

## **FUTURE WELLBEING: CONFERENCE DRIVEN?**

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### **ABSTRACT**

This paper considers the effect of determined conference themes, government legislation and key events in design education in order to ascertain the fundamental drivers of change. Through analysis of past conference proceedings an attempt has been made to determine whether the annual International Engineering and Product Design Education (E&PDE) conferences have driven change in design education or merely commented on it. Research has been carried out over a period of time, namely 2001 to 2011, to ascertain whether or not the conference has been successful as a driver of change in design associated matters. A literature review of proceedings and papers pertinent to conference themes, later citings and government initiatives has taken place. Additionally, a parallel research activity has been conducted, which can be used to benchmark the primary research as outlined. This second stream is focused on the production of a timeline apposite to design teaching, course development and student numbers, applicable to design education at Nottingham Trent University (NTU). Considering the progression from design engineering to product design, evaluation of programme development and determination of catalysts and agents of change has taken place. Design methodologies and new curricula have commonly been reflected upon at E&PDE conferences; this paper majors on these two topics whilst delivering the findings of the research. An attempt has been made to detail the manner of design education development in order to appreciate and understand its value for the future wellbeing of society.

*Keywords: Catalyst, inhibitor, benign, reagent, agent*

### **1 INTRODUCTION**

Each year for the E&PDE conference a new theme and set of aims are established to provide a coherent basis for educators and practitioners to discuss current educational issues. The theme for the 2012 conference concerns ‘the future wellbeing’ of people within society, the economy, industry and the global village. Through this two assumptions can be made; firstly, that the conference, its papers and education can and do change society significantly, in a measurable and tangible format. Secondly, that this change has and will be achieved through design, creativity and innovation platforms, as initially driven by the Blair Labour government. One question if this can be proved; does evidence from the conference, education and government confirm these assumptions?

A hypothesis was created to facilitate inquiry and act as a conceptual framework for the research process. It was predicted that the E&PDE conferences would be highly theoretical and encourage discussion on academic grounds about changes in design education, rather than act as a driver of change themselves. It was also envisaged that legislation set by Government would ultimately drive the changes in design education. Due to these assumptions, the following hypothesis was set: “*The drivers of change in design education are government led and the international E&PDE conferences merely reflect this in a theoretical manner, they are not drivers but driven.*”

The paper begins with an initial evaluation of government legislation as the fundamental driver of change in design education. Analysis of past conference proceedings is then detailed to determine if the themes are created as a result of seamless development built upon past aims, research papers and keynote speeches. Subsequently, the secondary stream of research is used to evaluate the consequence of new curricula and determine the effect of the conference upon a higher education institution (HEI). Through comparative analysis and investigation of design within higher education (HE) the conference is questioned as a driver of change and whether it has the ability to encourage the future wellbeing of society.

## 2 GOVERNMENT LEGISLATION: A FUNDAMENTAL DRIVER OF CHANGE

When considering that which catalyses change in design education, one must consider the legislation set by government as the change that inevitably impacts the way in which we learn and ultimately perceive design. The focus and structure of design-related subjects instigated in schools encourages school-leavers to consider a future in which they can channel their creative skill and expertise. Design education is hugely impacted by Government legislation, through the National Curriculum, HE funding/investment as well as the UK economy. Legislation is put in place to regulate and monitor the way in which the subject is taught in schools and to continually progress throughout primary, secondary and tertiary level learning. At primary and secondary level, the subject is essentially driven by the guidelines and content of the National Curriculum. At tertiary level creativity and innovation prompted in schools is further built upon and developed through HE programmes, with the purpose of establishing the foundations for careers in creative industries.

It can be concluded that through the Department of Education, the government has the power to change the way in which the younger generation are taught design education. Universities across the UK have reacted quickly in preparing students for the design industry by developing a vast range of courses to utilise and invest student potential within design. As a result of the ‘Teaching and Higher Education Act 1998’ [1], the government introduced tuition fees reforming the entire HE system. The main reason for these fees was for universities to continually invest in necessary areas, from new courses to maintaining modern industry-standard facilities. The continual rise in tuition fees over the past decade has meant immense pressure to ensure all courses are up to the standard required. For design-related programmes, the HE tuition fees contribute to maintaining fiercely competitive programmes that can compete with other HEIs on a global scale, thus representing the way in which the government essentially drives forward design education.

