

ITEC/IHSS 1220
The Politics and Economics of Information Technology

Tuesday / Friday 2:00 – 3:50 pm (DCC 318)

Lead Instructor: Atsushi Akera

Head Section Instructor: Ayala Cnaan

Atsushi Akera	Ayala Cnaan	Ken Fleischmann	Ray-Shyng Chou	Chunbo Ma
Sage 5206, x2314	Sage 5703, x6171	Sage 5705, x2711	Sage 5704, x8503	TBA
akeraa@rpi.edu	cnaana@rpi.edu	fleisk@rpi.edu	chour@rpi.edu	mac2@rpi.edu
ofc hrs: T1-2, F4-5*	ofc hrs: TBA	ofc hrs: TBA	ofc hrs: TBA	ofc hrs: TBA

*office hours also by appointment

Course Description:

What is information technology (IT) worth?? This course addresses this question in two ways – through the *politics* of information and the *economic value* of information. Are the ideals of freedom and economic prosperity always compatible? What is the difference between capitalism and democracy? Do information technologies change the balance between these two fundamental institutions of our society? Are these changes for better or for worse? Who benefits from new information technologies? Are there people who have something to lose? What can you do to design IT systems so that it contributes to the political and economic foundations of a democratic society?

This course offers you a Faustian bargain. We will teach you how to “read” the practical politics and economic opportunities presented by new information technologies. The course will help you design effective IT systems, and may bolster your future career more than any single technical course you take here at RPI. Several of you will also be given an opportunity to be the CEO of an IT startup, imagined or real, and undertake IT design efforts with the assistance of other students in the class.

In return, this course will demand that you engage wholeheartedly with the notion of *social advocacy*. Information technologies are too powerful for us to treat casually. IT systems promise a social transformation on the same order as the Industrial Revolution. Mitigating the negative effects of the technology requires some of the first generation of IT professionals be committed to social improvement, not just financial opportunities. Whether you choose to carry the perspectives offered by this course beyond this semester is your own choice. However, for this one semester, you will be required to be an advocate of various groups that might otherwise suffer from the radical nature of technological change.

Overview of Course Requirements:

The major requirements for this course are as follows. There are also modifications for required readings, attendance, class participation and teamwork mentioned elsewhere in the syllabus. The instructors reserve the right to modify a grade based on individual circumstances.

- Team component: Establish an IT venture committed to social advocacy.
 - Project Proposals and Public Debates 25%
 - Final Advocacy Project 25%
- Individual component: 50%
 - Weekly Short Essays and Position Papers
 - Field research of an IT user or stakeholder (Optional)
 - Extra credit events (Optional)

Read this syllabus and the *P&E of IT Course Manual* carefully as they are the bible for this course. We are serious about running this course as if it were a serious corporate and/or philanthropic enterprise. As a consequence we expect professional behavior in every aspect of this course.

Required Texts: (The books are available at the Rensselaer Union Bookstore)

- Lawrence Lessig, *Code and Other Laws of Cyberspace* (Basic Books, 1999)
- Andrew Shapiro, *The Control Revolution* (Public Affairs, 1999)
- Donald Norman. *The Invisible Computer* (MIT Press, 1999)
- The *P&E of IT Course Manual* posted at the course website, <http://www.rpi.edu/~akeraa/pe-IT>. (Select “Syllabus & Course Materials” first > then > “Course Manual”)
- Online articles and websites, including material on online reserves, <http://www.lib.rpi.edu/dept/library/reserves/index.html>.

The Scenario:

Here is the basic scenario for the course. A new philanthropic foundation, *The IT Futures Foundation*, was established three years ago in Silicon Valley. This foundation is committed to the idea that new information technologies can contribute to social equity, global awareness, user-friendly systems, and the strength of democratic institutions. The foundation is willing to entertain proposals from progressive firms and non-profit organizations. It is prepared to commit about \$100 million a year in new venture capital. This group of philanthropists is also committed to bringing professional management practices to philanthropic organizations. As a consequence, they are asking all firms to approach them with well-developed business plans and technology development proposals. The foundation will also be sponsoring a series of public debates on major issues regarding IT and society.

