

# Computer Science 6606: Proposed Readings

Winter 2011–2012

Version: 16 December 2011 (1a)

## Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>Methodological Issues</b>	<b>2</b>
<b>3</b>	<b>Hypertext</b>	<b>3</b>
3.1	Hypertext in General . . . . .	3
3.2	Navigation in Hypertext ‘Spaces’ . . . . .	3
3.3	Articles in Hypertext Format . . . . .	3
<b>4</b>	<b>Applications for Scholars</b>	<b>4</b>
4.1	Reading Devices and Information Assimilation . . . . .	4
4.2	Annotation . . . . .	5
4.3	Foldable User Interfaces . . . . .	5
<b>5</b>	<b>Sensemaking, Information Foraging, Scent and Seeking</b>	<b>6</b>
5.1	Sensemaking . . . . .	6
5.2	Information Foraging . . . . .	6
5.3	Information Scent . . . . .	7
5.4	Information Seeking . . . . .	7
<b>6</b>	<b>Miscellaneous</b>	<b>8</b>

## 1 Introduction

- Dillon, A. (1991). Readers' models of text structures: the case of academic articles. *International Journal of Man-Machine Studies*, 35:913–925. [⟨URL:http://dx.doi.org/10.1016/S0020-7373\(05\)80168-3⟩](http://dx.doi.org/10.1016/S0020-7373(05)80168-3).
- Dillon, A. and Schaap, D. (1996). Expertise and the perception of shape in information. *Journal of the American Society for Information Science*, 47(10):786–788. [⟨URL:http://dx.doi.org/10.1002/\(SICI\)1097-4571\(199610\)47:10<786::AID-ASI7>3.0.CO;2-Z⟩](http://dx.doi.org/10.1002/(SICI)1097-4571(199610)47:10<786::AID-ASI7>3.0.CO;2-Z), also available from [⟨URL:http://www3.interscience.wiley.com.ezproxy.library.dal.ca/cgi-bin/abstract/57664/ABSTRACT⟩](http://www3.interscience.wiley.com.ezproxy.library.dal.ca/cgi-bin/abstract/57664/ABSTRACT).
- Juvina, I. (2006). *Development of a Cognitive Model for Navigating on the Web*. PhD thesis, Utrecht University. [⟨URL:http://igitur-archive.library.uu.nl/dissertations/2006-1025-201007/index.htm⟩](http://igitur-archive.library.uu.nl/dissertations/2006-1025-201007/index.htm).

## 2 Methodological Issues

- Gelman, A. and Weakliem, D. (2009). Of beauty, sex and power. *American Scientist*, 97(4):270, 310–316. [⟨URL:http://dx.doi.org/10.1511/2009.79.310⟩](http://dx.doi.org/10.1511/2009.79.310).
- McGreener, J., Baecker, R. M., and Booth, K. S. (2002). An evaluation of a multiple interface design solution for bloated software. In *Proceedings of the SIGCHI conference on Human factors in computing systems: Changing our world, changing ourselves*, CHI '02, pages 164–170, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/503376.503406⟩](http://doi.acm.org/10.1145/503376.503406).
- McGreener, J., Baecker, R. M., and Booth, K. S. (2007). A field evaluation of an adaptable two-interface design for feature-rich software. *ACM Trans. Comput.-Hum. Interact.*, 14. [⟨URL:http://doi.acm.org/10.1145/1229855.1229858⟩](http://doi.acm.org/10.1145/1229855.1229858).
- O'Hara, K. and Sellen, A. (1997). A comparison of reading paper and on-line documents. In Pemberton, S., editor, *Looking to the Future: Proceedings of the CHI 97 Conference on Human Factors in Computing Systems*, pages 335–342, New York, NY. ACM Press. [⟨URL:http://doi.acm.org/10.1145/258549.258787⟩](http://doi.acm.org/10.1145/258549.258787).
- Reimer, Y. J., Brimhall, E., Cao, C., and O'Reilly, K. (2009). Empirical user studies inform the design of an e-notetaking and information assimilation system for students in higher education. *Comput. Educ.*, 52:893–913. [⟨URL:http://dx.doi.org/10.1016/j.compedu.2008.12.013⟩](http://dx.doi.org/10.1016/j.compedu.2008.12.013).
- Wolfe, J. (2008). Annotations and the collaborative digital library: Effects of an aligned annotation interface on student argumentation and reading strategies. *International Journal of Computer-Supported Collaborative Learning*, 3(2):141–164. [⟨URL:http://dx.doi.org/10.1007/s11412-008-9040-x⟩](http://dx.doi.org/10.1007/s11412-008-9040-x).

