Websites and services branding: implications of Universities’ websites for internal and external communication

G A Moss and R W Gunn

Contact Details

gmoss@glam.ac.uk
University of Glamorgan
Business School
Pontypridd
Wales CF37 1DL
Telephone 01443 483293      Fax 01443 840280
Also Ecole Superieure de Gestion, Paris

rwgunn@glam.ac.uk
University of Glamorgan

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Abstract
Services branding has traditionally relied on importing ideas from the classical goods Brand Management Marketing sector and this has resulted in a paucity of research into factors affecting Services Branding. According to recent research, the source of the values contained in the ‘artefacts’ which contribute to communicating and reinforcing corporate values are best identified internally. At the same time, research shows that ‘consumers will be more drawn to service brands perceived as having values congruent to their own’, whether actual or aspired. Neglected in this is the issue of the plurality of internal stakeholder values as well as a possible conflict between internal and external stakeholder values.

The purpose of the research described here is to consider the compatibility of internal and external stakeholder values in the design of Higher Education websites. The analysis, using an interactionist approach to web aesthetics, reveals that the majority of University pages use a male aesthetic, a mirror of the senior internal stakeholder constituency. The aptness of this for a market of external stakeholders in which women play an increasingly important part is questioned. Practical constraints, in terms of the demographics of the IT profession are also examined.

Keywords: Webdesign, design, sex, gender, interactionist aesthetics, Higher Education Institutes, Services branding

Service Brands and the Internet
Services branding has traditionally relied on importing ideas from the classical goods brand management Marketing sector (Aaker et al, 2000) and this has resulted in a paucity of research into factors affecting services branding (Van Reil et al, 2001). This is not because there is no recognition of the importance of service branding. According to Nguyen and Leblanc (2002), communications have an important role to play in the communication of values and culture to consumers and employees (Wolfinbarger and Gilly, 1991). The dual focus of company communications – looking out as well as looking in – is emphasised in a working paper (de Chernatony et al, 2004a). This holds that whereas marketing and management communications have an external and internal focus respectively, ‘organisational’ communications – defined by them as all communications based within an organisation for example PR and public affairs – has a dual focus, being focused on internal as well as external audiences.
According to recent research, the source of the values contained in the ‘artefacts’ which contribute to communicating and reinforcing corporate values (Schein, 1984), are best modelled on the internal values of an organisation (de Chernatony et al, 2004). At the same time, this latter research shows that ‘consumers will be more drawn to service brands perceived as having values congruent to their own’, whether actual or aspired. A neglected issue concerns the extent to which the values of internal and external stakeholders may be in conflict, and where there are a plurality of values (Cole, 1998), the mechanism for selecting values.

The research described here considers these issues in relation to the communication tool of Higher Education Institution (HEI) websites and the extent to which the design values displayed there should mirror those of the internal or external stakeholders. The HE sector is one in which the most powerful and numerically significant of the internal stakeholders, academic staff, are male but in which a growing majority of external stakeholders, students, are female. It is also one in which commercial pressures on institutions are accelerating, increasing the criticality of differentiation through Services Branding. Further details on these points are provided below.

**Higher Education in the UK**
The majority of academic staff employed full-time in UK Higher Education Institutions (HEIs) are male. The proportions are indicated in Table 1 below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995/96</td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td>1996/97</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>1998/99</td>
<td>31%</td>
<td>69%</td>
</tr>
<tr>
<td>1999/00</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>2000/01</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>2001/02</td>
<td>34%</td>
<td>66%</td>
</tr>
<tr>
<td>2002/03</td>
<td>35%</td>
<td>65%</td>
</tr>
</tbody>
</table>

**Table 1: UK HEIs, full-time academic staff by gender 1995 – 2003 (source HESA online statistics)**

The effect of vertical segregation has been to concentrate women at the lower rungs of the academic ladder, with only 10.1% of professors in the UK in 1998-9 female (University of Cambridge Website, 2005). This pattern is reflected worldwide (Jacobs, 1996).

