POGO 750 DL1 Dangers of Technology: AI and Beyond (Elective Course Taught Completely On-line)

For a video description of this on line course by the instructor click here

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Instructor’s Personal site http://icasit.gmu.edu/about-us/stephen-r-ruth/
Face-to-face Classes: None—course is fully on line

Description of Course:

Over the years the instructor has offered a wide variety of elective courses aimed at studying the public policy implications of information and communications technology (ICT). Examples are: Islam and the Internet; the Internet – Technology or Tyranny? ; Facebook and Public Policy; MOOCs and the Technology Tuition Paradox; Blogs, Social Networks and Public Policy; International Issues in E Government, and others. This on line course, equally aimed at geeks and non-geeks, places the student directly in the midst of one of the most significant policy dilemmas imaginable – unpredictable and undisciplined growth of the Internet and related technologies coupled with increasing powerlessness of governments to exert any control. Of particular interest in the course will be the effects of Artificial Intelligence and robots, both of which continue to be in the center of many public policy debates concerning job displacement, dangers of "accidental" wars,
etc. But over a dozen other policy threats will also be included from phishing to cryptocurrencies and block chain to online censorship.

The course format allows students to specialize in several areas among dozens associated with the potential dangers of ICT, like the “Dark Web”, Revenge Porn, Ransomware, Bots and Scrapers, Internet Dating, Phising, Internet fraud, Hactivism, the “Twitter effect”, and many others.

**Notice about this course—an alert for prospective students:**

It is a completely on line—so both student and instructor are required to have a continuous, productive and content-specific communications on line from beginning to end. In fact, 35 percent of the course’s grade is based on the quality and frequency of on line participation. There will be extensive class participation—far more than in a face-to-face class—but all of it will be asynchronously on line.

**Overview of Course Goals:** Approaching the Course Topics from Three Perspectives: Review of Intellectual Territory, Broad Analysis of Selected Major Policy Themes and Individual, Focused Research

The aim of this course is to examine challenges associated with key ICT/Internet issues of the day--legal, educational, governmental, military, business, health, etc. We will approach this broad subject from three perspectives in order to offer maximum coverage and ample customization of course material to students’ needs. **First**, there will be continuing emphasis on the intellectual territory surrounding ICT and the Internet. The aim is maximum breadth, to cover as many of the most important concepts, cases and challenges as possible. The course will present, often in on line lectures, some of the best-known thinkers in these areas, and examples of contemporary issues. We will particularly highlight the ICT policy issues associated with current national discussions about Covid-19, racial issues and policing, all of which have significant IT implications.

The second, and most significant, perspective is that of public policy. Questions abound. Is the globalized world really flat, as Thomas Friedman used to say, or are there differences of opinion among the experts about globalization’s actual breadth effects? Is facial recognition technology delivering racially biased results? To what degree will the increasing impact of globalization in delivering business and government services change standards of living in the US and overseas? Is the "Digital Divide", domestically and
globally, a serious problem, and if so, what can be done to alleviate its effects? Can Artificial Intelligence and robotics alleviate labor problems? What economic effects is broadband proliferation deployment having on the body politic? Is there enough bandwidth in the world? Why is Congress unable to pass bills that are designed to reduce cyber risks? Will telemedicine and other Internet interventions cause major reductions in the death rates due to starvation in the world's poorer countries or will twenty thousand children continue to die of hunger and malnutrition every day? Which national security issues are most affected by IT and globalization? We will divide these policy matters into several dozen segments and each student in the course will be able to select six areas for further research. To aid in this goal a database and extensive class readings will be available from the first week with excellent, current citations. Of course most of the cites will be found by you, the course participants, but these will be a start.

The third perspective is the student's own. An individualized portfolio and a research paper will allow each person enrolled in the course to select a half dozen subjects for more detailed review. This research perspective has the goal of encouraging each student to learn more about many chosen topics within the course's coverage by delving more deeply into the literature surrounding it.

