

Dianne Murray: A life and times in HCI

Abstract

This submission is primarily about my involvement in Human Computer Interaction since the late 1970s/1980s - when the area was still called “Man-Machine Interaction/Man-Computer Interfaces/.Man-Computer Symbiosis” and the like. It covers, first of all, my work and times at the UK’s National Physical Laboratory (NPL) in the small HCI group which had existed since the time of Dr. Chris Evans¹, a pioneer in the uses and promise of the new breed of personal micro-computers². The work carried out at NPL³ at that time is now mostly forgotten but it was fairly significant in its impact on the UK development of HCI, and later, on that of many aspects of ‘Usability’. I also tell about the beginnings of the British HCI Specialist Group, now known as ‘Interaction’ and my time as co-Editor and then Editor-in-Chief of its academic journal, *Interacting with Computers*. I discuss my later career as an HCI Educator and as a research scientist continuing to work on Intelligent User Interfaces (UI) but also looking into collaborative activities in Computer Supported Co-operative Work (CSCW). Finally, I note the remainder of my career, still in the education area, but also as a Consultant in HCI and Usability.

Life and Times

I have been active in the HCI field since 1979, with a joint degree in CS and Psychology from Brunel University. I started work by editing and supporting a Medical Interviewing System (called MICKIE⁴) which was developed by Chris Evans for the newly-formed Medical Computing SIG of the British Computer Society. I spent time in a GP’s surgery (with Dr. Geoffrey Dove) and observed patients and doctors using MICKIE⁵ - which ran on a Commodore Pet and a Rair Black Box, long before the BBC Micro arrived. MICKIE was also, for a time, an exhibit in the Science Museum and was used by groups in Dr. Dove’s surgery and by doctors in a Glasgow hospital⁶. Other work which could be classed as HCI was strongly related to Accessibility issues and to Computer Based Training (CBT), which was starting to become an important discipline and commercial arena with many well-attended conferences and exhibitions.

As a research scientist in the Scientific Civil Service at NPL I was involved in the development of an Authoring System (MICROTEXT^{7,8}) for the BBC Micro in the early 1980s. This became a commercial product with Acornsoft Ltd. and was later closely associated with interactive videodisk technology. Shortly afterwards, when the BBC Micro was long-gone, an Alvey-funded project (on Intelligent Computer Aided Instruction) and ESPRIT projects (on user assessment, usability and metrics)⁹ took place, managed by Nigel Bevan¹⁰. Just before that, together with David Benyon, I developed early work in adaptive interfaces, user modelling and intelligent systems¹¹.

During my time at NPL, I became (like Nigel Bevan) heavily involved in external activities to do with growing the field of HCI in Britain but not - unlike him - in the IFIP, Usability and Standards world¹². The British HCI Group started its existence around 1983/4 as a Specialist Group of the British Computer Society with Nigel as a prime mover, ably helped by what was, at the time, the UCL Ergonomics Unit. The Group

1 E.L. Albasiny, D.W. Davies, E.A. Newman, Brian Shackel, Cliff McKnight, Recollections of Chris Evans, *International Journal of Man-Machine Studies*, Volume 14, Issue 1, (January 1981), Pages 3-11.

2 Christopher Evans, *The Mighty Micro - The impact of the computer Revolution*, Gollanz, 1979.

3 David M. Yates, *Turing's Legacy: A History Of Computing At The National Physical Laboratory, 1945 1995*, National Museum of Science and Industry, 1997

4 Nigel Bevan, Peter Pobjee, Shirley Somerville, MICKIE—A microcomputer for medical interviewing, *International Journal of Man-Machine Studies*, Volume 14, Issue 1, (January 1981), Pages 39-47.

5 G. A. W. Dove, P. Wigg, J. H. C. Clarke, Maria Constantinidou, B. A. Royappa, C. R. Evans, Judy Milne, C. Goss, M. Gordon and H. E. de Wardener, The therapeutic effect of taking a patient's history by computer. *The Journal of the Royal College of General Practitioners* 1977; 27 (181): 477-481

6 WI Card, RW Lucas, Computer interrogation in medical practice , *International Journal of Man-Machine Studies*, Volume 14, Issue 1, (January 1981), Pages 49-57.

