

## EDC&I 505: New Technologies & Child Development

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Thursday 4:30 to 6:50

Spring 2003

Thompson 215

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221-3642

OH: Tuesdays, 4 to 5 & Thursdays, 12:30 to 1:30 (or by appointment)

### COURSE OVERVIEW

Computer technologies have continued to make significant inroads into the inner workings of society. This very much holds true for youth as well. As computer technology becomes increasingly embedded in everyday devices, it is common for children to interact with dozens of digital devices throughout a typical day, and many spend hour-upon-hour learning about and manipulating computer devices such as laptop computers, handheld computers, game consoles, cell phones, pagers, and audio players. We actually know surprisingly little about how this increasingly rich technology infrastructure is influencing the development of children in terms of how they interact with others, how they seek out information and construct understandings of the world, or how they accomplish novel and everyday activities with the use of technology.

The seminar has a dual focus on understanding the technological fluencies that kids are developing with new technologies as well as how digital technologies, electronic gadgets, and interactive media are influencing children's development. This seminar will investigate how toddlers, children, and young adults use digital technologies in their everyday lives—in and out of school—and how they understand the technology and its possible uses. To great educational effect, we have devoted research energy to understanding how children develop conceptual knowledge about the natural world through their everyday and educational experiences with natural phenomena and processes. Corresponding pedagogical theories have stressed the importance of understanding and building upon student's prior knowledge and experience. In a parallel manner, children develop technological skills, concepts, fluencies, and practices through their everyday and formal experiences with computational devices. We will attempt to identify or construct theoretical knowledge about how technological fluencies develop in order to inform the design of learning environments for children as well as to educate future teacher practitioners and educational designers about the technological fluencies of children. Also, we will try to understand the broad implications of technology on the lives of children. This will involve exploring such issues as:

- What are the cultural worlds that children are creating online?
- How are digital technologies changing the social practices of children?
- How does electronic gaming shape individual development (including prosocial, aggressive, or intellectual capacities)?
- How are mobile technologies being woven into the cultural worlds of teens and different societies of the world?
- How do children construct and play with their identities online?
- Should the practices surrounding digital technologies be considered new foundational human literacies?
- How are network technologies changing family structures and activities?
- What are the enduring equity issues surrounding the use of new technologies?

At a time of rapid infusion of digital devices and information technologies into society, we need to systematically understand how it is influencing the social, linguistic, emotional and cognitive development of our children. Toddlers are growing up playing with electronic pets and games, “hand-me-down” handhelds, and diverse ecologies of online information. Kid’s television shows regularly include characters that make regular use of digital devices and information technologies in their episodic depiction of life in society. Older children carry around multiple digital devices and often spend hours using them for social interaction, entertainment, digital design and creation, and research. We need to better understand how their technological knowledge develops and is marshaled in the everyday experiences of children in order to better support their learning and development.

## ASSIGNMENTS

1. Class Discussions. All class members are expected to actively participate in the discussions each week. This is crucial for a graduate seminar.
2. Regular Posting to the Course Web Log (or “blog”). All students will be asked to regularly post to a blog that has been set up for this course—a kind of distributed publishing system where we can all post short articles in a central place. The blog is intended to be an information funnel for our activities this quarter. Members of the class will use this site to share resources and collectively explore issues over the course of the quarter. (Of course, the blog will also be open more generally to folks interested in the issues of the class.) Individuals will sign up for a day of the week to make a small number of contributions to the blog (as will be discussed at the first class). These postings might be descriptions and pointers to relevant resources online, summaries and critiques of relevant articles, or personal musings related to the themes of the course.

