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THE PROBLEMS WITH DESIGN EDUCATION IN THE UK

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ABSTRACT:

The objective of this paper is to explore the problems associated with design education in the UK. British Design has an enviable international reputation for excellence, however, has this reputation been gained at the expense of its student body? And is this neglect and contempt for the student customer now having repercussions for the design sector itself? Since 2001, the British Design Sector has suffered poor results in nearly every performance indicator. Undoubtedly, competition from India and the Far East, namely Japan, Korea, Taiwan and more recently Mainland China is having an effect on the bottom line. It is suggested that an urgent review of the stakeholders be conducted to realign the sector, manage expectations and promote possible alternatives to traditional design careers; such as in the area of Design & Development Engineering, where skills such as design, creativity and innovation are much in demand.

Keywords: Design Policy, Education, UK

1 INTRODUCTION

British Design has an international reputation for excellence which far outweighs its size; of this there is no doubt. However, the Design sector has a problem; during the period (2001-2006) turnover fell from £6.7bn to £4.3bn, a drop of almost 36% (British Design Innovation, 2006).

The year 2006 marked out an all time low with almost all indices pointing downwards:

- Turnover -6%
- Employees -8.4%
- Fee Income -16%
- Overseas Income +19%
- London Turnover -13%

However, over the same five year period, the number of students studying Creative Arts & Design, the main feeder for the Design sector, has increased by 45% to 156,180. This now represents 7% of the total number of higher education students studying in the UK, and is more than the number studying Engineering & Technology (Higher Education Statistics Agency, 2007a).

Over the last few years many reports and initiatives have been presented, outlining strategies to reverse the sector's decline (Creative & Cultural Skills, 2005; Keep British Design Alive Campaign, 2006; Cox Review, 2005), but little attention has been paid to the dramatic and unstoppable growth in student appetite for this subject.

1.1. RESEARCH QUESTIONS

- What is the size and shape of the Design Sector in the UK?
- What are the constituent parts of Design Education in the UK?
- How big are the problems facing Design Education?
- What should the correct level of supply of Design graduates be?
- How do you manage Student and Sector expectations?
- What more can the Design Sector do to support graduates?

1.2. OVERVIEW OF THE PROBLEMS

The British Design industry is relatively small; the British Design Industry Valuation Survey (2006) puts this figure at 4,500 commercial design firms and 65,000 employees. A recent

report by Imperial College's Tanaka Business School (2007) puts this at 12,450 design consultancies and 134,000 designers in 2003-04. The latest Design Council report entitled 'The Business of Design' (2005) added 51,500 design directors and managers to this number, making a total of 185,500 designers. 51% of design consultancies have five or less employees; most are based in and around London (33%); with approximately 50% of the employees working as self-employed (freelance) (British Design Innovation, 2006; Labour Force Survey, 2006).

Whatever the true figure, one thing is for sure, when compared to the rest of the world, the UK has a high proportion of practicing designers; this amounts to roughly a third of the number in the US, and 13 times the number in China (Whyte & Bessant, 2007).

1.3. NATIONAL STATISTICAL DATA ON THE DESIGN PROFESSIONS

In the UK, industries are classified using the Standard Industrial Classification (SIC) 2003 codes. Due to the diversity of the design sector, there is no single SIC code which corresponds directly to this sector; much of the work in design relates to several codes. This is a profound weakness in the system, and makes it very difficult to accurately measure statistics like %Gross Domestic Product, %growth, exports, employment and business size for this sector.

The Standard Occupational Classification (SOC) 2000 codes classify all UK occupations into nine major groupings and a series of sub-groups, the group which mainly covers the Design Sector is Group 3: Associate Professional and Technical Occupations (see Table 1). The minor group 342: Design Associate Professionals is of particular interest since it contains the main 'designer' categories.

