Course Description

This course of study examines the relationship between technology and society. The course proceeds according to a socio-technical perspective; that is, the notion that technology and society share a reciprocal relationship wherein first we shape our technologies, and then our technologies shape us. The course begins with a breakdown of the concept “technology” in an attempt to determine its fundamental nature. To this end we will examine technology’s linguistic roots and historical reason d’etre, its essential components, its relationship to rationalism and social progress, and its tendency in modern societies to alienate and disempower. We will examine various sociological theories which inform our understanding of technological development and diffusion (e.g., Technological Determinism, Social Constructivism, Convergence Theory, and so on). The course will identify several sources of technological change (from the contributions made by self-reliant, genius inventors of yesteryear to the hi-tech, corporate research laboratories of today) and examine a number of high profile technological impacts such as fossil fuels, bio-engineering, printing, mass production, the internet and others. The course of study includes a careful examination of the differential effects of technological change and the tendency for the benefits, and the costs, of technological development to be unequally distributed throughout the population. We will study the historical relationship between science and technology, the patterns and theories of technological diffusion, the role of engineers and other experts in the development of technology, the reciprocal relationship between organizational structure and technology, and the role of the government in determining the direction and pace of technological change. All of these topics, and others, will be considered in light of an important observation in the sociological study of technology; namely, technology is a subversive social force… it delivers benefits, but it also exacts costs. And not always in equal measure.

The course of study will also pay particular attention to technology and Canada’s Indigenous peoples. Content may include topics such as the impact of major technological systems on the social and economic development of isolated Northern communities, the incorporation of new information and communications technologies into human services on First Nations reserves, traditional Native worldviews vs. the modern scientific approach, technology’s role in efforts to resist cultural assimilation, the impact of legal decisions regarding technology on Aboriginal treaty rights, the role of technology in the perpetuation of Native stereotypes, prejudice, and discrimination, and more.

How to Proceed Through the Course of Study

This course of study has no classroom. Rather, it features an excellent book and a variety of online articles and videos. Rudi Volti’s Society and Technological Change (7th Ed) identifies and discusses most of the important theories and basic concepts needed to develop a thorough understanding of how society shapes technology and, in turn, how technology shapes society. The various online articles provide insight into the nature of the relationship between technology and Indigenous people. The course is comprised of 6 units of study. Each unit of study includes helpful learning objectives, brief synopses, and review questions for each of the required Volti chapters, as well as review questions for each of the online articles.

Here is what I recommend:

- Set aside 6-7 hours each week, find a quiet room, close the door, shut out the world, and focus on the required Volti readings, online articles, and videos.
- While reading, take notes which address the Review Questions which appear in the course package for each unit of study. When I set the examinations, I will use the Review Questions as my primary
• You might also use the various synopses of the Volti chapters that appear in the course package to help identify the most important terms and concepts for each required Volti chapter.
• Follow along with the Course Schedule, and don’t fall behind!

If you have a question, post it in our Discussion Area and I, or one of our classmates, will respond. Or simply send me an email using brian.mcmillan@lakeheadu.ca

**Required Reading Material**


You are also required to read several online articles throughout the course which pertain specifically to Canada’s Indigenous peoples and various technology-related issues. The titles and URLs of these articles can be found in their respective Study Modules in the Content area of our course site (see yellow navigator bar at top of page).

**Video Material**

The course of study includes several online videos. These videos will *not* be covered in examinations. However, these videos should be considered required viewing and are meant to help deepen your understanding of important course concepts and, in particular, important issues of relevance to Canada’s Indigenous peoples. You are encouraged to view the videos and post any comments you might have in the appropriate discussion forum. You are also encouraged to read the posts of other students and are invited to respond to any and all posts. The titles and links of the videos can be found in their respective Study Modules in the Content area of our site.