### 2.1 Design Education and the Economy

Throughout economic downturns references have commonly been made about the importance of design for business success. Thatcher in the eighties stated “Good Design has never been more important for the success of the British Economy.” [2] Some thirty years later, Chancellor of the Exchequer George Osborne shared the same sentiment, announcing measures to position the UK at the forefront of the Global Economy in his 2011 budget plan [3]. He expressed a real desire for the British Design Industry to drive forward a new generation of inventors and designers allowing the UK to compete in a global market as well as create new jobs; “We want the words: ‘Made in Britain, Created in Britain, Designed in Britain, Invented in Britain’ to drive our nation forward.” [4] The plan described a clear outlook and ambition for Britain; focussing on a new generation of inventors and designers. By investing in design education the government can help to strengthen the British design industry which in turn can encourage economic recovery.

As well as encouraging an advanced technological society, the relationship between government legislation, design education and the economy acts a key driver in economic growth that can essentially form part of a continual cycle of investment, as demonstrated in figure 1.

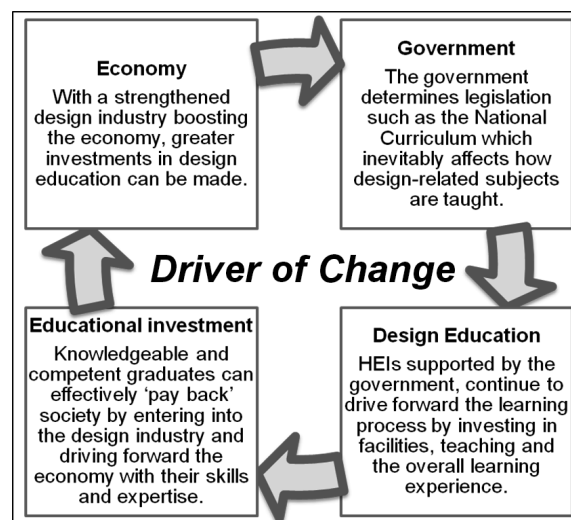


Figure 1. Circular Driver of Change relative to Design Education

### 3 ANALYSIS OF PAST E&PDE CONFERENCE PROCEEDINGS

The annual international E&PDE conferences bring together representatives from industry and education that have an interest in sharing new perspectives and ideas. Providing a forum for discussion on various design education topics, it has become well recognised and established as an annual international event. Its increased popularity is evident in the rise of abstract submission, as shown in figure 2. In 2011, of the 271 paper abstracts received, 123 of these were chosen for publication. Upon selection, the number of final published papers has varied over the years due to the host institution and size of the conference.

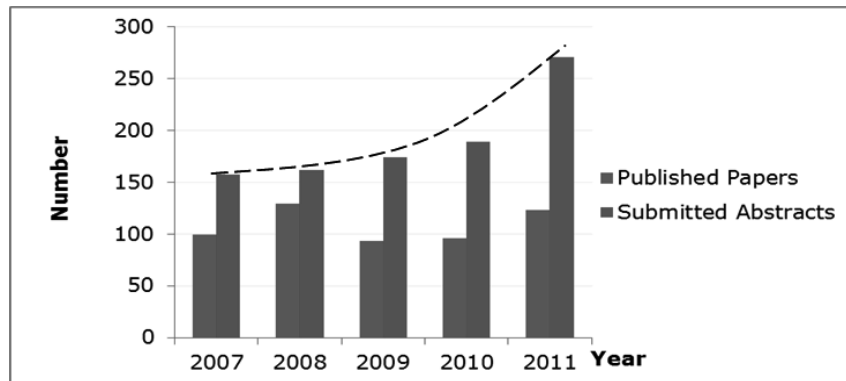


Figure 2. A Graph to show the comparison between E&PDE abstract submission and paper publication

#### 3.1 Conference Themes

The conference themes provide the subject matter for discussion and are carefully constructed to detail a number of aims and objectives in order to encourage a focussed yet diverse response from the contributors. The themes are often built around the ‘wellbeing of society’ and an ‘ideological world’ and have varied over the years to include ethics, business innovation and crossing design boundaries. These themes have resulted in a great number of papers covering over sixty subject areas since 2002. As demonstrated in figure 3, these subjects can be categorised into twelve topic areas, with pedagogy and the curriculum materialising most over the years. Since the most popular paper topics consider the teaching of and changes in design education, it is apparent that the conference provides a medium to discuss such drivers of change. It is the changes brought about by government legislation, such as the National Curriculum, that have been repeatedly discussed and analysed by conference attendees. As a result, the conference has become an event whereby guests can offer their views and interpretations on the determined theme, relative to design education.