By contrast, the proportion of female students in the student body is steadily increasing:

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995/96</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>1996/97</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>1998/99</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>1999/00</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>2000/01</td>
<td>53%</td>
<td>47%</td>
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<td>2001/02</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>2002/03</td>
<td>53%</td>
<td>47%</td>
</tr>
</tbody>
</table>

**Table 2: UK HEIs, full-time undergraduate students by gender 1995 – 2003 (source HESA online statistics)**

The increase in the proportion of women at universities is such that over the last decade, more than 70% of the increase in full-time undergraduates in the UK has been female (Berliner, 2004). The part-time disparity is the most striking of all, with nearly two-thirds of students female (Berliner, 2004). These figures shows that men dominate HEIs as academics but that women are increasingly prominent as
consumers of education. As global and local factors alter the funding, remit and accountability of HEIs, leading to a decline in state funding (Deem, 2003), the needs of the customer will take an ever more important place in the reckonings of HEIs.

**Gender in HEIs**

Research findings based on interviews with 28 senior Brand Marketing consultants in the UK suggest that current practice favours modelling the Service Brand around the values of internal stakeholders (de Chernatony et al, 2004b). A question that has not been asked is whether the values modelled on the dominant internal stakeholders in HEIs, men, are likely to differ from the values favoured by the now dominant element in the student body and external stakeholder, women.

Similar questions have been posed about Knowledge in the academe with academic values frequently purveyed as universal and scientific rather than the product of a particular culture, class or gender (Walsh, 1995). According to one commentator, this produces a tendency to want to add in specific gender options rather than aiming to remove gender blindness from all modules (Cole, 1998). The influence of gender on management behaviour and culture, relevant to this inquiry because these may have a bearing on an organisations’ values, have been neglected in educational research (Sandler, 1986; Cockburn, 1991; Jacobs, 1996; Eggins, 1997; Cole’ 1998). The paucity of research on this topic suggests that women think of themselves as managing differently from men (Eggins, 1997) and a recent Government-sponsored study (Deem, 2003) shows that 80% of the women and 46% of the men in the sample of 137 senior manager-academics (at sixteen HEIs representative of the full range of Universities in the UK) consider not only that gender has a bearing on management and personality characteristics but that these factors vary greatly between men and women.

Deem’s study complements an extensive literature attesting to the view that ‘on the whole there is a continuum in which some behaviour is more typical of one gender than the other’ (Vinnicombe and Singh, 2002) leading men and women to ‘manage differently’ (Maddock, 1991; Vinnicombe and Singh, 2002). These views support the notion that traditional leadership is fashioned around masculine concepts (White, 1995) with women behaving more democratically than men, using more interactive skills and placing greater emphasis on interactive leadership (White, 1995), the maintenance of effective working relationships at work (Moore, 2000; Bird and Bush, 2002) and transformational leadership (Rosener, 1990; Bass, Avolio and Atwater, 1996; Alimo-Metcalf and Alimo-Metcalf, 2001; Eagly, Johannesen-Schmidt and van Engen, 2003; Alimo-Metcalf, 2003). The origins for these differences are suggested as lying in the socialisation processes (Vinnicombe and Singh, 2002). One might therefore expect the values of the predominantly male management in HEIs to differ from those of the increasingly female student body.

Resistance to this line of argument comes, inter alia, from those who believe that gender differences have been utilised in the past to reassert inferiority and exclusion (Webb, 1997), thereby maintaining the power of the dominant groups (Liff, 1996). This denial of difference and diversity can result in support for an Equal Opportunities (EO) approach, rooted as it is in an assumption of ontological equality (Miller, 1996) and ‘philosophy of sameness’ (Kirton and Greene, 2000). In an EO
approach, assimilation is often viewed as a one-way process in which minorities are required to adopt the norms and practices of the majority (Nkomo 1991).

