

# Teaching Digital Typography — the Didot Project

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## Abstract

This paper briefly outlines the Didot project on teaching digital typography. One of the key issues, namely identifying the users of digital typography, is explored and related to the type of material that could be included in a curriculum for digital typography. Teaching methods and material that have been developed in this area are outlined, with particular reference to the work at Reading.

## The Didot Project

**Introduction.** The acronym Didot stands for “Digitising and Designing of Type” and this project has been funded as part of the European COMETT II programme. The project started in 1990 and is due to finish in September 1993. The partners come from research centres, academic institutions, commercial organisations and studios in France, Switzerland, Germany, UK, Spain, Greece and Italy.

**Aims.** The aims of the project are to:

- design, implement and evaluate a curriculum for digital typography, designed for both computer-oriented specialists and graphic artists and typographers;
- organise seminars and workshops for both groups; and
- publish and distribute information.

## Key Issues

**Promoting discussion.** One of the main aspects of the project has been the provision of mechanisms for encouraging discussion between computer specialists and design specialists. Seminars and workshops have been set up to combine the teaching of both groups, but there has been a predominance of either one or the other group at the meetings.

**Defining digital typography.** The Didot project focuses on type design, looking at methods for creating and drawing characters. However, some of the work at Reading has extended the scope of the project to include how we use typefaces in designing documents. The study of digital typography is therefore relevant to, not only those involved in creating

and manipulating fonts, but also users of document preparation systems.

## Users of digital typography

In wishing to address all users of digital typography, we therefore need to consider:

- computer scientists and technicians,
- graphic designers and typographers,
- type designers,
- teachers and students, and also
- amateur designers.

This last group may not fit into either of the two categories of computer or design specialist, but do make up a large percentage of users.

**Graphic artists and typographers.** Having established the range of users, we should consider what material is relevant to each of the groups engaged in digital typography. Graphic artists and typographers use the tools of digital typography, and may have something to say about the development of such tools, but they are not normally the developers, as they lack the technical skills. The contribution that designers can make to developing software was discussed at a summer school in Lausanne. The nature of the tools that are being produced should be influenced by the working procedures adopted by designers. For example, designers may have clear ideas as to what type of work they wish to do on paper, and what can best be carried out on screen. However, such a contribution does not necessarily require that designers be taught the technical aspects of digital typography.

**Computer specialists.** Computer specialists may be the developers of the tools of digital typography,

and also users. However, they may not have the appropriate design knowledge to make best use of the tools. We therefore need to identify those aspects of design that are most relevant to their aims. We may need to distinguish between what is taught to users and what is taught to developers and implementors (cf. Brown and Utting, 1992).

**Amateur designers.** The large group of users, classified as amateur designers, are likely to come from a range of disciplines, but have probably become users of digital typography through an interest in computers, rather than design. They may therefore be similar to computer specialists, but may have slightly different objectives in learning about digital typography.

### Approaches to integration

**Working together.** At a Reading Didot seminar, we discussed some of the ways in which computer scientists and designers can work together. Over the course of Didot seminars, designers have received information about digital techniques, and computer specialists have heard about design issues. One of the more obvious problems is interpreting the 'language' of the other discipline. For example, design concepts are not expressed in the 'normal language' of computer scientists. We therefore need to question how far we should go in teaching another discipline. It may be most appropriate for computer scientists to use the tools (with direction from designers) as opposed to designers using the technology themselves.

**Curriculum development.** One way to approach this diversity of needs is to design a curriculum for digital typography which is sufficiently flexible to cover a wide range of requirements. The nature of a generic curriculum is discussed by Dyson (1992), who argues that the same topics may be relevant to different disciplines, but the subject matter may need to be treated differently depending on the background of the students.

The subjects that could be included in a curriculum for digital typography have been explored by André and Hersch (1992) who concentrate on the computer science aspect of the subject. They put forward the argument, which is fundamental to the Didot project, that digital typography should not be taught without teaching classical typography. Within the Didot project, this is dealt with in terms of historical and cultural aspects of letterforms and the fundamentals of letterforms and the design of type.

### Teaching Methods and Material

The Didot project has explored a range of teaching methods and materials in relation to digital typography which include:

- seminars,
- workshops,
- short courses,
- vacation courses, and
- tools.

