Media Technologies and an Interdisciplinary Approach to Program Design

Dave Keskeys
Department of Design
Cheltenham and Gloucester College of Higher Education, Pittville Campus
Cheltenham, UK
dkeskeys@chelt.ac.uk

"Another factor… is technical 'convergence' of computing, telecommunications, and media into an emerging digital format…"

"In from the Margins"
A contribution to the debate on culture and development in Europe.
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Introduction

In 1992, I and a number of colleagues were tasked with designing and subsequently implementing a new Bachelor of Arts with Honours degree program (BA Hons) which was to build upon the strengths of our existing provision within the areas of graphic design, photography, and video production. This new program had also to fit within the College's well established Undergraduate Modular Scheme (UMS) and was to be the first of the arts and design areas within the institution to be integrated into the modular scheme. At this time, a small group of staff, including myself, were also working with a team of architects on the design of a new Media Centre to be built to accommodate the new degree course.

This combination of circumstances presented not only a challenge, but an opportunity to re-assess the content, structure, and delivery of the media-related work offered within the institution.

Philosophy

The nature of the media industries has changed dramatically over the past decade and will continue to develop at a tremendous pace as we move into the next century. One of the primary catalysts for this rapid development has been the increasing use of and dependence upon digital technologies. This, in turn, has brought about changes in employment patterns and the skills requirements of those who work within the media. Not only should prospective media workers be confident and proficient in the use of media technologies, but they need to be versatile, adaptable, and open to a process of continuing professional development during their working lives.

Our media degree program would, therefore, aim to equip our graduates with the necessary subject-specific and generic skills and knowledge to enable them to gain meaningful employment in their chosen areas of the media. We set out to ensure that we could provide a subject-specialist practical education within an interdisciplinary learning environment and a multi-disciplinary option for students desiring more breadth to their studies. At the same time, we would aim to cater to the needs of the media industry for technically and technologically competent, creative, flexible graduates who can work independently or collaboratively as part of a creative team.

Utilisation and application of new media technologies were identified in the early stages of development as the essential components around which the program would be structured. The use of digital technologies that permeate each of the separate subject disciplines was to provide a unifying feature that would aid integration of the parts into a coherent whole. This BA (Hons) would offer graphic design, photography, and video and audio visual production with students empowered to combine courses from across these subject areas or able to concentrate on a single subject specialism.

Modularisation and Course Structure

In order to appreciate the freedoms allowed and constraints imposed upon the development team by the UMS itself, it is necessary to gain an understanding of the structure of the scheme as it operates throughout the other degree programs within the institution.

The aims of the UMS are:

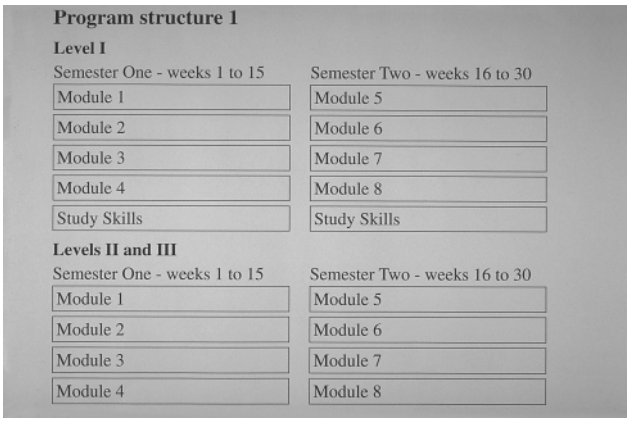
- To provide a modular scheme offering students a variety of flexible programs of study in a range of disciplines.
- To offer programs of study which are intellectually challenging and which prepare students for entry into a wide range of occupations.

The units that make up an individual student's degree program are "modules" or courses with a particular practical or theoretical focus. Full-time students take 10 modules in the first year and eight modules in the second and third years. The additional two modules in the first year cover generic study and transferable skills such as, research skills, time management, and information technology skills.

The study time for each module is spread over a single semester or 15-week period such that a student would be working on five or four modules concurrently. This would produce the typical undergraduate student timetable shown in Figure 1. This pattern of delivery was not thought by the development team to be one which could easily be adapted to meet the needs of the new media degree program. The spread of the teaching and learning time over 15 weeks does not accurately reflect the short deadlines and typical working patterns and practices prevalent within many media production disciplines, which the staff wished to see emulated within the program.