It is the perceived limitations of an EO approach, constructed around a single paradigm, that has paved the way to a diversity-centred approach. Critics working within this tradition acknowledge that organizational analyses have ‘occurred through a lens that is primarily white and male’ (Cianci and Romberger, 1997), thereby neglecting an analysis of the extent to which organizational culture is constructed around men’s experiences and interpretations of organizational life, and leading them to, misleadingly, present their findings as universal in application (Alveson and Billing, 1997; Kirton and Greene, 2000). A number of commentators have perceived problematic elements in an approach of this kind (Cole, 1998; Nkomo, 1991; Schneider, 2001; Kirton and Green, 2001), highlighting its failure to recognise the impact of culturally reproduced and socially constructed group membership’ (Kirton and Green, 2001), psychological differences (Alvesson and Billing, 1997) and differences in cognitive maps (Eden, 1989). According to Hammond et al (1991), the failure to consider these factors has left organisational assumptions unquestioned, and culture change imperilled (Cole, 1998).

The backlash against the EO approach has led to the acknowledgement of gender as a critical feature or significant dynamic of organizational behaviour (Acker, 1992; Gherardi, 1996), leading to the move to ‘celebrate[ing] difference [as] a strength, not a weakness’ (White, 1995). This positive approach to diversity is the inspiration for the research reported here.

**Websites and E-commerce**

A University website falls into the category of ‘organisational communications’ (de Chernatony et al (2004a) insofar as it faces, Janus like, both external stakeholders (eg students and perspective students) and internal stakeholders (eg academic staff through the use of online facilities such as the library). The twin focus of the internet places it in a unique position, raising important questions as to whether its values should be those of the internal constituency (de Chernatony et al, 2004b) or whether those of the external constituency, the customers. A measure of Brand success is the extent to which the customer is presented with values congruent to their own (de Chernatony et al, 2004b). A comparison of the web aesthetics of (i) male and female students and (ii) HEI websites will show where the greatest congruence occurs.

The World Wide Web is estimated to double in size roughly every two to three months (Hoffman et al, 1995). With internet web usage growing at a rate of 20% per year (Van Iwaarden et al, 2004), the internet is set to become an increasingly important marketing tool. It is an integral part of the Marketing Mix (Strauss and Frost, 1999) with a ‘powerful’ role to play in product promotion, sales and distribution (Melewar and Smith, 2003). Where promotion and sales is concerned, its effectiveness relative to traditional media channels is estimated to be such that ten times as many units can be sold with one tenth of the advertising budget (Potter, 1994). Further advantages include flexible response, an advantage with shrinking product life cycles (IITA, 1994), and the facilitation of customer retention (Van Iwaarden et al, 2004).
Which values would be important in the design of a website? Relevant factors are likely to relate to content (Joergensen and Blythe, 2003) or form (Schenkman and Jonsson (2000; Lavie, and Tractinsky, 2004). Where the visual element is concerned, graphics is listed as one of ten factors causing dissatisfaction with internet users in the US and Netherlands (van Iwaarden et al, 2004) leading Human Computer Interaction (HCI) specialists to attempt to unravel valued and less valued elements (visual and content) in web design.

There are analogies with traditional retailing where the form and content of store atmospherics has become an established field of research study (Bitner, 1992). The physical form of a product is also important (Bloch, 1995) and instrumental in creating certain effects in buyers (Kotler, 1973-4; Bitner, 1992). Products perceived as pleasurable are thought to be preferred (Yahomoto and Lambert, 1994) and used more often than those not perceived as pleasurable (Jordan, 1998), leading to enhanced purchasing (Groppel, 1993; Donovan et al, 1994).