Establishing an IT Venture:

At the outset of this course, we will ask for approximately fifteen (15) volunteers to serve as the CEO of new IT startups and non-profit organizations with a commitment to social advocacy. You are welcome to ask your friends and acquaintances to join you in this venture. During Week 3, we will hold a “jobs fair” where you can “hire” other students into your firm or non-profit organization.

Team Projects:

A detailed description of all team projects may be found in the *P&E of IT Course Manual* posted on the course website. In general, all team members will be engaged in three different types of exercises as part of the team effort:

- A Public Debate on a current issue about IT and society
- Weekly Project Proposals submitted in response to a Request for Proposal (an “RFP”) from the IT Futures Foundation
- A Final Advocacy Project, usually based on developing one of the weekly proposals into a full-length (15 page) proposal. This project has other components and is submitted in multiple drafts.

Individual Work and Assigned Readings:

The course and its grading structure is designed to allow you to focus your efforts in part in directions that interest you the most. This means, however, that you will have to do **some work beyond the required readings** to receive a high mark for the individual component of your grade. As far as the required readings, read all materials for the week posted on the “Course Readings and Schedule” page of the course website (click first on “Syllabus & Course Materials” > then > “Readings/Schedule”). Spend at least 10-30 minutes at each website listed as a “webbing” assignment.

Weekly Short Essay Questions: Each week, you will also be asked to write a short essay based on the required readings, webbing assignments, and recommended readings, and in direct response to two questions posted on the “Course Readings and Schedule.” This is not meant to be a difficult assignment.

Your answers, combined, may be from 300-500 words in length. In most instances, the first question will also help your team prepare for the debate topic of the week (beginning with week 4). Your essays must be original, and indicate that you have done at least all of the required reading and webbing assignments. (You must refer to all of the required materials in some way.)

Essays should be typed, double spaced, with 1” margins. Grades for the short essay assignment are issued on a Pass / Qualified Pass / Not-Yet-Pass / Fail basis. You have up to two weeks to resubmit essays that receive a grade of Qualified Pass or Not-Yet-Pass. (Exception: all revisions must be turned in by the last day of class.) Submit both your revision **and your original essay** containing the instructor’s comments. All essays are due in class on Tuesdays (Friday if the class does not meet on Tuesday).

Each paper that receives a “Pass” or “Pass+”:	2 pt
Each paper that receives a “Qualified Pass”:	1 pt

Position Papers: During the semester, you will have four opportunities to turn in a new or revised draft of a position paper (see “Course Schedule” below for the deadlines). If you are called on to prepare for a debate, or prepare a response to an “RFP,” you will most likely read more intensively about a given topic. Position papers give you an opportunity to receive additional credit for this work by giving you a chance to write up your research in greater detail, and have this count towards your individual grade. You may also elect to independently research a topic and submit a paper. You can find a list of suggested position paper topics in the *P&E of IT Course Manual* posted on the course website. We will evaluate these position papers as if they were submitted to a professional newsletter, *The Future of IT*, on the social aspects of IT.

Superior:	12-20 pts
Accepted:	10 pts*
Revise and Resubmit:	5 pts*
Rejected:	0-4 pts

“Superior” papers are semester-long research papers based on at least 10-12 substantial sources, at least half of which must be scholarly books and academic articles; “accepted” papers will require 4-6 substantial sources and must be a strong and insightful essay. Both will typically require one or more rounds of revisions. *You may resubmit papers marked “Revise and Resubmit” or “Accepted, Revision Recommended.” Submit both the revision and original essay. If you choose to do a revision, you must submit the revision before you turn in another position paper. Position papers may be anywhere from 600 to 3,000 words (2 to 10 pages) in length. When submitting a position paper, indicate whether you would like feedback on your writing skills (grammar, organization, etc...) and whether you are willing to have your paper appear in the course newsletter. [example: W:No / NL:Yes]. Position papers **must include complete citations**. See “Academic Citation Guidelines” in the *P&E of IT Course Manual* for details. Your paper will be evaluated based on the dual criteria of:

- The amount of effort and additional readings
- The quality and originality of your analysis.

Field Research of an IT User or Stakeholder (optional): Your team project must be based on user-centered design, which must include field research of potential users and other stakeholders. Individual team members may choose to perform field interviews of up to two users or stakeholders. See *P&E of IT Course Manual* for details. (Please Note: Confirmation & revision is required to earn any points.)

