

**PAPM 4000A**  
**International Studies Capstone Seminar**

**Strategic Foresight & the Future of Geopolitics**

Fall 2023

Class Time: Wednesday, 8:35 to 11:25

First Class: September 6, 2023

Location: please check Brightspace

Instructor: Professor Alex S. Wilner (<https://alexwilner.com/>)

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Office Hours: Every Wednesday, 12:00-13:00, or by appointment (in person or virtual)

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### **1. Bio – Prof Wilner**

Dr. Alex Wilner is an Associate Professor at the Norman Paterson School of International Affairs, and the Director of the Infrastructure Protection and International Security program (IPIS), at Carleton University, Ottawa, Canada. He is a leading scholar of contemporary deterrence theory and practice. His books include *Deterrence by Denial: Theory and Practice* (eds., Cambria Press, 2021), *Deterring Rational Fanatics* (University of Pennsylvania Press, 2015), and *Deterring Terrorism: Theory and Practice* (eds., Stanford University Press, 2012). Since joining NPSIA, his broader scholarship has been awarded over \$1.5M (CAD) in external research funding. He was co-awarded a MINDS Collaborative Network grant (2023-2026) from the Department of National Defence to establish [Triple Helix](#): An Academic-Policy-Industry Partnership for Defence innovation and Analysis; a Government of Canada SSHRC Insight Development Grant (2016-2017), SSHRC Insight Grant (2020-2025), and a Government of Ontario Early Researcher Award (2021-2026) to study state and non-state [cyber deterrence](#); two major IDEaS grants (2018-2021) and several MINDS grant (2019, 2020) to explore [Artificial Intelligence \(AI\) and deterrence](#); and a major *Mitacs* grant (2020-2022) to explore [emerging technology](#) and Canadian defence policy and strategy. Prof Wilner teaches classes on terrorism and violent radicalization, intelligence in international affairs, strategic foresight in international affairs, and a capstone course on Canadian security policy. Besides his academic teaching, since 2017 he has trained over 1000 Canadian public servants in strategic foresight, having provided over 40 multi-day training workshops to numerous government departments, including the Department of National Defence/Canadian Armed Forces, Global Affairs Canada, Natural Resources Canada, Public Health Agency of Canada, Environment and Climate Change Canada, and Standards Council of Canada.

## 2. Course Description

The objective of this seminar is to introduce students to the methods and approaches used to explore, assess, and contemplate emerging and future trends in geopolitics, security, and conflict. *Strategic foresight* is not an attempt to predict the future. Rather, it provides tools that allow us to better appreciate the range of possible and plausible future scenarios and security environments Canadians might eventually face. Strategic foresight allows decision-makers to systematically contemplate a plethora of future challenges and opportunities while improving their appreciation for how complex political and strategic issues might evolve. The course will explore, examine, and make use of a variety of tools and methods for thinking creatively about the future of geopolitics, intelligence, diplomacy, cybersecurity, and related topics like warfare, terrorism and crime, domestic and international security. On completing this seminar, students will have broadened their understanding of how to use and engage strategic foresight, horizons scanning, influence diagrams, systems mapping, scenario planning, and assumptions testing for exploring emerging security dynamics. Success in this seminar will be largely dependent on active student participation during in-class training and exercise sessions. Prior knowledge of strategic foresight or national security issues is not required.

The course will be taught using a combination of 1.5-3hr weekly seminars and live exercises, guest lectures, and student-led presentations. In-class exercises will make use of *Mural*, an online collaborative and brainstorming platform: **students will need an internet-connected device to participate in these exercises**. A laptop or tablet is ideal; a phone can work in a pinch. **Please ensure you bring one of these devices to every class.**

### Learning Outcomes

At the end of this course, students will:

- Understand how strategic foresight relates to security studies, strategic surprise, and policy development in Canada and abroad;
- Be able to conduct independent and group-based foresight exercises using a variety of different tools and approaches;
- Have sharpened their written, oral, research, analytical, and presentation skills in individual and team settings.

### Expectations

Students are expected to:

- Have read the required readings and be prepared to discuss their contents in class;
- Keep abreast of national and international security developments on a daily basis;
- Participate fully in the breakout and in-class training and exercise sessions; and
- Follow normal class etiquette (i.e. cellphone use, side-bar conversations, *etc.*).

## 3. Course Structure and Class Format

This is an academic course at the undergraduate level but taught in the style of a graduate seminar. Students should expect to participate in seminar-style discussions, lead group and individual presentations, and actively participate in professor-guided training exercises. Students are also expected to participate in group research, meetings, and presentations. A typical class will incorporate different learning strategies.