There is a paucity of research examining web atmospherics (Lavie and Tractinsky, 2004) and such work as there is is anchored in one of four traditions:

i. The tradition of ‘experimental aesthetics’ (Berlyne, 1974). This seeks to identify the isolated elements (or ‘collative variables’) in the evaluated objects that elicit particular reactions. Thus Schenkman and Jonsson (2000) tested the importance of different measures in the experience of a web page, finding a combination of pictures and Beauty to be important constituents in appeal.

ii. The exploratory tradition. This evaluates complete and natural stimuli rather than manipulated and artificial ones (Nasar, 1988a). Thus Schenkman and Jonsson (2000) use 13 commercial web sites as stimuli while Lavie and Tractinsky, (2004) use between one or two websites as stimuli for each of 4 studies.

iii. Kantian tradition of aesthetics. This assumes aesthetic preferences to be universal (Kant, 1792). Given the presumption of universally held values, a number of studies of web aesthetics seek universal rather than segmented values (Schenkman and Jonsson (2000; van der Heijden, 2003; Schenkman and Jonsson (2000; Lavie, and Tractinsky, 2004).

iv. The interactionist position. This considers aesthetic perceptions to be a function of individual perception (Porteous, 1996) rather than universal values leading to the search for segmented values (Miller and Arnold, 2000; Leong, 1997; Flanagin et al, 2003; Oser, 2003). This tradition links with the ‘empathy principle’ according to which aesthetic value does not inhere in objects but is the product of empathy between object, perceiver and artist (Crozier and Greenhalgh, 1992), a notion that corresponds with that of mirroring. Taking a process perspective, it translates into the view that products should be shaped around the ‘unique and particular needs’ of the customer (Hammer, 1995). In the field of branding, it translates into the view that there should be congruence between the brand personality and the consumer’s self-concept since purchases are thought to offer a vehicle for self-expression (Karande et al, 1997; de Chernatony et al, 2004b).

The importance of the mirroring principle places a premium on the interactionist position over the universalist tradition. Unfortunately, the quantitatively rigorous studies of web aesthetics (Schenkman and Jonsson (2000; van der Heijden, 2003; Schenkman and Jonsson (2000; Lavie, and Tractinsky, 2004) have been rooted in the universalist position and have consequently failed to test for an interactionist effect.
By contrast, the studies that have been conducted in the interactionist paradigm (Miller and Arnold, 2000; Leong, 1997; Flanagin et al, 2003; Oser, 2003) have serious methodological flaws.

One of these studies (Miller and Arnold, 2000) claimed that men’s pages were shorter than women’s and that ‘gender differences (...) intrude in cyberspace’ but these claims are undermined by a number of methodological failures (lack of definition of terms, lack of quantification of results, an ‘opportunistic and haphazard’ (author’s words) sample of pages, lack of information on the number of sites consulted and rating methods used).

The absence of a robust methodology has, similarly, reduced the value of three other studies. Leong (1997) emphasises the importance to women of ease of navigation, but her evidence is anecdotal; Flanagin et al (2003) draw attention to the fact that opposite-sex credibility evaluations are higher than same-sex credibility evaluations but base their conclusion on reactions to two websites, a sample too small to offer validity, and moreover created by men. Finally Oser (2003) provides echoes of Leong in emphasising women’s preference for ease of navigation, but her evidence, like Leong’s, is anecdotal.

The importance of gender as a marketing segmentation variable

The absence of credible interactionist research to web aesthetics is the driver to the research reported in this paper. Traditionally, the groupings receiving most attention in interactionist studies have been social class and age, while gender (Hirschman 1983; Kwon and Zmud 1987; Truman and Baroudi 1994) has been sidelined throughout the 1980s and 1990s and recent years. According to a recent study (Wilson 2004), the role of gender and ICT is still ‘largely under-theorised’ with a ‘paucity of treatment of gender issues’, on account, arguably, of the belief that ‘technology is gender neutral’ (ibid), a belief reinforced in a recent study of the interaction of gender and e-commerce (Dholakia et al. 2002).