Table 1: UK Employment by Design Occupation (Labour Force Survey, Quarter 2 (Apr – Jun) 2006)

Major Group	Sub-Major Group	Minor Group	Unit Group	Group Title	Employees
3	ASSOCIATE PROFESSIONAL AND TECHNICAL OCCUPATIONS				4,036,000
	34	CULTURE, MEDIA AND SPORTS OCCUPATIONS			612,000
		342	Design Associate Professionals		136,000
			3421	**Graphic designers**	**93,000**
			3422	**Product, clothing & related designers**	**43,000**

In their latest Creative Industries Economic Estimates statistical bulletin (2006), the UK Government Department for Culture, Media and Sport (DCMS) highlighted the problems of accurately defining the size and impact of the 'Creative Industries' due to the

necessity to use classifications dictated by international convention. It goes without saying that there are many other types of designers not covered by Table 1 above; these fall into the categories of Architects, Glass and Ceramics, Furniture, Jewellery, Crafts, Artists, Weavers, Photographers, Software, Computer Games, etc. If we include all the Creative occupations as defined by the DCMS, this had been estimated to total 1 million employees directly and another 0.8 million indirectly by the summer quarter of 2005.

2 DESIGN EDUCATION IN THE UK

Of the 130 or so higher education institutions in the UK, roughly 25% offer degrees in the main subject area of Creative Arts & Design. This encompasses a number of minor subjects, namely: *Design Studies, Music, Fine Art, Drama, Cinematics & Photography, Imaginative Writing, Dance, Craft and Others*. Table 2 shows the breakdown of these minor subjects. By far the biggest of these is Design Studies, having approximately 39% of the total student body (60,175) by 2005/06. Design Studies is itself made up of Graphic Design, Illustration, Clothing/Fashion, Industrial/Product (3,875), Interior, Furniture, Ceramics and Interactive & Electronic Design.

Table 2: All HE students by level of study, mode of study, subject of study, domicile and gender (2005/06) (Higher Education Statistics Agency, 2007a)*

						United Kingdom			Other European Union			Non-European Union		
	Total HE Students	**FT UG**	**FT PG**	**PT UG**	**PT PG**	**Total**	**Female**	**Male**	**Total**	**Female**	**Male**	**Total**	**Female**	**Male**
Creative Arts & Design	**156180**	**123260**	**9210**	**16750**	**6960**	**139130**	**83770**	**55355**	**7475**	**4675**	**2800**	**9580**	**6420**	**3160**
Design Studies**	**60175**	53100	3095	2525	1455	**52205**	31440	20765	**2965**	1895	1075	**5000**	3490	1515
Music	**23460**	16535	1960	3380	1585	**20730**	9295	11440	**1395**	665	730	**1340**	785	550
Fine Art	**20525**	13980	1290	4035	1225	**18755**	13030	5725	**805**	565	240	**965**	655	305
Drama	**19795**	17050	1140	985	620	**18095**	12740	5355	**835**	630	205	**860**	605	255
Cinematics & Photography	**14590**	12105	700	1130	655	**12985**	5780	7205	**805**	415	390	**800**	440	360
'Others'	**6940**	4040	425	1885	585	**6425**	4290	2135	**230**	165	70	**280**	190	95
Imaginative Writing	**5825**	2250	460	2415	705	**5580**	3480	2095	**100**	60	40	**145**	105	45
Dance	**3170**	2850	140	65	115	**2725**	2370	355	**305**	255	45	**145**	120	20
Crafts	**1660**	1315	10	320	15	**1590**	1320	270	**30**	25	5	**40**	35	5

* Data re-ordered in terms of student numbers for clarity.

** In Design Studies for example 86.8% are from the UK, 4.9% from the EU and 8.3% from Non-EU countries.

NB: As of 1 May 2007 under the International Graduates Scheme, graduate students of any recognised degree, UG or PG may stay and work in the UK for up to 12 months after graduation.

The 71% growth in Design Studies courses over the last decade in the UK has been spectacular; however, this has not been matched by increases in the number of jobs in the sector. The ratio of practicing designers to students studying design is roughly 2:1. This is very high ratio.

