

Teaching a Course on Societal Collapse and Resilience

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Abstract

No society, no matter how economically, culturally, and technologically advanced, is immune to collapse. What led to the collapse of past and present-day societies, and what can we learn from them? Did these societies foresee the impending calamities threatening their existence? If not, why not? If yes, why did they not act in time?

Contemporary thinkers foresee collapse for our civilization, citing the real and present dangers of nuclear war, resource depletion, economic decline, ecological crises, or socio-political disintegration. This concern is prevalent and is more important than any other matter that requires our attention.

How might the resilience of societies be strengthened, including the resilience of the vulnerable groups within them, and our own resilience as individuals?

With these questions in mind, I developed this course and have been teaching it to National University of Singapore undergraduates since January 2023. The purpose of this paper is to share the objectives and content of this course, some of the learning strategies deployed, and the graded projects assigned to the students. The topic of societal collapse and resilience is relevant, important, and urgent for all of us, and it is needful to share what we know with one another.

Why I Created this Course

The possibility of our civilization collapsing seems to have become entrenched in our collective consciousness. In my personal journey, I first discovered how close humankind is to being confronted with an existential crisis when I read *The Limits to Growth* and introduced it to year 1 undergraduate students in NUS in 2017 and 2018. Published in 1972, the report's findings suggested that if the growth trends in world population, industrialization, pollution, food production and resource depletion continued unchanged, the limits to growth on this planet would be reached sometime within a hundred years from then. "The most probable result will be a rather sudden and uncontrollable decline in both population and industrial capacity."¹

Back then, the book received a cold reception by a skeptical and dismissive world bent on pursuing economic growth and prosperity. Now, projections and fears of collapse are aired online and discussed with ever-increasing frequency. News articles pondering the likelihood of collapse are commonly seen. There has been a flurry of books heralding the end times. Some examples are "The End of the World is Just the Beginning – Mapping the Collapse of Globalization" by Peter

¹ Donella H. Meadows, "The history and conclusions of the limits to growth," *System Dynamics Review* 23 (2007): 191-197

Zeihan; and “End Times – Elites, Counter-Elites, and the Path of Political Disintegration” by Peter Turchin, just to name a few. In Singapore, the Institute of Policy Studies published a series of four lectures² by Ravi Menon, who is Managing Director of the Monetary Authority of Singapore. His first lecture is entitled, “The Four Horsemen”, taking a leaf from The Book of Revelations, which speaks of four horsemen emerging at the dawn of the Apocalypse, possibly symbolizing Conquest, War, Famine and Death.

What is societal collapse and how does it happen? The purpose of this paper is to share what I have learned about societal collapse and how I package this into a semester-long course. I will also share why I created this course, the objectives of the course, the content of the course and the learning strategies used, and the graded projects assigned to the students.

My students are year 1 or 2 undergraduate students from different faculties, enrolled in the University Town College Programme (UTCP)³ at Residential College 4 (RC4), National University of Singapore (NUS). Prior to taking this course, they would have completed a semester-long introduction to systems thinking and System Dynamics modelling, acquiring beginner-level skills in qualitative (building causal-loop diagrams) and quantitative modelling (building stock-and-flow diagrams).

I developed the course in 2022 and taught its first run from Jan to April 2023 to two classes. I am currently teaching the second run of the course to two more classes of students, from Jan – April 2024. We meet weekly for a 3-hour lesson over 13 weeks. Lessons typically end about 20 minutes earlier to give students enough time to make their way to their next lesson, which may be in another part of the University campus. As each class in the college has an average enrolment of 15 students, about 60 students have taken the course so far.