Learning Objectives:

By the end of the course students should have an understanding of the positive and negative aspects of ICT through these learning activities:

1. Discuss and analyze the potential damaging effects of several dozen ICT applications, through careful review of reports, recent literature and other sources. Emphasis will also include Coivid-19 implications and racial issues.
2. Determine the potential role of artificial intelligence and robotics in economic and social contexts.
3. Delineate various policy approaches to solving ICT problems.
4. Discuss, analyze and critique the actual legislation that is being proposed currently aimed at dealing with these problems.
5. Examine, compare, contrast, and predict international differences in IT deployment and long term infrastructure development.
6. Discuss and evaluate National Security and defense aspects of The ICT challenges that are being faced.
7. Develop proficiency in examining the manifestations and challenges of online learning, particularly since it has been suddenly mandated throughout K-12 as well as postsecondary education in many locations.

**Requirements, Grades and Examinations:**

There are **four** requirements for completing the course:

1. Extensive participation in class online discussions (35 percent)—throughout the semester

2. Review and analysis of individualized portfolio selection--student chooses portfolio topics (25 percent)—first half of semester. Portfolio directions and samples are available at course site

3. Research project (20 percent)—second half of the semester

4. A final take-home exam (20 percent)—end of the semester (distributed at week 12)

1. **Class Participation (35%):**

   Every week each member of the class is expected to participate actively on the Blackboard discussion site. There are **two types of online participation:**

   - **Formal bi-weekly posts** that reflect your views on the assigned readings and your portfolio are in the minimum range of **450 or more** words and should have several qualities, like relevance, comprehensiveness, coherence, clarity and focus, in addition to being well written. A formal post is due every other week by 7 PM Monday.

   - **Informal posts** are expected as part of the discussion and should be about whatever is on your mind, but please remember that a simple post that says something like, "I agree" or "Right on" with no indication of the "because" part is not very helpful. A minimum 5 informal posts are due every week. This covers all aspects of interaction from the first class to the last, like sharing information or
perspectives through emails, occasional snippets, comments and insights, etc.

Rubrics and samples of formal and informal posts can be found at the course site

2. ICT portfolio (25%):
Each student selects a portfolio of several ICT topics during the first half of the semester and reports on the selected material as part of the weekly course discussions: on-line and in-class. At week 8 the student posts a detailed summary of the findings on the six portfolio topics on the class site. Several samples of completed portfolios are to be found at the course site.

3. Research project (20%)
Students select, with instructor’s approval, a short, highly focused research project related to the course material. Target minimum length: 2000 words.

4. The final exam (20%)
The final exam will be a take-home test with five questions. It will be distributed during week 11 and will require about 10-12 hours of preparation

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August 24                                                   December 4
Formal bi-weekly posts       X X   X X   XX   XX   XX   XX   XX
Informal posts                X X X X X X X X X X X X X X X X X X
ICT portfolio                XXXXXXXXXXXX
Research project             XXXX X X X
Final Exam                   X X X X X

Weekly Schedule—please note that actual assignments will be shown at the course web site and the ones noted below are tentative—after week 1 the course web site will replace this syllabus as the basis for assignments.

Week 1: Introduction to on line approach—daily posts, other course details; AI in Job Displacement; AI and racism

Week 2: AI, Algorithms, Government Issues

Week 3: AI “Nightmare Scenario” and AI in Medicine and Health Care
Week 4: Robots and robotics—policy implications

Week 5: Phishing and Hacking—plagues that get worse

Week 6: Major existential threats: the dark web and attacks on the power grid

Week 7: Internet of Things—convenience or potential calamity?

Week 8: Hactivism and censorship—difficult to prevent and getting worse

Week 9: Cryptocurrency—replacement for money and possibly a new model for the Internet—or serious challenge?

Week 10: Internet Dating, Revenge Porn Cyberbullying—are they related?