Around 6,000 people are recruited to the profession every year, compared to approximately 18,000 that graduate (see Table 4). Clearly this imbalance may be good for the design industry, which can pick and choose graduate employees, but is an enormous waste of a useful and talented resource. Much more should be done to manage expectations of prospective design students.

Sir Christopher Frayling, Rector of the Royal College of Art has been recently quoted as saying:

> *"Regarding the second point – that designers are being over-produced – I don't agree, I believe design is very good professional training for the world of design and good preparation for life. A lot of graduates have not gone into design; the training can be used more widely. The tail wags the dog, as it were, and it wouldn't be said that there weren't enough jobs to satisfy students from other courses, such as History or English, so why say it about design?" (Woods, 2007)*

The trouble with this argument is that unlike History or English, Designers are being trained for a specific career. To spend three or more years studying, to then get a job waiting tables must be very disheartening.

So what are graduates of Design doing if they can't find work in the profession? Evidence for this comes from a range of sources, one of the most up-to-date being Graduate Prospects (2007). Roughly 35% find work in their chosen profession; almost 19% are working in Retail, Catering, Waiting and Bar Staff; 13% in other occupations and 9% in Clerical and Secretarial occupations (see Figure 1).

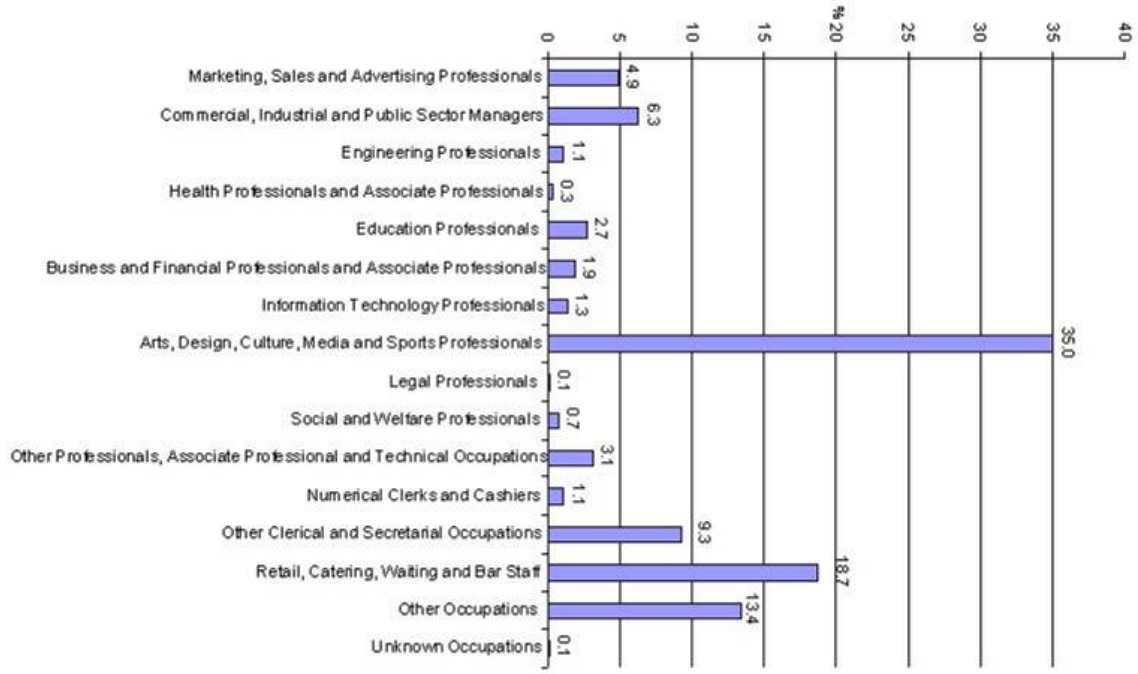

Figure 1: Destination of 2005 Design Graduates (Graduate Prospects, 2007)

63% of art and design graduates interviewed in a 1999 survey were working outside the creative industries (Harvey & Blackwell, 1999). The reality of taking an undergraduate degree in the Arts is that graduates face an average 4% drop in their earnings over a lifetime, compared to those who leave education after A-Levels. It is interesting to note that Engineering graduates have a 20% increase in earnings (Walker & Zhu, 2003).