This paper briefly describes the full programme of seminars conducted by Didot partners so far, but focuses on examples of activities and teaching material from Reading. These examples are considered in terms of their relevance for the various groups of users of digital typography outlined above.

**Programme of seminars.** The nature of seminars has varied, depending on the specialisms of the seminar organisers, and also the country where they have taken place. The seminar/workshop in Reading explored ways of introducing people to some of the issues surrounding letterform design and studied digital techniques alongside traditional methods of design and manufacture. The summer school in Lausanne provided a more thorough grounding in technical matters, combined with the cultural, historical and aesthetic aspects of the subject. The Basel seminar built upon the previous seminars and developed and evaluated educational concepts. The French seminars were aimed at graphic designers and provided a means of demonstrating and working with the new technologies. The workshops of the Didot works seminar in Hamburg again focused on digital tools, with the lectures providing a rich design context.

The seminars in Italy and Greece were somewhat different in nature as they highlighted the important role of education within their respective countries. In particular, they raised awareness of the problems of using the tools of digital typography without the necessary background knowledge.

**Reading seminar.** The seminar in Reading with the title 'Type design: tradition and innovation' involved exercises in lettering, lectures on historical aspects of type design, and demonstrations of making type by hand (punchcutting, matrix making and type casting) and by machine (IkarusM). Those who attended were mainly involved in type design, type production or education, but there were a few computer specialists. A seminar/workshop of this nature is probably most useful for those who have a little knowledge of type design and wish to specialise. The computer-oriented participants felt that there

was insufficient innovation (i.e., technology) in the programme. This comment may have reflected their own personal views, or may have been a suggestion as to what would have been more appropriate for the design-oriented group.

**Local workshops.** In addition to international seminars, a series of local workshops in Reading have introduced typography to beginners through the three areas of lettering, traditional handsetting and computers. The main objective of the workshops was to explore the relationship between major typographical variables through practical experience of different techniques and tools. Lettering introduces students to the influence of the tool on letterforms. Handsetting allows students to directly manipulate type and space, an experience which can then be translated into the less tangible medium of computer typesetting.

Basic issues of legibility, dealt with in theory classes, were re-examined. The relationships between choice of typeface, type size, interlinear spacing, line length, setting, hyphenation and format were explored in a series of exercises using the computer to set type. The students then evaluated the results of their exercises through conducting empirical tests.

These activities were aimed at establishing effective design procedures for digital typography, and are therefore suitable for all groups of users except experienced designers. They would be particularly appropriate for amateur designers.

**Short courses.** Courses spanning two to three days are regularly conducted at Reading on the subject of design issues for desktop publishing. These cover aspects of document design such as legibility, house style, heading and cueing devices, and are targeted at amateur designers.

Some of those who attend are computer-oriented and this has sometimes led to a greater interest in the tools themselves, rather than how to design using the tools. This natural tendency to seek out the areas with which we are most familiar, is one of the problems we need to overcome in Didot's interdisciplinary teaching. It may also be a warning that we should not go too far in trying to cross disciplines.

**Vacation courses.** Some of the teaching methods used at Reading in relation to the teaching of historical and cultural aspects of letterforms have been evaluated as part of the Didot project. Students attend two vacation courses as part of the four year BA(Hons) in Typography & Graphic Communication. One of these takes place in Northern Europe and the

other in Italy. These courses abroad provide direct experience of the material they are learning about through lectures and seminars in the Department and aim to stimulate interest in the subjects they are studying. The evaluations have looked in particular at working methods, and how useful the students perceive these methods to be. Comparisons have also been made with other forms of teaching, such as lectures, seminars and practical work. The questions have evaluated:

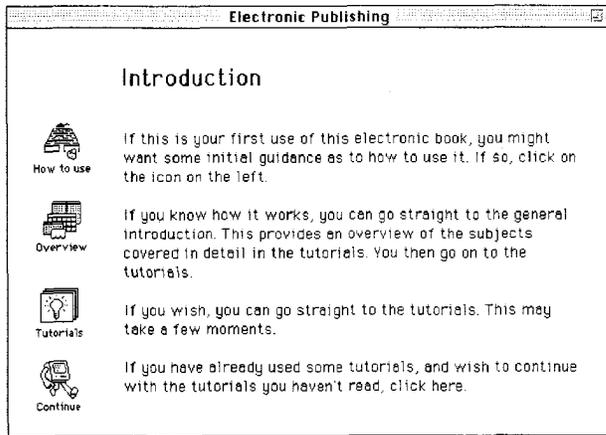
- the type of activities engaged in on the vacation courses;
- forms of preparation;
- sources of information;
- methods of learning;
- methods of recording information; and
- methods of analysis and synthesis.

