

Syllabus

37:575:313:90

Technological Change and the World of Work

Online 15 weeks format

Instructor

Silvia Muller
jennifer.silvia.muller@rutgers.edu

Office hours on campus by appointment *in advance*

Catalog Description

The application of computer and microchip technologies couples with enormous range and flexibility of developing telecommunications systems and their effect on workers, labor unions, industry, and labor management relations.

Course Objectives

This course provides an overview of different issues relating to how technological developments change the nature of the world of work and how the demands of work can also shape the kinds of technological progress that a society makes. At the end of this course, students will be able to:

- Identify various theoretical frameworks for analyzing the inter-relationships and inter-dependencies between new technologies and the workplace and perform a critical analysis of a real world technology adoption and its impact on a particular organization or group of workers.
- Describe some of the historical patterns of how new technologies shape the workplace for specific social groups.
- Given information about a new technology being used in a contemporary workplace, students should be able to identify potential points of conflict and change in that workplace's hierarchy, ethical decision making, etc.

Required Readings

There is one recommended book for the course.

- Booth, W. et al. (2008). The Craft of Research, 3rd edition. Chicago: University of Chicago Press. (ISBN: 978-0226065663)

In addition, you will need to purchase the book for your focus book essays. Sign-ups for the focus books will begin on 1/21 and will work with the list of books below:

- Anderson, C. (2012). *Makers: The New Industrial Revolution*. Random House. (ISBN: 978-0307720962)
- Bobrow-Strain, A. (2012). *White Bread: A Social History of the Store-bought Loaf*. Beacon Press. (ISBN: 978-0807044780)
- Nourbakhsh, I. R. (2013). *Robot Futures*. MIT Press. (ISBN: 978-0262018623)
- Nye, D. E. (2013). *America's Assembly Line*. MIT Press. (ISBN: 978-0262018715)
- Wellman, B., & Rainie, L. (2012). *Networked: The New Social Operating System*. MIT Press. (ISBN: 978-0262526166)

Additional readings as listed in class schedule below. Most readings are available from either the Doc Sharing tab or the Weblibliography tab in the course shell (<http://ecollege.rutgers.edu>).

Class Schedule

Week 1: 1/20-1/25 - Class Activities

- **Introduction / Syllabus Review**
- Syllabus and Policies Review
- Introductions discussion
- Course resources review
- Discussion: What role does technology play in the creation of economic and social inequality?

Readings:

- Rutgers Plagiarism Policy Materials: <http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers> also <http://libguides.rutgers.edu/content.php?pid=156454&sid=3294037>

What's Due:

- Online quiz to ascertain prevailing ideas about the inter-relationship of technology and work, previous research experience, etc. – due before Friday, January 23.

Week 2: 1/26-2/1 - Class Activities

- **Are rising levels of inequality in the U.S. related to technological innovation?**
- In what ways is the U.S. economy becoming more unequal?
- How does technology play a role in this process and are there more factors at work?
- What are some of the underlying assumptions in this question?

Readings

- Claire C. Miller, "As Robots Grow Smarter, American Workers Struggle to Keep Up", *New York Times*, December 15, 2014.
- Video: Erik Brynjolfsson and Andrew McAfee speaking at Google (http://youtu.be/kum_7D9EORs).
- Start reading your focus book.

What's Due:

- Book choice posting – due before Tuesday, January 27th

Week 3: 2/2-2/8 - Class Activities

- **Exploring the relationship of technological change to changes in the workforce**
- Video: Hans Rosling and the miracle of the washing machine
- Discussion: Two perspectives on how future technology might transform human activity: Hans Rosling and Jaron Lanier videos.
- Introduction of the book project requirements

Readings

- Continue reading the book from your project group

Week 4: 2/9-2/15 - Class Activities

- **The complex nature of the question**
- Discussion: Is the under-performance of the U.S. economy in creating jobs during the recovery from the related to the adoption of new technologies in the workplace? Given the complexity of factors contributing to rising levels of inequality, what would be some reasonable steps to take as a worker? As a student? As a voter? As an employer?