The latest figures from the Higher Education Statistics Agency (2007b) for employment of graduates shows that approximately 9% of Creative Arts & Design (2005-06) graduates were unemployed. This is the third highest of any subject; only Combined Studies and Computer Science graduates have higher rates of unemployment six months after graduation.

There is clearly a lot of discontent amongst graduates of Design who have invested several years and many thousands of pounds only to find out afterwards that there is little chance of finding work in their chosen profession. The current situation has forced graduates in this field into other (less rewarding) professions, such as Retail, Catering, Waiting and Bar Staff.

2.1. THE HIGHER EDUCATION POLICY INSTITUTE (HEPI) STUDENT SURVEY 2006

In March 2006, with a grant provided by the Higher Education Academy, the Higher Education Policy Institute (HEPI) commissioned Opinion Panel Research to undertake a survey of first and second year students in English universities. The survey focused on various aspects of the amount of teaching and private study undertaken by students and their levels of satisfaction and other attitudinal questions. More than 23,000 students were surveyed in all universities in England, covering all subjects. Around 15,000 replies were received and analysed (a response of over 60 per cent) (Bekhradnia, Whitnall and Sastry, 2006).

Figure 2 shows that the subject area covered by the design disciplines, namely the Creative Arts & Design, comes out bottom of the league table when students were asked about their degree experience. There is clearly a lot of dissatisfaction in a number of areas, most of which relate to academic reasons, but also mentioned are the poor facilities and misleading prospectuses.

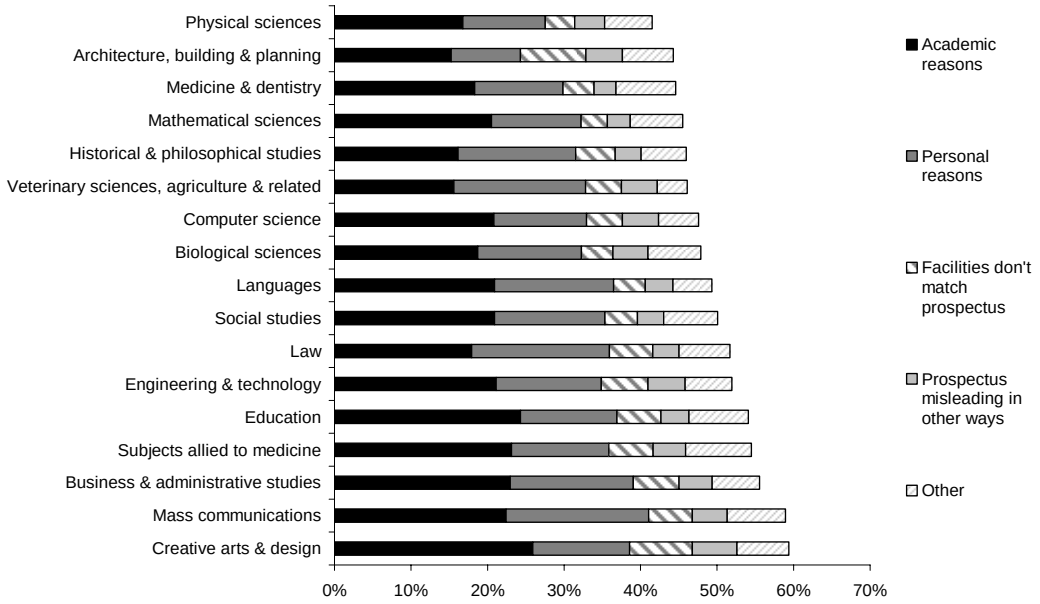

Figure 2: Reasons why degree experience was worse, or worse in some ways by subject (Bekhradnia et al, 2006).