We were determined to design a program that mirrored the professional practices of the areas into which our students would be moving on graduation, and we were not content to be restricted and bound by the constraints of a scheme designed to cater for predominantly theoretical disciplines.

Figure 1



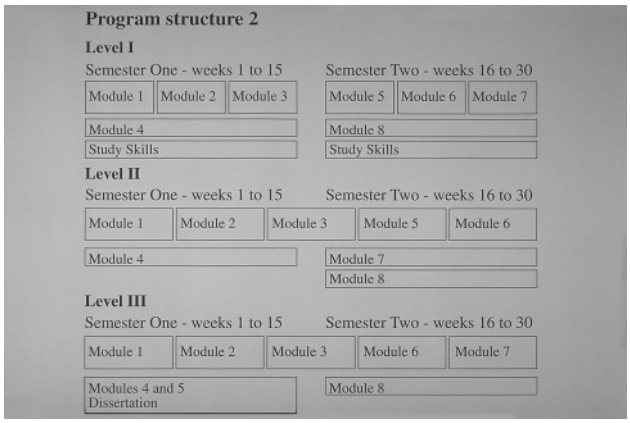
The solution to the problem faced by the development team was to break the rules! A proposal was put forward to develop "short fat" modules (no sizeism intended) for delivery of the practical coursework and to run these alongside the "long thin" modules that provided the theoretical underpinning for the program. The practical modules were to be delivered in a sequential manner, allowing for gradual building of skill levels and conceptual understanding throughout the academic year and from one level to the next. The proposed structure of the program is shown in Figure 2.

The team recognised that the proposed structure (Figure 2) had one distinct disadvantage compared with the traditional UMS model (Figure 1). The timetable disparity caused by the delivery of the practical modules in five- or six-week blocks would preclude non-media-specialist students from accessing these modules. This exclusion runs contrary to the UMS objective of providing a high degree of permeability across the Scheme and facilitating access to areas other than the student's specialist disciplines:

"To encourage students to appreciate the nature of attitudes, modes of thought, and practices of disciplines other than their specialist areas."

Undergraduate Modular Scheme
Educational Objectives

Figure 2



However, the development team felt strongly that the advantages of the "short fat" modules (their reflection of the working practices of much of the media industry and their intensive periods of design and production work for our students) far outweighed the lack of permeability afforded by the proposed structure. After much debate and agonising by the UMS Management Team, the proposed structure was accepted as the basis for development of an interdisciplinary media design program – in effect, a small modular scheme for media students operating within the wider UMS.

Curriculum Design and Digital Technologies - The Starting Point

In designing a curriculum to meet the needs of graduates entering an increasingly complex and changing media industry into the next century, we recognised that integration of design for and using digital media technologies should be a primary aim of the development team. Each of the disciplines to be represented within the program had previously engaged, to a greater or lesser extent, with computer technology in the content and delivery of each subject syllabus, and the staff acknowledged the inevitability of increasing engagement in the years ahead.

The graphic design program that existed prior to the development of the new degree program relied heavily upon computer technology, not only for the design and production of artwork for print media, but in the design and presentation of computer-based information resources at a time when very few programs in the UK were addressing issues of design for interactive screen-based media. A network of Macintosh computers with associated image capture and output devices formed the basis of the design and production studio. Our advertising and editorial photography program had a

well-established reputation within the British Institute of Professional Photographers and UK Association of Photographers for excellence in the provision of photographic education. In the early 1990s, the photography team were just beginning to address the demand for digital imaging and manipulation within the program and were starting to utilise computers to enable their students to show their images within the context of the media for which they were intended.

The extent of the video and audio/visual work within the College was very limited, but computer-programmed tape-slide productions were being produced, and there was a growing realisation that digital editing of video and audio sequences would have to be catered to within the new development.

Clearly, a substantial investment was necessary in both the Media Centre building itself and the hardware to equip it, if the proposal was to be successful. The College determined that an innovative media provision was a worthwhile investment for the future, and the program was validated for a first student intake in September 1993. A month later, the Media Centre was officially opened by film producer Lord David Puttnam. The title of the qualification is a Bachelor of Arts with Honours in Professional Media with the specialism added for students who achieve a requisite number of subject-designated modules such as Professional Media (Graphic Design).