Although the work in designing this course was carried out just a few years ago, the idea of creating such a course came to me earlier, in 2018. I remember arriving at my faculty room at RC4 with a copy of that day’s newspapers in hand. The article that had caught my attention that morning described a Venezuela in the throes of malaria. The people of Venezuela, whose lives have been said to be beyond the limits of desperation were being plagued with yet another affliction. I was simultaneously saddened and intrigued by the plight and great suffering of the Venezuelans since 2010 when the socioeconomic and political crisis first started. Today, 13 years after the crisis began, tourists are still cautioned to keep away from the country. Wikitravel carries this warning: “Venezuela is currently in a state of widespread civil, economic, and political crisis. Most governments in the world have advised against all travel to Venezuela due to crime, civil unrest, widespread shortages in basic goods (medicine, food, drinking water), and arbitrary arrest and detention of citizens. Some areas have increased risk. Do not travel to certain neighborhoods of Caracas due to increase in violent crime.”⁴

² “The Singapore Synthesis – Innovation, Inclusion, Inspiration” by Ravi Menon, IPS-Nathan Lectures, World Scientific Publishing Co. Pte. Ltd. (2022)

³ “Residential College Programmes: University Town College Programme, Overview,” National University of Singapore, accessed 18 March 2024, <https://www.nus.edu.sg/nusbuletin/ay202223/programmes/residential-college-programmes/university-town-college-programme/>

⁴ “Venezuela,” accessed 18 March 2024, <https://wikitravel.org/en/Venezuela>

How could a wealthy and thriving country, rich in oil reserves and other commodities such as coffee and cocoa, have fallen so far? Prior to Venezuela's fall, there had been other countries crippled by severe and prolonged crises. Since then, other countries, one by one, made it to the headlines of newspapers: Syria, Lebanon, Syria, Sri Lanka, Pakistan, just to name some. What makes countries vulnerable and how do they protect themselves from collapse? My mind was captivated by these questions, and I was eager to seek the answers. I wanted my students to be aware of what was happening in other countries, what their populations were going through and what they were doing to survive. If my students, most of whom are Singaporeans, with the rest typically from East Asian countries, could understand what makes societies vulnerable to collapse, and what the signs of imminent collapse are, they would be better prepared to watch out for threats and dangers that lie ahead of us. In their future roles as leaders, innovators, policy shapers, civil society actors, and members of their communities and families, they could keep watch, forewarn, and protect those in their circles of influence.

Course Objectives

NUS's UTCP comprises four General Education "pillars": Cultures and Connections, Critique and Expression, Singapore Studies, and Communities and Engagement. Every course carries one or more of these codes.

My course been coded as a Singapore Studies and Communities and Engagement course. In addition, the graded projects in my course require the students to use System Dynamics as a method of inquiry. This meant that when developing the course, I had to identify and incorporate course learning objectives aligned with these four components:

- Societal Collapse and Resilience
- System Dynamics,
- Singapore's survivability and strategies for resilience, and
- the Community and Engagement pillar.⁵

My course objectives are stated as follows:

"At the end of this module, students will be able to:

1. Demonstrate awareness and understanding of prominent theories and academic research from archaeology, history, and geography, on the phenomena of societal collapse and use them as a lens with which to understand the collapse of past societies. (Examples of such past societies are the Easter Islanders, the Classic Lowland Mayans, the Greenland Norse, and the Western Roman Empire.)
2. Articulate how these theories and research may be applied to modern societies that have collapsed or are in danger of collapsing.

⁵ "Communities and Engagement Pillar," NUS Office of the University Registrar, accessed 18 March 2024, <https://www.nus.edu.sg/registrar/academic-information-policies/undergraduate-students/general-education/communities-and-engagement-pillar>

3. Use qualitative System Dynamics modelling to uncover the feedback structure underlying the collapse of present-day societies so as to strengthen students' understanding of this phenomenon.
4. Use quantitative System Dynamics modelling to carry out a simple investigation of how a crisis such as environmental degradation may affect a society.
5. Explain why societies may fail to see the existential threats facing them or may fail to act even if they were aware of the threats, thereby gaining insights into what being resilient entails, and how societies might be more resilient.
6. Analyze Singapore's survivability through the lens of vulnerabilities and strengths in the light of current global developments including climate change, and the challenges these pose for country. Describe Singapore's "Forward SG" strategy for keeping the country resilient in the face of these threats.
7. Investigate with the help of qualitative System Dynamics modelling why certain members of society are particularly vulnerable, and how their resilience might be strengthened.
8. Gain a better understanding of students' own resilience as individuals in times of personal or societal crises and how they might strengthen their resilience."

