
HISTORY OF COMPUTING IN EDUCATION

IFIP – The International Federation for Information Processing

IFIP was founded in 1960 under the auspices of UNESCO, following the First World Computer Congress held in Paris the previous year. An umbrella organization for societies working in information processing, IFIP's aim is two-fold: to support information processing within its member countries and to encourage technology transfer to developing nations. As its mission statement clearly states,

IFIP's mission is to be the leading, truly international, apolitical organization which encourages and assists in the development, exploitation and application of information technology for the benefit of all people.

IFIP is a non-profitmaking organization, run almost solely by 2500 volunteers. It operates through a number of technical committees, which organize events and publications. IFIP's events range from an international congress to local seminars, but the most important are:

- The IFIP World Computer Congress, held every second year;
- Open conferences;
- Working conferences.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is small and by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is less rigorous and papers are subjected to extensive group discussion.

Publications arising from IFIP events vary. The papers presented at the IFIP World Computer Congress and at open conferences are published as conference proceedings, while the results of the working conferences are often published as collections of selected and edited papers.

Any national society whose primary activity is in information may apply to become a full member of IFIP, although full membership is restricted to one society per country. Full members are entitled to vote at the annual General Assembly, National societies preferring a less committed involvement may apply for associate or corresponding membership. Associate members enjoy the same benefits as full members, but without voting rights. Corresponding members are not represented in IFIP bodies. Affiliated membership is open to non-national societies, and individual and honorary membership schemes are also offered.

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*IFIP 18th World Computer Congress
TC3/TC9 1st Conference on the History of Computing in Education
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Dedication

This book is dedicated to

The men and women around the world who seek to preserve the legacy of their profession

and to

John A. N. Lee for his many years of dedicated service in the promotion of computing history throughout the global educational community and within IFIP.

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Preface

This work derives from a conference discussing the history of computing in education. This conference is the first of hopefully a series of conferences that will take place within the International Federation for Information Processing (IFIP) and hence, we describe it as the First Conference on the History of Computing in Education (HCE1). These proceedings represent a collection of works presented at the HCE1 Conference held in association with the IFIP 2004 World Computer Congress held in Toulouse, France. Contributions to this volume range from a wide variety of educational perspectives and represent activities from four continents. The HCE1 conference represents a joint effort of the IFIP Working Group 9.7 on the History of Computing and the IFIP Technical Committee 3 on Education.

The HCE1 Conference brings to light a broad spectrum of issues and spans four continents. It illustrates topics in computing education as they occurred in the “early days” of computing whose ramifications or overtones remain with us today. Indeed, many of the early challenges remain part of our educational tapestry; most likely, many will evolve into future challenges. Therefore, this work provides additional value to the reader as it will reflect in part the future development of computing in education to stimulate new ideas and models in educational development.

The Program Committee of HCE1 received over thirty proposals to its call for participation. Subject to the constraints of the conference, it sought to provide a representation of the history or development of computing in education. The Program Committee believes that the eighteen papers appearing within these proceedings capture the essence of the historical

panorama presented at the conference. It also considers this HCE1 event historic in itself as it attracted so many worthy proposals and published papers. Indeed, it looks forward to an exciting and enlightening discourse in Toulouse. The HCE1 program indicates that the efforts brought forward by all concerned will contribute to a very worthwhile event.

The HCE1 Program Committee expresses its gratitude to the organizers of the 2004 World Computer Congress for without their support, this conference would not be possible. The Committee looks forward to joining the presenters and attendees of the HCE1 conference and welcomes all participants to this historic event.

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Chair, IFIP WG 9.7

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Welcome

Welcome to HCE1 – the First Conference on the History of Computing in Education. HCE1 is one of several conferences held in association with the 2004 World Computer Congress of the International Federation for Information Processing (IFIP). We welcome you to this important event.

The title of this conference is fortuitously ambiguous. We may interpret it as either the “History of *Computing in Education*” or the “*History of Computing* in Education”. The contributions reflect issues from authors from four continents and both these interpretations are well represented in the proceedings. Therefore, the papers allow us to look at the computing education from both points of view. At the same time, the diversity of viewpoints represented by the two sponsoring Technical Committees is apparent. The presentations allow individuals to learn about the history of computing in education in ways that will assist us in furthering the goals of the Technical Committee on Education (TC-3) and to examine the relationships between computers and society, which is the goal of Technical Committee 9.

This conference is a first for the IFIP World Computer Congress in the context of looking at the history of a topic of concern to a specific Technical Committee of IFIP. I hope that it will stand as a model for future meetings where we can look further at the history of computing and how that view can assist us both in furthering the work of IFIP committees and in charting a future course for study.

– *Peter Bollerslev*
HCE1 Program Chair

Acknowledgments

The editors appreciate the cooperation and diligence of the authors in the preparation of this volume; it was a pleasure to work with them and to learn more about the impact of the computer on education in the past years.