

# eHealth 7.0 – *Harnessing the Power of Web 2.0*

Fall 2007

UNC School of Public Health,  
Department of Health Behavior and Health Education  
(HBHE 795; 3 Credit Hours)

October 28, 2007 (Final)

## Instructor

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## TA

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## Meeting Time

Wednesday  
12:30-2:50 p.m.  
McGavran-Greenberg 2302

**Prerequisite:** None

**Course Description:** This course will take a critical and comprehensive look at how the Internet and eHealth applications are affecting the public's health. Consumers are increasingly visiting health and medical Web sites, which are now among the most frequently visited Internet destinations. Although the number of health-related sites has grown exponentially, there is still a pressing need for high-quality, scientifically accurate, usable, and theoretically-driven health sites. The Internet, mobile phones, and Personal Digital Assistants hold great “promise” for providing timely consumer health information, delivering behavior change interventions, and providing social support to those with illnesses. We are also witnessing the rise of Web 2.0, (“a perceived second-generation of web-based communities and hosted services — such as social-networking sites, wikis and folksonomies”source-wikipedia.com) — which aim to build deeper collaboration and connections between users. We have yet to harness the power of social media for promoting human health. The Internet and other applications are a double-edged sword. Just as in the offline world, there are many “perils” including the dissemination of inaccurate and dangerous health information, sales of products that are restricted at ‘brick and mortar’ vendors, and the solicitation of children. This course will provide essential skills for public health researchers and practitioners interested in maximizing the promise of these exciting new media.

## Course Objectives:

- To understand how eHealth applications and social media can be used to enhance personal and population health.
- To understand ways in which the Internet is detrimental to public health, and how to counteract it.
- To evaluate the quality, accessibility, readability, usability, impact, and ethical standards of interactive health content.
- To learn how to develop theory-based eHealth interventions that address key public health problems.
- To critically evaluate eHealth interventions.

**Methods:** To promote learning of the subject matter, this class will employ multiple methods: lectures, assigned readings, in-class discussions, guest speakers, skill-building activities, brief oral presentations by students, several written assignments, and a written and oral class project.

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## Reading

### A. Course Readings

Readings for each class session are listed at the end of this syllabus and will be accessible on the Blackboard Website for the course (<http://blackboard.unc.edu/>). There are no required books for this course. There will be typically be 3-4 readings for most class sessions. If there is a 5<sup>th</sup> reading, it is generally very short. Keep in mind that this class only meets once per week and so the number of readings per class session is a little higher than the load for classes meeting twice weekly.

### B. Optional Books

- Lynch, P.J., Horton, S. (2002). *Web style guide: Basic design principles for creating Web sites 2<sup>nd</sup> Edition*. New Haven, CN: Yale University Press. Also available free at: <http://www.webstyleguide.com/index.html>
- Rice, R.E., & Katz, J.E. (Editors). *The Internet and health communication: Experiences and expectations* (2001): Thousand Oaks, CA: Sage.
- Spool, J.M., Scanlon, T., Schoeder, W., Snyder, C., & DeAngelo, T. (1999). *Web site usability: A designer's guide*. San Francisco, CA: Morgan Kaufmann Publishers.
- Street, R.L., Gold, W.R., & Manning, T. (1997). *Health promotion and interactive technology: Theoretical applications and future directions*. Mahway, NJ: Lawrence Earlbaum.