Readings

- Richard B. Freeman, (1995) "Are your wages set in Beijing?", *Journal of Economic Perspectives*, vol 9, no. 3, Summer 1995, 15-32.

Week 5: 2/16-2/22 - Class Activities

- **Historical perspectives on the inter-relationship between technology and work**
- Overview of key episodes in human history where technology changes work patterns, rise of agriculture, introduction of printing press, Industrial Revolution, etc.
- Doing better research: how to make more effective use of the resources available from the Rutgers Libraries to provide better evidence for arguments.
- Using APA citations: what are citations, what task do they perform, and how have they changed with technological changes in information production?

Readings

- Nye, D. (2006). *Technology Matters*. Cambridge, MA: MIT Press. Chapters 1, 2, & 7

Week 6: 2/23-3/1 - Class Activities

- **Historical Perspectives cont.**
- What is different about our society's attempts to employ technology today than it was prior to the Enlightenment? Prior to the Industrial Revolution? Prior to the Network Revolution?
- Discussion: What are some of the patterns of technological change from the past that might suggest how new technologies could affect the work force.

Readings/Videos

- Text TBA
- Documentary on the Industrial Revolution
- *The Poisoner's Handbook* (section on radium girls: 1:06-1:18)

What's Due:

- Book project source investigation essay – due Sunday, March 1

Week 7: 3/2-3/8 - Class Activities

- **Diffusion of Innovations**
- What is diffusion theory? What particular aspects of technology adoption (or non-adoption) affect the workplace and the workforce?
- Research project check in activity, determining the submission requirements for the initial data delivery of primary source material.

Readings

- Rogers, E. (2003). *Diffusion of Innovations*. 5th ed. New York: Free Press. Chapter 1.

What's Due:

- Exam review contributions – due Sunday, March 8

Week 8: 3/9-3/15 - Class Activities

- **Quiz #1 / Theoretical Perspectives as Tools**
- Quiz #1 to be taken on Sunday, March 15th between 3 and 9 p.m.
- Focus book discussion group activity
- Matthewman self-check quiz due before end of Spring Break

SPRING BREAK

Week 9: 3/23-3/29 - Class Activities

- **Frameworks for analyzing the interactions between technology, society, and work**
- How do theories of technology help us to understand how society/work and technology shape each other?
- Labor process theory, SCOT theory, technological determinism
- Discussion: What's a theory good for anyway? Using theories to try to make sense of new situations.

Readings

- Matthewman, S. (2011). *Technology and Social Theory*. Hampshire, UK: Palgrave Macmillan. Introduction and chapter 1.

What's Due:

- Preliminary Bibliography – due Sunday, March 29

Week 10: 3/30-4/5 - Class Activities

- **IT and Work: New relationships between workers and employers**
- Outsourcing and the changing demographics of who is affected
- The “gig” economy
- Discussion: Inequity, worker protection, and new forms of employment.

Readings

- Kessler, S. (2014). “Pixel and Dime: On (Not) Getting By in the New Gig Economy.” *Fast Company*, May 2014. Available from <http://www.fastcompany.com/3027355/pixel-and-dime-on-not-getting-by-in-the-gig-economy>
- Silverman, J. (2014). “The Crowdsourcing Scam.” *The Baffler*, no. 26. Available from <http://www.thebaffler.com/salvos/crowdsourcing-scam>

Week 11: 4/6-4/12 - Class Activities

- **Creating new positions and destroying old ones**
- How do job types get created and re-created? The case of teachers.
- Deskilling and different-skilling: the case of early computer programmers.
- What kinds of jobs are being created around us today? The case of drone pilots.
- Discussion: What are some examples of new jobs created by technology? What do you think the chances are that you will work in one? Are new job categories more desirable? Why or why not?

Readings

- P.W. Singer, *Wired for War: The Robotics Revolution and Conflict in the 21st Century* (2009), chapters 17-19.
- Jennifer S. Light, “When Computers Were Women”, *Technology and Culture* 40.3 (1999) 455-483

What's Due:

- Quiz #2 to be taken online on Sunday, April 12 between 3 and 9 p.m.

