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

Looking Back (and saying / discussing what has not been said / discussed)

Gerhard Fischer and Hal Eden
Fall Semester 2006

Course information environment (SWIKI):
http://l3dswiki.cs.colorado.edu:3232/phd-intro

December 13, 2006
Beyond the Unaided, Individual Human Mind
What is the Scarce Resource:
—
Information or Human Attention

“What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention, and a need to allocate efficiently among the overabundance of information sources that might consume it.” — Herbert Simon

From “Anywhere, Anytime, Anyone” → “The Right Information at the Right Time, the Right Place, in the Right Way to the Right Person”
Producer/Consumer Models in a Consumer Culture (“Access”)

- Strong Input Filters, Small Information Repositories, Weak Output Filters
- Limitation: Making All Voices Heard
Producer/Consumer Models in Design Culture ("Informed Participation")

- Weak Input Filters, Large Information Repositories, Strong Output Filters
- Limitation: Trust and Reliability of Information
Cheating ↔ Collaboration

- who wins and who looses by cheating
  - individual / student: “making the grade”
  - teacher
  - other individuals
  - society

- lifelong learning perspective
  - “If the world of working and living relies on collaboration, creativity, definition and framing of problems and if it requires dealing with uncertainty, change, and intelligence that is distributed across cultures, disciplines, and tools
  - then graduate programs should foster transdisciplinary competencies that prepare students for having meaningful and productive lives in such a world.”
## Current Computer Science Education and Outsourcing

<table>
<thead>
<tr>
<th>themes</th>
<th>upstream activities</th>
<th>downstream activities</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>creative work, communication, collaboration, context, integration of problem framing and problem solving, fuzzy requirements, customer satisfaction</td>
<td>programming, programming languages, compilers, rule-based behavior (tax returns), …</td>
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| emphasis in current CS programs | X | XXXXX |
| future jobs (not being outsourced) | XXXXX | X |