

Syllabus / Schedule of Sessions

*** Subject to Change ***

<http://3dswiki.cs.colorado.edu:3232/dlc-2005>

January — Introduction, Overview Lectures, and Demos

- 10 Introduction, Discussion of Class
Questionnaire: due 1/12, 9:00am
- 12 **Overview of Design** → read "Some Notes about Design"(available in the class Swiki)
— **Starfire Video**
Assignment 1: due 1/19, 9:00am
- 17 **no lecture** — Martin King Holiday (university closed)
- 19 **Overview of Learning** → Fischer, G. (1998) "Making Learning a Part of Life-Beyond the 'Gift-Wrapping' Approach of Technology." Notes from 6/96 NSF Symposium on Learning and Intelligent Systems — **Gravity with Squeak Video**
<http://www.cs.colorado.edu/~l3d/presentations/gf-wlf/>
Assignment 2: due 1/24, 9:00am
- 24 **Overview of Collaboration**
Assignment 3: due 1/26, 9:00am
- 26 **Demo of Envisionment and Discovery Collaboratory** — **location: L3D Lab**
Assignment 4: due 1/31, 9:00am
- 31: **Demo of Clever Project** — **location: L3D Lab**
Assignment 5: due 2/2. 9:00am

February — Series of Lectures about Design

- 2: **Reflection on the Consequences and Implications of our Work** → Bill Joy "Why the Future Does Not Need Us?" http://www.wired.com/wired/archive/8.04/joy_pr.html
Assignment 6: due 2/7 9:00am
- 7: **"Architecture of Complexity"** and **"The Importance of Representations in Design"** → Chapter 8 "The Architecture of Complexity: Hierarchic Systems" in Simon, H. A. (1996) The Sciences of the Artificial, third ed., The MIT Press, Cambridge, MA. (article distributed on paper)
IR: interest statement —due, 2/9
- 9: **Guest Lecture** — Prof. Anna Ursyn, Department of Visual Arts, University of Northern Colorado: "Interdisciplinary Teaching and Learning with the Use of Information Technologies"; http://usonia.unco.edu/visarts/faculty_ursyn.html

14 **Domain-Oriented Design Environments and Critiquing** → Fischer, G., Nakakoji, K., Ostwald, J., Stahl, G., & Sumner, T. (1998) "Embedding Critics in Design Environments." In M. T. Maybury & W. Wahlster (Eds.), *Readings in Intelligent User Interfaces*, Morgan Kaufmann, San Francisco, pp. 537-561. + **Video Tape "Janus"**
<http://l3d.cs.colorado.edu/~gerhard/papers/embedded-critics-98.pdf>

16 **From HCI to Human Problem Domain Interaction** → Buxton, W. (2001) "Less is More (More or Less)." In P. J. Denning (Ed.), *The Invisible Future — the seamless integration of technology in everyday life*, McGraw-Hill, New York, pp. 145-179. available at:
<http://billbuxton.com/LessIsMore.html>

Project: initial idea — due 2/21

21 **Meta-Design** → Fischer, G., Giaccardi, E., Ye, Y., Sutcliffe, A. G., & Mehandjiev, N. (2004) "Meta-Design: A Manifesto for End-User Development," *Communications of the ACM*, 47(9), pp. 33-37. <http://l3d.cs.colorado.edu/~gerhard/papers/CACM-meta-design.pdf>

IR: one page statement —due, 2/23

23 **Role Play Session 1 with the Envisionment and Discovery Collaboratory** — meet in the L3D Lab

28 **Learning: From Speculation to Science** → Introduction to Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.) (2001) *How People Learn — Brain, Mind, Experience, and School*, National Academy Press, Washington, D.C. (article distributed on paper)

March — Series of Lectures about Learning

Project: initial description — due 3/2

2 **Guest Lecture** — Elisa Giaccardi: "Design and Collaboration in Interactive Art: A Metadesign Perspective" (bring your laptop!) **paper:** Deck, Andy C. (1999) "In Search of Meaningful Events: Curatorial Algorithms and Malleable Aesthetics." In D. Bearman & J. Trant (Eds.), *Museums and the Web 1999*, Archives & Museum Informatics, Pittsburgh, PA, available at: http://artcontext.org/crit/essays/cur_al/

