

**INSY 6392 SELECTED TOPICS IN INFORMATION SYSTEMS**  
**Seminar in Information Security and Privacy**  
**Fall 2013**

**Instructor(s):** Dr. Jingguo Wang

**Office Number:** COBA531

**Office Telephone Number:** 817-272-3520

**Email Address:** jwang@uta.edu

**Faculty Profile:** <https://www.uta.edu/mentis/public/#profile/profile/view/id/2139>

**Office Hours:** Half hour before/after class, or Available by Appointment.

**Section Information:** 002

**Time and Place of Class Meetings:** We 2:00PM - 4:50PM, COBA253

**Description of Course Content:**

This is a doctoral-level research course that focuses on information security and privacy. Fundamental concepts about the role, use, construction and evaluation of theories and theoretical models as well as methodological issues in the area will be discussed. Topics to be examined in the course include:

- Security Policy Compliance and Insider threat
- Self-protection and threat coping
- Organizational security risk management
- Individual privacy behavior
- Organizational privacy practice

**Student Learning Outcomes:**

This introductory seminar is designed to acquaint participants with the research approaches and procedures used in information security and privacy, and to encourage them to formulate research proposals suitable for publication or dissertation purposes. Students will read the key theory articles and learn how to properly apply and adapt theories to fit the context of each study. Students will also learn research design methodology in the context of behavioral security controls, including construct measures and measurement issues, data collection biases, data validation, and other issues.

**Required Textbooks and Other Course Materials:**

The class readings can be accessed via Dropbox shared by the instructor.

**Descriptions of major assignments and examinations:**

Each meeting will discuss 4-5 papers. All students are expected to read and critically analyze the papers before coming to class and then actively participate in the discussion of the issues in class. For each class, two or three students will be responsible for leading the discussion on the related papers. Each paper will be assigned to one student who will be responsible for leading the discussions on the paper. Students can use any kind of format (MS Words, PowerPoint, and so on) and any kind of device for the presentation (OHP, Projection).

A formal presentation is preferred (use powerpoint slides, but try not to just read your slides during the presentation). During the presentation, the leading student should identify main themes, methodology for test the hypothesis, contributions or implications, and possibilities for future research on the summary and presentation regarding the assigned papers. Issues to be considered for each paper may include:

- Rationale for the research.
- Strengths and weaknesses of research to date?
- What are the primary and secondary research questions?
- What are the independent and dependent variables used in the study? Have the author(s) left some out some variables? Have they included variables that have not been examined before?
- What is the level of analysis used in the study?
- What are appropriate theory bases for research in this area?
- What statistical and/or analytical approaches are being used?
- Is the data adequate for answering the research questions?

And at the same time, the leading student should focus on his or her personal opinions, creative thinking, and questions on the paper, some critics, and potential ideas for extending the paper for each reading. Therefore, the presentation should be two parts: the summary part and your evaluation part on each paper. This is for spark a debate on the each reading in every class. The summary for each class should be made available to all participants by exactly the day before class time. All students are expected to read and critical analyze the reading before coming to class and then actively participate in the discussion of the issues in class.

### **Midterm delivery**

Each class participant will need to turn in a preliminary topic analysis by **5pm@Oct 22 (via email)**, and discuss with the instructor individually at an assigned time slot (about 20-30 minutes) in Week 9 (**on Oct 23**). It is strongly encouraged to obtain feedbacks from at least one faculty member in or out of the department on the proposed research. Note that to maintain satisfactory progress toward a timely completion of the manuscript/proposal, it is essential that the students submit their best-effort drafts each time. The students need send the instructor the proposal draft in every other week to update the instructor on their progress before the final due by **5pm@Dec 11**.

The topic analysis for midterm delivery is, essentially, a simplified proposal, providing a rough outline of factors relating to the research. The parts of the topic analysis are:

- Problem statement, hypothesis or question
- Importance of research (why is it worthy of research)?
- Significant prior research (including the relationship to prior work within the area/main study)
- Possible research approach or methodology
- Potential outcomes of the research and their importance

The topic analysis should be quite short: 2 to 4 pages should be sufficient in most cases. A short, concise description is needed at this juncture. A few comments about each section may help in preparing this type of analysis.

#### ***1. Problem Statement, Hypothesis or Question***

- a. This relates to what the dissertation will deal with. If hypotheses are appropriate, they should be stated. If the type of topic is not amenable to the statement as a hypothesis, then a research question that underlies the problem should be clearly stated.