- Classes may begin with a brief *Weekly Update* – an informal discussion of national and international security developments that took place over the previous week. The *Weekly Update* will give students an opportunity to share news stories with the class and relate the content to class materials, exercises, scanning material, and foresight projects.
- Most classes will include a 30-to-45-minute lecture provided by Prof Wilner, detailing a specific foresight tool or technique. Lectures will be followed by a 60-minute exercise during which students will put a new tool or technique to use. Students will do so together, with guidance from Prof Wilner, using [Mural](#).
- Guest lectures will be periodically provided by practitioners of foresight from the Government of Canada. Guests and dates are TBD.
- Oral presentations by students, live class exercises, and class discussion. Student-driven content will provide peer review and comment.

The course will follow this *approximate* program of activities:

<b>Class</b>	<b>Date</b>	<b>Topic or Activity</b>	<b>Assignments</b>	<b>Notes</b>
W1	Sept. 6	Introduction to Strategic Foresight & Assumptions Exercise		<i>In-class Mural</i>
W2	Sept. 13	Domain Mapping Exercise		<i>In-class Mural</i>
W3	Sept. 20	Scanning & Weak Signals		<i>In-class Mural</i>
W4	Sept. 27	<i>Scanning Roundtable</i>	<i>Scanning Submission</i>	<i>Student Presentation</i>
W5	Oct. 4	Influence Diagrams, Cascades, and Futures Wheel: Part 1 Exercise		<i>In-class Mural</i>
W6	Oct. 11	Influence Diagrams, Cascades, and Futures Wheel: Part 2 Exercise		<i>In-class Mural</i>
W7	Oct. 18	<i>Cluster Prep Session</i>		<i>No Class</i>
	Oct. 25	<i>Reading Week</i>	<i>Book Review Submission</i>	<i>Cluster Meetings</i>
W8	Nov. 1	Scenario Planning: Part 1		<i>In-class Mural</i>
W9	Nov. 8	Scenario Planning: Part 2 Exercise		<i>In-class Mural</i>
W10	Nov. 15	Foresight & Canadian Public Policy: Guest Lecture & Discussion (TBD)		
W11	Nov. 22	<i>Cluster Prep Session</i>		<i>Cluster Meetings</i>
W12	Nov. 29	<i>Strategic Foresight Studio One</i>	<i>Final Reports</i>	<i>Cluster Presentations</i>
W13	Dec. 6	<i>Strategic Foresight Studio Two</i>	<i>Final Reports</i>	<i>Cluster Presentations</i>

## 4. Evaluation and Assignments

### I. Scanning Roundtable 20%: Oral 10% and Written 10%

Due Date: WEEK 4, Sept. 27

Each student will orally present one (1) weak signal – understood as events, developments, issues, or facts that might signify or represent “symptoms of change” – concerning their Cluster’s *future of geopolitics* topic. Scanning for weak signals helps analysts uncover potential indicators of future change. Students will describe their weak signal and discuss its potential importance in a **5-minute presentation**. [Marks will take into account whether students remain on time.] A short Q/A may follow the presentation. Students should present their findings using **one (1) PowerPoint slide**.

The presentation will be assessed for the way in which it: (a) summarizes the weak signal; (b) creatively identifies the weak signal’s relationship with current and future security environments; and (c) meets timing and delivery requirements (the quality of your presentation, including remaining on time, the slide, clear delivery, audible voice, etc.)

The purpose of this assignment is to:

- (1) develop and test students’ ability to identify, explore, and present weak signals;
- (2) offer the class a preliminary *scan* of the *future of Geopolitics*;
- (3) generate class discussions, insights, and questions concerning the cluster foresight projects (see below for details).

The mark will be allocated by the instructor based on the following criteria:

<b>Oral Evaluation – 10%</b>		
/5.0	PRESENTATION	The quality of your presentation, including remaining on time, clear and logical delivery, audible voice, etc. Presentation offers an effective summary of the weak signal. Quality and usefulness of visual information (i.e. slide) provided.
/5.0	ORIGINALITY	Presentation offers an effective summary of how the weak signal relates to expected and alternative futures (i.e. what is changing; why is the change important?). Weak signal is informative and original.

Each student will likewise submit a **one-page (single spaced) written assessment** of their Weak Signal. The report will be assessed for the way in which it: (a) summarizes the weak signal; (b) creatively identifies the weak signal’s relationship with current and future security environments; and (c) meets delivery requirements (the quality of your prose, etc. Tell me: what is changing; and why is that change important?)

The mark will be allocated by the instructor based on the following criteria:

<b>Written Evaluation – 10%</b>		
/5.0	QUALITY	The quality of your report, clear and logical structure, effective summary of the weak signal, free of mistakes, jargon, etc.
/5.0	ORIGINALITY	Report offers an effective summary of how the weak signal relates to expected and alternative futures (i.e. what is changing; why is the change important?). Weak signal is informative and original.