When asked about value for money, again the Creative Arts & Design comes out bottom.

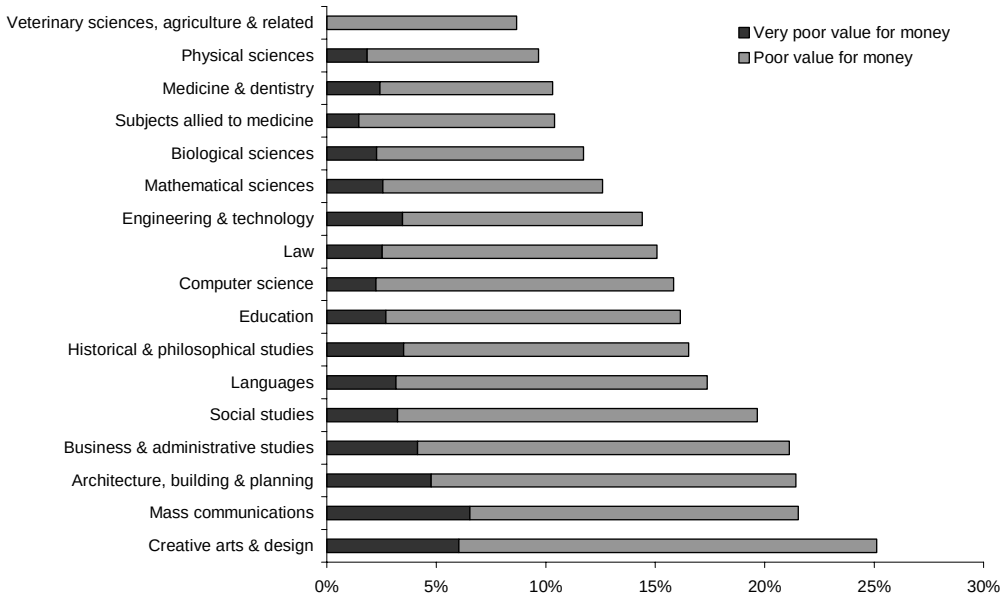

Figure 3: Value for money of degree programme by subject (Bekhradnia et al, 2006).

Interestingly, when asked about contact hours, students in all subject areas had similar viewpoints as to what is an acceptable number of contact hours. This appears to be in the region of 16 to 25 hours per week.

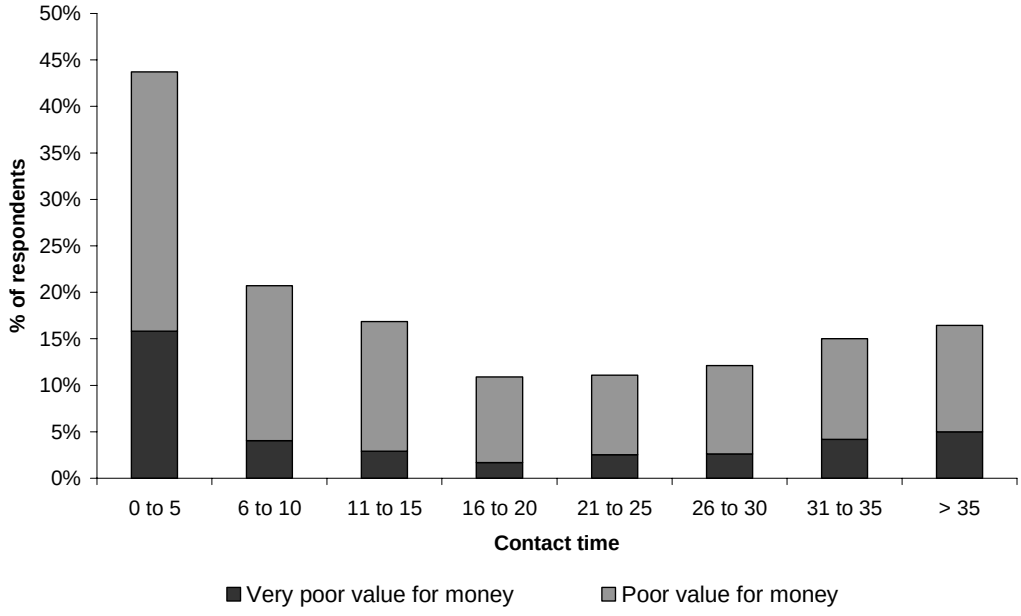

Figure 4: Value for money by scheduled contact hours (Bekhradnia et al, 2006).