In addition, students will be asked to post a critical reaction or questions related to aspects of the articles assigned each week. Reactions to the readings should be posted **by 5pm each Wednesday** so members of the class can view them before we meet. The URL for the course blog is:

<http://faculty.washington.edu/pbell/kidtech/>

3. Naturalistic Observations (3 over the course of the quarter)  
A lion’s share of the work we’ll be doing this quarter is to develop an understanding of how kids and young adults are using technology in the details of their activity as well as understand how it might be influencing their development. One strategy we will employ to do this involves systematic ethnographic observation of children’s activities in naturalistic contexts (which can include online spaces). You will generate fieldnotes based on each observation and will be asked to post a brief report — with perhaps some excerpts of activity or dialogue — to the course blog. Please title your blog observation entries “Field Observation: <description>.” This will count as one of your postings for that week. (I recommend that you try to spend some time observing each week, but you will only be responsible for three reports.)

You should just try and find contexts where children or young adults are using digital technologies in their activities. Allow your personal interests and the viability of particular sites shape your selections. You might observe the activities of an after-school computer club, a computer lab, an online community, a videogame parlor, or home

setting. You can also elect to coordinate your observations with your final course paper as an empirical research project (described below).

4. Research Paper (15-20 pages, double-spaced)

The primary assignment for this course is a research paper that can take one of three forms:

1. *Mini empirical research project*—this should include a description of the motivation for the study, a targeted literature review, presentation of data and associated analyses, and discussion of conclusions and implications. Your paper can build directly upon your naturalistic observations.
2. *Comprehensive review article of some course-related theme*—with the possible inclusion of resulting educational design scenarios from the implications of the review.
3. *Research proposal*—this should map out a line of research related to the themes of the course and include a targeted literature review

Students will be provided time to present their paper to the class in a “research group style” discussion in order to receive feedback on some aspect of it. You will write up the results of this mini-study in a 15-20 page paper, due at the end of the course.

5. Class Presentation

For the last class session on June 5<sup>th</sup>, we will have a “seminar conference” in which you will give a 12 minute oral presentation of your work. The oral presentation of research results is an invaluable skill that you will use throughout your professional lives as educators; it is best to start practicing early and often, and it often doesn’t receive adequate attention in graduate school. (As proof, just drop into a random session at AERA, APA or other major professional conference!)

## GRADING POLICY

I expect all assignments to be completed in a timely fashion. All written work will be held to high standards and should conform to rules of proper grammar, usage, punctuation, and spelling. Because of time pressures, *late papers will not be accepted unless prior written confirmation has been given by one of the instructors*. Please double-space all written work and use a 12-pt. font. APA format should be used for references. Assignments will be weighed according to this scheme:

Class Participation & Blog Participation	20%
Naturalistic Observations (3)	20%
Project Presentation	10%
Research Paper	50%

## SCHEDULE OF READINGS & MILESTONES

<b>Week 1, April 3</b>	<b><u>Course introduction and overview</u></b>
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This session will provide an introduction to the goals, themes, and activities of this course.

<b>Week 2, April 10</b>	<b><u>Finding our way into the issues...</u></b>
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Subrahmanyam, K., Greenfield, P., Kraut, R., & Gross, E. (2001). The impact of computer use on children's and adolescents' development. *Applied Developmental Psychology, 22*, 7-30.

Kaiser Family Foundation. (1999). *Kids and Media @ the New Millennium: A comprehensive national analysis of children's media use*. Menlo Park, CA: Kaiser Family Foundation.

Accessed online on 27 March 2003: <http://www.kff.org/content/1999/1535/>

Cordes, C., & Miller, E. (2000). *Fools gold report: A critical look at computers in childhood*. College Park, MD: Alliance for Childhood. Accessed online on 27 March 2003: [http://www.allianceforchildhood.net/projects/computers/computers\\_reports.htm](http://www.allianceforchildhood.net/projects/computers/computers_reports.htm)

Lenhart, A., Rainie, L., & Lewis, O. (2001). *Teenage life online: The rise of the instant-message generation and the Internet's impact on friendships and family relationships*. Washington, D.C.: Pew Internet & American Life Project.

