

Degrees in Human-Computer Interaction

A Common Name is Emerging and Opportunities are Expanding

Introduction

In 1996 I wrote an article for the *SIGCHI Bulletin* discussing progress in HCI education (Sears, 1996). As part of that article, I included the results of a email survey. The goal was to identify where students could earn degrees in human-computer interaction. This was fundamentally different from the HCI Education Survey which gathered a much broader variety of information about degrees, courses, concentrations, and faculty (<http://www.acm.org/sigchi/educhi/>). One of the clearest results at the time was that no common name existed for the degree that spanned a variety of disciplines. As a result, any degree that claimed to focus on human-computer interaction was included in the 1996 article.

The following list is a combination of the responses I received in 1996 (assuming none of the degrees have been discontinued) and those received this year. Unlike the previous article, this article does include degrees in more established subjects that allow a concentration in HCI. Hence, the increased number of degrees listed is a little deceptive. Although several were identified, doctorate degrees are not included in the current list – many doctoral programs allow students to focus on issues related to HCI.

Undergraduate Degrees

In 1996 three degrees were identified that allowed students to focus on human-computer interaction. Three additions are included in the current list. Two additions are CS degrees that offer a concentration in HCI. The third is a BS in HCI, but it can only be taken as a second major.

BS in Human-Computer Interaction (as a second major with Computer Science, Psychology, or Design, Human-Computer Interaction Insti-

tute, Carnegie Mellon University, <http://www.cs.cmu.edu/~hcii/>

BS in Human-Computer Interaction, School of Computer Science, Telecommunications, and Information Systems – DePaul University, Chicago, IL, USA

BA in Information Systems and Human Behaviour, College of Physical and Engineering Science & College of Social Sciences – University of Guelph, Guelph, Ontario, Canada

BSc in Computing with Psychology, School of Computing and Mathematics – University of Huddersfield, Huddersfield, UK

BS in Computer Science (with emphasis in HCI), Department of Computer Science and Engineering, University of Minnesota – Twin Cities

BSc in Computer Science (specialization in Human-Computer Interaction), Department of Computer Science, University of Toronto, <http://www.cs.utoronto.ca/>

Graduate Degrees

In 1996, twelve degrees were listed for graduate programs. This year, the list doubled to twenty-four. However, it is important to note that the 1996 article excluded degrees in other disciplines that allowed concentrations in HCI (e.g., MS in CS with a concentration in HCI). Many of the new entries are degrees in computer science, psychology, or some other field with a concentration in HCI. Several additions are MS in HCI degrees.

MS in Computer Systems, Department of Computer Systems Engineering, Universidad de las Americas – Puebla, Mexico

Human-Computer Interaction: Intelligent Interfaces, Department of Informatics and Corso di Laurea in Informatica, University of Bari, <http://aos2.uniba.it:8080/IntInt.html>, derosis@di.uniba.it

Masters in Human-Computer Interaction, Human-Computer Interaction Institute, Carnegie Mellon University, <http://www.cs.cmu.edu/~hcii>

MSc in Human-Computer Systems, Department of Computing Science – De Montfort University

MS in Human-Computer Interaction, School of Computer Science, Telecommunications, and Information Systems – DePaul University, <http://www.cs.depaul.edu/>

MA in Human Factors and Applied Cognition, Department of Psychology – George Mason University

MS in Human-Computer Interaction, Can be from the College of Computing, School of Psychology, or School of Literature, Communication, and Culture, Georgia Institute of Technology, <http://www.gvu.gatech.edu/hci/>

MSc in Human-Computer Interaction, Department of Electronic & Electrical Engineering, Heriot-Watt University, http://www.cee.hw.ac.uk/MSc_courses/HCI.html

MSc in Designing Worldwide Interactive Systems and MSc in Multimedia, School of Computing and Mathematics – University of Huddersfield

MSc in Ergonomics (specializing in the Human Factors of Human-Computer Interaction), Ergonomics & HCI Unit, University of London, <http://www.ergohci.ucl.ac.uk/msc-info/home.html>

MSc in Interactive Computing System Design, Department of Computer Studies – Loughborough University

MS in Computer Science (concentration in HCI), Computer Science Department, University of Massachusetts – Lowell, <http://www.cs.uml.edu/>

MS in Information (specialization in HCI), School of Information, University of Michigan, <http://www.si.umich.edu/>

MS in Computer and Information Sciences (emphasis in HCI), Department of Computer Science and Engineering, University of Minnesota – Twin Cities

MA in Engineering Psychology, Department of Psychology, New Mexico State University, <http://www-psych.nmsu.edu/>

MA or MSc in Information Technology (specialization in HCI), ICL Institute of Information Technology, University of Nottingham, <http://www.nottingham.ac.uk/ICL/FAST/MODULES/hci.shtml>

MSc in Intelligent Systems, Department of Psychology – University of Nottingham, <http://www.psychology.nottingham.ac.uk/courses/postgrad/MScIntelligentSystems.html/>

MSc in Human Computer Interaction, Department of Computer Science, Queen Mary and Westfield College, University of London, http://www.dcs.qmw.ac.uk/msc_info/HCI/HCI.html

MA in Psychology (HCI or Human Factors), Psychology Department, Rice University, <http://www.ruf.rice.edu/~psyc/>

Laurea in Communication Science (concentration on technology-mediated communication processes), Communication Science Department, University of Siena, rizzo@unisi.it, bagnara@unisi.it, marti@media.unisi.it

MS in Computer Science (concentration in HCI), BS in Symbolic Systems (concentration in HCI), Computer Science Department, Stanford University, <http://hci.stanford.edu/>

Master of Information Technology (HCI), School of Information Technology, Swinburne University of Technology, <http://www.it.swin.edu.au/schil/>

MASc in Human Factors, Mechanical and Industrial Engineering Department, University of Toronto, <http://www.ie.utoronto.ca/IE/HF/summary.html>

European Media Master of Arts (emMA) in Interactive Multimedia, Video & Television, Image Syntheses and Computer Animation, Sound & Music Technology, Visual Communication, Faculty of Art, Media & Technology, Utrecht School of the Arts, <http://www.hku.nl/usa/fac/kmt/engfolder/engemma.htm>, info@kmt.hku.nl

Certificate Programs

New to the list this year are two certificate programs requiring four graduate-level courses.

Graduate Certificate in HCI, Computer Science Department, University of Massachusetts – Lowell, <http://www.cs.uml.edu>

Certificate in Design for Humans: Human-Computer Interaction, Professional Certificate Programs, Tufts University, <http://www.tufts.edu/as/pcs/cert.htm>

Summary

An interesting pattern is emerging as new degrees are being created. While many names are still used, one is clearly becoming the most common. Fifteen entries represent HCI-specific degrees which do not have a name corresponding to a more established field. Seven use unique names, but the remaining eight all use the name human-computer interaction. This is encouraging since a common name will result in increased recognition and understanding of the what graduates can be expected to know.

The growing number of undergraduate and graduate degrees is also encouraging. While opportunities are expanding more rapidly at the graduate level, new degrees are also exist at the undergraduate level. As the number of degrees increases, students have more opportunities to learn about HCI and faculty have more colleagues with whom to discuss educational issues. This will, in turn, increase the quality of these programs, opportunities for HCI graduates, and the acceptance of HCI as a discipline.