## Assignments and Grading

Grades will be based on the following five activities

1. Health-related newsgroup diary – You will join a health-related Usenet newsgroup for at least two weeks. You can pick a group focusing on either a health behavior or condition (e.g., diabetes management, quitting smoking, living with cancer) or a professional issues newsgroup (e.g., Health educators directory – HEDIR or ‘Spirit of 1848’). Alternatively, you could read the prior week’s worth of message threads on a Web site message board. You will write two brief (1 page single-spaced) reactions to the discussions occurring on this list. You can embed copies of message threads or include them on a separate page if they are relevant to your diary entry. If you do this, please remove any identifying information, such as an email address or name, for the person writing the message. You can select a different group for the second week. For your second diary entry, describe how things are different or similar from the prior week. Health newsgroups can be found on Yahoo.com (<http://groups.yahoo.com/>) or WebMd (<http://www.webmd.com/community/boards>). Students in the past have not had as much success with [www.google.com](http://www.google.com) (See “Groups”). You may wish to establish a temporary email account to avoid receiving Spam.
2. Web site critique - You will volunteer once over the semester to give a crisp and dazzling 10-minute oral presentation on a health-related Web site of your choice. You will describe why you chose the site and then give the class an online tour of the site. Throughout the presentation you should suggest areas for improvement and evaluate the site on 6 or more Web site criteria that have been discussed in class or mentioned in the readings (e.g., scientific quality, usability, ethical standards). Students should also turn in to the instructor a 4-6 page (single-spaced) summary of their presentation that lists (1) the name of the Web site and URL, (2) a screen capture of the home page <press PrtScn button and then Ctrl-V to paste>.

(3) intended audience and brief overview of the purpose and functions of the site (feel free to cite or quote excerpts from the Website), (4a-f) an assessment of how well the site meets each of the 6 evaluation criteria, and (5) conclude with at least three specific suggestions for improving the Web site. For each of the evaluation criteria (4a-f), write several sentences in narrative format and give a rating on a scale of your choosing - (e.g. 1 = excellent, 5 = terrible; smiley faces, 3 of 4 “stars”) and apply this to each of the different criteria you choose. To demonstrate that your ratings are evidence-based, you should cite references for the criteria that you chose. Use several examples to justify your ratings. Do point out particular strengths of the Website. Chose your Web site carefully - this assignment usually works best if you avoid choosing a site that is outstanding and has no problems that need improvement. Conversely, I suggest that you avoid critiquing a site that is terrible and needs a major overhaul. Also, it is often better to pick one focused on a particular topic than one that covers a large amount of content (e.g., WebMD). This activity is designed to allow you to synthesize what you have learned from the class discussion and readings. You will receive a brief written critique of your oral presentation from both your peers and the instructor.

3. Class participation – You are expected to read each of the assigned readings, to participate in class discussions, and to attend class regularly. All students will be assigned to lead a seminar. Seminar leaders need to a bit of extra work by preparing to facilitate the discussion of the assigned readings for one class session. The best way to lead seminars is to assume that everyone has read the material and aim to move the discussion to the next level of understanding. Seminar leaders are encouraged to prepare material that does one of the following:

**CLARIFY:** Identify a point or narrative that you find confusing, or perhaps inconsistent with past readings, class discussion, or experience. Present to class and invite discussion.

**CRITIQUE:** Identify what you think are the 2 or 3 most important points from the reading. These could be points you agree or disagree with. Present these points, say why you think they are interesting, and invite discussion and debate.

**INTEGRATE:** Explain to the class how the points made by the authors overlap, complement, or contradict other points from previous course material or discussion. Ask whether others in the class agree with your assessment; solicit additional points of overlap, or contradiction from the class.

**APPLY:** Present 1 or 2 examples or plan an exercise that demonstrates how the content of the reading could be applied to the development or evaluation of eHealth content.

Seminar leaders will generally have 30-40 minutes of class time for discussion. Please do not lecture, just raise ideas and issues that facilitate class discussion. There is no need for handouts or overheads; however, you can use them if you prefer.

4. Written paper – You will write a review paper on a topic of your choice. The topic should address issues pertinent to the development, implementation, or evaluation of health-related Internet content. A worksheet will be posted on the course Web site that allows you to propose the paper topic – it includes information such as a draft title, paragraph overview of the proposed paper topic, and references. This worksheet should be submitted to the instructor for comments and approval (see course calendar for dates). This paper proposal should justify briefly why this is an important topic and describe how you will organize the paper. You can prepare a draft outline if you like. Also, please conduct a preliminary literature search and include references for at least 5 peer-reviewed articles that you plan on citing in your

paper to demonstrate that there is adequate published literature on this topic. Most of the literature that you cite in your paper should be either empirical studies or literature reviews that are published as journal articles or book chapters. Thus, this is not a paper where the main focus is a content analysis of Web sites – that is more appropriate for the course Project. You can cite electronic sources, but please do not have these comprise the majority of the literature cited. Also, please try to cite studies with a published methodology that is rigorous, rather than citing studies where the methodology is not even described (this is common for “studies” and “reports” conducted by marketing companies listed on Websites).