The Professional Media Module Map

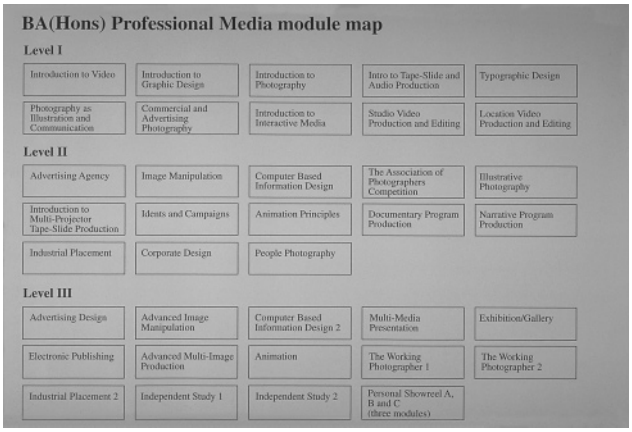
The modules developed and now offered to students are represented in College documentation in the form of a "map" or plan of the three levels of study. All modules are available to all students registered in the program provided that they have taken and passed any prerequisite modules deemed necessary at the lower level of study. For example, any student, regardless of the specialism for which they are registered, may take a Level II video module provided that they have taken the Level I video module that provides the required knowledge and skills to underpin the more advanced work. For the purposes of this paper, information regarding prerequisites, compulsory modules, and award requirements is not included on the map. In order to simplify and maintain clarity in the presentation of the map, the Study Skills modules shown in the earlier structure diagrams and the theoretical modules (the "long thin" modules), including the dissertation, have also been omitted.

which many of the principles surrounding the content and delivery of the program are built.

All students in our media program also receive tuition in Information Technology skills within one of the Study Skills modules. This module instructs students in the use of scanners, printers, text, page-composition software, spreadsheets, databases, and research methods.

These two modules provide the core introductory knowledge and skills to enable students to profit from the more complex and involved computer design and production work and media theories covered within later modules.

Figure 3



Laying the Foundations

The Media and Technology, a theoretical module compulsory for all Professional Media students, explores the social, cultural, and practical issues around development and exploitation of digital technologies within broadcasting, the leisure industry, print media, information design, and education. The Media and Technology module lays the foundation stone in establishing the concept of the convergence of computing, communications, and media through digital technologies upon

All Professional Media students take each of the introductory modules in photography, graphic design, and video in the first semester of Level I, giving each student an insight into the working methods and practices associated with disciplines other than their own. The organisation of the curriculum and availability of module options within the timetable has been designed to enable each student to work across the range of disciplines or to follow a well-defined subject-specialist pathway in Levels II and III.

Practical Options

Many of the practical modules afford the opportunity for the tutor to present a variety of project briefs with the intent that students can choose the brief that most closely reflects their own interests and enables them to develop the skills needed in pursuit of their individual career goals. For example, the module Idents and Campaigns might include an opportunity for students to work collaboratively on a piece of work such as a television channel identification slot through video or computer animation, or to work independently on a public-awareness advertising campaign using any appropriate medium. Typically, the tutor might set an anti-drunk-driving campaign or an anti-smoking campaign, which could be presented in the form of designs for 48 x sheet posters or magazine page advertisements. 'Fagtastic' (Figure 4) and 'Lethal Weapon' (Figure 5) show single elements of the different solutions presented by two students for an anti-smoking campaign aimed at the teenage population. It can be seen from these examples that there is the potential for a tremendous amount of overlap in the type of work required from and produced in response to the briefs set within different modules. 'Lethal Weapon' might easily have been produced within the modules Image Manipulation or Advertising Agency or as an Independent Study module in Level III.

Figure 5 'Lethal Weapon' by Trevor Warne (1995-98)

Figure 4 'Fagtastic' by Nicholas Pauley (1994-97)

Team Working

A distinct advantage of designing an integrated media degree program over traditional stand-alone subject programs is the possibility of bringing together the talents and skills of students from different disciplines to enable each to learn from the other and to contextualise the work of each discipline in relation to the others. The development team wished to promote a teamwork ethos that echoes the multidisciplinary team approach involved in much media production work. It was therefore decided, at a very early stage in the program development, that modules would be devised that were appropriate to the work of two or all three of the major subject disciplines. Every opportunity is afforded for students to work as part of a creative team. This approach is designed to enable all students to work to their strengths, to pursue individual research interests, to produce portfolios that reflects their own career aspirations, and to place these individual aims within the context of the wider media arena. Video and tape-slide are the most obvious modules that require group work, but the program tutors endeavour to ensure that the teamwork approach is adopted in other appropriate areas of the curriculum. For example, the Advertising Agency module outline states:

"Students will be given the opportunity to form into creative teams of up to

four members to work collectively towards the formulation of an advertising campaign. The module therefore encourages the interaction, in a live sense, of team members such as an Art Director, Copywriter, Photographer, Typographer etc."

