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'Design against crime': awareness in design education

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Abstract

Whilst various social issues, such as ecological concerns, ageing and disability have received increasing attention within the design curriculum over recent years, crime and crime reduction issues have yet to be addressed to a similar extent. Informed design can be used effectively as a tool for reducing crime associated with environments, products and services through designing in crime reduction measures during the initial stages of the design process. This paper reports on research carried out as part of the Government's Crime Reduction Programme, looking at the topic of design against crime, assessing current awareness of crime amongst professional and student designers, and identifying methods to bring crime reduction more prominently into the design forum.

The current awareness and inclusion of crime reduction in design education was explored by means of a questionnaire circulated to design course leaders, with follow-up in-depth interviews with key respondents. From the research gathered, ideas and recommendations are presented as to how crime reduction can be introduced as an integral part of design education.

Keywords: design knowledge, contexts, crime reduction

1 Introduction

This paper explores ways of introducing crime reduction into design education. It results from research commissioned by the Design Council, Home Office and DTI as part of the Government's Crime Reduction Programme, which aims to achieve cost-effective and sustainable reduction of crime.

It is increasingly acknowledged that effective design can be used as a tool for reducing crime (Ekblom, 1995, 1997). In the automotive industry for example, greater emphasis on security as part of the overall design process has led to a reduction in car theft (Southall and Ekblom, 1985; Sallybanks and Brown, 1999). However, in most industries, products and services are continuously developed with little regard to their potential effect on criminal opportunities and activity.

Social issues such as ecological concerns, ageing and disability have received wide attention in design education and practice over recent years. Crime reduction has yet to be addressed in design to the same extent. By drawing on the experiences from the introduction of other social issues in design education, methods of successfully

introducing design against crime can be developed.

2 Aims and Objectives of Design Against Crime

The overall aim of the initiative was to ascertain factors which constrain or facilitate the use of design in counteracting crime, and to develop new ways of addressing them. This research focused specifically on the design industry, and in particular design education, looking at 'Teaching Design Against Crime'. This had the objectives outlined below:

- Assess the current awareness of crime related topics in design education.
- Identify and document any exemplars of relevant educational practice.
- Develop initiatives that place Design Against Crime on the educational agenda.
- Propose recommendations for the development of an educational and training strategy for designers.

Initial research into the current situation regarding crime reduction topics in design education revealed that whilst crime was covered extensively in the general media, there was less specifically on crime reduction, and little evidence of direct connection

between crime and design. There was some coverage on specific industry matters within some design disciplines such as architecture, urban and building design (e.g. Blyth, 1994; Trousdale, 1994; Clarke, 1997).

A postal questionnaire was prepared to gather quantitative information about the current understanding of design against crime in UK universities. This was targeted at design educators in over 500 design courses. Following on from this, semi-structured interviews were conducted amongst respondents who had already established an element of design against crime within their design degree courses, to establish how this was incorporated into courses, the problems encountered, and identify ideas for future progression. Interviews were also carried out with design educators who had succeeded in introducing other social concerns within the design curriculum. This paper summarises the findings, and methods of introducing crime reduction into design education are discussed.

3 Teaching Design Against Crime

3.1 Teaching design against crime survey

The postal questionnaire survey was conducted in October 1999. The aim was to identify the extent to which social issues and aspects of crime reduction are included in the current design curriculum.

The sample was chosen from 1999 entry prospectuses from all UK institutions offering design courses at undergraduate and postgraduate level. A total of 501 questionnaires was distributed to course leaders. This resulted in 79 completed questionnaires being returned from 36 different institutions - a response rate of 16%. Analysis was carried out looking at the responses from different design disciplines. Of the 79 questionnaires returned, 19% were from visual communications courses, 18% from architecture, 15% from fashion and 14% from product and industrial design. The remaining responses were from specialist or theoretical courses such as photography, design studies and museum design.

3.2 Survey Results

3.2.1 The role of crime reduction within design

Of the respondents, 41% reported that crime reduction and prevention was not relevant to the courses taught within their design discipline, 34% said it was, while the remainder was undecided; 71% of architecture respondents thought that crime reduction and prevention was an aspect of their discipline, while product/industrial respondents were in general undecided, with a minority agreeing there was a role for them. The majority of fashion respondents did not perceive that there was a role in crime prevention for them.