Format: The number of sections and the number of pages allocated to each are at the discretion of the student. The length of the completed paper should be no more than 12-15 double-spaced pages (excluding title page and references). The cover page should include: Paper title, student name, course number, date, running head, and a statement that you have complied with the requirements of the Honor Code in all aspects of the submitted work. The paper must adhere to the guidelines set forth by the *American Journal of Public Health* (see “What AJPH Authors should know,” in each issue of AJPH) or the *American Psychological Association*. Your paper does not need to have an abstract. When describing prior studies, please describe their methods succinctly (i.e., mention sample size, how recruited) and consider giving actual study results rather than just broad findings (e.g., “One study of 755 North Carolina college students recruited through a school newspaper ad found that 39.9% reported searching for sexual health information online in the past 30 days”). As with all writing, please use clear topic sentences at the beginning of each paragraph to guide the reader.

On the first page of the paper, state the rationale and purpose of the paper, and describe the structure or how the paper will be organized. Please use several subheads to break up the paper into logical sections. At the conclusion of your paper, summarize the study findings and make clear, tangible evidence-based recommendations about future studies that are needed or describe solutions to the problem you are addressing – do not be afraid to take a stand about an issue.

The paper differs from the project (see #5 below) in that the project is an empirical study where you design a study and collect your data. For the paper, you are citing the studies of other people and not collecting any data. Answer a question in the paper and synthesize what other studies have shown. For instance, are online dieting programs effective? Is medical information kept private on health-related Web sites? Are alcohol companies marketing to teenagers on the Internet? Can text messaging interventions be used to help teens reduce their risk of sexually transmitted infections? For the project, you will do your own mini-study to answer similar questions. If you have several paper ideas and are not sure which is most appropriate, you can submit two paper proposals and the instructor and TA will give you guidance on which one might be better to pursue.

Peer feedback: Students will exchange a draft copy of their paper with another student in the class for peer feedback. A copy of the draft paper should also be given to the instructor. Within one week, peers will return 1-2 pages of typed feedback that has been organized using the grading form used by the instructor to evaluate the final paper. Please provide your comments under subheadings that correspond to the grading criteria used by the instructor (e.g., “Rationale for paper” or “Organization and writing quality”). You should also give a copy of your feedback to the instructor. Feel free to return the hard-copy of the paper with minor edits and comments throughout, but you do not need to submit this to the instructor. Start your feedback with overall impressions – what you like about the paper, what you learned, and what is most interesting. Then provide a general critique with areas for improvement. You will have 1 week to revise the paper based on feedback from your peer. The due date for the final paper is listed on the course

calendar. I attempt to return these papers graded within 2 weeks and will write feedback on your paper and using the grading sheet.

5. Individual or Group project - The course culminates in the development of a mini-research project that is presented to the class. You can do the class project individually or as a group with a total of two or three students in the class. If you work on the project as a group, all members will receive the same grade and the group will be expected to present a more elaborate class project than would be expected of a single student. You can conduct your project on the same topic as your written paper. The paper focuses on citing original research studies and literature reviews, whereas the project is an empirical study that you conduct yourself.

Past students have conducted projects on a wide variety of health topics including: Cyberdieting: An evaluation of weight loss Websites; The quality of contraceptive information on Websites for teens; Review of Websites selling Ciproflaxacin; Alt.Smokers – Analysis of Newsgroups for smokers; Availability and cost of Viagra online; Dazed and confused online: An analysis of pro marijuana Websites.

If you are doing an individual project, you should identify a research question that typically involves examining between 10 and 30 Web sites. You should review fewer Web sites if you are collecting a lot of information on each site, and more if you are only examining a few variables for each site. If you are doing a group project, you should generally review 30-60 Web sites, depending on the number of variables reviewed.