Week 12: 4/13-4/19 - Class Activities

- **Quiz #2 / Gender and Work and Technology**
- Discussion: How do jobs get identified as being “men’s” or “women’s” work and how does technology play into this process?
- More work for mother: technology and housework and women’s roles.

Readings

- Ruth Schwartz Cowan (1983), *More Work for Mother: The Ironies of Household Technology from the Iron to the Microwave*, chapter 4

- Judy Wajcman, “The Feminization of Work in the Information Age” from *Women, Gender and Technology* (Urbana: University of Illinois Press, 2006), pp. 80-97.

Week 13: 4/20-4/26 - Class Activities

- **The blurring lines between the personal and the professional, between home and work**
- When did leisure become a commonplace in U.S. society? How did unions assist in the creation of this change? What role did U.S. industry play?
- Employee monitoring through technology: the company town writ large.
- Discussion: Telecommuting and the creation of new forms of work.
- Review: What makes a good presentation? What are some effective strategies for presenting your argument?

Readings

- Golden, T. D., Veiga, J. F., & Simsek, Z. (2006). Telecommuting's differential impact on work-family conflict: is there no place like home? *Journal of Applied Psychology*, 91(6), 1340.
- EA Spouse essay available from: <http://ea-spouse.livejournal.com/>

Weeks 14 & 15: 4/27-5/4 - Class Activities

- **Presentations of Book Project Findings**
- Reflections on the course: what can we say about the role of technological change in the workplace?

What’s Due:

- Book Project paper – due Tuesday, April 28
- Book Project presentations – due Friday, May 1
- Reflection assignment – due Wednesday, May 6

Methods of Assessment

		Criteria	Due Date
30%	Class Participation and online activities	Quality of responses, timeliness of responses, following of directions and, where applicable, complete and timely submission of deliverables to drop-boxes.	Ongoing
15%	Synchronous discussion sessions	Preparation of preliminary questions, participation in discussion, timely creation of notes and correct use of APA citation format to cite sources.	Ongoing

20%	Quiz #1 and #2	Quality of answers.	March 15 th and April 12 th
10%	Book Project Preliminary Bibliography	Quality of research with regards to scholarly and non-scholarly sources, clarity of writing, correct use of APA format, and following of directions for the assignment.	November 2 nd
25%	Book Project	Quality of research, critical analysis of findings, clarity of writing and citation of evidence in the written paper and presentation of findings in both written and oral formats.	Source investigation due March 1 st (5% of project grade) Paper due April 28 th (65% of project grade) Group presentation on May 1 st (20% of project grade) Reflection assignment due on May 6 th (5% of project grade)

Things I care about when it comes to the Class Participation portion of the grade:

- Ultimately, being in a class entails responsibilities: to yourself, to your instructor and to your classmates. I use Online Participation as part of your final grade so that I can encourage you to engage in behaviors likely to produce good outcomes for you and for the class as a whole. I do not intend it as an “E for effort” approach, consequently I am spelling out what matters to me when I am assessing this portion of your grade. Please do not consider this as an invitation to lobby me at the end of the class to change my mind about your devotion to the subject; for me the largest part of this grade is actually very straightforward.
- Online Participation includes doing the intellectual work of the class, which means doing the readings and coming to the class site prepared to participate in discussions and activities each week. Consequently, even if your reasons are very, very good for being away from the work this is ultimately not excusable. Failing to participate in online activities such as discussion threads or journal activities or other set tasks for **any reason less than hospitalization** will drive this portion of your grade to a 70 or lower.
- If you miss a quiz or a presentation, anything short of a well-documented medical emergency will result in a 0 for that assignment.
- Late work policy: If you have extraordinary circumstances that you know about in advance, please reach out to me via email and we will see if accommodations can be arranged with regards to turning in assignments late. If work is turned in late without agreed to accommodations in place, you can expect a 5 to 10 point deduction from the assignment grade for each day late.
- If you expect to be unavailable due to illness or family emergency, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me.
- If you need to miss class work for religious observances you will be required to make up all class work immediately; expect that failure to complete the coursework makeup in a timely fashion will impact your Class Participation grade.
- If you have difficulties logging into the eCollege server, you should contact help@ecollege.rutgers.edu, or phone one of their help lines - (732) 932-4702 is generally the best one to try – to resolve the issue

as quickly as possible. You are expected to be checking in with the course shell every 2-3 days throughout the semester. Not logging in to the server to complete assignments or download readings will result in a lower Class Participation grade, so I expect that you will resolve any problems quickly.

