## Speech V

지식이전 - 산업, 학계 그리고 전세계 선물용품 시장

**Knowledge Transfer - Industry, Academia** and the Global Gift Market

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### 지식이전 - 산업, 학계 그리고 전세계 선물용품 시장

KTPs(지식이전파트너십)는 유럽의 선도적인 프로그램으로, 기업들이 영국의 지식기반에 속해있는 지식, 테크놀로지, 스킬 등을 보다 잘 활용함으로써 그들의 경쟁력과 생산성을 향상시킬 수 있도록 도와준다. 정부가 재정을 일부 보조하고 노샘프턴 대학의 연구원들이 주도하는 가운데, 도자기제품 제조사 및 수입회사, 한 자선단체의 소매부서와 같이 도자기 제품 분야의 다양한 기관을 대상으로 디자인 역량이 개발되고 있다. 디자인 졸업생들이 해당 기업에 배치되어 3 차원의 신기한 도자기 제품들, 장식 소품, 인형들을 디자인하는 등 새로운 제품 디자인방법론을 연구하고 계획하며 실행한다. 선물용품과 인형은 전세계적으로 생산되고 있는데, 이들 기업들이 판매하는 대부분의 제품들은 동북아시아에서 생산된다. 대학에서의 가르침과 배움은 전세계적인 생산과 새로운 시장, 규제요건들에 대한 최신의 해결책을 접함으로써 한층 강화되었고, KTP 에서의 경험은 살아있는 배움의 장이 되고 있다. 기업에 배치된 졸업생들이 지칭하는 바와 같이 이 '연합'은 대학생들이 해외 생산을 포함하는 작업과정은 물론 동북아지역으로부터의 선박운송 및 영국 내 유통과정 등을 접할 수 있도록 한다. 이러한 과정은 산업을 대학으로 초대하여 생생한 프로젝트를 진행하고, 필요할 때 외부 디자이너를 활용하며 국제 경쟁에 진입하는 등의 활동을 통해서 지식 공유를 확대한다. 이 연합은 하나의 고용인이며 기업 내에서 디자인 시설과 디자인경영 프로세스를 구축한다. 본 논문은 이러한 유형의 지식교환이 글로벌 시장 환경에서 갖는 강점과 위험을 인형, 도자기제품, 계절상품 등의 디자인 및 프로토타입 개발에 대한 사례 연구를 통해 설명한다.

자선단체의 경우, 제품과 인테리어, 표면 패턴 디자인 전공의 학생들이 '살아있는 고객'이라는 환경을 접하고, 미니어처인형의 집과 그 안의 가구들에 대한 기술적, 물리적, 시각적 요구사항들을 개발하는 일을 경험한다. 이 과정에서, 이들은 시장과 요구되는 집의 스타일을 조사하고, 시각물을 제시하며, 구매자들이 완성된 제품의 모양을 미리 알 수 있도록 하나의 형태로서 보여준다. 그런 다음, CAD 와 쾌속조형을 이용하여 프로토타입 제작을 위한 세부요소 드로잉과모델 개발을 진행한다. 지적재산권과 생산 품질, 인형제품 표준과 환경적 요소들에 대한 핵심적인 질문들은 포장과운송에 영향을 미치고, 이 모든 것은 디자인 프로세스의 부분으로 다루어져야 한다.

가정용품의 예에서는 소매상인이나 브랜드 개발자가 핵심적인 역할을 하며, 이 경우, 표면 패턴과 혁신, 세부처리 등에 대한 트렌드가 가장 중요하다. 따라서 제품은 시장에서 차별성을 가지고 있어야 함과 동시에 다양한 바이어들과 소비자들의 필요에 따라 쉽게 개조될 수 있어야 한다. 여기서도 문화적 차이, 지적재산권, 납품 일정, 환경적이고 윤리적인 문제들이 전면에 부각되었다.

지식은 다양한 방법 및 방향으로 이전되고 있으며, 이는 참여한 모든 사람들에게 도전적인 것으로 인식되었다.

# Knowledge Transfer - Industry, Academia and the Global Gift Market

KTPs, Knowledge Transfer Partnerships, is Europe's leading programme helping businesses to improve their competitiveness and productivity through the better use of knowledge, technology and skills that reside within the UK knowledge base. Part funded by the government and lead by staff at The University of Northampton, design competence is being developed for a range of businesses in the giftware sector, such as the retail division of a charity and several producers and importers of giftware. Design graduates are placed within the companies to research, plan and implement a new product design methodology by designing 3D novelty giftware products, decorative house wares and toys. Gifts and toys are produced globally and most of the ranges sold by these organizations are produce in the Far East. Learning and teaching at the University has been enhanced through exposure to highly current solutions of global production, new markets and regulatory requirements, amalgamating the KTP experience into live teaching. The Associate - as the placed graduate is called - introduces students at the University to an operation involving manufacturing in overseas, with some parts made by automated process, shipping from the Far East and UK distribution. This process augments the practice of sharing knowledge by inviting industry into the University to run live projects, employing outside designers on a part time basis and entering international competitions. The Associate is an employee and setting up design facilities and design management processes with in the organizations. The paper exemplifies some of the strengths and pitfalls of these types of knowledge exchange in the context of the global market, through case studies of a design and prototype development of a range of toys, giftware and seasonal products.