More important than the number of sites reviewed, however, is the process used to identify Web sites (sampling methods), the measures to evaluate them, and your analysis, presentation and interpretation of the data. You only need to turn in two assignments for the project – the first is to complete a **Project Worksheet** on your idea, which is done approximately a month or more before the final project is due. The instructor will provide feedback on your Worksheet within one week. The other assignment is to give an **Oral Presentation** (there is no paper associated with the Project). On the day of your presentation, please provide the instructor with a hard copy of your PowerPoint handouts (printed 2 or 4 slides per page – black and white is fine) and a copy of your measurement instrument. Much of the grading is done using the printed PowerPoint slides, so please be sure to put all pertinent information in your presentation. Individual Projects will have approximately 12 minutes for presentation and 3 minutes for questions; Group projects will have approximately 20 minutes and 3 minutes for questions.

Please consult the **Class Project Grading Sheet** on the course Web site for what the instructor is looking for in a Project and Oral Presentation. You should structure your presentation in a way that you cover all of the items covered in the grading sheet. Have very clear research questions. The measures, results and conclusions should all be tightly linked to these research questions. For instance, your conclusions should provide the answers to your research questions and/or whether your hypotheses were supported. Be sure that your methodology is very clear. For instance, have clear eligibility (e.g., English language Web sites providing consumer health information on the topic of breast cancer) and exclusion criteria (e.g., foreign language sites, news articles) for Web sites. Provide the number of sites reviewed and the number of excluded by reason for exclusion. Show the URL of the sampled sites and perhaps a couple of examples of included and excluded sites. Be clear about your level of analysis, such as (1) Web site home page, (2) images on home page or 1-link from home page, or (3) banner ads or pop-up ads on the site. Mention if you are reviewing the home page or the page returned by a search engine if they are different. If you have evaluation criteria, be sure to describe how you chose them and the range of scores possible (e.g., the number of side effects listed for a drug that are listed in the Physician's Desk Reference <possible range 0

to 14>). Numerical rating systems with objective ratings are generally better than purely subjective ratings. For instance, presenting the exact reading level of text rather than stating that it is “too high” for the target audience. In your presentation, be sure to show screen captures of any interesting items on the Web sites that you review. Consider compressing all images within PowerPoint if you have many of them in your presentation.

Projects that only examine Internet content are exempt from IRB approval because they do not involve human subjects. If you collect any data from human subjects, then you must obtain IRB approval and be CITI certified – this is described in the Research section of the UNC School of Public Health Web page.

**Will I learn Web site programming?** This course will not focus on teaching programming languages (e.g., HTML, XML, Java). There are several reasons for this. First, students would be better served taking a programming course in a computer or information science department where you will learn Web site design from experts. Second, the more significant problem is not that the Web site authors do not know the programming language; rather it is caused by limited proficiency in the content area, fundamental site design issues, poor accessibility and lack of usability testing. These core skills will be covered in this course.

**How much of a medical focus is there?** Because this course is offered in a School of Public Health, the main focus will be on public health. Nevertheless, there is some overlap and there are interesting medical examples that will be covered. However, the course will not cover exclusively medical issues such as the practice of telemedicine (and “mousecalls”).

## **Course Evaluation**

Informal feedback throughout the course is appreciated. The instructor will periodically survey students about the quality and usefulness of the assigned readings through the course Web site. There will also be a mid-course evaluation that will benefit current students, as well as a final evaluation to benefit future students.

## **Honor Code**

The Honor Code is in effect in this class and all others at the University of North Carolina at Chapel Hill. I am committed to treating Honor Code violations seriously and urge all students to become familiar with its terms set out at this URL (<http://instrument.unc.edu>). If you have questions, it is your responsibility to ask me about the Code’s application. Your Written Paper and Class Project must be submitted with a statement that you have complied with the requirements of the Honor Code in all aspects of the submitted work.

*“Technical glitches aside, when it comes to medical information, the Internet too often resembles a cocktail conversation rather than a tool for effective health care communication and decision making. The problem is not too little information but too much, vast chunks of it incomplete, misleading, or inaccurate, and not only in the medical arena. The Net-and especially the Web-has the potential to become the world’s largest vanity press. It is a medium in which anyone with a computer can serve simultaneously as author, editor, and publisher and can fill any or all of these roles anonymously if he or she so chooses.”*

Silberg WM, Lundberg GD, Musacchio RA. Assessing, controlling, and assuring the quality of medical information on the Internet: Caveant lector et viewor--Let the reader and viewer beware [editorial]. *Journal of the American Medical Association.* 1997;277(15):1244-5.