Respondents who did define a role in crime prevention, suggested it might include the following aspects:

- as an information provider, through graphics and exhibition design
- to increase visual awareness of crime and its effects on victims by raising public awareness, through advertising campaigns, editorial and digital media
- combating vandalism
- security of premises, and designing buildings that allow natural surveillance through the organisation of the spatial structure and layout of private/public spaces, and through an understanding of lighting
- construction and the user attitude to the equipment offered
- traceability of products, tracking devices and anti-theft technology
- personal security, through visibility and safety
- the design of crime resistant products
- defining the 'user experience' through explicit contextualising of products
- web/email security
- consideration of internal spatial arrangements in retailing, hotels and restaurants to minimise theft
- the selection of appropriate materials and technology
- in education: providing information, a framework and an understanding within which design disciplines can approach crime reduction.

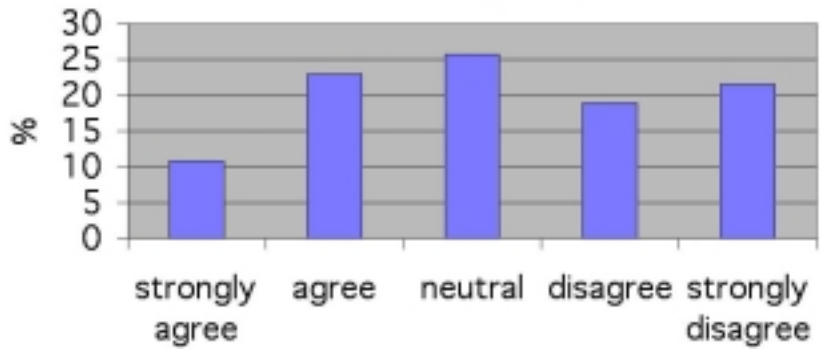


Figure 1 Crime reduction is considered as an aspect within my discipline

3.2.2 The inclusion of crime reduction within design curricula

Overall, in the majority of courses, topics relating to crime reduction were not included in the curricula at all, as shown in Figure 1. It was merely referred to in one third of courses. Crime reduction was an explicit part of the curricula in 40% of architecture courses. This is in contrast to fashion in which over 80% stated that it was not included at all. It was also unlikely to be included in visual communications courses, and only referred to in product/industrial design.

However, despite its general exclusion from the curricula, over three-quarters of all respondents believed that there was a role for crime reduction within their course (Figure 2). More than half stated that the incorporation of crime reduction issues within their curriculum was important, with only a minority, predominantly from fashion related disciplines believing that it was not (Figure 3).

Where crime reduction was included as part of the curriculum, it was most likely to be included at either postgraduate level or level three only. It was likely to take the form of a

core module in over half of these courses, a self-directed (student led) module or project for one third, and an elected module for only 5%. For others it was offered as both core and self-directed modules, or as both elected and self-directed modules.

Crime prevention and reduction was taught mainly within practical projects. On over half of the courses which included crime prevention, it was taught only as a practical project, and only as either a live project or lecture/seminar in 19% and 7% of courses respectively. In comparing the different disciplines, architecture included crime prevention in all methods of teaching, with visual communications and industrial & product including it predominantly in project work.

Of the courses which did include crime reduction, just over half had done so for over three years. For the remaining courses this was a new topic, only recently introduced into the design curriculum. One in six respondents said that plans to include topics about crime reduction were under consideration, with two

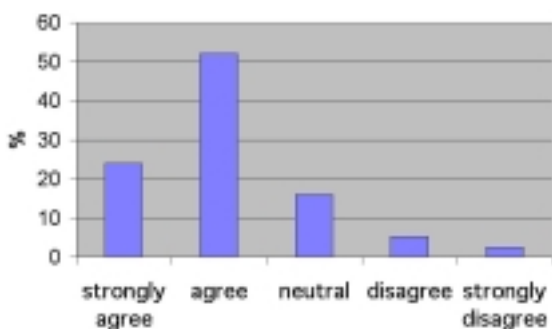


Figure 2 There is a role for my design discipline in crime reduction

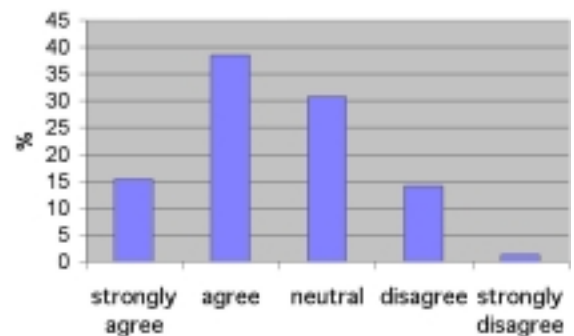


Figure 3 The incorporation of crime reduction aspects within my design discipline is important

indicating that these plans were definite.