The paucity of studies examining the impact of gender is concerning. Several commentators rate within-culture dimensions like gender as more important in terms of online usage than between-culture dimensions (Brousseau 2003, and Shiu and Dawson 2004) and moreover hold the desires and values of women to be increasingly important drivers in the political and business worlds (Peters 1996; Leyden and Schwartz 1998; Bennett 1998; Mitchell and Walsh 2004). More particularly, as the proportion of female internet users reaches parity in the US (Jupiter, 2002) and near parity in the UK (ibid), the absence of research focused on gender has led to calls for more research into “gender effects on IT perceptions and outcomes” (Taylor 2004).

Earlier research by the two authors (Moss, Gunn and Heller, in press) constituted a detailed attempt to compare the male and female-web design production aesthetic. produced student websites. It did this by rating 30 male and 30 female-produced UK student websites on 24 characteristics, and finding evidence of statistically significant differences on 12 of these characteristics. One of these characteristics concerned navigation issues, with women’s websites statistically more likely than the men’s to contain links to fewer sites. A further characteristic concerned language, with women’s websites showing a statistically greater tendency than the males to employ abbreviations (significant at the p < 0.005 level), self-denigration (significant at the p
< 0.0001 level), non-expert (significant at the p < 0.0001 level) and informal language (significant at the p < 0.005 level). A final set of characteristics concerned visual elements, with the female websites significantly more likely than the male ones, statistically, to use rounded rather than straight shapes (at the p < 0.05 level), to avoid a horizontal layout (at the p < 0.0001 level), to use more colours for typography (at the p < 0.0001 level), informal typography (at the p < 0.05 level), and more of certain specific colours - white, yellow, pink and mauve - for typography (p < 0.0001). There are also statistically significant tendencies for the male-produced websites to use crests, and for each gender to depict images of people of their own gender (at the p < 0.01 level). These differences are sufficiently numerous and significant to be suggestive of a masculine/feminine design production aesthetic continuum. Earlier research by one of the authors also showed that male and female graphic and product design preferences were both distinct and in line with masculine and feminine design production aesthetics such that each gender had a statistically significant tendency to prefer designs produced by their own gender (Moss 1999; Moss and Colman 2001).

These results are based on an interactive model of web aesthetics, a model which contrasts with the universalistic model presented in earlier work (Schenkman and Jonsson 2000; Lavie and Tractinsky 2004). It produces evidence of a male and female aesthetic continuum, with men and women selecting elements that are common as well as widely divergent. These findings highlight the limitations of a universalist approach to web aesthetics.

This paper extends an interactionist study of the impact of gender with two studies. The first involves an analysis of the Home pages of 31 randomly selected UK university websites, rating them against the rating characteristics used in the earlier analysis of student-produced websites (Moss, Gunn, Heller, in press) and deriving an index of their dependence on a male or female-production aesthetic. The second records the preferences of male and female students as between seven websites, three displaying the male production aesthetic (and produced by males) and three displaying the female production aesthetic (and produced by females). The seventh site is a commercial e-learning proforma used extensively throughout the world both in the Northern and Southern Hemispheres. As indicated above, earlier research had revealed male and female design preferences to follow male and female production aesthetics (Moss 1999; Moss and Colman 2001), and it was hoped to establish whether this was equally the case for web design.

**Methodology**

**Study 1: measuring the design of HEI websites**

In order to establish whether the HEI websites are following the practice recommended in the literature (de Chernatony et al, 2004b) in using the values of the internal constituency – in the case of HEIs this would probably be the majority grouping namely men - an analysis was made of the extent to which the factors that had emerged as significantly different between the male and female student websites featured in the HEI sites.

There are a total of 121 HEIs in the UK (Sunday Times, 26 November, 2004). A random sample of the Website Home Page of 32 of these (26%) were rated on the eleven features which had emerged as significant in the exercise comparing male and female students’ websites (the category of ‘abbreviations’ was ignored as not being
relevant to commercial websites and the category of ‘self-denigration’ was modified to ‘self-promotion’ in view of the commercial nature of the sites). A ‘gender bias coefficient’ was created to provide an objective measure as to whether an HEI home page would be deemed to be feminine-oriented, masculine-oriented, or neutral. In order to estimate the female orientation, the number of female factors were divided by the total number of male and female factors. To estimate the male orientation, the same calculation was carried out, using this time the number of male factors for each website. For values
- less than 0.5 the site is deemed to be female oriented
- more than 0.5 the site is deemed to be male oriented
- equal to 0.5 the site is classified as neutral.