The Content of the Course, the Learning Strategies Used and the Group Projects

As mentioned above, I taught this course in Jan – April 2023 and am teaching it now, in Jan – April 2024. The two slides below, shown to my current batch of students in the introductory lesson, show the week-by-week lesson topics for the course. In the first six weeks of the semester, the lessons focus on Societal Collapse. In the second half of the semester, the students learn about Resilience.

Before I describe the content of the course, I will provide a brief description of the graded projects first. A more detailed description of each of these will be given in chronological order within this section of the paper.

Graded Group Projects

There are three graded group projects in this course, as shown in these slides. This first half of the semester ends with students presenting their first Qualitative Modelling Project 1 work in class. The second half of the semester begins with students doing their Quantitative Modelling Project, and then embarking on their third graded project - Qualitative Modelling Project 2.

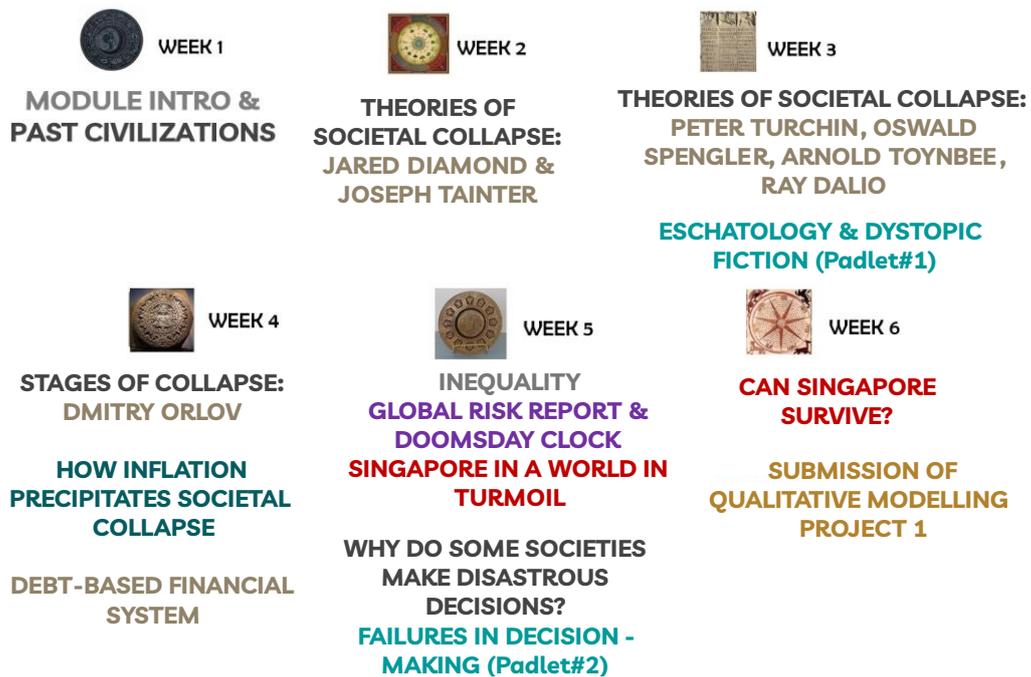
The purpose of these group projects is primarily to provide the students with the opportunity to research on a particular topic and to enhance their understanding of this topic through the use of System Dynamics modelling. Students are given the necessary content input and other preparation where needed, prior to doing their projects.

The projects are described below:

Qualitative Modelling Project 1 requires the students to build an original causal-loop diagram depicting the collapse of a present-day society – what led to its collapse and how it affected the population.

Quantitative Modelling Project involves customizing an existing model to depict a real-life crisis such as tragedy of the commons and environmental degradation faced by a present-day society.