## 3 Hypertext

### 3.1 Hypertext in General

Davies, S. (2011). Still building the memex. *Communications of the ACM*, 54:80–88. [⟨URL:http://doi.acm.org/10.1145/1897816.1897840⟩](http://doi.acm.org/10.1145/1897816.1897840).

McKendree, J., Reader, W., and Hammon, N. (1995). The “homeopathic fallacy” in learning from hypertext. *interactions*, 2:74–82. [⟨URL:http://doi.acm.org/10.1145/208666.208687⟩](http://doi.acm.org/10.1145/208666.208687).

Rouet, J. F. (1992). Cognitive processing of hyperdocuments: when does nonlinearity help? In *Proceedings of the ACM conference on Hypertext, ECHT '92*, pages 131–140, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/168466.168508⟩](http://doi.acm.org/10.1145/168466.168508).

### 3.2 Navigation in Hypertext ‘Spaces’

Allen, B. (1998). Information space representation in interactive systems: relationship to spatial abilities. In *Proceedings of the third ACM conference on Digital libraries, DL '98*, pages 1–10, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/276675.276676⟩](http://doi.acm.org/10.1145/276675.276676).

Dillon, A. (2000). Spatial-semantics: How users derive shape from information space. *Journal of the American Society for Information Science*, 51(6):521–528. [⟨URL:http://dx.doi.org/10.1002/\(SICI\)1097-4571\(2000\)51:6<521::AID-ASI4>3.0.CO;2-5⟩](http://dx.doi.org/10.1002/(SICI)1097-4571(2000)51:6<521::AID-ASI4>3.0.CO;2-5) also available from [⟨URL:http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=3018762&site=ehost-live⟩](http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=3018762&site=ehost-live).

Höök, K., Benyon, D., and Munro, A. J., editors (2003). *Designing Information Spaces: The Social Navigation Approach*. Computer supported cooperative work. Springer-Verlag London Limited.

Maglio, P. P. and Matlock, T. (1998). Metaphors we surf the web by. In *Workshop on Personalized and Social Navigation in Information Space*, Stockholm, Sweden. Downloaded from [⟨URL:http://www.almaden.ibm.com/cs/people/pmaglio/pubs/meta4surf.ps⟩](http://www.almaden.ibm.com/cs/people/pmaglio/pubs/meta4surf.ps).

Spence, R. (1999). A framework for navigation. *International Journal of Human-Computer Studies*, 51(5):919–945. [⟨URL:http://dx.doi.org/10.1006/ijhc.1999.0265⟩](http://dx.doi.org/10.1006/ijhc.1999.0265).

van Hooijdonk, C., Maes, A., and Ummelen, N. (2006). ‘I have been here before’: An investigation into spatial verbalizations in hypertext navigation. *Information Design Journal*, 14(1):8–21. [⟨URL:http://www.swetswise.com/eAccess/viewAbstract.do?articleID=30616031&titleID=502410⟩](http://www.swetswise.com/eAccess/viewAbstract.do?articleID=30616031&titleID=502410).

### 3.3 Articles in Hypertext Format

Blustein, J. and Noor, M. (2004). Personal glossaries on the WWW: an exploratory study (hypertext). In *DocEng '04: Proceedings of the 2004 ACM symposium on Document engineering*, pages 54–56, New York, NY. ACM Press.