## II. Book Series (20%)

Due Date: Reading Week (Oct. 25)

Students will write a 1,500-word book review. Students will select a book from the list provided below during **Week 2 (September 13)**. Books can only be selected once.

The purpose of this assignment is to:

- (1) test students' analytical capabilities;
- (2) ensure students immerse themselves in at least one approach, genre, or subtheme within strategic foresight;
- (3) hone student writing skills.

The mark will be allocated by the instructor based on the following criteria:

<b>Evaluation</b>		
/4	PRESENTATION	The extent to which the review tells a cohesive story; the title, introduction and conclusion accurately reflect the major points in the review; structure of the paper is logical; graphs, figures, photos, tables, etc. (if used) are clear, appropriately formatted and necessary to the argument or discussion
/12	COMPLETENESS	The extent to which the review is supported by arguments and facts; clear line of logic and solid reasoning. The extent to which the book's suggestions, findings, or narrative are dealt with in a complete fashion; entirety of book is reviewed
/4	QUALITY OF EXPRESSION	Precise language; avoids ambiguous terms and jargon; free of grammatical errors, typos, and misspellings

Students are to pick one book. While most of these books are available through CU library services, those that are not available may need to be purchased or otherwise personally acquired by students.

### **Books on *Studying and Thinking about the Future***

- **Gary Klein, *Seeing What Others Don't: The Remarkable Ways We Gain Insights*, (Public Affairs, 2013).**
- Peter Schwartz, *The Art of the Long View*, (Doublday, 1991/1996).
- Peter Berger and Thomas Luckmann, *The Social Construction of Reality*, (Doublday1967).
- Bertrand de Jouvenal, *The Art of Conjecture* (Basic Books, 1967)
- Mats Lindgren and Hans Bandhold, *Scenario planning: The link between future and strategy*, (Palgrave 2003).
- Jay Ogilvy, *Creating Better Futures: Scenario planning as a tool for a better tomorrow*, (Oxford 2002).
- Philip Tetlock and Dan Gardner, *Superforecasting: The Art and Science of Prediction*, (Crown 2015).
- Fred Polak, *The Image of the Future*, (Jossey-Bass, 1973).
- Nate Silver, *The Signal and the Noise: Why So Many Predictions Fail—But Some Don't*, (Penguin, 2012)
- Pero Micic *The Five Futures Glasses* (Palgrave Macmillan, 2010).
- Bart Edes, *Learning from Tomorrow* (Changermakers Books, 2021).
- Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (Random House, 2010).
- Willis Harman, *An Incomplete Guide to the Future* (WW Norton, 1979).
- Ken Wilber, *A Theory of Everything* (Shambhala, 2001).
- **Amy Webb, *The Signals are Talking: Why Today's Fringe is Tomorrow's Mainstream* (PublicAffairs 2016).**
- Jennifer Gidley, *The Future: A Very Short Introduction* (Oxford University, 2017).

### **Books on *Charting and Planning for the Future***

#### The Optimists

- Thomas Friedman, *Thank You for Being Late: An Optimist's Guide to Thriving in the Age of Accelerations* (Farrar, Straus, Giroux, 2016).
- Christopher Coker, *Future War*, (Polity, 2015).
- Ray Kurzweil, *The Singularity is Near: When Humans Transcend Biology*, (Viking, 2005).
- Andrew McAfee and Erik Brynjolfsson, *Machine, Platform, Crowd: Harnessing our Digital Future* (WW Norton, 2017)

- Eric Schmidt and Jared Cohen, *The New Digital Age: Reshaping the Future of People, Nations and Business*, (Knopf, 2013).
- Robin Hanson, *The Age of Em: Work, Love, and Life when Robots Rule the World*, (Oxford University Press, 2016).
- **Michio Kaku, *The Future of Humanity: Terraforming Mars, Interstellar Travel, Immortality, and our Destiny Beyond Earth* (Doubleday 2018).**
- Peter Diamandis and Steven Kotler, *Abundance: The Future is Better than You Think*, (Free Press, 2012).
- James Lovelock (with Bryan Appleyard), *Novacene: The Coming Age of Hyperintelligence*, (Penguin, 2019).
- **Darrel West and John Allen, *Turning Point: Policymaking in the Era of AI* (Brookings, 2020).**
- Thomas Kostigen, *Hacking Planet Earth: How Bioengineering Can Help Us Reimagine the Future*, (Penguin, 2020).
- Peter Diamandis and Steven Kotler, *The Future is Faster than you Think*, (Simon & Schuster, 2020).
- Ari Wallach, *Longpath: Becoming the Great Ancestors our Future Needs* (HarperOne, 2022).