**Grading Scheme**

Exam #1........................…33%
Exam #2........................…33%
Exam #3........................…34%

**Timed Online Examinations**

There are 3 examinations scheduled throughout the course of study. The exams are accessed using the *Quizzes* tab on the yellow navigator bar at the top of the page. All 3 exams will be based on the required readings in Rudi Volti’s *Society and Technological Change*, and the required online articles dealing with Indigenous issues. All 3 examinations will be timed online tests. Timed online tests can be taken from any computer connected to the internet. I wouldn’t advise the use of smartphones, or any other wireless devices, because of common connectivity problems. The exams will be comprised of multiple-choice and true-or-false questions. The first exam will be based on study modules 1-2. The second exam will be based on study modules 3-4. The third exam will be based on study modules 5-6. Please see the *Grading Scheme* for the weighting of exams, and the *Course Schedule* for examination dates.

A timed online test requires you to commence and complete the test within a specified time period on a particular day. You will not be allowed to commence before the designated start time, and no responses will be accepted after the designated completion time. See the *Course Schedule* (*Content* tab) for examination dates and times.

The timed online tests will be administered through our course website (D2L). At the time of the exam you will be required to login using your usual Lakehead University username and password. I have set up a mock timed online test to give you a chance to practice logging in and answering questions. Click the *Quizzes* tab on the
**PLEASE NOTE:** Lakehead University has a very strict policy regarding the failure to write formally scheduled examinations at the prescribed time. Special accommodations, such as a make-up exam, will only be offered when missed examinations are due to medical reasons, for which detailed supporting documentation must be submitted. It is your responsibility to familiarize yourself with the University’s policy regarding missed examinations. Please note that I have never granted special accommodations in regard to missed examinations on the basis of equipment failure in 30 years of teaching, and I don’t plan on spoiling my record any time soon. So please ensure you are at the right place at the right time with the right equipment to avoid disappointment.

**COURSE SCHEDULE**

Jan. 16 - 28:  
*The Nature of Technology* (Volti ch. 1)  
*Scientific Knowledge and Technological Advance* (Volti ch. 4)  
*Dismantling the Divide between Indigenous and Scientific Knowledge* (Arun Agrawal)  

Jan. 29 - Feb. 10:  
*Winners and Losers* (Volti ch. 2)  
*Canada’s Tibet: The Killing of the Innu* (C. Samson et al.)  
Video: *Prohibition in Northern Canada* (Vice International)

Sat. Feb. 11:  
Examination #1, 1:00 p.m. - 2:20 p.m. EST (Toronto time)  
*See Course Outline* for details

Feb. 12 - 28:  
*The Diffusion of Technology* (Volti ch. 5)  
*The Internet Age* (Volti ch. 14)  
*Digital Divides and the ‘First Mile’: Framing First Nations Broadband Development in Canada* (R. McMahon et al.)  
Video: *Social Media gives Traction to Idle No More* (CBC)

Feb. 20 - 24:  
Reading Week

Mar. 1 - Mar. 12:  
*Tech and Jobs: More of One Less of the Other?* (Volti ch. 10)  
*Technological Change and Life on the Job* (Volti ch. 11)  
*Resource Extraction and Aboriginal Communities in Northern Canada: Cultural Considerations* (National Aboriginal Health Organization)  
Video: *On Thin Ice: Inuit Way of Life Vanishing in Arctic* (Andri Putra)

Mon. Mar. 13:  
Examination #2, 7:00 p.m. - 8:20 p.m. EST (Toronto time)  
*See Course Outline* for details

Mar. 14 - 26:  
*The Sources of Technological Change* (Volti ch. 3)  
*Tech and Its Creators: Who’s in Charge of Whom?* (Volti ch. 18)  
*Food Security across the Arctic* (Inuit Circumpolar Council 2012)  
Videos: *Wasting Away* (APTN); *Igloo Greenhouses* (CBC)

Mar. 27 - Apr. 7:  
*Organizations and Technological Change* (Volti ch. 19)
Governing Technology (Volti ch. 20)
Article T.B.A.
Video: Radical Parallelism (TVO)

T.B.A. Examination #3
*See Course Outline for details

End