☞ See the HTML files at [⟨URL:http://doi.acm.org/10.1145/1030397.1030409⟩](http://doi.acm.org/10.1145/1030397.1030409).

De Bra, P., Smits, D., and Stash, N. (2006). The design of AHA! In *Proceedings of the seventeenth conference on Hypertext and hypermedia*, HYPERTEXT '06, pages 133–134, New York, NY, USA. ACM.

☞ See the hypertext version by following the link in the article at [⋈URL:http://doi.acm.org/10.1145/1149941.1149968](http://doi.acm.org/10.1145/1149941.1149968).

Fagerjord, A. (2005). Editing stretchfilm. In *Proceedings of the sixteenth ACM conference on Hypertext and hypermedia*, HYPERTEXT '05, pages 301–, New York, NY, USA. ACM.

☞ See the hypertext article at [⋈URL:http://doi.acm.org/10.1145/1083356.1089507](http://doi.acm.org/10.1145/1083356.1089507).

Kolb, D. (2004). Twin media: hypertext structure under pressure. In *Proceedings of the fifteenth ACM conference on Hypertext and hypermedia*, HYPERTEXT '04, pages 26–27, New York, NY, USA. ACM.

☞ See the hypertext article at [⋈URL:http://doi.acm.org/10.1145/1012807.1012817](http://doi.acm.org/10.1145/1012807.1012817).

Larsen, D. and Higgason, R. E. (2004). An anatomy of anchors. In *Proceedings of the fifteenth ACM conference on Hypertext and hypermedia*, HYPERTEXT '04, pages 114–115, New York, NY, USA. ACM.

☞ See the hypertext article at [⋈URL:http://doi.acm.org/10.1145/1012807.1012842](http://doi.acm.org/10.1145/1012807.1012842).

## 4 Applications for Scholars

### 4.1 Reading Devices and Information Assimilation

Bernstein, M., Van Kleek, M., Karger, D., and Schraefel, M. C. (2008). Information scraps: How and why information eludes our personal information management tools. *ACM Trans. Inf. Syst.*, 26:24:1–24:46. [⋈URL:http://doi.acm.org/10.1145/1402256.1402263](http://doi.acm.org/10.1145/1402256.1402263).

Hinckley, K., Zhao, S., Sarin, R., Baudisch, P., Cutrell, E., Shilman, M., and Tan, D. (2007). Inkseine: *In Situ* search for active note taking. In *Proceedings of the SIGCHI conference on Human factors in computing systems*, CHI '07, pages 251–260, New York, NY, USA. ACM. [⋈URL:http://doi.acm.org/10.1145/1240624.1240666](http://doi.acm.org/10.1145/1240624.1240666).

Marshall, C. C., Price, M. N., Golovchinsky, G., and Schilit, B. N. (1999). Introducing a digital library reading appliance into a reading group. In *Proceedings of the fourth ACM conference on Digital libraries*, DL '99, pages 77–84, New York, NY, USA. ACM. [⋈URL:http://doi.acm.org/10.1145/313238.313262](http://doi.acm.org/10.1145/313238.313262).

Reimer, Y. J., Brimhall, E., Cao, C., and O'Reilly, K. (2009a). Empirical user studies inform the design of an e-notetaking and information assimilation system for students in higher education. *Comput. Educ.*, 52:893–913. [⋈URL:http://dx.doi.org/10.1016/j.compedu.2008.12.013](http://dx.doi.org/10.1016/j.compedu.2008.12.013).

Reimer, Y. J., Bubnash, M., Hagedal, M., and Wolf, P. (2009b). Helping students with information fragmentation, assimilation and notetaking. In *Proceedings of the 9th ACM/IEEE-CS joint conference on Digital libraries*, JCDL '09, pages 15–18, New York, NY, USA. ACM. [⋈URL:http://doi.acm.org/10.1145/1555400.1555404](http://doi.acm.org/10.1145/1555400.1555404).