#### The Pessimists

- **Benjamin Wittes and Gabriella Blum, *The Future of Violence: Confronting a New Age of Threat*, (Basic Books, 2015).**
- **Christian Bros, *The Kill Chain: Defending America in the Future of High-Tech Warfare* (Hachette, 2020)**
- Marc Goodman, *Future Crimes: Inside the Digital Underground and the Battle for our Connected World* (Penguin, 2015)
- **Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies* (Oxford, 2014). (Lindsay)**
- Illah Reza Nourbakhsh, *Robot Futures*, (MIT Press, 2013).
- **Martin Ford, *Rise of the Robots: Technology and the Threat of a Jobless Future*, (Basic Books, 2015).**
- Amir Husain, *The Sentient Machine*, (Simon & Schuster, 2017).
- James Barratt, *Our Final Invention: AI and the End of the Human Era* (St. Martin's Press 2013).
- Cathy O'Neil, *Weapons of Math Destruction*, (Crown, 2016).
- **David Biello, *The Unnatural World: The Race to Remake Civilization in Earth's Newest Age*, (Simon & Schuster, 2016).**

- **Kai-Fu Lee, *AI Superpowers: China, Silicon Valley, and the New World Order* (Houghton Mifflin Harcourt, 2019).**
- **David Wallace-Wells, *The Uninhabitable Earth: Life after Warming* (Tim Duggan, 2019).**
- Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (Henry Hold, 2014).

#### The In-betweeners

- Max Tegmark, *Life 3.0: Being Human in the Age of Artificial Intelligence* (Knopf, 2017).
- **Trond Undheim, *Pandemic Aftermath: How Coronavirus Changes Global Society* (Atmosphere Press, 2020).**
- Alec Ross, *The Industries of the Future*, (Simon & Schuster, 2016).
- **Yuval Noah Harari, *Homo Deus: A Brief History of Tomorrow* (Signal Books, 2016).**
- Paul Scharre, *Army of None: Autonomous Weapons and the Future of War* (WW Norton 2018).
- **Matthew Burros, *The Future, Declassified* (St. Martin's Press, 2014).**
- **Henry Kissinger, Eric Schmidt, and Daniel Huttenlocher, *The Age of AI and our Human Future*, (Little, Brown & Company, 2021)**
- Elizabeth Kolbert, *Under a White Sky: The Nature of the Future*, (Crown 2021).

#### Books that Fictionalize the Future

- Kim Stanley Robinson, *Red Mars*, (Spectra, 1993). (Mackenzie)
- P.W. Singer and August Cole, *Ghost Fleet: A Novel of the next World War*, (Harcourt, 2015).
- P.W. Singer and August Cole, *Burn-In: A Novel of the Real Robotic Revolution*, (Harcourt, 2020).
- **Omar El Akkad, *American War* (McClelland & Stewart, 2017).**
- Margaret Atwood, **one** book from the “MaddAddam Trilogy”, (McClelland & Stewart, 2003; 2009; 2013).
- Alexander Weinstein, *Children of the New World* (Picador 2016).
- **Maggie Shen King, *An Excess Male* (HarperCollins, 2017).**
- Elliot Ackerman and James Stavridis, *2034: A Novel of the Next World War* (Penguin, 2022).



### **III. Foresight Report (30%) & Studio Presentation (15%)**

Due Date: WEEK 12 & 13, November 29 and December 6 (Presentation & Written submission).

Using the tools and methods discussed, taught, and practiced during the semester, students will conduct an in-depth, group-based strategic foresight project. Four research clusters of 4-5 students will be selected by Professor Wilner and identified in Week two. Each cluster will be assigned a specific topic to explore:

- Future of Diplomacy
- Future of Power
- Future of Cybersecurity
- Future of Violence

The objective of the cluster is to uncover “What is surprising?” about their collective topic. The challenge is to present that surprise to high level Canadian decision makers. If you had the Prime Minister’s ear, what would you tell him about your topic and findings?

Clusters will be provided with two “sessions” – October 18 and November 22 – to meet virtually or in-person as a group during class time to discuss the project, divide the workload, discuss ideas and findings, etc.

**Students within each cluster will share one collective grade.**

Clusters will submit a written report (4500 words, not including sources) and present their findings to the class in a detailed 30-minute presentation (using PowerPoint or Prezi). Research teams will likewise be expected to help direct the subsequent Q&A session and class discussion.