<b>Week 3, April 17</b>	<b><u>The cybercultures of children</u></b>
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→ **First observation report is due. It should be posted to the course blog by this date.**

Valentine, G., Holloway, S. L., & Bingham, N. (2000). Transforming cyberspace: Children's interventions in the new public sphere. In S. L. Holloway & G. Valentine (Eds.), *Children's geographies: Playing, living, learning* (pp. 156-173). London and New York: Routledge.

Tapscott, D. (1998). The culture of interaction, *Growing up digital: The rise of the net generation* (pp. 55-84). New York, NY: McGraw-Hill.

Clark, L. S. (1998). Dating on the net: Teens and the rise of "pure" relationships. In S. Jones (Ed.), *Cybersociety 2.0* (pp. 159-183). London: Sage Publications.

Egan, J. (2000, December 10). Lone gay teen seeking same: How Jeffrey found friendship, sex, heartache / and himself / online. *New York Times Magazine*. Accessed online on 27 March 2003: <http://www.nytimes.com/library/magazine/home/20001210mag-online.html>

Background: Turkle, S. (1995). Aspects of the self, *Life on the screen: Identity in the age of the Internet* (pp. 177-209). New York: Simon & Schuster.

**Week 4, April 24**

**Understanding the family in relation to the Internet**

**NO CLASS THIS WEEK, BUT READ THE FOLLOWING ARTICLES**

Jordan, A. B. (2002). A family systems approach to examining the role of the Internet in the home. In S. L. Calvert & A. B. Jordan & R. R. Cocking (Eds.), *Children in the digital age: Influences of electronic media on development* (pp. 231-247). London: Praeger.

Turow, J. (2001). Family boundaries, commercialism, and the Internet: A framework for research. *Applied Developmental Psychology, 22*, 73-86.

Samaras, A. P., & Wilson, J. C. (1999). Am I invited? Perspectives on family involvement with technology in inner-city schools. *Urban Education, 34*(4), 499-530.

Background: Christensen, P., James, A., & Jenks, C. (2000). Home and movement: Children constructing 'family time'. In S. L. Holloway & G. Valentine (Eds.), *Children's geographies: Playing, living, learning* (pp. 139-155). London and New York: Routledge.

**Week 5, May 1**

**The linguistics of netspeak, chat, and instant messaging**

Crystal, D. (2001). *Language and the Internet*. Cambridge: Cambridge University Press.

Read the following chapters:

- A linguistic perspective
- The medium of Netspeak
- The language of chatgroups

Grinter, R. E., & Palen, L. (2002). *Instant messaging in teen life*. Paper presented at the Computer Supported Cooperative Work 2002 (CSCW '02), New Orleans, Louisiana, USA.

**Week 6, May 8**

**Phones, mobiles, and sociality**

**NO CLASS THIS WEEK, BUT READ THE FOLLOWING ARTICLES**

→ **Second observation report is due. It should be posted to the course blog by this date.**

Schegloff, E. A. (2002). Beginnings in the telephone. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 284-300). Cambridge, UK: Cambridge University Press.

Green, N. (2002). On the move: Technology, mobility, and the mediation of social time and space. *The information society, 18*, 281-292.

Katz, J. E., & Aakhus, M. (2002). *Perpetual contact: Mobile communication, private talk, public performance*. Cambridge, UK: Cambridge University Press.  
*From this volume, we will each read a different country case study of mobile communication. Countries include: Finland, Israel, Italy, Korea, United States, France, The Netherlands and USA compared, and Bulgaria.*

Rheingold, H. (2002). Smart mobs: The power of the mobile many, *Smart mobs: The next social revolution* (pp. 157-182). Cambridge, MA: Perseus Publishing.

General background: Wellman, B., & Gulia, M. (1999). Virtual communities as communities: Net surfers don't ride alone. In M. A. Smith & P. Kollock (Eds.), *Communities in cyberspace* (pp. 167-194). London and New York: Routledge.