3.2.3 Social Issues within design disciplines

Respondents were asked to what extent they agreed that environmental issues, demographics, disability and crime had relevance to their discipline (Figure 4). The majority of respondents agreed that environmental issues had relevance to their discipline, with only 8% remaining undecided. Demographics, especially the issue of an ageing population, and disability were also seen as being relevant to the majority of courses, although the level of relevance was perceived as being less strong overall than for environmental concerns. Crime, whilst still being perceived as relevant by almost 70% of respondents, was seen to be of comparatively less relevance to design than other social concerns.

3.3 Key Issues

Crime reduction, prevention and awareness are generally not considered as aspects of design, although most believe that their discipline has a role to play in crime reduction and was seen to be important to include in their courses. Considering the majority of respondents believed that designers do have a role to play in crime reduction, it is perhaps surprising that there should be such a lack of inclusion of the topic in the design curricula. Interestingly many of the respondents made requests for more information and literature, and commented about not previously considering the matter.

This leads us to suggest that raising awareness and disseminating information about crime reduction in relation to design would encourage more course leaders to include some aspects of crime into their curricula, as they have with other social issues.

Other social issues, within areas such as the environment, disability and demography, are perceived as of greater relevance for design attention than crime reduction.

4 Design against crime - a closer look

Course leaders at two universities which had an active interest in design against crime were interviewed to ascertain how the topic was addressed, how it came to be part of the course, problems encountered in dealing with the subject, and examples of student and other research work which incorporated this.

In the first case involvement in design against crime arose from external research work, looking primarily at environmental factors of design. This addressed crime issues within a particular area of London. Following on from this initial research, having seen the effects that effective design could have on reducing crime, 'design against crime' has been introduced as a significant feature of the work carried out on product design courses, for both final year undergraduates and postgraduates. The course tutors are beginning to build up a body of knowledge on this subject, to overcome one of the major obstacles encountered in starting this new subject, of accessing relevant information.

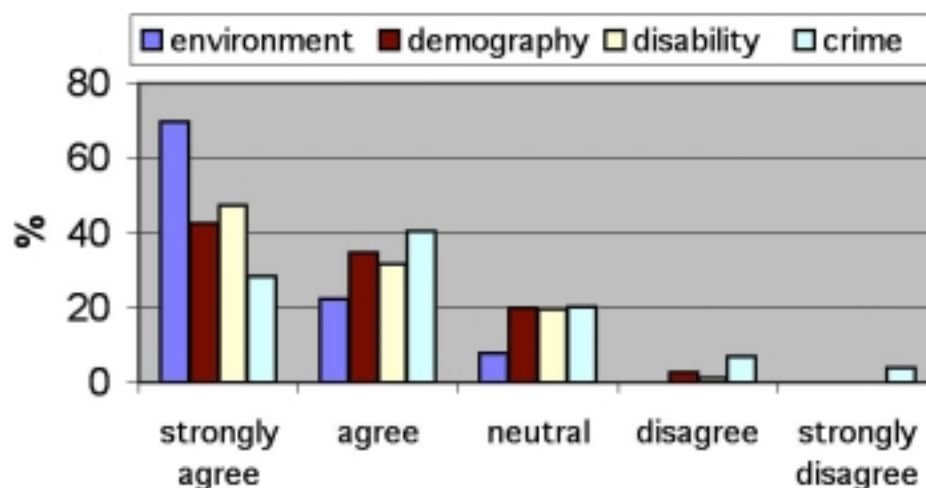


Figure 4 To what extent do these topics have relevance to your design discipline

Design against crime has been approached enthusiastically by the students, who recognise this as being an issue of social relevance. Design projects have covered numerous aspects of crime and crime reduction, including violence against the person, reducing vulnerability and fear of crime, bicycle security, and vandalism. It has also been addressed through graphic design projects.

In the second case, 'design and crime' formed part of the compulsory units on Communication in Context module, taught on the Design Studies course, introduced as an area which was of particular interest to the course tutor. This addressed broad areas of criminology, including perceptions of crime and crime reporting, and is presented as a problem covering all social backgrounds on which design can impact. Two main strands are covered, looking at the design of manufactured products and of the built environment. Difficulty in finding and accessing relevant information led to the course leader setting up a web site to enable students with relevant links to other sites. Whilst the subject generated much interest amongst the students during the taught course, this interest did not appear to be transferred to self initiated project work.