*"Nurse, get on the internet, go to SURGERY.COM, scroll down and click on the 'Are you totally lost?' icon."*



**Table 1. Points for course assignments.**

<b>Assignment</b>	<b>Number of Points</b>	<b>%</b>
1. Newsgroup diaries (20 pts each)	40	8%
2. Web site critique	100	20%
3. Class participation	80	16%
4. Written paper	120	24%
5. Individual Project	160	32%
Total	500	100%

**Table 2. Grading scale.**

<b>Grade</b>	<b>Interpretation</b>	<b>Total points</b>
H	High pass	475-500
H-	High pass minus	465-474
P	Pass	420-464
L	Low Passing	380-419
F	Fail	<380

**Table 3. Guest Speakers. – Please give Input**

<b>Guest Speakers</b>	<b>Position Title</b>
Lisa Hightow, MD, MPH	Division of Infectious Diseases, UNC School of Medicine
Allison Myers, MPH & John Roberts	Innovation Management
Kevin Schulman, MD, MBA	Professor, Duke University
Mike Smith	Special Agent, State Bureau of Investigation
Deborah Tate, Ph.D.	Assistant Professor, Dept Health Behavior & Health Education UNC School of Public Health

## Calendar for HBHE 795 – Fall 2007

#	Date	Topic	Presenter(s)	Assignments
1	Aug 22	Introduction and Course description. Visiting selected health-related Web sites.	Kurt M. Ribisl	
2	Aug 29	Overview of Internet and health		Choose newsgroup
3	Sep 5	Searching for health information online		Newsgroup diary #1
4	Sep 12	Accessibility, the digital divide, and digital inequality	Allison Myers & John Roberts, iM 3 <sup>rd</sup> Pro	Newsgroup diary #2; Submit <i>Paper Idea</i> form
5	Sep 19	Interactivity and health communication		Instructor returns Paper Idea with feedback
6	Sep 26	Web design and usability		Usability exercise
7	Oct 3	Guidelines for health sites	Kevin Schulman, MD	Give paper to Peer reviewer
8	Oct 10	Research and evaluation methods		Reviewer returns feedback to classmate & instructor
9	Oct 17*	Ethical standards		Written paper due
10	Oct 24	Perils online		1 <sup>st</sup> Web site of week presentations
11	Oct 31*	Online games and health	Liz Lyons, MPH ( <i>Kurt is away</i> )	Mid-course evaluation
12	Nov 7	Internet-based health interventions	SBI Agent Mike Smith (1:45pm)	Web site of week; Submit <i>Class Project Worksheet</i>
13	Nov 14	Sexually transmitted infections and the Internet	Lisa Hightow, MD	Web site of week;
	Nov 21	<i>Class Cancelled for Thanksgiving Break</i>		Web site of week
14	Nov 28	Class Presentations, Part 1	Student presentations**	Class project due
	Dec 5	No Class		
15	Dec 10	Class Presentations, Part 2	Student presentations**	

\*UNC-CH Fall Break begins at 5pm on October 19th.

\*\*Depending on the number of student presentations, the class meeting time may need to be extended beyond the 12-2:30pm period. Also, depending on the instructor's travel schedule, this presentation session might need to be rescheduled.

## References

There may be other readings that will be identified by students or the instructor throughout the semester and the class will be apprised of these as they become available. Background articles are optional and not required reading for the course.

### 1. Introduction

No assigned readings

### 2. Overview of Internet and Health

- Cline, R. W. J., & Haynes, K. M. (2001). Consumer health information seeking on the Internet: The state of the art. *Health Education Research, 16*, 671-692.
- Fox, S. & Fallows, D. (2003). *Internet health resources*. The Pew Internet & American Life Project. Available: [http://www.pewinternet.org/PPF/r/95/report\\_display.asp](http://www.pewinternet.org/PPF/r/95/report_display.asp).
- Korp, P. (in press). Health on the Internet: Implications for health promotion. *Health Education Research: Theory and Practice*.