The results support the use of first hand experience as a means of learning. The courses help with student's understanding of specific issues in theory and history, as well as providing inspiration for practical work. There does however, need to be sufficient preparation before the course and a means of consolidating what has been taught afterwards, to make best use of the time spent in observation and analysis whilst on the course. Although such courses would be excellent means of stimulating interest in all groups of users, they are only practical as part of a more extensive programme of teaching.

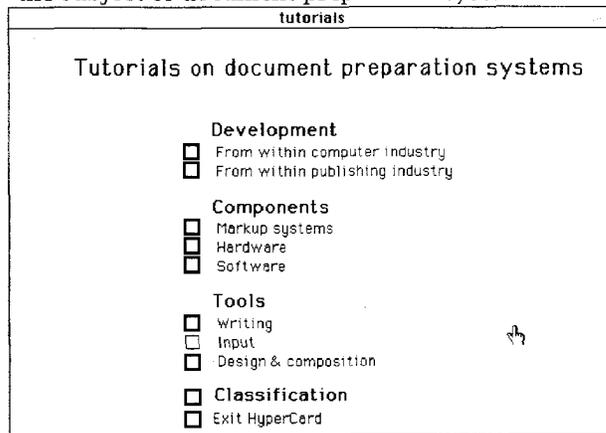
**Tools.** Within the context of the Didot project, specific tools have been developed as teaching material. An interactive program comprised of exercises in character-hinting techniques has been developed at EPFL.

As a student project at Reading, a video has been made based on material from the seminar. The video explains the process of punchcutting and type manufacture to people with no knowledge of the subject.

Also at Reading, a hypertext on the subject of document preparation systems has been written to support a series of lectures and is currently being evaluated. One of the introductory screens is shown in Figure 1. This tool is useful for design students as a source of reference material on some of the technological aspects of the subject (see Figure 2). However, it could be modified to suit different types of students, or the requirements of different courses. If placed within an interdisciplinary context, computer-oriented students may desire greater technical detail than typography students, but they may also require more detailed explanation



**Figure 1:** An introductory screen of HyperCard on the subject of document preparation systems.



**Figure 2:** Contents page showing the tutorials available.

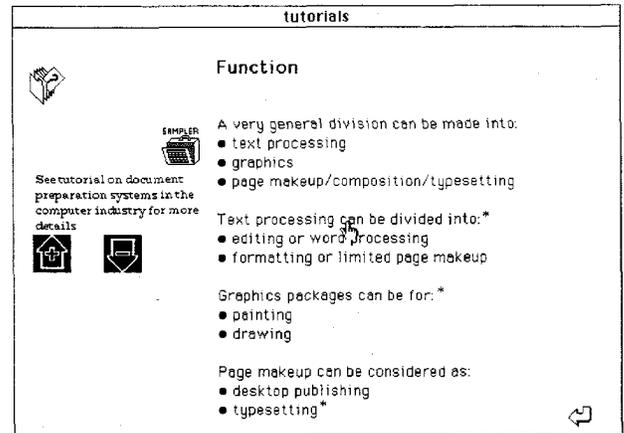
of design issues. This additional information can be included at a different level, so that users can call up the information if they wish (Figure 3). Developing tools such as these may meet the needs of a range of users of digital typography.

### Conclusions

Digital typography encompasses a diverse range of specialisms and we must consider the balance between teaching the core of the subject and developing and distributing specialist material. The requirements of specific types of users need to be clearly defined and mapped onto a range of appropriate teaching methods and materials.

### References

André, J. and Hersch, R. "Teaching digital typography", EP-ODD, 5(2), 79 - 89, 1992.



**Figure 3:** A screen from a tutorial showing that further information is available on text processing.

Brown, H. and Utting, I.A. "Teaching EP to computer scientists", EP-ODD, 5(2), 91 - 96, 1992.

Dyson, M.C. "The curriculum as a hypertext", EP-ODD, 5(2), 63 - 72, 1992.