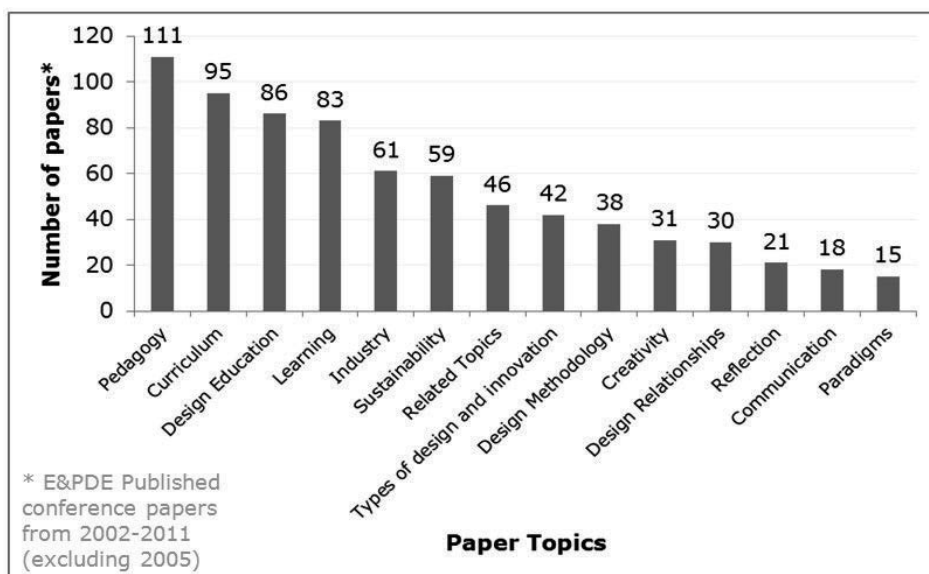


Figure 3. A Graph to show the popularity of E&PDE conference paper topics

### 3.2 Topic Variation

Despite the themes changing year after year, they are progressive in the way that many educators continue to contribute, developing their arguments and way of thinking. The build-up of topic areas varies as a result of this. For visual purposes, the papers from each conference have been grouped into the twelve topics aforementioned and are compiled in figure 4. As can be seen in the graph, there is an increased variety in the topics from when the E&PDE conferences first began. Interestingly, very few papers based on reflection have been written, and only since 2008 have they been published. When considering new themes and how to build a better future, reflection will be deemed a necessary action in order to learn from previous experiences, therefore a rise in papers of this subject would be expected.

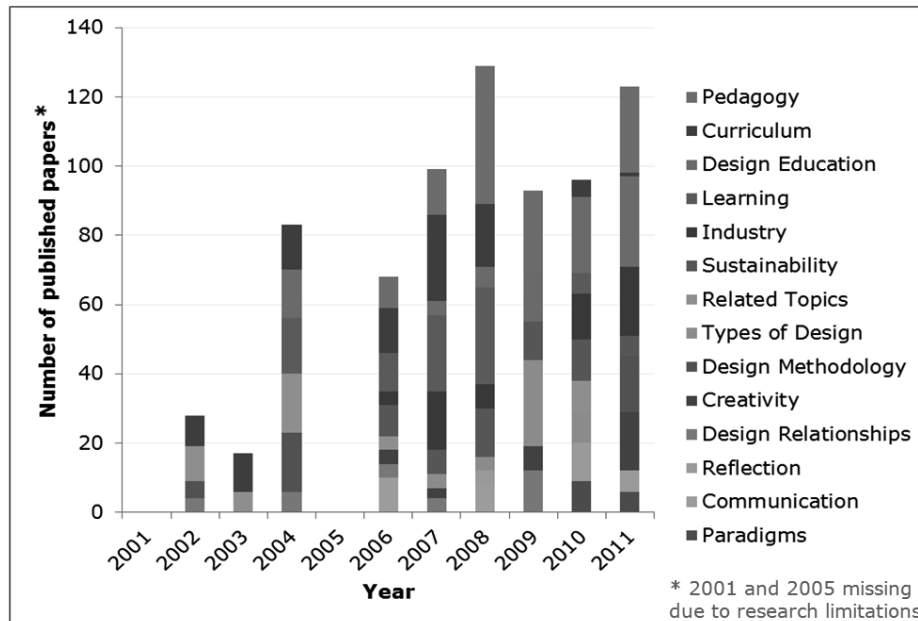


Figure 4. A Graph to show the topic variation of published E&PDE conference papers

The varying topics are very much relevant to design methodologies within HE, hence why many educators attend the conferences. For example, the topic of sustainability and relationships within design are increasingly pertinent to the design industry and so of high importance within HE learning. The determined themes provide the central focus for discussion and investigation. It is the interpretation by the individual authors that drives forward the evaluation and analysis of varying topics through the submission of concise, comprehensive research papers.

