responded had a company Web site, which was surprising. 77.8% of those that did not have a Web site were considering to setting one up in the future. The other 22.2% stated that (a) it was a Head Office decision or that (b) it wasn't necessary for their company to have a Web page. We assume that by the time of publishing this paper the number of companies without Web site, will have significantly decreased. Furthermore, 82.6% of companies with Web sites stated that they "could not survive" without "being online" in terms of carrying on the same business operations as now. 95.7% of the companies who responded to the questionnaire thought that "having a Web page had benefited their company". However, we could not polarise companies whose main motive has been to make money from the Internet in the first place. They could also categorise their Web sites as essential for their survival. Many companies (almost 80%) use their Web sites for internal purpose, which might have been affected by the fact that their employees are their target viewers. In figures 1-4 we represent our specific questions from (a)-(d) above and the companies' answers in graphical format with our brief comments.

(a) How long have companies had a Web site? We wanted to know how long SMEs have relied on their Web sites. Some of them recognised the importance of their Web sites more than 5 years ago, but the majority of them had their Web sites operational around 3 years ago.

Figure 1: How long companies have had their Web page

Number of Companies

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(b) Why do companies have Web sites? Most companies built a Web site to give out information about their company background and products/services that they had to offer. Figure 2 showed how responses vary: Web sites are used least for entertaining the company's viewers and for on-line advertising.

**Figure 2: Why have a Web page?**

Number of Companies
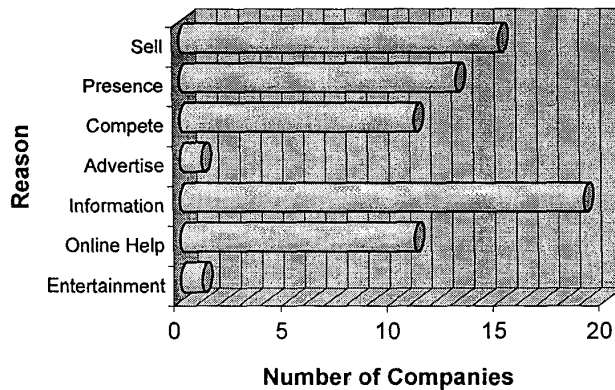
(c) Who are companies' target viewers? It was expected that customers would be the main target viewers: the Web site should be appealing and informative for them. However, it was surprising to see how some other viewers, who could play an important role in the company's business operations were not seriously considered (e.g. competitors); and some categories completely excluded (e.g. viewers with disabilities).

Figure 3: Companies main target Web viewers

Targer Viewers
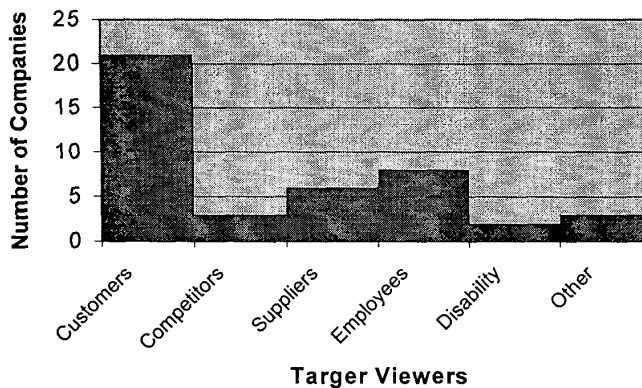
(d) What is the most important element of a Web site? Web site content was rated as the most important, followed by structure and user friendliness, while graphics were found to be the least relevant element: only 5% of companies see graphics as a crucial component.

**Figure 4: Scale of importance**

1=Most Important - 4=Least
Important
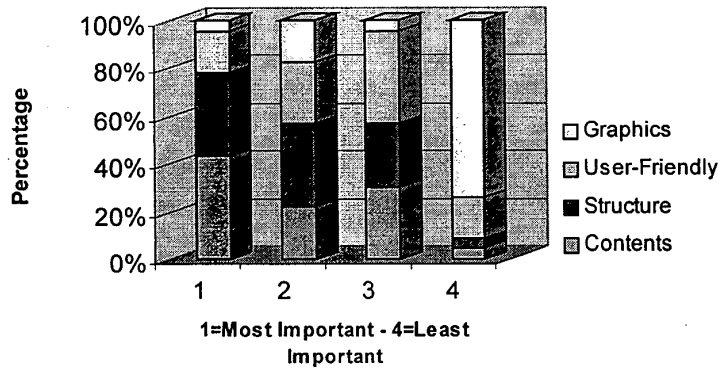
Section 3: Analysing Viewers: What attracts you to a Web page?

The second questionnaire was given to individuals in order to find out what elements they thought were important when using/browsing Web sites, and what primarily attracted them to any Web page. 82.5% of individuals from our sample had regular access to and used the Internet, mainly via work and at home. 11% of ' connected users' used educational resources or another mode of access. We are now really able to connect to the Internet wherever we are. Furthermore 95% of individuals stated that they have benefited from the Internet, leaving only 2 people who did not see any gain from using the Internet. 78.4% of the individuals who did not use the Internet will do so in the next year and 21.6% of them in the next 2 years.