Research clusters will be expected to complete a number of strategic foresight exercises and steps. Written reports and oral presentations must include:

- Domain Map (i.e., binding the project’s scope)
- Comparison of Current/Credible Assumptions
- Horizons Scan (i.e., identify a series of relevant weak signals)
- Insights section that describes 4-6 Change Drivers (i.e., clusters of weak signals)
- At least two Influence Cascades or Influence Diagrams (i.e., identifying second and third order consequences)
- Three short Scenarios (i.e. fictional accounts of future environments used to explore current policy and planning assumptions)
- Policy section that describes at least four future challenges or opportunities for Canada stemming from your report

Reports must include a detailed reference list of all materials and sources used (not included in word count). Likewise, graphics, visual representations of exercises (i.e., the

Influence Diagram, domain map, etc.), and hyperlinked video/digital material must be included (graphics not included in word count).

For inspiration on how you might structure your cluster report, see the US National Intelligence Council’s [Global Trends](#) reports, the UK Government Office for Science [foresight reports](#), or Policy Horizons Canada’s [foresight repository](#).

The purpose of this assignment is to:

- (1) improve students’ collaborative research skills;
- (2) improve students’ analytical and written/presentation skills;
- (3) develop students’ ability to synthesise and present complex information in a clear and concise manner;
- (4) test students’ ability to organize and produce an in-depth strategic foresight project

The mark will be *shared* by all members of the cluster, and will be allocated by the instructor based on the following criteria:

<b><i>Evaluation</i></b>		
<b><i>Oral Presentation (15%)</i></b>		
/7	PRESENTATION	The overall quality of your presentation, including remaining on time, clear delivery, audible voice, organization, charisma, etc.
/8	SLIDES	Quality, clarity, and usefulness of slides
<b><i>Written Report (30%)</i></b>		
/5	COMPLETENESS	The extent to which the presentation/paper covers each of the required foresight exercises – adequacy, quality, accuracy and completeness of coverage
/5	INFORMATION SEARCH & VALIDATION	The depth and breadth of the search process used in identifying signals and change drivers; the level to which information and sources are corroborated and validated; quality of sources
/5	CREATIVITY	The nature, novelty, and utility of the scenarios; scope, accuracy, and breadth of influence diagram/futures wheel
/5	POLICY EXPLORATION	The quality, accuracy, and completeness of policy discussion
/5	PRODUCT DESIGN	The nature and quality of graphics, visual representations, and web video content
/5	QUALITY OF EXPRESSION, and STYLE	Precise language; ambiguous terms and jargons avoided; free of grammatical errors, typos & misspellings; structure and style; accessibility and readability

**IV. Participation in class: 15%**

Students are expected to: join every class having done all the required readings; actively contribute to class discussions; and eagerly participate during in-class exercises and guest lectures; be upstanding colleagues with fellow classmates. The participation mark will be based on regular attendance and the quality of your interventions and leadership in class.

## **5. Brightspace and Submissions**

This course uses [Brightspace](#), Carleton's learning management system. For access, go to [brightspace.carleton.ca](https://brightspace.carleton.ca) and login with your MyCarleton1 username and password. For help and support with the platform, contact the [ITS Service Desk](#).

All assignments will be submitted on Brightspace. Assignments should be submitted in Word.

Late submission penalties: The date and time of your submission will be recorded by Brightspace. Deadlines for the submission of written work and presentations are strictly adhered to and are rarely negotiable. Failure to submit a piece of written work by the stated deadline may result in the following penalties being applied:

- Late submission of work within 24 hours of deadline = 5% reduction in the final mark for that assignment
- Late submission of work within 48 hours of the deadline = 10% reduction in the final mark for that assignment
- Late submission of work 96 hours after the deadline = 15% reduction in the final mark for that paper
- Work received more than one week after the deadline will not be marked and will result in a zero mark for that assignment.

By the end of the first class of this course you will know when ALL the deadlines and dates for presentations are. Plan your workload on this and other courses according to these deadlines.

### **Note on Final Grades**

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

## **6. Communications**

Please use your Carleton email account for all course-related correspondence.

## **7. Plagiarism and Complementarity**

The University Academic Integrity Policy defines plagiarism as “*presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one's own.*” This includes reproducing or paraphrasing portions of someone else's published or

unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, artworks, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations.

Examples of plagiarism include, but are not limited to:

- any submission prepared in whole or in part, by someone else, including the unauthorized use of generative AI tools (e.g., ChatGPT);
- using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings without appropriate acknowledgement;
- submitting a computer program developed in whole or in part by someone else, with or without modifications, as one's own; and
- failing to acknowledge sources through the use of proper citations when using another's work and/or failing to use quotations marks.

Plagiarism is a serious offence that cannot be resolved directly by the course's instructor. The Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They can include a final grade of "F" for the course.