Table 3 shows the very large variations between 33 University departments teaching within the Creative Arts & Design subject area using three headings: UCAS* Points on Entry, Total Study Hours Invested per Week and % obtaining a First or Upper Second Class Degree Classification on Exit.

Table 3: Analysis of the Entry, Investment and Exit Profiles in Creative Arts & Design (Bekhradnia et al, 2006†).

	Average UCAS* Points on Entry	Total Study Hours Invested / Wk	% Obtaining 1st or Upper Second Class Degree**
Max	*418.0*	*37.6*	*92.8*
Min	*201.2*	*16.7*	*42.6*
Mean	*296.0*	*25.7*	*64.1*
SD	*60.9*	*4.9*	*11.5*

† Based on original data from 33 Universities teaching Creative Arts & Design in the UK.
** University and Colleges Admissions Service (UCAS) points are awarded according to the grades achieved in Further Education courses in the UK such as A-Levels, vocational qualifications, etc. (one A-Level at grade A equates to 120 points)*
*** In the UK undergraduate degrees are classified in order of success as: first class, upper second, lower second, third class and unclassified.*

By analysing the data in Table 3 using the Pearson Correlation Coefficient, *r* it was possible to calculate the correlation between the UCAS Points on Entry and the Degree Classification on Exit Profile, *r = 0.68*; and also the correlation between the Total Study Hours Invested and the Degree Classification on Exit Profile, *r = 0.068*. This clearly shows that there is a relatively strong correlation between the UCAS Points on Entry and the Degree Classification on Exit Profile, but a weak correlation between the Total Study Hours Invested and the Degree Classification on Exit Profile. Therefore, should design departments be placing more emphasis on the selection of high quality students and less on trying to add value?

3 THE VIEW FROM THE DESIGN SECTOR

In its 2005 survey entitled 'The Business of Design', the Design Council reported some very interesting and contradictory remarks which may provide some answers to those who believe that design educators and the design sector are not always 'singing from the same song sheet'.

Firstly, it is stated that 88% of design businesses think that all design students should complete extensive work experience, but only 54% of design businesses are willing to provide work experience for students. Secondly, 93% of designers think that business skills are either essential or useful in the design curriculum; however, only 54% of design colleges think that business skills are either essential or useful in the design curriculum.

Clearly, design businesses who unanimously endorse work experience must be willing to offer placements to prospective graduates, rather than poach from their competitors. There is a degree of short-sightedness to be found in the design sector, who will no doubt

claim a lack of time and resources to provide suitable experiences, however, small businesses will remain small unless they invest in people and their future growth potential.

The mismatch between design businesses and design educators regarding the importance of business skills is another area of potential conflict. Of all the graduate skills, design businesses state that software skills and business awareness are the most important.

4 POTENTIAL SOLUTIONS TO THE PROBLEMS

In this section we present three areas where the stakeholders in design can make a real difference. First and foremost, Education (Schools, Further Education & Higher Education), Design Businesses, Industry Bodies and Government have to work together to manage the expectation of design students. Secondly, Universities must be encouraged to rationalise the number of programmes in the area of design. The design programmes that survive will be ones where a broader and more focussed curricular exists. Lastly, associated sectors such as Engineering and Technology must step in to absorb some of the over-supply of design graduates.