## **2. Importance of the Research**

- a. This addresses the question of whether or not the research is important or significant enough to justify doing it. If there is some statement by a prominent researcher or authority as to a need for this research, or if it can be demonstrated that this research is significant to a major activity, then this or related reasons should be concisely stated in a short paragraph.

## **3. Significant Prior Research**

- a. This part essentially mentions the major preceding research. This need not be exhaustive when topics are being selected but the student should make a quick investigation taking perhaps one or two full days to look at the major research works on the topic and, if applicable, the relation of the topic to prior work.

## **4. The Possible Research Approach or Methodology**

- a. This section of the topic analysis is extremely important because it outlines how the student proposes to approach the research itself. Alternative methodologies should be included and their usefulness or lack of usefulness briefly discussed.

## **5. The Potential Outcomes and the Importance**

- a. The contents of this section are vital to an assessment of the dissertation proposal. For each research approach, the different but possible outcomes should be described.

\* Above was adapted from Gordon Davis *Writing the Doctoral Dissertation*, Barron's Educational Series; 2 edition (June 3, 1997, <http://www.amazon.com/Writing-Doctoral-Dissertation-Gordon-Davis/dp/0812098005>)

## **Final delivery**

Each class participant will be required to prepare a complete research proposal or a stand-alone manuscript in the IS security and privacy area. The final paper should be about 20-25 pages (double-spaced, 11 font size, Times New Roman) including references. The research proposal/paper should include

- (1) Introduction (motivations, research questions, and significance/contribution of the study).
- (2) review of related research and theoretical background,
- (3) research model: propositions or hypotheses, and
- (4) research methodology (including steps on how to obtain the data and what methods for data analysis).

The final presentation is on **Dec 4**, and the final paper is due on **Dec 11 by 5pm**.

## The Five Commandments of Writing Reports

1. Always have a beginning, middle and an end for any writing assignment.
2. Always include at least two tables and/or figures and always refer to them in the text by their figure or table number.
3. Always use a reference when you use other people's ideas.
4. Always reword at least 60% of any sentences you use from another sources and cite the sources.
5. Always put phrases and sentences in quotes and give a complete citation including the page number when you have used an exact phrase and sentence.

## Six tips for writing

1. **Just start writing.** Get one or two pages down. You can do this by hand or with a word processor.
2. **Edit** these pages by reading them out loud.
3. **Map the territory.** Develop an outline or use some type of network diagram to add structure to your writing.
4. **Expand** on your two pages by filling in the blanks for the outline.
5. **Edit** your paper five times. Have someone else read your paper at least once out of the five edits.
6. **Improve your writing.** Look at these tips for additional insights into the writing process: <http://www.writershelper.com/writingtips.html>

## Attendance:

Class attendance is mandatory. Absence without a valid reason or passive participation in class discussion will impact the grade of class participation.

**Other Requirements:** Doctoral standing is required.

**Grading:** Grades in the seminar will be determined from the following:

- |  |     |
|--|-----|
| 1. Topic analysis, Research paper and presentation | 60% |
| 2. Class participation & Discussion                | 40% |

Plagiarism detection software may be used by individual instructors or the institution to aid in determining the originality of student work. Here is a very good source of writing support related to avoiding plagiarism: <http://owl.english.purdue.edu/owl/resource/589/01/>.

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/aao/fao/>).

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Academic Integrity:** Students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

**Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, following the exit sign. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

**Course Schedule and reading list.**

*The instructor of the courses reserves the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course.*

**Week 1: Introduction**

Mahmood, M. A., Siponen, M., Straub, D., Rao, H. R., and Raghu, T. 2010. "Moving toward black hat research in information systems security: an editorial introduction to the special issue," *MIS Quarterly* (34:3), pp 431-433.

Crossler, Robert E., Allen C. Johnston, Paul Benjamin Lowry, Qing Hu, Merrill Warkentin, and Richard Baskerville, "Future Directions for Behavioral Information Security Research," *Computers & Security*, 2013, Volume 32, Issue 1, pp. 90-101.

Warkentin, M., and Willison, R. 2009. "Behavioral and policy issues in information systems security: the insider threat," *European Journal of Information Systems* (18), pp 101–105

Smith, S. W., and Spafford, E. H. 2004. "Grand challenges in information security: process and output," *Security & Privacy*, IEEE (2:1), pp. 69–71.

Zurko, M. E. 2005. "User-centered security: stepping up to the grand challenge," Presented at the Computer Security Applications Conference, 21st Annual, pp. 14.