Each field research interview: up to 7 pts.

Extra Credit Events (optional): We will periodically announce extra credit events worth 1 pt each.

Grades and Evaluation:

Individual Component: The individual component of your grade (except as noted below and under “The Fine Print”) will be based on the following scale:

Points:	(see below)	30	22	16	<16
Grade:	A	B	C	D	F

“A”s will be awarded primarily on the basis of the quality, not quantity, of your work. This can include how well you incorporate the recommended and/or additional readings into your weekly essays (often reflected by a “Pass +”) and position papers. Individual grades are assigned at the sole discretion of your section instructor.

Class participation is also very important in this course. Your instructor may modify your individual grade by **up to one letter grade** based on her or his judgment about your class participation and your contributions to your section and the class as a whole. Attendance does not constitute class participation.

Team Component: The team component of your grade is based on your team grade, assigned as stipulated below. However, individually, this grade may be modified by **up to plus one or minus three letter grades** based on the self-evaluation of your contribution to teamwork, a confidential performance evaluation submitted by your CEO, and a final judgment made by your section instructor using all available information. The self-evaluation form (Appendix C of the *P&E of IT Course Manual*) is due on the last day of class.

Team Grade for Project Proposals & Debates: Your team’s grade for the project proposals and debates will be based on the following scale:

Points:	(see below)	27	18	9	<9
Grade:	A	B	C	D	F

“A”s are awarded primarily on the basis of the quality of your team’s work and preparations, and not the total points accumulated. This component of the team grade will be determined through a conference of all section instructors. This being an academic exercise, we will emphasize respect for and constructive input to other teams, as opposed to excessive competitiveness.

Team Grade for Final Advocacy Project: Your section instructor will assign a grade for the final advocacy project based on the overall quality of all components of the project. The quality of the final proposal and advocacy letters will be a significant part of the grade, but earlier preparations and drafts, peer critiques, field research (interviews), and responsiveness to instructor feedback will also be considered. The final presentation is also an important component of your team’s final project grade.

Assigned Readings, Course Schedule, and Grade Worksheet:

The full list of assigned readings, websites, and assignments schedule may be found at the course website, <http://www.rpi.edu/~akeraa/pe-IT>. (Select: “Syllabus & Course Materials” > then > “Readings/Schedule”)

Course Schedule:

The IT Futures Foundation Executive Board will hear project proposals on the Tuesdays, and sponsor debates on the Fridays of the following weeks. Position papers are due on Friday (Tuesday if there is no class on Friday) in class on the stated weeks. Additional deadlines and events are summarized below.

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Proposal				X	X		X	X		X	X		X	X	
Debate							X	X	X	X	X	X	X	X	
Position Paper				X			X				X				X
Other Dates:	E		J		S	A _{pp}	C ₁		FR/A ₁	C ₂		A ₂	C ₃	FR _c	Ev/A _F

Key to Specific Deadlines and Events:

Symbol:	Date:	Event / Assignment Due:
E	January 14 & 17	Establish Entrepreneurial Firms
J	January 31	IT Jobs Fair
S	February 14	Stakeholder Analysis
A _{pp}	February 21	Preliminary Proposal for Final Advocacy Project,
C ₁	February 28	First Peer Critique
FR	March 18	Field Research Write Up
A ₁	March 21	Advocacy Project (first full draft)
C ₂	March 28	Second Peer Critique
A ₂	April 11	Advocacy Project (second full draft)
C ₃	April 18	Third Peer Critique
FR _c	April 25	Field Research Confirmations and Revisions
A _F	April 29	Advocacy Project (final draft) & Class Presentation
Ev	April 29	Self Evaluation Form / CEO’s Evaluations

All assignments are **due in class**.