7 Nigel Bevan, Robert Watson & Dianne Murray, MICROTEXT for the BBC Microcomputer. Acornsoft. (1983).

8 Dianne Murray & Steve Collins, MICROTEXT-PLUS on ROM for the BBC Microcomputer, Acornsoft. (1985).

9 The ESPRIT MUSiC and MAPI Projects, various papers and reports, cordis.europa.eu

10 <https://www.forevermissd.com/nigelbevan/about>

11 David Benyon & Dianne Murray, Experience with Adaptive Interfaces. *Comput. J.* 31(5): 465-473 (1988).

12 Dianne Murray, Gitte Lindgaard , -Introduction to the Special Issue: Nigel Bevan—An Appreciation, *Journal of Usability Studies* in Volume 14, Issue 3, Feb. 2019.

held meetings in London -usually in the upstairs room of a pub – and grew quickly in its membership and ambitions. We produced a Newsletter (I was the first Editor) to disseminate information about the Group and its activities, which included making contact with existing and new HCI research centres and consultancies throughout the country and forming a hard-working and enthusiastic committee of like-minded individuals¹³. We had a logo (created by Mark Shuttleworth), and even a badge, and within a few years we had grown considerably and held annual well-attended conferences. In 1985 Dan Diaper and myself started the process of creating a new HCI journal¹⁴, named “*Interacting with Computers: The Interdisciplinary Journal of Human Computer Interaction*”¹⁵ (IwC). At that time there were a limited number of journals specifically aimed at HCI interests and for publication and IwC did well in establishing itself, mainly in Europe. The first General Editors were Dan and I and the journal quickly grew both in scope and in the range of authors and reviewers. However, IwC never fully realised its goal of accepting the widest range of submissions, especially those from business and commercial institutes. We also never did conquer the North American market since we had serious competition from the ACM Special Interest Group on Computer-Human Interaction (SIGCHI)¹⁶ who had similarly announced a new journal, Transactions on Computer- Human Interaction (TOCHI)¹⁷. However IwC’s Impact Factor steadily increased and we found a niche in the HCI field. In 1999 I became Editor-in-Chief of the journal and continued in that position until 2016.

After leaving NPL, I lectured at City University, London where I taught an undergraduate HCI course – using Alan Dix et al.’s textbook and slides, naturally! For the next few years, I also taught and managed a similar HCI course for three other institutions: Kings College London, Cranfield Institute (as was) and the Audio Visual Centre, Birkbeck College at the University of London. For many years I also taught on the University of London’s International Programme (courses on HCI and Project Management).

I then moved onto a Senior Research Fellowship in a multidisciplinary research group (Social and Computer Sciences - SCS) based in the University of Surrey’s Department of Sociology. There, I carried out ethnographic studies on an early CSCW project called TMPI¹⁸ (funded by BT Research Labs.) and was heavily involved in the then emerging field of CSCW and collaborative working, most especially in an initiative funded by the Department of Trade and Industry (DTI, as was) to develop the field in a more commercial manner. SCS also managed a very large Alvey Demonstrator Project (SUNDIAL) for which I did some work; the project studied speech input and output in order to build an automated Natural Language system.

After that I, like many others in the HCI field, moved on to becoming a Consultant in HCI, which occupied me for the remainder of my career. I worked on projects – most of which I don’t think I can talk about, even now - for a number of companies and institutes. I have done a lot of work over the years in Usability Laboratories using various methodologies and contributed to the area of User Experience (UX) amongst other widespread work.

I have also been heavily involved in the European Association for Cognitive Ergonomics (EACE)¹⁹ and was recently President of the Association for 4 years. I was also, in 1993, the co-founder and first co-Chair of the now well-established Intelligent User Interfaces (IUI) conference series²⁰. Since 1983, I have published and edited nine books, manuals and conference proceedings, including “*Usability in Government Systems*” and another on “*Interacting with Presence in Virtual Reality*”.

The History of HCI Workshop

As well as being an organiser, what I can contribute to this workshop is a wide-ranging view of much research work in HCI and associated disciplines as I participated in the early days of our field and have watched it grow to its current importance. I would also like to foster an acknowledgement and investigation of the role of women (which seems to have been very much overlooked) in the development of UK HCI.

13 See Interfaces 50, Anniversary Edition.

14 See Interfaces 50, Anniversary Edition.

15 <https://academic.oup.com/iwc>

16 <https://sigchi.org>

17 <https://dl.acm.org/journal/tochi>

18 Dianne Murray: An Ethnography of Graphic Design. ECSCW Conf. Proceedings, 303-309(1993).

19 <https://www.eace.net>

20 <https://sigchi.org/conferences/conference-history/iui/>