The neutral factors are excluded on the basis that only those factors based upon gender are likely to influence our judgement.

**Study 2: measuring preferences as between websites showing a male and female production aesthetic**

A random sample of 64 students (38 male and 26 female) were given a copy of the home page of 7 websites and asked to rate these without any communication being allowed between the subjects. These websites consisted of three which were designed explicitly by females, three designed by males and one which was a commercial website. The commercial website was a well-known site used for the delivery and support of both on-line learning programmes and on-line support for class based delivery. This software is used extensively worldwide, and participants were given no information about why they were being asked to rate these sites, until the task was completed.

Each participant was asked to score each of the seven home pages on a score from 0 to 20. Methodologically, this was superior to using rank ordering since it permits two or more websites to be rated equally and also permits wide discrepancies in preference to be recorded.

The process of analysis used was the general linear module for a two factor (males v females) within subjects ANOVA. Mauchly’s test of sphericity was significant and so it was necessary to correct for this using the Greenhouse-Geisser test. The factor of liking was created, referring to whether the respondents had a preference for any website.

**Results**

**Study 1: measuring the design of HEI websites**

The results across the sites are shown in Table 3:

<table>
<thead>
<tr>
<th>Site</th>
<th>Male</th>
<th>Female</th>
<th>Neutral</th>
<th>Orientation</th>
<th>Gender Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site1</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>M</td>
<td>0.75</td>
</tr>
<tr>
<td>Site2</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>M</td>
<td>0.80</td>
</tr>
<tr>
<td>Site3</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>M</td>
<td>0.75</td>
</tr>
</tbody>
</table>
Table 3: sites showing a masculine or female orientation

From this it can be seen that from the 32 sites analysed, 30 display a masculine orientation, 2 display female orientation and none display a neutral orientation (Table 4):

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Number of sites</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td>Male</td>
<td>30</td>
<td>94%</td>
</tr>
</tbody>
</table>

Table 4: % of HEI sites showing a masculine or feminine orientation

Study 2: measuring preferences as between websites showing a male and female production aesthetic

It was found that females had a significant preference for the female-produced sites, and the males had a significant preference for the male-produced websites. In other words, the gender factor had a main effect that was significant beyond the 1% level:
F (4.544,281) = 31.901;  \ p<0.0005.  Partial Eta squared = 0.340.  This represents a very large effect.

Where the commercial website was concerned, this appeared to manifest a masculine website aesthetic. Neither the males nor females liked this website, since both groups rated it the lowest of all seven sites rated. Despite this, there was a highly significant tendency for females to dislike it more than males.

**Discussion**

The overall Gender Coefficient for the 32 websites of 0.72 in Figure 3 demonstrates a very high masculine bias for the 32 sites. This finding is in line with the recommendation in the literature (de Chernatony et al, 2004b) that service branding follows the values of the internal constituency. However, an organisation’s culture and values are based on a plurality of cultures in an organisation (Cole, 1998) and the literature (de Chernatony et al, 2004b) does not take into account the eventuality of a clash between the values of the internal and external constituencies. The preference tests reported here show that an extremely significant tendency, significantly, for each gender to prefer webpages authored by people of their own gender. Following on from this, one could predict that the male dominant senior management of HEIs would prefer websites illustrating the male aesthetic while the female-dominated student body might prefer websites illustrating the female aesthetic. This would open the way to a powerful conflict of interests.