In the charity case product, interior and surface pattern design students have exposure to a 'live client' situation and get exposure to develop the technical, physical and visual requirements for items such as miniature dolls houses and their furnishing. In the process; they have to research the market, the style of house required, provide visuals and present these in a form that can convey to buyers what the finished items will look like, then proceed to creating component drawings and models for prototype production using CAD and Rapid Prototyping. Key questions about intellectual property, quality of production, toy standards, environmental factors influence packing and shipping and all have had to be tackled as part of the design process.

In the house wares examples, the retail buyer or brand developer plays a key role, in these cases trends in surface pattern, innovation and detailing were all key. So the product has to be designed to be distinctive in the market and yet easily adapted for different buyers and consumers. Here too, cultural differences, intellectual property, delivery schedules and environmental and ethical issues have come to the fore.

Knowledge is being transferred in a variety of different ways and directions, which has proved challenging for all those involved.

#### STRUCTURE OF PAPER - PROPOSAL

The two speakers are collaborating on joint research into design and the global market place. They are both interested in the studying what is understood by design in different societies, how it is taught, how ideas, visual and technical information are transferred between locations and markets. One is currently a full-time academic but has worked as a designer in Europe and the Far East, which has led them to explore national differences, in the use of materials, design education, government promotion and brand marketing. The other has been researching licensing, the key role of the retail buyer, visual language, transportation routes and migration, whilst working as a design consultant in the gift industry for twenty years and teaching part-time at degree level. Both have a role in practicing and teaching design management.

The first speaker will present the charity case study and contrast it to the "live project" or "visiting lecturers" approaches to involving industry in teaching design management. Assessing the educational benefits, for example preparing a linked live project for classroom students- outline brief, seminar, tutorial session, making in the workshop, creative investigation, developing design skills, workshop induction, resulting in prototype ranges. But also the company benefits: access to innovation and expertise, CAD file exchange, the graduate is "hands on", implanting design into the organization, visiting

### Abstract ::

manufacturing sites in China, dealing with communication and cultural issues, handling intellectual property issues, using digital skills to communicate to buyers, internal boards and off-site manufacturing. Guiding the key design decisions of the industrial partner; using a variety of research and presentation techniques such as mood boards, model making skills, photo techniques, scale, sketch modeling, materials and components selection... Thus setting up and managing the design process from inspiration to, in this, case dolls houses under the tree at Christmas.

The second presentation will explore two case studies of companies producing ranges for outdoor eating – picnic ware and melamine. In both examples they were selling to key buyers in Europe who were increasingly demanding own-brand by importing product from the Far East. The KTP allowed them to introduce a design capability into their own organization rather than being led by the buyer or the supplier. In both cases they were keen to innovate and diversify and introduce more novel three-dimensional solutions – changing the product fundamentally and not just the surface decoration or finish. The educational benefits for the Associate and student groups will be outlined and explored against the alternative of the consultant or visiting lecturer. In the context of this conference, hands-on design management experience appears to be key, learning by doing but in the global context.

Embedding design is a term used in many of the KTP proposals and it is the importance of having some one in the organization providing that key design expertise and management role and then at the same time being able to share expertise and experience with the University – drawing on innovative advice and allowing the industrial partners, Associate, and students to get much more closely involved through visits and regular seminars.

The paper will conclude by exploring some of issues that have arisen, through these projects and about transferring design knowledge in this way. Outlining the key lessons that have been learnt through the process and the questions that arise about the future form of design management education in the global market place. For example, how and where will design and design management be taught in the future? Are the skills and structures adaptable enough? Charity product development has to some extent shifted in the last decade to production for the local market? Does this entail a new set of knowledge transfers? Many UK Universities are exporting design knowledge, teaching students from the Pacific Rim and Indian sub-continent but with KTP projects they are also sharing expertise with the industrial partner and their suppliers and are more directly involved with the outcomes.

How useful is it for industry to have this knowledge support focused on design management? What sorts of giftware companies have sought this support? The case studies provide some interesting evidence — time distance and communication are key to successful design management.

(One of the speakers is away for a week so it has not been possible to provide a longer draft of the paper by the deadline. It is envisaged that it will be a Power point presentation with images from the case studies, so the speakers need to work further on this and then write it up as a formal paper, this will be possible by the November deadline.)