## 4.2 Annotation

- Brown, B. A. T., Sellen, A. J., and O'Hara, K. P. (2000). A diary study of information capture in working life. In *Proceedings of the SIGCHI conference on Human factors in computing systems*, CHI '00, pages 438–445, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/332040.332472](http://doi.acm.org/10.1145/332040.332472).
- Hinckley, K., Zhao, S., Sarin, R., Baudisch, P., Cutrell, E., Shilman, M., and Tan, D. (2007). Inkseine: *In Situ* search for active note taking. In *Proceedings of the SIGCHI conference on Human factors in computing systems*, CHI '07, pages 251–260, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/1240624.1240666](http://doi.acm.org/10.1145/1240624.1240666).
- Marshall, C. C. (1997). Annotation: from paper books to the digital library. In *Proceedings of the second ACM international conference on Digital libraries*, DL '97, pages 131–140, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/263690.263806](http://doi.acm.org/10.1145/263690.263806).
- Marshall, C. C. and Brush, A. J. B. (2004). Exploring the relationship between personal and public annotations. In *Proceedings of the 4th ACM/IEEE-CS joint conference on Digital libraries*, JCDL '04, pages 349–357, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/996350.996432](http://doi.acm.org/10.1145/996350.996432).
- O'Hara, K. and Sellen, A. (1997). A comparison of reading paper and on-line documents. In Pemberton, S., editor, *Looking to the Future: Proceedings of the CHI 97 Conference on Human Factors in Computing Systems*, pages 335–342, New York, NY. ACM Press. [URL:http://doi.acm.org/10.1145/258549.258787](http://doi.acm.org/10.1145/258549.258787).
- Wolfe, J. (2008). Annotations and the collaborative digital library: Effects of an aligned annotation interface on student argumentation and reading strategies. *International Journal of Computer-Supported Collaborative Learning*, 3(2):141–164. [URL:http://dx.doi.org/10.1007/s11412-008-9040-x](http://dx.doi.org/10.1007/s11412-008-9040-x).

## 4.3 Foldable User Interfaces

- Holman, D. and Vertegaal, R. (2008). Organic user interfaces: designing computers in any way, shape, or form. *Communications of the ACM*, 51:48–55. [URL:http://doi.acm.org/10.1145/1349026.1349037](http://doi.acm.org/10.1145/1349026.1349037).
- Seong, J., Lee, W., and Lim, Y.-k. (2009). Why we cannot work without paper even in a computerized work environment. In *Proceedings of the 27th international conference extended abstracts on Human factors in computing systems*, CHI EA '09, pages 4105–4110, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/1520340.1520625](http://doi.acm.org/10.1145/1520340.1520625).

## 5 Sensemaking, Information Foraging, Scent and Seeking

### 5.1 Sensemaking

- Furnas, G. W. and Russell, D. M. (2005). Making sense of sensemaking. In *CHI '05 extended abstracts on Human factors in computing systems*, CHI EA '05, pages 2115–2116, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/1056808.1057113⟩](http://doi.acm.org/10.1145/1056808.1057113).
- Paul, S. A. and Reddy, M. C. (2010). Understanding together: sensemaking in collaborative information seeking. In *Proceedings of the 2010 ACM conference on Computer supported cooperative work*, CSCW '10, pages 321–330, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/1718918.1718976⟩](http://doi.acm.org/10.1145/1718918.1718976).
- Qu, Y. and Furnas, G. W. (2005). Sources of structure in sensemaking. In *CHI '05 extended abstracts on Human factors in computing systems*, CHI EA '05, pages 1989–1992, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/1056808.1057074⟩](http://doi.acm.org/10.1145/1056808.1057074).
- Russell, D. M., Stefik, M. J., Pirolli, P., and Card, S. K. (1993). The cost structure of sensemaking. In *Proceedings of the INTERACT '93 and CHI '93 conference on Human factors in computing systems*, CHI '93, pages 269–276, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/169059.169209⟩](http://doi.acm.org/10.1145/169059.169209).
- Ryder, B. and Anderson, T. (2009). 'Coalesce': a web-based tool for sensemaking. In *Proceedings of the 21st Annual Conference of the Australian Computer-Human Interaction Special Interest Group: Design: Open 24/7*, OZCHI '09, pages 289–292, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/1738826.1738877⟩](http://doi.acm.org/10.1145/1738826.1738877).
- Ryder, B. and Anderson, T. (2010). Lightweight personal sensemaking tools for the web. In *Proceedings of the 6th Nordic Conference on Human-Computer Interaction: Extending Boundaries*, NordiCHI '10, pages 413–421, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/1868914.1868962⟩](http://doi.acm.org/10.1145/1868914.1868962).
- Sharma, N. (2011). Role of available and provided resources in sensemaking. In *Proceedings of the 2011 annual conference on Human factors in computing systems*, CHI '11, pages 1807–1816, New York, NY, USA. ACM. [⟨URL:http://doi.acm.org/10.1145/1978942.1979204⟩](http://doi.acm.org/10.1145/1978942.1979204).