*(a) Why do people use the Internet?* Figure 5 shows that 37.5% of individuals interviewed were using the Internet for *communications* only, followed by (i) 26.6% who would like to do *other* things around the Internet like shopping around, or use the Internet to *help them with their research* (for both work and educational purposes) and (ii) 25% who like to *browse* the Internet.

**Figure 5: Why do people use the Internet?**
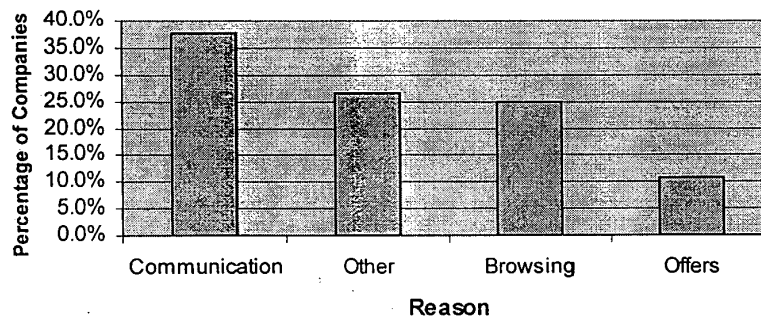
(b) What attracts people to a Web site? Figure 6 shows that the majority of the people interviewed thought that the **content** of a Web site was the element that most attracted them, followed by user friendliness, graphics and structure. Only 10.3% thought that structure was crucial for attracting them to a Web site.

Figure 6: Internet users attraction to Web sites

% of individuals
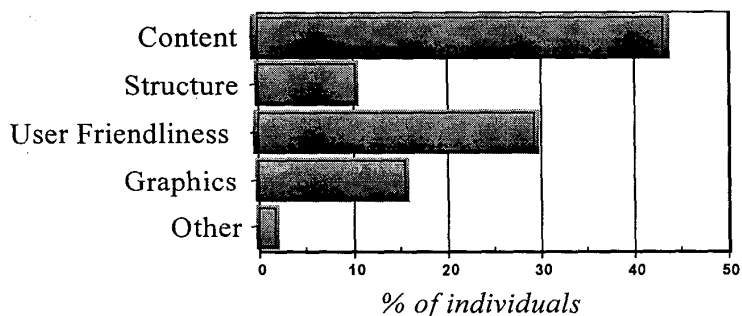
These results are correlated to Figure 4: both companies and Internet users gave the content as the most important feature of a Web page. Graphics again scored very low. This might have been connected to "the time needed to fully view a Web site" given in Figure 7 below. It takes 71% - 80% of the allocated time to fully view 30% of a company's Web site, but we could not precisely measure some other factors such as the amount of graphics on Web sites and the user's skills when browsing the Internet that could have influenced the results. However, we may say: "Viewing a Web site was not slow but *adequate* for someone to wait for the pages to be fully viewed on the screen rather than users being impatient and clicking to another Web site."

Figure 7: Percentage of overall time taken to fully view a Web site

Percentage of Time Taken
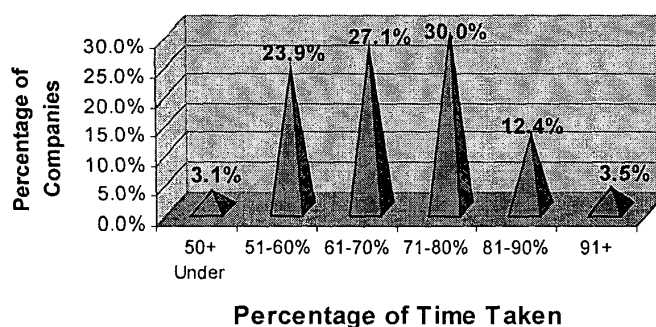
(c) Should all SME have Web sites? The majority (73%) thought that all SME should have their own Web page, no-one thought that they should not have one and around 27% thought that it would depend on the "*company situation*".

Section 4 Conclusions

We have presented our approach to Web site development, *which advocates a detailed survey* of (i) Internet interconnectivity of the relevant business environment, (ii) the role of content, purpose and expectations of its interacting Web sites, including the identification of targeted

viewers and (iii) overall requirements of potential viewers/users important for business operations of a Web site under development. These surveys should be undertaken *prior to* any other activities of a Web site design and implementation. Our survey mirrored a specific *local* business environment and companies' online presence in Gatwick (Crawley), West Sussex where a couple of big airline names such as British Airways and Virgin Atlantic operate and rely on the vital support of local and SME. Our Web site design started with the requirements resulting from all our surveys:

i) all AAS business functions relating to their contractors/suppliers should be on-line;

ii) the core of their Web site should primarily include information on the company background and products/services that they offer, including on-line support of major business operations with suppliers and contractors.

iii) The AAS Web site will target not only their current and potential employees, but also all major contractors interested in their services; hence the Web site should be impressive and functional;

iv) the emphasis will be on the content and structure of the Web site with graphics avoided as much as possible;

After agreeing details derived from i)-iv) above we used authoring techniques and tools from [2] and [10] in order to design the AAS Web site.

Web-pages and Web sites are most definite business tools used by businesses internationally, which are increasing in companies world-wide at the rate of one every two seconds [11]. Our relatively modest survey from section 2 shows that the small business environment in Southeast England has significant on-line presence compared with the British average of 43% of companies being on-line in year 2000 [12]. Do we know what the future holds in this rapidly increasing Internet space?

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