Week 11: Ransomware, doxing, swatting and fraud—robbing money and reputations

Week 12: Challenges of Social Networks

Week 13 Review and analysis of student portfolios

Week 14 Thanksgiving week—no assignment

Week 15 Review and Synthesis

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Technology Requirements

Hardware:

You will need access to a Windows or Macintosh (macOS 10.12 and higher) computer with at least 2 GB of RAM and access to a fast and reliable broadband internet connection (e.g., cable, DSL). A larger screen is recommended for better visibility of course material. You will need speakers or headphones to hear recorded content and a headset with a microphone is recommended for the best experience. For the amount of Hard Disk Space
required to take a distance education course consider and allow for:
1. the storage amount needed to install any additional software and
2. space to store work that you will do for the course.
If you are considering the purchase of a new computer, please go to the GMU computer store site

Software:

This course uses Blackboard as the learning management system. You will need a browser and operating system that are listed compatible or certified with the Blackboard version available on the myMason Portal. See supported browsers and operating systems. Log in to myMason to access your registered courses. Some courses may use other learning management systems. Check the syllabus or contact the instructor for details. Online courses typically use Acrobat Reader, Flash, Java (Windows), Your computer should be capable of running current versions of those applications. Also, make sure your computer is protected from viruses by downloading the latest version of Symantec Endpoint Protection/Anti-Virus software for free at http://antivirus.gmu.edu.

Note: If you are using an employer-provided computer or corporate office for class attendance, please verify with your systems administrators that you will be able to install the necessary applications and that system or corporate firewalls do not block access to any sites or media types.

Blackboard Support

Email address for support support@gmu.edu
Student support website http://coursessupport.gmu.edu/students/
Are you looking for quick video help about Blackboard? Visit http://ondemand.blackboard.com/students.htm
If you can not log in to myMason please contact the ITS Support Center at (703) 993-8870 or reset your Mason NetID password at http://password.gmu.edu

University Requirements:

Academic Accommodation for a Disability

If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through the DRC.

SPP Policy on Plagiarism

The profession of scholarship and the intellectual life of a university as well as the field of public policy inquiry depend fundamentally on a foundation of trust. Thus any act of plagiarism strikes at the heart of the meaning of the university and the purpose of the School of Public Policy. It constitutes a serious breach of professional ethics and it is unacceptable.

Plagiarism is the use of another’s words or ideas presented as one’s own. It includes, among other things, the use of specific words, ideas, or frameworks that are the product of another’s work. Honesty and thoroughness in citing sources is essential to professional accountability and personal responsibility. Appropriate citation is necessary so that arguments, evidence, and claims can be critically examined. Plagiarism is wrong because of the injustice it does to the person whose ideas are stolen. But it is also wrong because it constitutes lying to one’s professional colleagues. From a prudential perspective, it is shortsighted and self-defeating, and it can ruin a professional career.

The faculty of the School of Public Policy takes plagiarism seriously and has adopted a zero tolerance policy. Any plagiarized assignment will receive an automatic grade of “F.” This may lead to failure for the course, resulting in dismissal from the University. This dismissal will be noted on the student’s transcript. For foreign students who are on a university-sponsored visa (eg. F-1, J-1 or J-2), dismissal also results in the revocation of their visa. To help enforce the SPP policy on plagiarism, all written work submitted in partial fulfillment of course or degree requirements must be available in electronic form so that it can be compared with electronic databases, as well as submitted to commercial services to which the School subscribes. Faculty may at any time submit student’s work without prior permission from the student. Individual instructors may require that written work be submitted in electronic as well as printed
form. The SPP policy on plagiarism is supplementary to the George Mason University Honor Code; it is not intended to replace it or substitute for it.

**Grading:** The grade of A or A minus is reserved for a high level of achievement; B and B plus grades indicate good mastery of the material. Grades of B minus and below indicate incomplete achievement of an assignment’s requirements. On a 100% scale, A is equal to 95%, B 85%, C 75%