### 3.3 Do the conferences act as a driver of change?

The conference acts as a platform for theoretical debate and is a valuable event for sharing new design methodologies. The conference does not comply or conform to strict educational guidelines and thus somewhat provides a basis for 'blue sky thinking'. This reflects the design, creativity and innovation platforms that were initially driven by the Blair Labour government, Blair argued that "It is through creativity and imagination that Britain will succeed in the 21st Century"[5]. This sentiment alone does not act as the driver of significant change, but the legislation and rulings that support this approach are what ultimately affect design education. In response to the initial hypothesis, rather than actively bringing about substantial change within society, the E&PDE conferences act as a driver of discussion and encourage new ideas and perspectives to be brought forward. As an international event, the conference has the power to reach a large audience and have a positive impact upon design education by providing an opportunity for new methodologies and ideas to be brought to the forefront of engineering and product design teaching. In reality, the conferences themselves have not acted as the fundamental drivers of change; it is the legislation and government intervention that has led to educational revisions and alterations. The conference, however, offers educators and representatives from industry a chance to share experiences and learn from one another, in order to bring about positive amendments within engineering and product design education. It is these smaller changes that can be deemed as contributors to the future wellbeing of society.

#### **4 PARALLEL RESEARCH ACTIVITY**

A parallel research activity was carried out apposite to design teaching, course development and student numbers applicable to design education at NTU. Through the construction of a comprehensive and detailed timeline it was possible to comprehend the effect of both government legislation and pre-determined conference themes upon HE programmes of study. Acting as a visual tool, the timeline allowed for a straightforward comparison between various design related events. It was found that during the seventies and eighties engineering courses saw a huge rise in popularity [6]. At a time of economic downturn and high unemployment, the Thatcher-led government were keen to encourage training of young designers and innovators to assist on the road to economic recovery. However, when the 'Further and Higher Education Act 1992' [7] came into force, increased funding encouraged a new generation of product-led engineering courses, which in time saw the demise of engineering and the rise of product design. This demonstrates just one example of the impact government legislation can have upon HE design programmes.

The timeline encouraged the reader to comprehend the time period, and establish the reasoning behind changes at NTU. The comparative nature of the timeline made it clear to the reader when legislation was introduced and thus the after effects of it. It was concluded that the resulting acts and reformations set out by Government have had a lasting effect upon design education at the institution. The E&PDE conferences were the least influential in terms of driving change at NTU. Past conference themes have largely reflected and discussed topical issues that have arisen from legislation or events. For example, 'Design Education for creativity and innovation' in 2011 came at a time when Osborne announced measures to position the UK at the forefront of the Global Economy, with a desire for the British Design Industry to drive forward a new generation of inventors and designers. The conference therefore discussed the changes initiated by Osborne's budget plan, focussing on how educators can encourage creativity and innovation within design education.

#### **5 CONCLUSION**

Through comprehensive analysis of the literature research acquired, the paper details the exploration, investigation and determination of drivers of change within design education to establish that which drives future wellbeing in society. In-depth literature research began by determining the impact of Government legislation as well as the effect of pre-determined conference themes.

As set out by the hypothesis, it was envisaged that legislation set by Government would ultimately drive the changes in design education. It was deduced from the research collated that the government does indeed act as the fundamental driving force in the teaching of design through legislation such as the National Curriculum. Further investigation took place to 'explore how design education can set the scene for future wellbeing of people within society, economy, industry and the global village the world has become' as outlined in the E&PDE 2012 conference aims [8]. Research highlighted that design education has a somewhat circular relationship with government legislation, the design industry and the economy and that investment in design can have a strong impact upon the state of the economy. Good design education is at the heart of this economic success, acting itself as the 'driver of change' within economic growth. Evidently this highlights that investment in design education can encourage growth in creative industries, demonstrating 'how engineering and product design education can lead to innovative products for an innovative world' [9].

As well as reflecting on government legislation as a driver of change, the hypothesis also considered the effect of the E&PDE conferences. Exploration of previous conference themes and papers took place to establish if they have reflected, or have indeed been, the drivers of change that are relevant to design methodologies within HE. It was found that the conference itself plays an important part as the facilitator of discussion. Analysis of proceedings suggested that the conference papers have reflected the aforementioned drivers of change, as opposed to the themes and outlined objectives themselves. The conference therefore provides more of a basis for 'blue-sky thinking', acting as a driver *for* change as opposed to reflecting the drivers *of* change relevant to HE design methodologies. Consequently, the future wellbeing of society cannot be wholeheartedly conference driven, however the event can definitely drive discussion that considers design methodologies and aspects of design education that can support and assist in improving society as a whole. Thus the paper coherently details literature research providing sufficient evidence to support the hypothesis; '*The drivers of change in design education are government led and the international E&PDE conferences merely reflect this in a theoretical manner, they are not drivers but driven*'.

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