Similarly, the Level III Multimedia Presentation module outline states: "Students may work as part of a design and production team within this module. Each student or group of students will research and collate the necessary textual, graphic and photographic materials needed to assemble their presentation. It is expected that each presentation will utilise the computer's facility to integrate sound, moving images, still graphic and photographic images and animation sequences in a single program."

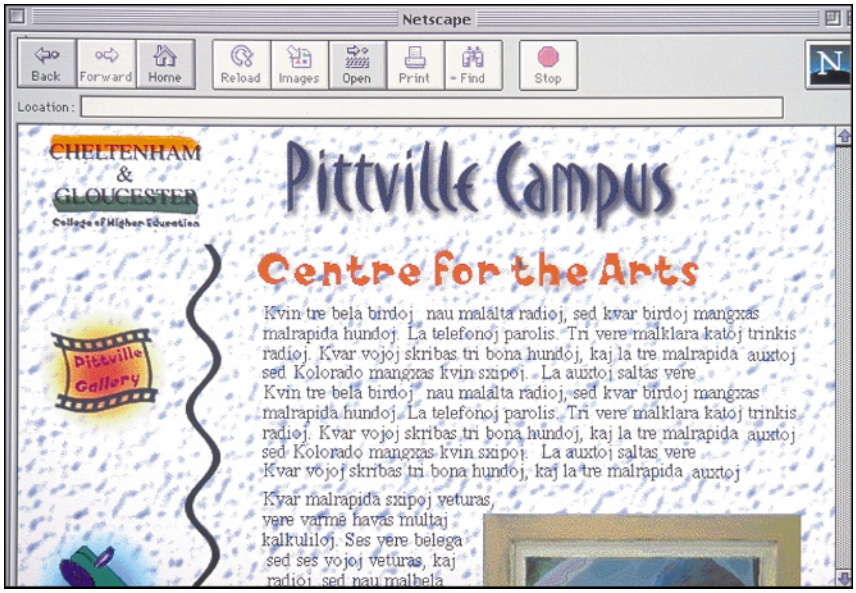


Figure 6 Pittville Campus by Tim Geoghegan (1994-97)

Figure 7 Cheltenham Kiosk by Tim Geoghegan (1994-97)

The Use of Media Technologies

Computer-based information design and multimedia are gaining a higher profile within the program as students start to appreciate the growth in employment potential for graduates with skills in design for interactive media. To some extent, our program is demand driven, not just by the needs of the industry but by the way in which students increasingly orientate their work within the modules on offer. As our students very often have a choice in the output media they can use in response to the design problems they are set, it is easy for the tutors to assess the areas of growth and demand within the curriculum.

A wide variety of computer or screen-based projects have been undertaken within the program by students from each of the subject disciplines. In the summer term of 1997, a photography major and a video major worked together on a Web site design within an Independent Study module, resulting in the video student gaining employment in an interactive design company on graduation. A proportion of graphic design specialists choose to work almost exclusively on computer-based work as they progress through the program, experiencing design for CD-ROMs, the Internet and interactive kiosks.

Figure 8 Fire by Richard Elbaz (1994-97)

Pittville Campus (Figure 6) shows a screen shot of a prototype Web site design for our own College produced by a recent graduate, Tim Geoghegan, who is now undertaking a Masters program in multimedia design. Tim also produced, whilst on the Professional Media program, designs for an interactive tourist information kiosk for the town of Cheltenham (Figure 7), an innovative interface design for music composition, and a number of traditional and computer-animated sequences. Another recent graduate, Richard Elbaz, designed and produced a prototype of an interactive computer games magazine for publication as a CD-ROM (Figure 8), while other students have designed an interactive mail order catalogue, a virtual postcard, promotional CD-ROMs for rock bands, and interactive portfolios of their own design work. These projects have all required the individual student to become familiar with, or to work with other students who are already competent with, image capture and manipulation through software such as Adobe Photoshop, illustration software, video and audio production and capture, and basic programming using Macromedia Director or HTML. Some students have also needed to learn a 3D modeling program in order to execute their designs.