Qualitative Modelling Project 2 requires students to build an original causal-loop diagram depicting what makes a particular community in Singapore vulnerable and how their resilience might be strengthened.



**WEEK-BY-WEEK MODULE
OUTLINE**



**WEEK-BY-WEEK
 MODULE OUTLINE**

The developmental work involved in creating this course took months of researching for relevant content and selecting the materials (reports, articles, figures, data, videos, and System Dynamics models) that could be used in my presentation slides and teaching notes, for group or class discussions, for the graded assignments and as assigned readings. In the process of designing the course and considering how to deliver it in class, I asked myself questions such as these:

- “Which of the many theories of collapse do I feature in my lessons and in what sequence?”
- “Of all the content and materials that I have gathered on this topic, which would best fulfil the learning objectives of the course, and at the same time be relatable, meaningful and of value to the students?”
- “How do I deliver this content-heavy segment of the lesson in a more engaging way, through activities that activate the students’ background knowledge, capitalize on their capabilities and allow them to make the learning happen for themselves?”
- “What activities can I design that would be effective in getting the students to apply and consolidate what they have learned?”

Week 1

Past Civilizations and Possible Reasons for their Collapse

In the first lesson, the class is given an introduction to the course: an overview of the course objectives, the week-by-week course outline and the three graded group projects. Once this is done, the students are asked to share their thoughts on the value of learning about societal collapse. All agree that understanding what leads to societal collapse by learning about past or present-day societies that have collapsed can help us to recognize the extent to which our

societies are at risk of collapse, and give us a chance to delay, mitigate and perhaps forestall collapse from occurring. Collapse is a recurrent feature of human societies, and the collapse of ancient civilizations is the most outstanding event in the history of the world. Contemporary thinkers foresee collapse for our civilization, citing the real and present dangers of nuclear war, resource depletion, economic decline, ecological crises, or socio-political disintegration. This concern is prevalent and is more important than any other matter that requires our attention.

They then watch a video clip⁶ that takes them through the grand span of human history, from the Early Bronze Age to the Modern World. Following this, they get into pairs to research on a past civilization (from a list of ten civilizations given to them to pick from), and to view a short videoclip on this civilization and how it collapsed. They then share their findings with the class, using the map template in Padlet. The findings comprise the past civilization's period of existence, location, what was remarkable about it and what has been said to have led to its collapse. (See the samples of students' work below.)

⁶ "Timeline of World History – Major Time Periods and Ages, accessed on 18 March 2024, https://youtu.be/___BaaMfiD0Q?si=iS0X_Ax5awcaYUeh