Letter Grade	
A	89.5 - 100
B+	87.5 – 89.49
B	81 – 87.49
C+	77.5 – 80.99
C	70 – 77.49
D	65 – 69.99
F	64.99 or less

Written Work Guidelines

These guidelines must be followed for all assignments and papers. Papers that do not meet these standards will be returned to the student for resubmission before grading, and the grade will be marked down.

- All homework assignments must be posted to the course shell's dropbox on or before the date on which they are due.
- All assignments posted to should have your last name and the assignment title as part of the file name (i.e., muller_final_paper.doc not muller.doc or paper.doc)
- Late work will be marked down 5 points per day late unless the student has obtained permission of the professor to submit the work late (in the case of illness, etc.) **prior to the due date**.
- I will usually be using Turnitin.com on the dropboxes for most assignments longer than 500 words. If the Turnitin search fails to produce a report, it is the responsibility of the student to upload a second copy of the file.
- Assignments are to be in 12-point type, Times New Roman font, double-spaced, with at least 1" margins on all sides of the paper, with pages numbered.
- You must have your name on the first page of the assignment. I do not typically need a title page.
- Brevity and clarity are highly valued attributes for all reports and assignments. I'm serious about staying within the word counts posted for the assignments, if you're more than 10% high or low on the required word count in the assignment description expect to see deductions between 5 to 10 points taken off of your grade.
- Papers are to be free from spelling, grammatical, and typographical errors – use spell checker and grammar checker and having someone else do a second read of your work for clarity is recommended. Please proof read carefully before submitting.
- **Appropriate use of references is required for all assignments.**
- Bibliographical citations must use the APA format. Some examples of the APA format for print and electronic citations are available from the Purdue University Online Writing Lab, (<http://owl.english.purdue.edu/workshops/hypertext/apa/sources/reference.html>) and the Cornell University Library (http://www.library.cornell.edu/newhelp/res_strategy/citing/apa.html)

Quiz Guidelines

There are a number of online quizzes in this course, comprising about a quarter of the total course grade. These quizzes are primarily short answer/fill in the blank questions with one essay per quiz, and will be given two times during the semester. They are cumulative in nature; anything on an early quiz is fair game for a later quiz.

To perform well on this portion of the course:

- Plan to use the full hour available to work on the quiz.
- Make sure you are available for at least that hour during the “window” you will have for each quiz.
- Also make sure you have access to a hard-wired connection to take the quiz on.

Statement on Plagiarism

I want to make it very clear that plagiarism is not tolerated by either the University or myself. If you have questions on what exactly constitutes plagiarism, a good place to start is the Rutgers Plagiarism Policy listed in this syllabus. If you still have questions, please make an appointment with the Writing Program for a tutorial on the subject, review the Rutgers University Libraries tutorials linked in the Webliography of the course shell or make an appointment to talk to me during office hours.

For my purposes while grading I do periodically check sentences and phrases without citation against several different search engines. If they come back with hits I read further on to see if the material has been substantially lifted from an online source and I also employ turnitin.com to determine if there has been significant copying. If this is the case, I consider this an act of direct plagiarism.

If there are major ideas in your work which are not ideas you thought up they should be appropriately cited. If they are not, even if they are substantially re-worded, I would consider this an act of indirect plagiarism.

If you are detected in an act of direct plagiarism, your grade for the project in question will be a zero and your grade for the course will be an F. Needless to say you will also be subject to any additional penalties the department and school choose to issue.

If you are detected in the act of indirect plagiarism, your grade for the project will lose 5-10 points for each instance I find. If more than three instances are found, I will consider it to be an act of direct plagiarism and the penalties listed above apply.

Accessibility

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.