

COMPUTER EDUCATION IN SCHOOLS OF ARCHITECTURE  
AND THE NEEDS OF PRACTICE

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In April, 1985, there was a meeting (at Huddersfield Polytechnic) of representatives from 26 Schools of Architecture. At this, concern was expressed about the lack of direction from the RIBA with regard to the appropriate level of computer teaching on architectural courses. In addition, it was felt that it was essential that at least one member of a visiting Board panel should be computer literate and in a position to give advice. These points were raised at the RIBA Computer Committee later in 1985, and the committee's attention was also drawn to comments contained in the report by HM Inspector on Public Sector Education in Architecture (1985) based on investigations made during 1984. Paragraph 46 of this paper states:

The influence of computing technology in architectural education is disappointingly small and is lagging behind other disciplines. There is an urgent need for schools to recognise the value of, and use of, the computer as an essential tool in the teaching and practice of design.

The Committee was disturbed by the comments from both sources. Several points emerged during discussion.

1. Was the RIBA (EPDC) aware of the current level of computer teaching in schools?
2. which was the appropriate body to determine an 'appropriate' level of teaching?
3. What was the view of the profession?

This paper provides further information about the first and third of these points

A paper (J. Howes, Helsinki, 1984) showed that in 1984 out of 35 schools surveyed, all had computers and 16 had compulsory computer courses. All schools had optional computer courses and tuition in programming was available in most. Several schools had well developed research activities and were in the forefront of software development for the industry.

Looking at the statistics less optimistically, it is evident that at the time students in half the schools could escape any contact with computers.

Representatives from the schools met at Leicester in April 1986, when a more up to date picture emerged. It has not yet been possible to analyse the findings in detail, but -the results will be made available as an appendix to this paper. The Architectural Advisory Board to the National Council for Academic Awards has suggested recently that

there should be a minimum level of computer use by students in public sector schools of architecture. Students would be expected to have some understanding of the use of computers, coupled with practical experience. They should be aware of the implications of the use of computers in architectural practice.

As regards the views of the profession, opinion has been obtained from a large number of practitioners, representing private and public practice and the Construction Industry Computer Association.

The subject was discussed at an open meeting of the Computer Committee, attended by 50 or so people, after the Construction Industry Computer Conference in February 1986. There was such a remarkable degree of unanimity which can be expressed very concisely.

1. All graduates would be expected to be computer literate and to understand problems involved in computer applications. They should know how to approach keyboards and manuals without 'fear' and have 'hands-on' experience of common applications. (eg. spread sheets, word-processing)
2. It would be useful if graduates had some 'hands-on' experience of a drafting system, however rudimentary. Conversely, there was some feeling that too great a familiarity with a particular system was counterproductive. 'Unlearning' in practice is expensive.

3. Compulsory teaching of programming except at a very low level was not thought to be appropriate, but awareness of logical constraints and problem definition was desirable.

There may be considerable problems for schools in terms of finance, personnel and curricula if compulsory teaching involving many man hours of 'hands-on' experience is to be implemented.

It is a problem which must be resolved quickly if architects are not going to fall behind other professions in technological developments.

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