SaTC Cyber Café, Research Topic Breakout Sessions, National Science Foundation, <http://www.satc-cybercafe.net>, 2012

Data for Cybersecurity Research: Process and “Wish List”, National Science Foundation, [https://www.gtisc.gatech.edu/nsf\\_workshop10](https://www.gtisc.gatech.edu/nsf_workshop10), 2010

the Dear Colleague Letter requesting new collaborations between computer scientists and social scientists, <http://www.nsf.gov/pubs/2013/nsf13037/nsf13037.jsp>

Proceedings of The Dewald Roode Information Security Workshop, <http://ifip.byu.edu>

### **Week2: Survey Design**

Siponen, M., and Vance, A. 2013. “Guidelines for improving the contextual relevance of field surveys: the case of information security policy violations,” *European Journal of Information Systems*.

Petter, Straub, and Rai, 2007: “Specifying Formative Constructs in IS Research,” *MIS Quarterly* (31:4, December) 2007, pp. 623-656.

Boudreau, M.C., Gefen, D. & Straub, D.W. (2001). Validation in Information Systems Research: A State-of-the-Art Assessment. *MIS Quarterly*, 25(1), pp. 1-16.

MacKenzie, S. B., Podsakoff, P. M., and Podsakoff, N. P. 2011. “Construct measurement and validation procedures in MIS and behavioral research: integrating new and existing techniques,” *MIS Quarterly* (35:2), pp. 293–334.

Kaplan, B., and Duchon, D. 1988. “Combining qualitative and quantitative methods in information systems research: a case study,” *MIS Quarterly* (12:4), pp. 571–586.

### **Week 3: Survey Data Analysis and PLS**

Malhotra, N. K., Kim, S. S., and Patil, A. 2006. “Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research,” *Management Science* (52:12), pp. 1865–1883.

Chin, W. W., Marcolin, B. L., and Newsted, P. R. 2003. “A Partial Least Squares Latent Variable Modeling Approach for Measuring Interaction Effects: Results from a Monte Carlo Simulation Study and an Electronic-Mail Emotion/Adoption Study,” *Information Systems Research* (14:2), pp. 189–217.

Carte, T. A., and Russell, C. J. 2003. “In pursuit of moderation: nine common errors and their solutions,” *MIS Quarterly* (27:3), pp. 479–501.

Pavlou, P. A., Liang, H., and Xue, Y. 2007. “Understanding and Mitigating Uncertainty in Online Exchange Relationships: A Principle-Agent Perspective,” *MIS Quarterly* (31:1), pp. 105–136. [*For the methodology part*]

### **Week4: Policy Compliance**

Siponen, M., and Vance, A. 2010. "NEUTRALIZATION: NEW INSIGHTS INTO THE PROBLEM OF EMPLOYEE INFORMATION SYSTEMS SECURITY POLICY VIOLATIONS," *MIS Quarterly* (34:3), pp. 487–502.

Bulgurcu, B., Cavusoglu, H., and Benbasat, I. 2010. "INFORMATION SECURITY POLICY COMPLIANCE: AN EMPIRICAL STUDY OF RATIONALITY-BASED BELIEFS AND INFORMATION SECURITY AWARENESS," *MIS Quarterly* (34:3), pp. 523–548.

Johnston, B. A. C., and Warkentin, M. 2010. "FEAR APPEALS AND INFORMATION SECURITY BEHAVIORS: AN EMPIRICAL STUDY," *MIS Quarterly* (34:3), pp. 549–566.

Tejaswini Herath, H. Raghav Rao: Protection motivation and deterrence: a framework for security policy compliance in organisations. *EJIS*, 106-125

Liang, H, Xue, Y, and Wu, L. (Forthcoming). Ensuring employees' IT compliance: carrot or stick? *Information Systems Research*.

### **Week5: Insider Threat and Computer Abuse**

D'Arcy, J., and Herath, T. (2011). "A Review and Analysis of Deterrence Theory in the IS Security Literature: Making Sense of the Disparate Findings," *European Journal of Information Systems*, 20(6), pp. 643-658.

Workman, M. 2007. "Punishment and Ethics Deterrents : A Study of Insider Security Contravention," *Journal of the American Society for Information Science and Technology* (58:c), pp. 212–222.

Willison, R., and Warkentin, M. Forthcoming. "Beyond deterrence: an expanded view of employee computer abuse," *MIS Quarterly*

Willison, R., and Backhouse, J. 2006. "Opportunities for computer abuse: considering systems risk from the offender's perspective," *European Journal of Information Systems* (15), pp 403-414

Wang, J., and Rao, H.R., "Insider Threat in a Financial Institution: Analysis of Attack-Proneness of Information Systems Applications,' Working paper.