### 5.2 Information Foraging

- Pirolli, P. and Card, S. (1995). Information foraging in information access environments. In *Proceedings of the SIGCHI conference on Human factors in computing systems*, CHI '95, pages 51–58, New York, NY, USA. ACM Press/Addison-Wesley Publishing Co. [⟨URL:http://dx.doi.org/10.1145/223904.223911⟩](http://dx.doi.org/10.1145/223904.223911).
- Pirolli, P. and Card, S. (1999). Information foraging. *Psychological Review*, 106(4):643 – 675. [⟨URL:http://psycnet.apa.org/journals/rev/106/4/643/⟩](http://psycnet.apa.org/journals/rev/106/4/643/).

### 5.3 Information Scent

- Chi, E. H., Pirolli, P., and Pitkow, J. (2000). The scent of a site: a system for analyzing and predicting information scent, usage, and usability of a web site. In *Proceedings of the SIGCHI conference on Human factors in computing systems, CHI '00*, pages 161–168, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/332040.332423](http://doi.acm.org/10.1145/332040.332423).
- Furnas, G. W. and Russell, D. M. (2005). Making sense of sensemaking. In *CHI '05 extended abstracts on Human factors in computing systems, CHI EA '05*, pages 2115–2116, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/1056808.1057113](http://doi.acm.org/10.1145/1056808.1057113).
- Paul, S. A. and Reddy, M. C. (2010). Understanding together: sensemaking in collaborative information seeking. In *Proceedings of the 2010 ACM conference on Computer supported cooperative work, CSCW '10*, pages 321–330, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/1718918.1718976](http://doi.acm.org/10.1145/1718918.1718976).
- Pirolli, P., Card, S. K., and Van Der Wege, M. M. (2003). The effects of information scent on visual search in the hyperbolic tree browser. *ACM Trans. Comput.-Hum. Interact.*, 10:20–53. [URL:http://doi.acm.org/10.1145/606658.606660](http://doi.acm.org/10.1145/606658.606660).
- Qu, Y. and Furnas, G. W. (2005). Sources of structure in sensemaking. In *CHI '05 extended abstracts on Human factors in computing systems, CHI EA '05*, pages 1989–1992, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/1056808.1057074](http://doi.acm.org/10.1145/1056808.1057074).
- Russell, D. M., Stefik, M. J., Pirolli, P., and Card, S. K. (1993). The cost structure of sensemaking. In *Proceedings of the INTERACT '93 and CHI '93 conference on Human factors in computing systems, CHI '93*, pages 269–276, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/169059.169209](http://doi.acm.org/10.1145/169059.169209).
- Ryder, B. and Anderson, T. (2009). 'Coalesce': a web-based tool for sensemaking. In *Proceedings of the 21st Annual Conference of the Australian Computer-Human Interaction Special Interest Group: Design: Open 24/7, OZCHI '09*, pages 289–292, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/1738826.1738877](http://doi.acm.org/10.1145/1738826.1738877).
- Ryder, B. and Anderson, T. (2010). Lightweight personal sensemaking tools for the web. In *Proceedings of the 6th Nordic Conference on Human-Computer Interaction: Extending Boundaries, NordiCHI '10*, pages 413–421, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/1868914.1868962](http://doi.acm.org/10.1145/1868914.1868962).
- Sharma, N. (2011). Role of available and provided resources in sensemaking. In *Proceedings of the 2011 annual conference on Human factors in computing systems, CHI '11*, pages 1807–1816, New York, NY, USA. ACM. [URL:http://doi.acm.org/10.1145/1978942.1979204](http://doi.acm.org/10.1145/1978942.1979204).