It is open to debate as to whether following the values of the majority and powerful group in the host organisation is optimal as far as external stakeholders – customers – are concerned. In HEIs, a slight and growing majority of these are women and it has been argued that ‘consumers will be more drawn to services brands that are perceived as having values congruent to their own values’ (de Chernatony et al, 2004b). In this case, this would mean following the aesthetic of the female students rather than the male senior managers, and producing websites which mirror a different set of values.

The practical issues that might stand in the way of this are presented below.

**The gender balance of IT professionals**

The design of websites can most easily be affected by IT professional. In the US, the proportion of women among US computer professionals fell in the 1990s from 35.4% to 29.1%. In the UK, in 1994, women made up 30% of computer scientists, 32% of systems analysts, 35% of computer programmers, 10% of ISS directors, 18% of project leaders and 14% of applications development managers (Baroudi, J et al, 1994). The trend is downward. The 1980s saw an influx of women into IT, with a fourfold increase between 1980 and 1986 in the number of women awarded bachelor’s degrees in computer science, and a three fold increase in the number of women awarded master’s degrees (Igbaria, M et al, 1997). Recent years have seen a sharp decline in the number of women pursuing degrees in computer-related fields, together with a reduction in the numbers of women taking advanced-degree programmes (Igbaria, M, et al, 1997). In 2002, the following % of male and female employees were reported for the IT profession (Facts about men and women, UK, 2002):
A telephone survey of those responsible for the design of the 32 sites HEI websites analysed here produced a high response rate of 84%. Respondents were asked to indicate whether the University’s Home Page had been designed
(a) by a man, or predominantly male team
(b) by a female, or predominantly female team
© by an equal mixture of men and women.

The majority of responses (74%) fell into category (a), with only 7% in (b) and 19% in (c). These results show that the Home Pages are overwhelmingly the work of men, a result in line with the finding that the sites display a predominantly male aesthetic.

Conclusions
The Services Branding literature suggests that the values presented in Services Branding should be drawn from the internal constituency of an organisation (de Chernatony et al, 2004b). At the same time, it suggests that ‘consumers will be more drawn to services brands that are perceived as having values congruent to their own values’ (de Chernatony et al, 2004b). Given the fact that in the UK women now constitute slightly more than half of the consumers for Higher Education, one might ask how satisfied they are likely to be with websites created by HEIs. The research reported here is an attempt to answer this question.

The results show, firstly, that the home pages of a random and representative sample of HEI websites appear to be designed using a predominantly male web design aesthetic. Given the fact that the most powerful internal constituency in HEIs are men, this would appear to be consistent with the recommendation in the Services Branding literature that the values presented in Services Branding should be drawn from the internal constituency of an organisation (de Chernatony et al, 2004b). How much appeal are websites designed according to a male or female production aesthetic likely to have for women? And will the results be different for men?

The research reported here demonstrates that each sex has a statistically significant tendency to prefer sites designed by people of their own gender. The small female majority in the student population is therefore likely to find the HEI websites less appealing than men. This leads one to surmise that there might be situations in which a conflict may arise between the recommendations in the Services Branding literature, viz that (i) consumers will be more drawn to services brands perceived as congruent to their own values’ (de Chernatony et al, 2004b) and (ii) values in Services Branding should be drawn from the internal constituency of an organisation. Where women constitute the majority of consumers, and men the majority of senior staff in an organisation, one might question the wisdom of taking the values of Servicces Branding from the senior internal constituency of an organisation.
Further research would be needed to determine the appropriate course to be taken, in a case such as this, where internal values stand in opposition to external values.

**Words 6,991 including references**

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The authors

G A MOSS is a Research Fellow at Glamorgan University and Visiting Professor at the Ecole Superieure de Gestion, Paria. She combines a background in HR with – she was Training Manager at Eurotunnel and other bluechip companies – with a focus on segmentation variables. gmoss@glam.ac.uk
R.W. Gunn is a Principle Lecturer in Quantitative Methods at Glamorgan University Business School, where he carries out research into the use of the web in Business, Commerce and Education.