## 8. Mental Health

As a university student you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. Here is a list that may be helpful: Emergency Resources (on and off campus): <https://carleton.ca/health/emergencies-and-crisis/emergency-numbers/>

- Carleton Resources:
  - Mental Health and Wellbeing: <https://carleton.ca/wellness/>
  - Health & Counselling Services: <https://carleton.ca/health/>
  - Paul Menton Centre: <https://carleton.ca/pmc/>
  - Academic Advising Centre (AAC): <https://carleton.ca/academicadvising/>
  - Centre for Student Academic Support (CSAS): <https://carleton.ca/csas/>
  - Equity & Inclusivity Communities: <https://carleton.ca/equity/>
- Off Campus Resources:

- Distress Centre of Ottawa and Region: (613) 238-3311 or TEXT: 343-306-5550, <https://www.dcottawa.on.ca/>
- Mental Health Crisis Service: (613) 722-6914, 1-866-996-0991, <http://www.crisisline.ca/>
- Empower Me: 1-844-741-6389, <https://students.carleton.ca/services/empower-me-counselling-services/>
- Good2Talk: 1-866-925-5454, <https://good2talk.ca/>
- The Walk-In Counselling Clinic: <https://walkincounselling.com>

## 9. Academic Accommodation

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

**Pregnancy obligation:** Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For accommodation regarding a formally-scheduled final exam, you must complete the [Pregnancy Accommodation Form](#).

**Religious obligation:** Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: <http://www2.carleton.ca/equity/>

**Academic Accommodations for Students with Disabilities:** The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your *Letter of Accommodation* at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (*if applicable*). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (*if applicable*) at <http://www2.carleton.ca/pmc/new-and-current-students/dates-and-deadlines/>

**Survivors of Sexual Violence:** As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: <https://carleton.ca/equity/sexual-assault-support-services>

**Accommodation for Student Activities:** Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation will be provided to students who compete or perform at the national or international level. Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

You can visit the Equity Services website to view the policies and to obtain more detailed information on academic accommodation at <http://www2.carleton.ca/equity/>

## 10. Required Readings

Four or five *required readings* accompany each week's class. Students should expect between 40 and 60 pages of reading a week. Most of these readings are short (between 8-12 pages). You will be expected to read them before class and consider the arguments, ideas, and processes put forward. The syllabus also includes video content. These readings and videos form an important part of the class discussion and in-class exercises. The readings as a whole are intended to provide you with a useful introduction to various topics and techniques covered in the course. Most are available freely online, and/or via CU library services and CULearn. Each class also includes an optional *Fun Read* section. This material is meant to provide students with a taste of the lighter side of futures study, strategic foresight, and forecasting, and to highlight some possible leads in identifying weak signals and developing insights. Some of this material will prove useful to your cluster reports and scanning efforts.

## COURSE CONTENT & READING LIST

### Week 1 – September 6

#### *Introduction to Strategic Foresight: What, Where, When, Why, & How?*

- Peter Bishop and Kay Strong, “Why teach the future?” *Journal of Futures Studies* 14:4 (2010).
- Jim Dator, “What Futures Studies is, and is Not,” Hawaii Research Center for Futures Studies 1995.
- Peter Bishop, “A yardstick too far?” *Foresight*, 3:3 (2001).
- Alessandro Fergnani and Thomas Chermack, “[The Resistance to Scientific Theory in Futures and Foresight](#), and what to do about it,” *Futures and Foresight Science* 3:3/4 (2021)
- Jerome Roos, “[We don’t know what will happen next](#),” *New York Times*, April 2023.

### *FUN READ*

- The Institute for the Future, [Who we are and what we do](#), 2012.
- [School of International Futures](#), Europe [Peruse].
- School of International Futures, "[Strategic Foresight Toolkit](#)", 2019.
- The [Future of Humanity Institute](#), UK [Peruse].
- Center for a New American Security, [Future of Warfare](#) [Peruse].
- Jennifer Ditchburn, "[The Coolest Government Org you've Never Heard of](#)," *Policy Options*, December 2017.
- Aaron Wudrick, "[Why the Sun Needs to Set on this Taxpayer-funded Think-tank](#)," *Ottawa Citizen*, September 2018.
- Two NPSIA grads practicing foresight with the Fed Gov, 2021. [HPFB Policy Network 2021 Newsletter], available on Brightspace.
- Florence Engasser, "[Top Ten Toolkits for Futures](#)," NESTA,

## **Week 2 – September 13**

### **Domain Mapping Exercise**

- Andy Hines and Peter Bishop, "Framework Foresight: Exploring Futures the Houston Way," *Futures* 51 (2013).
- Andy Hines and Peter Bishop, *Thinking about the Future: Guidelines for Strategic Foresight*, (Washington, DC: Social Technologies 2006), Chapter One on Framing, **pp 13-24**
- Averil Horton, "A Simple Guide to Successful Foresight", *Foresight* 1:1 (1999).
- Joseph Voros, "A Primer on Futures Studies, Foresight and the Use of Scenarios," *Prospect* 6 (2001).