5 Social Issues in design education

Learning from the experiences of those who have successfully introduced other social issues into the design curriculum can provide an insight into which methods work, and how problems encountered can be overcome. The specific areas covered in this research were eco design and design for ageing.

Environmental issues find their way into design courses in a variety of ways. For example, the tightening legislative context must inform the packaging design process. New methodologies such as lifecycle analysis are introduced to students as a means of design addressing all the requirements of the product lifecycle. A critical challenge that faced educators in the early 1990s, as the environment became more important and captured the creative imaginations of students, was the paucity of teaching material

(Press, 1996). There was a need for texts, case studies, exhibitions, video material and research data that could be used for teaching in addition to the need for staff development in the form of conferences, networks and publications so that tutors could make use of the increasing material. The internet has enabled access to dedicated eco-design sites by tutors and students.

This research highlighted the usefulness of award schemes operated by design organisations in raising awareness of the issues, and providing incentives for eco-design to find a place in project work. Inviting key stakeholders to forums to discuss the issues also plays a useful role in creating an educational network which supports and promotes the subject.

Design for ageing is another issue which has had an increasingly significant impact on design education and practice. The Helen Hamlyn Research Centre at the Royal College of Art conducts research into 'design for our future selves', looking at the changing demographics of society as the proportion of older people in the population increases. This Centre spearheads research in this field, disseminating research and teaching materials to practitioners and educators through conferences and a comprehensive website, and has succeeded in developing a community of educators that has embedded ageing within design curricula and empowered their students to tackle the issues involved. One of the factors in the success of the Centre is attributed to the continuing work with users, and it was suggested that this may be a worthwhile approach to take with crime issues.

6 Embedding crime into design education

Design disciplines, by their very nature, are in a constant state of change and renewal, perhaps more so than other academic disciplines (CNAAP, 1992), to ensure the continued relevance of content and the employability of graduates. Design education is also perhaps more visible than other disciplines, providing major incentives to maintain contemporary relevance. Public visibility, close links with industry and the need

to maintain educational relevance in a fast changing context are the key forces which promote change in design education. This, along with developing technologies and changing work patterns, suggests that initiatives to introduce crime awareness into the design curriculum have strong prospects for adoption and for promoting change.

Few courses actively include crime reduction, although the majority of respondents agreed that it would be relevant to include crime reduction within their course. Further investigation highlighted a number of projects which presented creative solutions addressing a range of crime problems including theft in numerous situations, vandalism and personal safety.

By drawing parallels with methods used to include other social issues in the design curriculum and learning from the problems encountered, initiatives to incorporate design against crime in design education can be developed. The experience of addressing ecological concerns and design for ageing, and the experience of course leaders already teaching design against crime, provide some instructive lessons for the wider adoption of *design against crime*:

- The development of teaching materials and staff development support were crucial in shifting eco-design more centre stage in design courses.
- Inspiring exhibitions and content-rich websites have contributed to a rising awareness and involvement by students.
- Awards and competitions both raise awareness and provide an incentive for inclusion.
- Discussion forums and debates with stakeholders and interested educators can prove valuable in creating an educational community and network around the issue.
- The key long term challenge is integration within the core curriculum rather than marginalisation in add-on modules.

Design education provides diverse and relevant study and research opportunities that could offer greater scope for addressing

crime reduction, thereby enhancing our research base in this field and providing essential awareness of the subject and approaches for future designers.

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References

- Blyth, A. (1994) 'Fighting crime with design'. *The architects journal*, 199, 9, 20-21.
- Clarke, R.V. (1997), *Situational crime prevention - successful case studies*, Harrow and Heston, New York.
- CNAA, Committee for Art and Design (1992), *Technological change and industrial design education*, 26.
- Ekblom, P. (1995), *Less crime by design annals*, AAPSS, 539, 114-129.
- Ekblom, P. (1997) 'Gearing up against crime'. *International journal of risk, security and crime prevention*, 2, 249-265.
- Press, M. (1996) 'Research for eco-design: the challenges for design education'. *Material World II: ecological textile design conference*, Textile Environmental Network, Birmingham Institute of Art and Design, 12 Nov.
- Sallybanks, J. and Brown, R. (1999), *Vehicle crime reduction: turning the corner*, Home Office, London.
- Southall, D. and Ekblom, P. (1985), *Designing for car security: towards a crime free car*, Home Office, London.
- Trousdale, M. (1994) 'Minimising risk by design'. *The architects journal*, 199, 27-28.