### 3. Searching for Health Information

- Biermann, J. S., Golladay, G. J., Greenfield, M. L., & Baker, L. H. (1999). Evaluation of cancer information on the Internet. *Cancer, 86*(3), 381-90.
- Eysenbach, G. & Kohler, C. (2002). How do consumers search for and appraise health information on the World Wide Web? *British Medical Journal, 324*, 573-577.
- Fox, S. (2005). Health information online. Pew Internet and American Life Project. Available: [http://www.pewinternet.org/PPF/r/156/report\\_display.asp](http://www.pewinternet.org/PPF/r/156/report_display.asp)

### 4. Accessibility, the Digital Divide, and Digital Inequality

- Alvarez, A. T. (2003). Behavioral and environmental correlates of digital inequality. *IT & Society, 1*(5), 97-140.

- Berland, G. K., Elliott, M. N., Morales, L. S., Algazy, J. I., Kravitz, R. L., Broder, M. S., Kanouse, D. E., Munoz, J. A., Puyol, J. A., Lara, M., Watkins, K. E., Yang, H., & McGlynn, E. A. (2001). Health information on the Internet: accessibility, quality, and readability in English and Spanish. *Journal of the American Medical Association, 285*(20), 2612-2621.
- D'Alessandro, D. M., Kingsley, P., & Johnson-West, J. (2001). The readability of pediatric patient education materials on the World Wide Web. *Archives of Pediatric and Adolescent Medicine, 155*(7), 807-812.

#### Background

- DiMaggio, P., & Hargittai, E. (2001). From the 'digital divide' to 'digital inequality': Studying Internet use as penetration increases.
- U.S. Department of Commerce. (September 2004). *A nation online: Entering the broadband age*. Washington DC. (Executive Summary)

### 5. Interactivity and Health Communication

- Street, R.L., Gold, W.R., & Manning, T. (1997). *Health promotion and interactive technology: Theoretical applications and future directions*. Mahway, NJ: Lawrence Earlbaum. Required: Chapter 1 "Health promotion and interactive technology: A conceptual foundation" p.1-18, and Chapter 2 "Interactive technology attributes in health promotion: Practical and theoretical issues" p.19-38. Optional: Chapter 3 "Using theories in interactive computer programs"
- Cassell, M. M., Jackson, C., & Chevront, B. (1998). Health communication on the Internet: An effective channel for health behavior change? *Journal of Health Communication, 3*, 71-79.
- Stout, P. A., Villegas, J., & Kim, H. (2001). Enhancing learning through use of interactive tools on health-related websites. *Health Education Research, 16*, 721-733.

## 6. Web Design and Usability

Koyant SJ, Bailey RW, Nall JR. *Research-based Web design & usability guidelines*. Washington, DC: Office of Communication, National Cancer Institute; 2003. Chapters 2, 6, 7, 16.

### Background

Lynch, P.J., Horton, S. (2002). *Web style guide: Basic design principles for creating Web sites*. New Haven, CN: Yale University Press. Chapter 1.

## 7. Guidelines for Health Sites

Gagliardi, A., & Jadad, A.R. (2002). Examination of instruments used to rate quality of health information on the internet: chronicle of a voyage with an unclear destination. *British Medical Journal*, 324, 569-573.

Kim, P., Eng, T. R., Deering, M. J., & Maxfield, A. (1999). Published criteria for evaluating health related web sites: review. *British Medical Journal*, 318(7184), 647-649.

Winker, M. A., Flanagan, A., Chi-Lum, B., White, J., Andrews, K., Kennett, R. L., DeAngelis, C. D., & Musacchio, R. A. (2000). Guidelines for medical and health information sites on the internet: principles governing AMA web sites. *Journal of the American Medical Association*, 283(12), 1600-1606.

*APHA Policy on Health Web sites*

## 8. Research and Evaluation Methods

Kraut, R., Olson, J., Banaji, M., Bruckman, A., Cohen, J., & Couper, M. (2004). Psychological research online. *American Psychologist*, 59(2), 105-117.