### *FUN READ*

- Future Tense Podcast, "[Some Foresight about the Future of Foresight](#)," June 2021.
- Play with this: [This X Does Not Exist](#)
- New York Times' "[Op-eds From the Future](#)," 2019. [Peruse]
- Mad Scientist Laboratory, "[Table of Future Technologies](#)," 2020.[Peruse]
- Skim a few of the short commentaries in *The Economist*, [The World Ahead 2023](#).
- Keith Kloor, "[Paranormal Activity](#)," *Science*, Jan 2022.
- World Economic Forum, [Global Risks Report 2023](#).

## **Week 3 – September 20**

### **Scanning and Weak Signals**



- Andy Hines and Peter Bishop, *Thinking about the Future: Guidelines for Strategic Foresight*, (Washington, DC: Social Technologies 2006), Chapter Two on Scanning, **pp 64-75**.
- Elina Hiltunen, “Good Sources of Weak Signals: A Global Study of Where Futurists Look for Weak Signals,” *Journal of Futures Studies* 12:4 (2008).
- Kerstin Cuhls, “Horizons Scanning in Foresight – [Why Horizon Scanning is only a part of the Game](#),” *Futures & Foresight Science* 2:1 (2020).
- Brent Mills and Alex Wilner, “[The Science Behind ‘Values’: Applying Moral Foundations Theory to Strategic Foresight](#),” *Futures & Foresight Science* 5:1 (2023).

#### *FUN READ*

- NATO [Strategic Foresight: Trends and Adjacent Futures](#), 2023 [Podcast]
- European Strategy and Policy Analysis System (ESPAS), [Horizons Scanning in Briefs](#). [Peruse]
- Centre for Strategic Futures (Singapore), [Driving Forces Cards](#), 2022.
- Watch: YouTube, “[A compilation of Robots Falling down at the DARPA Robotics Challenge](#)”, 2015, versus “[Do You Love Me?](#)”, 2021, versus, “[Partners in Parkour](#)”, 2023.
- RAND, [Security 2040](#) project website [Peruse]

### **Week 4 – September 27**

#### **Scanning Roundtable**

Come to class prepared to pitch and discuss your weak signal

#### *FUN READ*

- *The Economist*, Technology Quarterly [Quantum Technology](#), March 2017.
- *The Economist*, Special Report: “[GrAIIt Expectations: AI in Business](#)”, March 2018.
- *The Economist*, Technology Quarterly [Synthetic Biology](#), April 2019.
- *The Economist*, Technology Quarterly, “Artificial Intelligence and its Limits,” June 11, 2020.
- *The Economist*, Technology Quarterly, [Climate Technology](#), June 2022.

### **Week 5 – October 4**

#### **Influence Diagrams, Cascades and Futures Wheels: Part 1**

- Peter Bishop and Andy Hines, *Teaching about the Future*, Palgrave Macmillan: 2012), chapter 2 “Systems Thinking”, **pp.63-96**.
- Policy Horizons Canada, “[Module 5: Change Drivers](#)”, 2016.
- Ross Shachter, “Evaluating Influence Diagrams,” *Operations Research* 34:6 (1986).



- Geoff Coyle, “The nature and value of futures studies or do futures have a future?” *Futures* 29:1 (1997).

**FUN READ**

- Peruse: [Centre for the Study of Existential Risk](#), UK [Peruse]
- David Wallace-Wells, “[The Uninhabitable Earth](#),” *New York Magazine* Intelligencer, July 2017
- Sanjay Khanna et. al., “[Planning when you can’t predict](#),” Future Skills Centre, 2022. [Read pp 7-20, esp.]
- Linnea Sinkkila and Gokce Sandal, “[What Makes Strategic Foresight Successful in Organizations?](#)” Futures Platform, 2021

**Week 6 – October 11**

**Influence Diagrams, Cascades and Futures Wheels: Part 2**

- Jerome Glenn, “Futures Wheel”, in *Futures research methodology—version 3.0* (CD-ROM), Glenn and Gordon (eds.) (Millennium Project, Washington, 2009), **Chapter Six**.
- David Bengston, “The Futures Wheel: A Method for Exploring the Implications of Social-Ecological Change,” *Society & Natural Resources* 0 (2015).
- Joel Barker and Christopher Kenny, “Leading in Uncertain Times,” *Innovation*, 2010.
  - **WATCH:** Joel Barker’s “[Scouting the Future with the Implications Wheel](#)”.