Kush Empire



YouTube
The Kush Empire | National Geographic

2500 BC – 4th century AD
Nile Valley

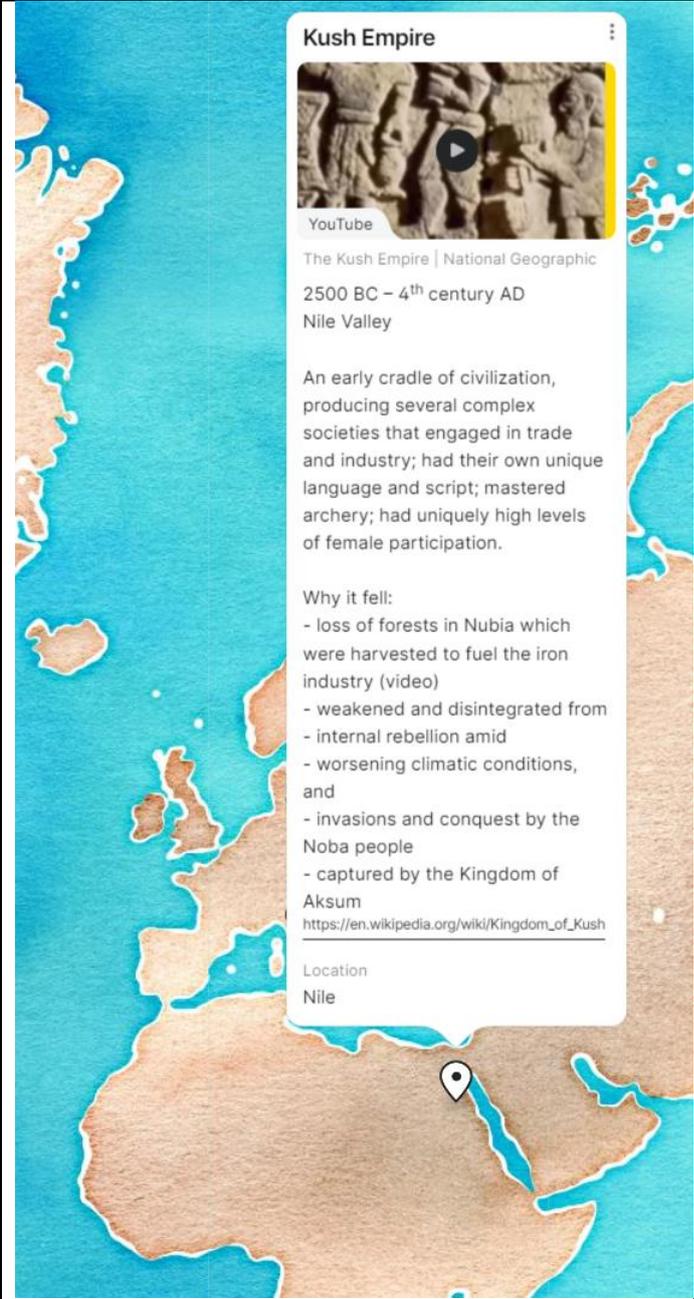
An early cradle of civilization, producing several complex societies that engaged in trade and industry; had their own unique language and script; mastered archery; had uniquely high levels of female participation.

Why it fell:

- loss of forests in Nubia which were harvested to fuel the iron industry (video)
- weakened and disintegrated from
- internal rebellion amid
- worsening climatic conditions, and
- invasions and conquest by the Noba people
- captured by the Kingdom of Aksum

https://en.wikipedia.org/wiki/Kingdom_of_Kush

Location
Nile



Ancient Rome



YouTube
Ancient Rome 101 | National Geographic

Full Period: 753 BCE - 476 CE
Regal 753 BCE - 510 BCE
Republican 509 BCE - 29 BCE
Imperial 27 BCE - 476 CE
Location: Western Europe, Modern-day Italy

What is remarkable about this civilization?

- Advanced engineering and military success
- Colosseum, Pantheon
- Plumbing and Sanitation
- Introduction of Julian calendar
- Advancement in battlefield medicine (Eg. Cataract Surgery)
- Spread of Christianity
- Roman Bath Houses

What caused its collapse

- Over-reliance on slave labor
- Military overspending
- Invasion by Barbarian Tribes
- Political Instability
- Runaway inflation - Economic Crisis

Location
Ancient rome, Piazza Albania,



Of the ten civilizations covered, five were from the Early Bronze to Iron Age, and the remaining five were from the Bronze Age, Iron Age and Classical Antiquity.

Early Bronze to Iron Age - Ancient Egypt, Minoan Civilization, Indus Valley, Norte Chico Civilization and Ancient Mesopotamia (Sumerian Civilization)

Bronze Age, Iron Age and Classical Antiquity - The Kush Empire, Ancient Greece, Assyrian Empire, Ancient Maya, and Ancient Rome.

Week 2

Theories of Collapse and Some Concepts Learnt

The first two theories of collapse that the students are introduced to in the course are Jared Diamond's Five-Point Framework and Joseph Tainter's Diminishing Returns of Complexity. These two theories are well-developed and commonly cited in academic and news articles.

Jared Diamond's Five-Point Framework

Jared Diamond, an American geographer, historian, and ornithologist, is author of "Collapse: How Societies Choose to Fail or Survive"⁷. In this book, he defines collapse as "a drastic decrease in human population size and/or political, economic or social complexity over a considerable area, for an extended time". His Five-Point Framework comprises five possible contributing factors to societal collapse: environmental damage, climate change, hostile neighbours, the loss of friendly trade partners and society's response to its problems. To illustrate the five points, some of Diamond's examples are discussed in class: Greenland Norse, Easter Island and Mangareva, Pitcairn, and Henderson Islands.