Individual								
Short Essays		Position Papers		Field Research		Extra Credit		
							Total Points:	
Class Participation	High (A) – Moderate – Low (F)				+1 to -1 Grade	Indiv. Grade:		

Team							
RFP&Debate pts		RFP&D Grade		Final Project:		Team Grade (Unadj):	
Individual Effort	High (A) – Moderate – Low (F)				+1 to -3 Grade	Team Grade: (adjusted)	

Final:							
Individual Grade		Team Grade		Absences w/o makeup		Adj.	Final Grade:

The Fine Print:

Attendance: As a matter of policy, attendance is required in all H&SS courses. You may miss two plenary and two section meetings without penalty. Beyond this, you must make up any additional absences, **excused or unexcused**, through extra assignments as negotiated with your section instructor. You are still responsible for turning in all assignments as required by the syllabus. If you miss a scheduled meeting with your section instructor without notifying her or him twenty-four hours in advance (use email), this will also count as an absence (one plenary or section meeting). Excessive absences, if not made up, will substantially affect your final grade.

Required Readings: We apologize for being somewhat strict on this score, but some common foundation of knowledge is essential for this class to work for everyone. Repeated failure to do the required readings will result in an assessed penalty of one-third of a letter grade (final grade) for each occasion where you are unable to demonstrate familiarity with the required readings.

Late Submissions: Section instructors may set their own policies on late assignments. However, unless instructed otherwise, the deadlines in this course are firm. No late papers or projects will be accepted except through specific arrangement with your instructor.

Writing vs. Class Participation: Class participation is a substantial component of this course. However, in recognizing that some students have real difficulties speaking up in class, the section instructor, at his or her discretion, may grant individual students the right to submit additional written work, or place greater effort into the normal written assignments in lieu of class participation. Specific arrangements must be made with the instructor at the outset of the course.

Gender Fair Language: Students in this course are expected to use gender fair language in their writing. Every time you use a masculine-oriented word to refer to people in general, the implicit effect, even if unintended, is to whisper: *women don't count*. Essays that do not use gender fair language will not receive a passing grade. If you are unfamiliar with the practice of gender fair writing, you should read "Gender Fair Language," written by Jenny Redfern of RPI's Writing Center. See, www.rpi.edu/web/writingcenter/genderfair.html.

The Writing Center: Writing is an important component of IT work. Believe it. In addition to proposals and reports, you will be writing five to ten memos and emails each day. Your performance will always be evaluated on how well you convey your ideas. Periodically, you may be advised to seek out the services of the Writing Center. The Writing Center is located in Sage 4508. You may obtain further information at 276-8983, or www.rpi.edu/web/writingcenter/.

Your section instructor may also require you to have someone at the Writing Center go over your written assignment before you can resubmit it for consideration. If this is the case, you **must obtain a stamp from the Writing Center**, and then turn in both the stamped and revised version of your assignment. Keep in mind that improving the mechanics of writing on any assignment will not be enough to receive a higher grade if the content remains inadequate.

ESL / LD Students: The requirements for this course will be adjusted to serve the needs and capabilities of ESL and LD students. Students who have difficulties reading or writing should feel free to notify their section instructor about their particular situation. In general, the guideline we will use is to require at least four hours of reading per week. Likewise, ESL/LD student should expect to spend an average of two hours per week on their written assignments, exclusive of teamwork. Students may be advised to attend additional sessions during the instructor's office hours in order to draw comparable value from the course.

Use of Student Generated Materials: All materials submitted as part of a team project (proposals, interviews, critiques, etc...) to your instructor will be treated as public information. It may be posted on the course website, or distributed through other media, for the benefit of other students.

Academic Honesty: Student-teacher relationships are built on trust. Students must trust that teachers have made appropriate decisions about the structure and content of the course, and teachers must trust that the assignments students turn in are their own. Acts that violate this trust undermine the educational enterprise. They contradict our very reason for being at Rensselaer. The *Rensselaer Handbook* defines various forms of academic dishonesty and the procedures for responding to them.

Students should note, in particular, that the penalties for plagiarism are quite harsh. They can vary from failure of assignment to failure of course, based on the student's intent and the severity of the case. Any use of another person's work, including the use of specific ideas and interpretations, must be acknowledged either through a footnote or a parenthetical reference. All direct use of another person's words must be placed in "quotations." You must indicate when you paraphrase another person's work. For further guidelines, see "Academic Citation Guidelines" in the *P&E of IT Course Manual*. If you have any questions concerning this policy, or any other policy pertaining to academic honesty, please ask for clarification.