**FUN READ**

- Watch: McKinsey & Company, “[Focused on Foresight](#): An interview with the US’s National Intelligence Officer for Warning,” 2009.
- Sarah Grand-Clement, “How Horizons Scanning can give the Military a Technological Edge,” [RAND Blog](#), Feb 2019.
- Peruse: NATO Science & Technology Organization, [Science & Technology Trends 2020-2040](#), March 2020.

**Week 7 – October 18**

**Cluster Prep Sessions**

**Independent Group-based sessions**

**October 25 – Reading Week**

**NO CLASS**

## **Week 8 – November 1**

### ***Scenario Planning: Part 1***

- Mats Lindgren and Hans Bandhold, *Scenario Planning: The Link between Future and Strategy* (Palgrave: 2003), Chapter 2: “Scenario Planning: An Introductory Overview”, pp. 21-46.
- Peter Bishop, Andy Hines, and Terry Collins, “The current state of scenario development: an overview of techniques”, *Foresight* 9:1 (2007).
- Dylan Monks, “China/Russia 2035,” *Comparative Strategy* 38:4 (2019).

#### ***FUN READ***

- Margaret Atwood, “[A Survival Story: How to Influence the Final Chapter](#)”, *The Economist*, Minds on the Future edition, Nov. 2, 2015.
- Jasper Jeffers, “[AN41: A Futuristic Fiction Story about War, People, and Robots](#),” *MIT Technology Review*, October 24, 2019.
- Thomas Pierce, “[This is an Alert](#)”, *New Yorker*, March 30, 2015. [Chem Warfare Drone Fiction]
- *The Economist* “[Data Detectives](#)”, (Technology Quarterly) June 2, 2018. [Graphic Novel]

## **Week 9 – November 8**

### ***Scenario Planning: Part 2***

- Richards Heuer Jr. and Randolph Pherson, *Structured Analytic Techniques for Intelligence Analysis* (Washington: CQ Press, 2011), Chapter 6 (Scenarios and Indicators).
- Lena Borjeson, et. al., “Scenario Types and Techniques: Towards a User’s Guide”, *Futures* 38 (2006).
- Andy Hines & Peter Bishop, *Thinking about the Future: Guidelines for Strategic Foresight*, (Washington, DC: Social Technologies 2006), parts of Chapter Five on Planning, **pp 181-187**; parts of Chapter Six on Acting, **pp 211-219**.

#### ***FUN READ***

- *The Economist*, Technology Quarterly [Brain-Computer Interfaces](#), January 2018.
- *The Economist*, Technology Quarterly [Avionics: Future of Flight](#), May 2019.
- *The Economist*, Technology Quarterly, “Technology in China: A New Revolution,” January 4, 2020.
- *The Economist*, Technology Quarterly, [Defence Technology](#), Jan 2022.
- *The Economist*, Technology Quarterly, [Fixing the Brain](#), Sept 2022.

## **Week 10 – November 15**

### **Foresight & Canadian Public Policy: Guest Lecture & Discussion, Details TBD**

- Alex Wilner and Martin Roy, “[Canada’s Emerging Foresight Landscape](#),” *Foresight* 22:5/6, (2020).
- Philip Tetlock, Barbara Mellers, J. Peter Scoblic, “Bringing Probability Judgments into Policy Debates via Forecasting Tournaments,” *Science* 355 (2017).
- J. Peter Scoblic, “[Strategic Foresight in US Agencies](#),” Future Security, New America Foundation, Dec 2021.
- Amy Nelson and Alex Montgomery, “[Is the US Military’s Futurism Obsession Hurting National Security?](#)” Brookings, Jan 2022.

*FUN READ*

- Malcolm Harris, “[Shell is Looking Forward](#),” New York Magazine *Intelligencer*, March 3, 2020.
- European Parliament, [Future Shocks 2023: Anticipating and Weathering the Next Storms](#), July 2023. [Peruse]
- J. Peter Scoblic, “[Learning from the Future](#),” *Harvard Business Review*, July/August 2020.
- Duncan Cass-Beggs and Dexter Docherty, “Strategic Foresight for Better Policies,” OECD Strategic Foresight Unit, 2020. [Deck available on Brightspace]
- School of International Futures, “[Features of Effective Systemic Foresight in Governments around the World](#),” 2021.

**Week 11 – November 22**

**Cluster Prep Sessions**

**Independent Group-based sessions**

**Week 12 – November 29**

**Strategic Foresight Studio One: Cluster Presentations**

Come to class prepared to present your cluster’s strategic foresight project

**Week 13 – December 6**

**Strategic Foresight Studio Two: Cluster Presentations**

Come to class prepared to present your cluster’s strategic foresight project