### 5.4 Information Seeking

- Choo, C. W., Detlor, B., and Turnbull, D. (2000). Information seeking. In *Web Work: Information Seeking and Knowledge Work on the World Wide Web*, Information Science and Knowledge Management, chapter 1, pages 3–27. Kluwer Academic Publishers.

## 6 Miscellaneous

- Butcher, K. R. and Kintsch, W. (2003). Comprehension and discourse processing. In Healy, A. F., Proctor, R. W., and Weiner, I. B., editors, *Experimental Psychology*, volume 4 of *Handbook of Psychology*, chapter 21, pages 575–595. Wiley, New York.
- Holz, H. J., Applin, A., Haberman, B., Joyce, D., Purchase, H., and Reed, C. (2006). Research methods in computing: what are they, and how should we teach them? *SIGCSE Bull.*, 38:96–114. [⟨URL:http://doi.acm.org/10.1145/1189136.1189180⟩](http://doi.acm.org/10.1145/1189136.1189180).
- Jonassen, D. H. and Henning, P. (1996). Mental models: knowledge in the head and knowledge in the world. In *Proceedings of the 1996 international conference on Learning sciences, ICLS '96*, pages 433–438. International Society of the Learning Sciences. [⟨URL:http://dl.acm.org/citation.cfm?id=1161135.1161198⟩](http://dl.acm.org/citation.cfm?id=1161135.1161198).
- Larson, K. and Czerwinski, M. (1998). Web page design: implications of memory, structure and scent for information retrieval. In *Proceedings of the SIGCHI conference on Human factors in computing systems, CHI '98*, pages 25–32, New York, NY, USA. ACM Press/Addison-Wesley Publishing Co. [⟨URL:http://dx.doi.org/10.1145/274644.274649⟩](http://dx.doi.org/10.1145/274644.274649).
- Lindgaard, G., Dudek, C., Sen, D., Sumegi, L., and Noonan, P. (2011). An exploration of relations between visual appeal, trustworthiness and perceived usability of homepages. *ACM Trans. Comput.-Hum. Interact.*, 18:1:1–1:30. [⟨URL:http://doi.acm.org/10.1145/1959022.1959023⟩](http://doi.acm.org/10.1145/1959022.1959023).
- Molotch, H. (2003). *Where Stuff Comes From: How Toasters, Toilets, Cars, Computers, and Many Other Things Come to Be As They Are*. Routledge. © by Taylor & Francis Books, Inc.
- Norman, D. A. (2005). Human-centered design considered harmful. *interactions*, 12:14–19. [⟨URL:http://doi.acm.org/10.1145/1070960.1070976⟩](http://doi.acm.org/10.1145/1070960.1070976).
- Palsberg, J. and Baxter, S. J. (2002). Teaching reviewing to graduate students. *Communications of the ACM*, 45(12):22–24. [⟨URL:http://dx.doi.org/10.1145/585597.585612⟩](http://dx.doi.org/10.1145/585597.585612).
- Schwartz, R. B. and Russo, M. C. (2004). How to quickly find articles in the top IS journals. *Communications of the ACM*, 47:98–101. [⟨URL:http://doi.acm.org/10.1145/966389.966417⟩](http://doi.acm.org/10.1145/966389.966417).