### *Supplement Reading*

Randazzo, M. R., Keeney, M., Kowalski, E., Cappelli, D., and Moore, A. 2004. "Insider Threat Study: Illicit Cyber Activity in the Banking and Finance Sector," U.S. Secret Service and CERT Coordination Center/Carnegie Mellon University Software Engineering Institute.

### **Week6: Self-Protection and Coping Malicious Artifacts**

Liang, H., and Xue, Y. (n.d.). "AVOIDANCE OF INFORMATION TECHNOLOGY THREATS: A THEORETICAL PERSPECTIVE," *MIS Quarterly* (33:1), pp. 71–90.

Liang, H., and Xue, Y. 2010. "Understanding Security Behaviors in Personal Computer Usage: A Threat Avoidance Perspective," *JAIS* (11:7), pp. 394–413.



Herath, T., Chen, R., Wang, J., Banjara, K., Wilbur, J., and Rao, H. R. 2012. "Security services as coping mechanisms: an investigation into user intention to adopt an email authentication service," *Information Systems Journal*, pp. no-no.

Anderson, C. L., and Agarwal, R. 2010. "Practicing Safe Computing: A Multimethod Empirical Examination Of Home Computer User Security Behavioral Intentions," *MIS Quarterly* (34:3), pp. 613-643.

Wang, J., and Rao, H.R., "Phishing Email Detection: An Exploration of Antecedents and Consequences of Maladaptive Coping", working paper.

#### **Week7: Security Risk Management**

Chen, P.-Y., Kataria, G., and Krishnan, R. 2011. "CORRELATED FAILURES, DIVERSIFICATION, AND INFORMATION SECURITY RISK MANAGEMENT," *MIS Quarterly* (35:2), pp. 397-422.

Spears, B. J. L., and Barki, H. 2010. "USER PARTICIPATION IN INFORMATION SYSTEMS SECURITY RISK MANAGEMENT," *MIS Quarterly* (34:3), pp. 503-522.

Straub, D. W., and Welke, R. J. 1998, December. "Coping with Systems Risk: Security Planning Models for Management Decision Making," *MIS Quarterly*, pp. 441-469.

Wang, J., and Chaudhury, A. 2008. "A value-at-risk approach to information security investment," *Information Systems Research*.

#### *Supplement Reading*

Mikko T. Siponen, Robert Willison: Information security management standards: Problems and solutions. *Information & Management* 46(5): 267-270 (2009)

#### **Week8: Patching and information disclosure**

Gordon, B. L. A., Loeb, M. P., and Sohail, T. 2010. "MARKET VALUE OF VOLUNTARY DISCLOSURES CONCERNING INFORMATION SECURITY," *MIS Quarterly* (34:3), pp. 567-594.

Chai, S., Kim, M., and Rao, H. R. 2011. "Firms' information security investment decisions: Stock market evidence of investors' behavior," *Decision support systems* (50:4)Elsevier B.V., pp. 651-661.

Temizkan, O., Kumar, R. L., Park, S., and Subramaniam, C. 2012. "Patch Release Behaviors of Software Vendors in Response to Vulnerabilities: An Empirical Analysis," *Journal of Management Information Systems* (28:4), pp. 305-338.

Ransbotham, S., Mitra, S., and Ramsey, J. 2012. "ARE MARKETS FOR VULNERABILITIES EFFECTIVE?," *MIS Quarterly* (36:1), pp. 43-64.

#### **Week 9 Midterm Delivery: Topic Analysis Due on Oct 22 by 5pm.**

#### **Week 10 Privacy Research Overview**

Smith, H. J., Dinev, T., and Xu, H. 2011. "INFORMATION PRIVACY RESEARCH: AN INTERDISCIPLINARY REVIEW," *MIS Quarterly* (35:4), pp. 989-1015.

Bélanger, F., and Crossler, R. E. 2011. "PRIVACY IN THE DIGITAL AGE: A REVIEW OF INFORMATION PRIVACY RESEARCH IN INFORMATION SYSTEMS," *MIS Quarterly* (35:4), pp. 1017–1041.

Pavlou, P. A. 2011. "STATE OF THE INFORMATION RIVACY LITERATURE : WHERE ARE WE NOW AND WHERE SHOULD WE GO ?," *MIS Quarterly* (35:4), pp. 977–988.