4.1. MANAGING EXPECTATIONS OF STUDENTS

Is it ethical to allow the Design Studies subject to grow at an annual rate of over 7% when the industry to which it feeds graduates, is contracting at the same rate? In the absence of regulation, all university departments will go with the market demand (as has happened); however, in this case the student customer is making decisions on their career choice without the full facts regarding the state of the design profession. The proliferation of industry bodies, with their vested interest in promoting the sector, has to some extent been blinded to the problems inherent in the system. Therefore, it is important for all parties to 'come clean' about the situation, admit to the problems, advise students of the likely outcome of studying subjects in these areas, and offer alternative creative career paths.

4.2. RATIONALISATION OF DESIGN PROGRAMMES

There are too many Undergraduate (UG) degree programmes in the UK offering Design Studies and related topics (900 as of March 2007). Over the last decade for example Product Design UG degree programmes have increased from less than 30 to nearly 300 as of 2007. The number of Industrial/Product Design graduates entering the workforce each year is roughly 1,000 and growing by 10% annually. The quality of some

programmes is understandably variable (see Table 3). The over-supply of design students is matched by the over-supply of design-related degree programmes. Whereas some designers see this as a plus, i.e. they can pick and choose the best graduates; many others see this as a waste of potential and a dilution of the designer stock, resulting in a situation of mediocrity and a 'can't see the wheat for the chaff' scenario (Higher Education Academy, 2006).

Table 4: Comparison of UG and PG Degree students in Design and Engineering (HESA, 2007a).

HESA Stats 2005/06 (HESA Stats (2002/03))	**TOTAL HE Students**	**First Degree Graduates**	**PG Students**		**PG Graduates**
			FT	**PT**	
Creative Arts & Design	156,180 (132,675)	31,300 (26,465)	9,210 (8,105)	6,960 (5,935)	7,200 (5,190)
Design Studies	*60,175 (53,615)*	*18,100 (15,210)*	*3,095 (2,480)*	*1,455 (1,295)*	-
Engineering & Technology	136,695 (131,575)	19,800 § (19,455)	21,735 (18,185)	17,245 (16,490)	13,200 (7,310)
Mechanical Engineering	*21,955 (21,070)*	*3,016 est. (3,115 est.)*	*2,280 (2,255)*	*1,755 (2,125)*	-

§ The Engineering & Technology sector will need 27,000 professionals per year during 2002-12.

4.3. TARGETED PROMOTION OF DESIGN ENGINEERING PROGRAMMES

At Middlesex University, we were one of the first departments in the UK to recognise the tremendous potential that exists within graduates of Design by starting a master's programme in Design Engineering which aims to convert 'Design' graduates to careers in Design and Development Engineering (there are 50% more Design & Development Engineers working in the UK than there are Product, Clothing and related designers – Labour Force Survey, Quarter 2 (Apr – Jun) 2006). This programme is fully-funded by the Engineering and Physical Sciences Research Council (EPSRC) under their Collaborative Training Account (CTA) programme.

This programme, now entering its fourth cohort in Sept 2007, has been highly successful in gaining national recognition from industry bodies such as the Engineering Council (IEng Status) and the Institution of Engineering Designers (Full Accreditation, Thesis Prize and Group Project Prize). Working closely with industrial partners such as Ford UK, Jeld-Wen Co Ltd, Jaguar-Land-Rover, etc, we are on target to provide design engineering careers to

60 graduates over the four-year cycle. Most of these graduates are now working as Design and Development Engineers in the UK. Although this may appear to be insignificant in terms of size, it is exactly what the Higher Education providers should be doing to address the issues raised by this paper.

5 CONCLUSION

The Design Industry in the UK has an international reputation for its quality, creativity and innovation; however, in the last six years it has faced growing international competition from the Far East for its core business. Rather like the transition of manufacturing offshore; so the intellectual capital in ideas is slowly being eroded. The UK Design Industry is highly fragmented, composed of over 12,000 design consultancies employing typically less than 5 employees each. Roughly 50% of designers are employed PT or freelance, wages are generally low at entry and prospects for promotion are poor. Every year 18,000 design students graduate and fight for about 6,000 positions; supply and demand must be balanced. On the plus side, companies that employ design to their products and services can expect a 2.25 return on capital employed (The Business of Design, 2005).