7 **Lifelong Learning and Self-Directed Learning** → Fischer, G. (2002) *Beyond 'Couch Potatoes': From Consumers to Designers and Active Contributors*, in *FirstMonday* (Peer-Reviewed Journal on the Internet), at
http://firstmonday.org/issues/issue7_12/fischer/

9 **Beyond One-Sided Approaches of Learning** → Rogoff, B., Matsuov, E., & White, C. (1998) "Models of Teaching and Learning: Participation in a Community of Learners." In D. R. Olsen & N. Torrance (Eds.), *The Handbook of Education and Human Development — New Models of Learning, Teaching and Schooling*, Blackwell, Oxford, pp. 388-414. (article distributed on paper)

IR: first progress report —due, 3/14

14 **Learning on Demand and High-Functionality Applications** → Fischer, G. (2001) "User Modeling in Human-Computer Interaction," *User Modeling and User-Adapted Interaction (UMUAI)*, Dordrecht, The Netherlands: Kluwer Academic Publishers, 11(2), pp. 65-86. <http://l3d.cs.colorado.edu/~gerhard/papers/umuai2000.pdf>

Project: proposal — due 3/16

- 16 Role Play Session 2 with the Envisionment and Discovery Collaboratory — meet in the L3D Lab
- 21 **Spring Break – no lecture**
23 **Spring Break – no lecture**
- 28 **Distributed Intelligence** → Hollan, J., Hutchins, E., & Kirsch, D. (2001) "Distributed Cognition: Toward a New Foundation for Human-Computer Interaction Research." In J. M. Carroll (Ed.) Human-Computer Interaction in the New Millennium, ACM Press, New York, pp. 75-94. (article distributed on paper)
- 30 **Creativity** → Fischer, G., Giaccardi, E., Eden, H., Sugimoto, M., & Ye, Y. (2004) "Beyond Binary Choices: Integrating Individual and Social Creativity," International Journal of Human-Computer Studies (IJHCS) Special Issue on Creativity (eds: Linda Candy and Ernest Edmond), p. (in press).
<http://l3d.cs.colorado.edu/~gerhard/papers/ind-social-creativity-05.pdf>

April – Series of Lectures about Collaboration

- IR: second progress report —due, 4/4
Project: First Progress Report —due, 4/4
- 4 Progress Reports about Independent Research and Projects
- 6 Remaining Progress Reports about Projects and **Guest Lecture** — Hal Eden: "Squeak: An Innovative Programming Environment supporting Design, Learning, and Collaboration"
- 11 **Guest Lecture** — Yunwen Ye "CodeBroker" → paper: Ye, Y., & Fischer, G. (2002) "Supporting Reuse by Delivering Task-Relevant and Personalized Information." In Proceedings of 2002 International Conference on Software Engineering (ICSE'02), Orlando, FL, pp. 513-523. Available at:
<http://www.colorado.edu/~gerhard/papers/icse2002.pdf>.
- Project: Second Progress Report—due 4/13
- 13 **Guest Lecture** — Shinichi Konomi: "Context Awareness and Privacy in Collaborative Environments" — paper: Mark Weiser, "The Computer for the Twenty-First Century," Scientific American, pp. 94-10, September 1991
<http://www.ubiq.com/hypertext/weiser/UbiHome.html>
- IR: final report —due 4/18
- 18 Independent Research Presentation
20 Independent Research Presentation
- 25 **From "Home Alone" to Collaborative and Organizational Learning** → Chapter 3 "Home Alone" in Brown, J. S. & Duguid, P. (2000) The Social Life of Information, Harvard Business School Press, Boston, MA (article distributed on paper)
- Project:— Final Report
- 27 Presentation of Projects — **extended class session from 5pm –8pm**
***** April 29: last day of classes *****