<b>Week 7, May 15</b>	<b><u>The social practice of text messaging among teens</u></b>
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Grinter, R. E., & Eldridge, M. (2001). y do tngrs luv 2 txt msg? In W. Prinz & M. Jarke & Y. Rogers & K. Schmidt & V. Wulf (Eds.), *Proceedings of the seventh European conference on computer-supported cooperative work (ECSCW '01), Bonn, Germany* (pp. 219-238). Dordrecht, Netherlands: Kluwer Academic Publishers.

Kasesniemi, E., & Rautiainen, P. (2002). Mobile culture of children and teenagers in Finland. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 170-192). Cambridge, UK: Cambridge University Press.

Ito, M., & Daisuke, O. (in preparation). *Mobile phones, Japanese youth, and the re-placement of social contact*. Paper presented at the Annual meeting for the Society for the Social Studies of Science (4S), November 2001.

Katz, J. E., & Aakhus, M. (2002). Conclusion: Making meaning of mobiles — a theory of *Apparatgeist*. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 301-318). Cambridge, UK: Cambridge University Press.

<b>Week 8, May 22</b>	<b><u>Play within electronic game ecologies</u></b>
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→ **A draft of the final course paper is due in class.**

Greenfield, P. (1994). Video games as cultural artifacts. *Journal of applied developmental psychology*, 15, 3-12.

Ito, M. (1997). *Kids and simulation games: Subject formation through human-machine interaction*. Paper presented at the Annual meeting of the Society for the Social Studies of Science (4S).

Anderson, C. A. (2002). Violent video games and aggressive thoughts, feelings, and behaviors. In S. L. Calvert & A. B. Jordan & R. R. Cocking (Eds.), *Children in the digital age: Influences of electronic media on development* (pp. 101-119). London: Praeger.

Squire, K. (2003, draft). Video games in education.

General background: Turkle, S. (1999). What are we thinking about when we are thinking about computers? In M. Biagioli (Ed.), *The Science Studies Reader* (pp. 543-552). New York and London: Routledge.

<b>Week 9, May 29</b>	<b><u>Digital &amp; Computational literacies</u></b>
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→ **Third observation report is due. It should be posted to the course blog by this date.**

Gee, J. P. (2003). Semiotic domains: Is playing video games a "waste of time"? *What video games have to teach us about learning and literacy* (pp. 13-50). New York: Palgrave.

diSessa, A. (2000). Computational media and new literacies — The very idea, *Changing minds: Computers, learning, and literacy* (pp. 1-28). Cambridge: MIT Press.

The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1), 60-92.

*And one of the following...*

Bruce, B. (2002). Diversity and critical social engagement: How changing technologies enable new modes of literacy in changing circumstances. In D. E. Alvermann (Ed.), *Adolescents and literacies in a digital world* (pp. 1-18). New York: Peter Lang Publishing.

diSessa, A. (2000). Stepping back, looking forward, *Changing minds: Computers, learning, and literacy* (pp. 209-248). Cambridge: MIT Press.

<b>Week 10, June 5</b>	<b><u>Access to technological futures: Issues of gender and racial equity</u></b>
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Ervin, K. S., & Gilmore, G. (1999). Traveling the superinformation highway: African American's perceptions and use of cyberspace technology. *Journal of Black Studies*, 29(3), 398-407.

Schofield, J. W. (1995). The computer room for gifted students: A (bright, white boys') lunch club, *Computers and classroom culture* (pp. 134-163). Cambridge, UK: Cambridge University Press.

Yelland, N. (1998). Making sense of gender issues in mathematics and technology. In N. Yelland (Ed.), *Gender in early childhood* (pp. 249-273). London and New York: Routledge.

*Each student will be asked to make a 10-minute presentation summarizing their research project. If time does not permit, we will schedule time during exam week to complete the presentations.*

➔ **Final course paper is due in my box in Miller 312 by 4pm on Friday, June 6<sup>th</sup>.**

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A list of supplemental readings will also be made available early in the quarter.