Design students, being highly intuitive, are attracted to the world of design by its freedom of thought, creativity and opportunities for innovation. These are the exact qualities that UK plc will require if it is to maintain its position as the location of choice for multinational companies looking for design services.

There is however a disconnect within design education which stems from Schools, through to FE colleges, and all the way to Universities. The fragmented nature of the design sector has meant that the education side has run almost in parallel with the industry, touching only at a few points and sometimes not at all. We believe that both design education and the design sector should be seen in a collected, connected and holistic way; interacting at all levels and supported by industry bodies and government departments.

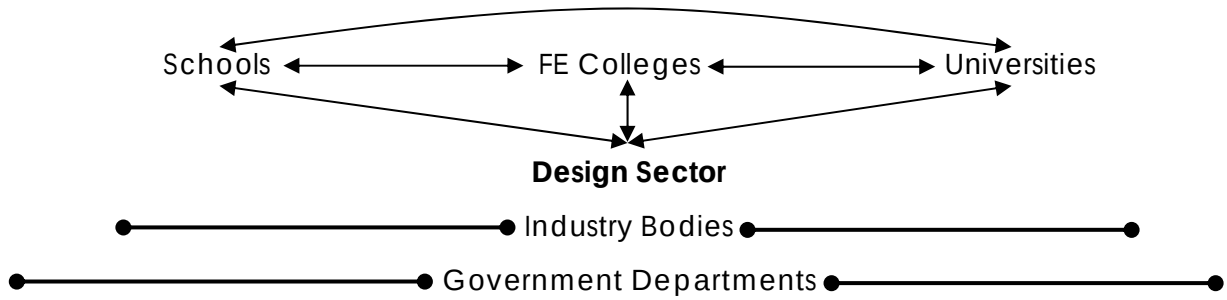

Figure 5: Design sector framework showing interconnections.

The design sector must be central to this holistic vision; design education, industry bodies and even government departments exist to feed and support the sector and not the other way around.

Mutual linkages must exist between all elements of design education and the design sector; this will take the form of bilateral staff exchanges, live project briefs, student placements and most importantly employment of graduates. The role of the industry bodies is to lobby government on behalf of the sector, support and enhance linkages and promote best practice. The role of government departments should be to set industry targets in terms of sector performance; set student numbers studying design subjects at Schools, Further Education Colleges and Universities; monitor employment rates using statistical data from specific SIC and SOC codes; and finally provide sufficient funding to enable all of this to happen.

This vision of what could be is in stark contrast with the reality of the current situation, where we have:

- Few contacts between Schools, Further Education Colleges and Universities.
- Little or no contact between Schools and the Design Sector.
- Practically no staff exchanges at any level.
- Too few student placement opportunities in Design businesses.
- Too many industry bodies, all lobbying for different things, with no coherent strategy.
- A level of disinformation with regards to the reality of following a career in design.
- Government departments which cater for disparate elements under one umbrella.
- No specialist Standard Industry Classification code covering the Design Sector.
- Standard Occupational Classification codes which do not cover the majority of Design disciplines.
- Higher Education Statistical data which only covers the broad Design disciplines.
- No design student supply targets which relate to employment demand.
- Six times as many Design Studies graduates as there are Mechanical Engineering graduates.

The direction is clear, time is short and painful decisions may have to be made in order to protect future growth. To continue in the same direction without making strategic choices may be easier than doing what is necessary; however, the result of this will

eventually lead to the ruin of all parties, firstly students, then design departments, next the design industry and finally UK plc.

The recent report (May 2007) by the Design Skills Advisory Panel entitled 'High-Level Skills for Higher Value' provides some hope for the future of the UK design sector. The recommendations of the report, which focuses on joined-up design thinking, will now be developed by partnerships across the design sector in collaboration with government, and the final plan will be presented to UK government at the beginning of 2008 as part of a 'Creative Blueprint' – the creative industries sector skills agreement.

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