



Center for
**LifeLong
Learning
& Design**

University of Colorado at Boulder

Wisdom is not the product of schooling
but the lifelong attempt to acquire it.
- Albert Einstein

Human-Computer Interaction — Perspectives for the New Millennium

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Tutorial (December 5, 2000) at OZCHI 2000

Learning Outcomes

- innovative HCI perspectives for the new millennium
- perspectives — instantiated with new conceptual frameworks and illustrated with innovative systems
- the presentation will be linked as much as possible to the concerns and experiences of the participants → **brief questionnaire**
- provide opportunities to think differently about the future challenges facing HCI research and practice
- illustrate with concrete examples how these challenges can be addressed
- a wish of mine:
to make the tutorial as interactive as possible

Overview

- 2:00 - 2:15:** **General Introduction**
- 2:15 - 3:00:** **Lecture 1: High-Functionality Applications and User Modelling**
- 3:00 - 3:15: Break/Discussion
- 3:15 - 4:00** **Lecture 2: Evolutionary Design of Complex Systems**
- 4:00 - 4:15: Break/Discussion
- 4:15 - 5:00** **Lecture 3: Transcending the Individual Human Mind**

Background Information

Lecture 1: High-Functionality Applications and User Modelling

1. Fischer, G. (2000): "User Modeling in Human-Computer Interaction", Contribution to the 10th Anniversary Issue of the Journal "User Modeling and User-Adapted Interaction (UMUAI)" (in press), <http://www.cs.colorado.edu/~gerhard/papers/umuai2000.pdf>
2. Horvitz, E. (1999): "Principles of Mixed-Initiative User Interfaces.", *Human Factors in Computing Systems, CHI'99 (Pittsburgh, PA)*, ACM, New York, pp. 159-166.

Lecture 2: Evolutionary Design of Complex Systems

1. Fischer, G. (1998): "Seeding, Evolutionary Growth and Reseeding: Constructing, Capturing and Evolving Knowledge in Domain-Oriented Design Environments", International Journal "Automated Software Engineering," Kluwer Academic Publishers, Vol. 5, No.4, October, pp. 447-464,
2. Nardi, B. A. (1993): *A Small Matter of Programming*, The MIT Press, Cambridge, MA.

Lecture 3: Transcending the Individual Human Mind

1. Arias, E.; Eden, H.; Fischer, G.; Gorman, A.; and Scharff, E. (2000); "Transcending the Individual Human Mind — Creating Shared Understanding through Collaborative Design" ACM Transaction on Computer-Human Interaction (TOCHI) Vol. 7, No. 1, March, pp 84 – 113, <http://www.cs.colorado.edu/~gerhard/papers/tochi99.pdf>
2. Engelbart, D. C. (1995): "Toward Augmenting the Human Intellect and Boosting our Collective IQ," *Communications of the ACM*, August, pp. 30-33.