Li, Y. 2012. "Theories in online information privacy research: A critical review and an integrated framework," *Decision support systems* (54:1)Elsevier B.V., pp. 471–481.

Son, B. J.-Y., and Kim, S. S. 2008. "INTERNET USERS' INFORMATION PRIVACY-PROTECTIVE RESPONSES: A TAXONOMY AND A NOMOLOGICAL MODEL," *MIS Quarterly* (32:3), pp. 503–529.

### **Week11 Privacy behavior over the internet**

Awad, Krishnan. 2006. "THE PERSONALIZATION PRIVACY PARADOX: AN EMPIRICAL EVALUATION OF INFORMATION TRANSPARENCY AND THE WILLINGNESS TO BE PROFILED ONLINE FOR PERSONALIZATION," *MIS Quarterly* (30:1), pp. 13–28.

Wakefield, R. 2013. "The influence of user affect in online information disclosure," *The Journal of Strategic Information Systems* (22:2)Elsevier B.V., pp. 157–174.

Chen, R., Living a Private Life in Public Social Networks: An Exploration of Member Self-Disclosure, *Decision Support Systems*, 55(3), pp. 661-668

Jiang, Z. J., Heng, C. S., and Choi, B. C. F. 2013. "Privacy Concerns and Privacy-Protective Behavior in Synchronous Online Social Interactions," *Information Systems Research* (7047), pp. 1–17.

### **Week12 Organizational Privacy Practices and Privacy Concerns**

Johnson, M. E. 2008. "Information Risk of Inadvertent Disclosure: An Analysis of File-Sharing Risk in the Financial Supply Chain," *Journal of Management Information Systems* (25:2), pp. 97–124.

Xu, H., Teo, H.-H., Tan, B. C. Y., and Agarwal, R. 2012. "Effects of Individual Self-Protection, Industry Self-Regulation, and Government Regulation on Privacy Concerns: A Study of Location-Based Services," *Information Systems Research* (23:4), pp 1342-1363

Smith, B. H. J., Iyflilberg, S. J., and Burke, S. J. 1996. "Information Privacy : Measuring Individuals' Concerns About Organizational Practices," *MIS Quarterly* (June), pp. 167–197.

Buchanan, T., Paine, C., and Joinson, A. N. 2007. "Development of Measures of Online Privacy Concern and Protection for Use on the Internet," *Journal of the American Society for Information Science and Technology* (58:2), pp. 157–165.

### **Week13 Privacy concerns in Healthcare**

Angst, C. M., and Agarwal, R. 2009. "Adoption Of Electronic Health Records In The Presence Of Privacy Concerns: The Elaboration Likelihood Model And Individual Persuasion," *MIS Quarterly* (33:2), pp. 339–370.

Stahl, B. C., Doherty, N. F., and Shaw, M. 2012. "Information security policies in the UK healthcare sector: a critical evaluation," *Information Systems Journal* (22:1), pp. 77–94.

Anderson, C. L., and Agarwal, R. 2011. "The Digitization of Healthcare: Boundary Risks, Emotion, and Consumer Willingness to Disclose Personal Health Information," *Information Systems Research* (22:3), pp. 469–490.

Nicholson, S., and Smith, C. A. 2007. "Using Lessons From Health Care to Protect the Privacy of Library Users: Guidelines for the De-Identification of Library Data Based on HIPAA," *Journal of the American Society for Information Science and Technology* (58:8), pp. 1198–1206.

#### **Week 14: Emerging topic: Neuroscience**

Merrill Warkentin, Eric A. Walden, Allen C. Johnston, and Detmar W. Straub, "Identifying the Neural Correlates of Protection Motivation for Secure IT Behaviors", Gmunden Retreat on NeuroIS 2012, 2012, p 6.

Dimoka, A., Pavlou, P. A., & Davis, F. D. (2011). Research Commentary—NeuroIS: The Potential of Cognitive Neuroscience for Information Systems Research. *Information Systems Research*, 22(4), 687-702.

Dimoka, A., & Explanation, T. (2012). How to Conduct a Functional Magnetic Resonance (fMRI) Study in Social Science Research. *MIS Quarterly-Management Information Systems*, 36(3), 811.

Dimoka, A., Banker, R., Benbasat, I., Davis, F., Dennis, A., Gefen, D., & Weber, B. 2012. On the use of neurophysiological tools in IS research: developing a research agenda for NeuroIS. *MIS Quarterly* 36(3) 679.

#### **Week 15 (Dec 04) Final Presentation**

#### **Week 16 (Dec 11) Final paper due by 5pm**