All video students and most graphic design students are now familiar with the concept of the timeline and digital storage and retrieval, either through digital video and audio editing, programming of tape-slide sequences. or computer animation and interactive work in Director. This enables each of them to be able to communicate in the same “"technical language” with other students who might form members of a cross-disciplinary team.

Image Manipulation

Initially, the Image Manipulation modules were planned to introduce photography students to digital photographic retouching and photo-montage work. However, these modules have proved so popular with graphic design students and some video students that additional runs of the modules have been provided, and the range of options available within them has been expanded. Image manipulation as a medium for illustration has become an important element of the program, with students keen to embrace the use of computer technology to produce interesting solutions to photographic illustration projects.

Drink me (Figure 9) by Katherine Hood combines traditional studio photography with computer image manipulation and is one image in a series of illustrations for "Alice in Wonderland." Image manipulation techniques are also used within advertising campaigns, book jackets, music CD or tape covers, information design, and interactive media. Absolut Dali (Figure 10), for example, is one of a series of advertisements for Absolut Vodka produced by graphic design student Renee Le Poidevin, which demonstrate the potential of digital technologies in enabling students to successfully visualise their advertising concepts.

Figure 9 Drink me by Katherine Hood (1995-98)

Wherever possible and practical, staff encourage students to contextualise the work that they do. Photography students are often required to present their images both as photographic prints and also as computer printout, showing how the images would appear with text applied as an advertisement, within a magazine layout, as a book jacket, etc. This approach to presentation of work is designed to familiarise students with the working practices of the broad range of media disciplines and to enable them to appreciate how their own discipline relates to others.

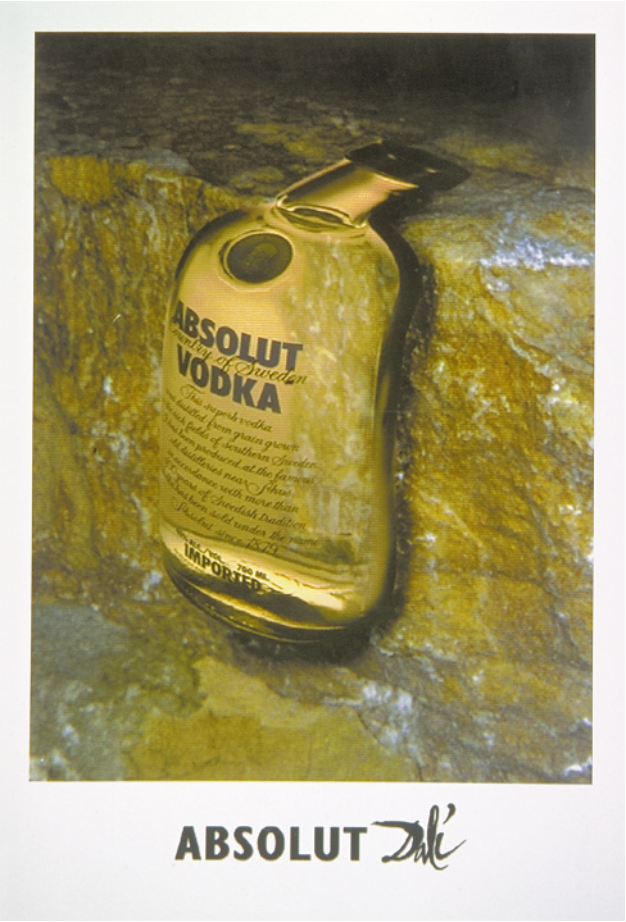


Figure 10 'Absolut Dali' by Renee Le Poidevin (1994-97)

Future Development Potential

While the initial proposal was limited to coverage of the areas of photography, graphic design, and video and audio visual production, it was recognised from the outset that the program design and structure should be capable of dynamic growth. The graphic design content of the program is currently broad-based and inclusive, with all graphics students experiencing work across a range of design areas. It was always the express intention of the development team to provide a number of more focused, in-depth specialist design options at later stages. It has become apparent that the need to provide specialist pathways in advertising design and design for interactive media are the most pressing, with an increasing number of students seeing the rapid growth of these areas as providing potential employment opportunities. The Professional Media tutors are currently working on enlarging the module base so that these additional specialisms can be offered for future intakes.

The program, as it stands, is extremely successful, having gained an excellent report from UK Government-appointed inspectors in 1997 and receiving approximately 10 applications for each place available. Our aim is to maintain or enhance the already high quality of the program as we open further options and increase participation in years to come.