Robinson, T. N., Patrick, K., Eng, T. R., & Gustafson, D. (1998). An evidence-based approach to interactive health communication: a challenge to medicine in the information age. Science Panel on Interactive Communication and Health. *Journal of the American Medical Association*, 280 (14), 1264-9.

Schneider, S. J., Frechtling, J., Edgar, T., Crawley, B., & Goldstein, E. (2001). Evaluating a federal health-related Web site: A multimethod perspective on Medicare.gov, *The Internet and health communication: Experiences and expectations* (pp. 167-187): Sage.

Wyatt, J. C. (1997). Commentary: measuring quality and impact of the World Wide Web. *British Medical Journal*, 314(7098), 1879-1881.

### Background

Gosling, S. D., Vizire, S., Srivastava, S., & John, O. P. (2004). Should we trust Web-based studies? *American Psychologist*, 59, 93-104.

Nosek BA, Banaji MR, Greenwald AG. E-research: Ethics, security, design, and control in psychological research. *Journal of Social Issues* 2002;58:161-176.

## 9. Ethical Standards

eHealth Code of Ethics, (online).

Health Internet Ethics (Hi-Ethics) – (online)

American Association of Internet Researchers – Working Group Report.

Mann, C. and F. Stewart (2000). An ethical framework. Internet communication and qualitative research: A handbook for researching online. Thousand Oaks, CA, Sage: 39-64.

## 10. Perils Online

Crocco, A.G., Villasis-Keever, M., & Jadad, A.R. (2002). Analysis of cases of harm associated with use of health information on the Internet. *Journal of the American Medical Association*, 287(21), 2869-2871.

Cline, R.J. & Noland, V.J. (2002). The dark side of “information-seeking” on the Internet: Interactive health communication and risk promotion. *Manuscript under review*.

Davies, P., & Lipsey, Z. (2003). Ana’s gone surfing. *The Psychologist*, 16(8), 424-425.

Mitchell, K. J., Finkelhor, D., & Wolak, J. (2001). Risk factors for and impact of online sexual solicitation of youth. *Journal of the American Medical Association*, 285(23), 3011-3014.

Ribisl, K. M. (2003). The impact of the Internet in encouraging and discouraging youth smoking. *Tobacco Control*, 12 (Suppl 1), i48-i59.

## 11. Online Games

Bainbridge, W. S. (2007). "The scientific research potential of virtual worlds." *Science* 317(5837): 472-6.

Schott, G. and D. Hodgetts (2006). "Health and digital gaming: the benefits of a community of practice." *Journal of Health Psychology* 11(2): 309-316.

## 12. Interventions

Rodgers, A., Corbett, T., Bramley, D., Riddell, T., Willis, M., Lin, R.B., & Jones, M. (2005). Do u smoke after txt? Results of a randomized trial of smoking cessation using mobile phone text messaging. *Tobacco Control*, 14, 255-261.

Tate, D. F., Jackvony, E. H., & Wing, R. R. (2003). Effects of Internet behavioral counseling on weight loss in adults at risk for type 2 diabetes: a randomized trial. *Journal of the American Medical Association*, 289(14), 1833-1836.

Winefield, H. R., Coventry, B. J., & Lambert, V. (2004). Setting up a health education website: practical advice for health professionals. *Patient Education and Counseling*, 53(2), 175-182.

### Background

Finnegan. (2001). React. In *The Internet and health communication: Experiences and expectations* (Chap 7): Sage (pp.147-166).

## 13. Sexually transmitted infections and the Internet

Klausner, J. D., Wolf, W., Fischer-Ponce, L., Zolt, I., & Katz, M. H. (2000). Tracing a syphilis outbreak through cyberspace. *Journal of the American Medical Association*, 284(4), 447-449.

McFarlane, M., Bull, S. S., & Rietmeijer, C. A. (2000). The Internet as a newly emerging risk environment for sexually transmitted diseases. *Journal of the American Medical Association*, 284(4), 443-446.

Rhodes, S.D. (2004). Hookups or health promotion? An exploratory study of a chat-room based HIV prevention intervention for men who have sex with men. *AIDS Education and Prevention*, 16, 315-317.

## 14-15. Class Presentations

No assigned reading.