Joseph Tainter's Theory of Diminishing Returns of Complexity

The students are then introduced to Joseph Tainter, American anthropologist, and historian, from the Department of Environment and Society at the Utah State University, USA. They become acquainted with Joseph Tainter's work in his book "The Collapse of Complex Societies"⁸. Tainter defines society as "a collection of individuals who live together under one set of traditions, laws or orders", and civilization as "an advanced stage of human social development and organization". Tainter's theory of societal collapse centres on what he calls "diminishing returns of complexity". According to him, human societies are problem-solving organizations; they create sociopolitical systems to solve problems, but these systems require energy for their maintenance. Costs per capita increase, and investment in the system often reaches a point of declining marginal returns. Tainter maintains that "a society has collapsed when it displays a rapid, significant loss of an established level of socio-political complexity". In other words, what happens with collapse is a simplification or substantial loss of what society used to have, in terms of its socio-political structure.

⁷ Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (England: Penguin Books, 2011)

⁸ Joseph A. Tainter, *The collapse of complex societies* (Cambridge: Cambridge University Press, 1988)

According to Tainter, collapse is manifest in such things as less centralized control, less behavioural control and regimentation, less investment in artistic and literary achievements and the like, and less sharing, trading, and redistribution of resources.

Tainter provides in his book many characteristics of societies after collapse. These may be found on pages 19 to 21.

A useful concept that the students learn from Tainter is “*legitimacy*”. He describes it this way: legitimacy is the belief of the populace and the elites that rule is proper and valid, and that the political world is as it should be. Leaders, parties, and governments need constantly to establish and maintain legitimacy. This requires constant mobilization of resources, an unrelenting cost that society must bear. The support that members are willing to extend to a political system is essential for its survival. When governments lose legitimacy, they may resort to coercion to ensure compliance from the increasingly dissatisfied populace. Coercion, however, is a costly, ineffective strategy which can never be completely or permanently successful. Even with coercion, decline in popular support below some critical minimum leads infallibly to political failure.

Week 3

Oswald Spengler's Cyclical Theory of History

In the third lesson, students are acquainted with the work of esteemed historians Oswald Spengler and Arnold Toynbee.

Spengler, a German philosopher who lived from 1880 to 1936, is renowned for his two-volume work on human history: “*The Decline of the West*”, published in 1918 and 1922. He saw civilization as a living organism, going through birth, childhood, youth, old age, and death. Another characterization he used for the lifespan of civilization was that of the four seasons. Each civilization has a limited and predictable lifespan.

Spengler predicted that Western civilization would enter the period of pre-death emergency around the year 2000, and that countering this would lead to non-constitutional government omnipotence for 200 years before the civilization’s final collapse. This decay is due to civilization having adopted the path of technology and materialism and having lost its religious content, and thereby its ability to meet the spiritual needs of people.⁹

Arnold Toynbee's Challenge and Response Theory

Arnold Toynbee was an English historian who lived from 1889 to 1975. His twelve-volume “*A Study of History*”, published from 1934 to 1961, traced the development and decay of around twenty world civilizations. Toynbee described the stages through which these civilizations all go

⁹ Fatima Al Tarawneh, “The Collapse of Western Civilization: A Comparative Study through the Theories of Challenge and Response to the Philosopher Arnold Toynbee and the Theory of the Collapse of Western Civilization of the Philosopher Oswald Spengler Study,” *Asian Social Science* Vol 13, No. 7 (2017)

through: genesis, growth, time of troubles, universal state, and disintegration. Toynbee uses the concepts of “Challenge and Response” to explain how civilizations rise and fall. By “challenge”, he meant major threats, factors or events that impacted the well-being of the entire population. Civilizations’ response to challenges determines their rise and fall.

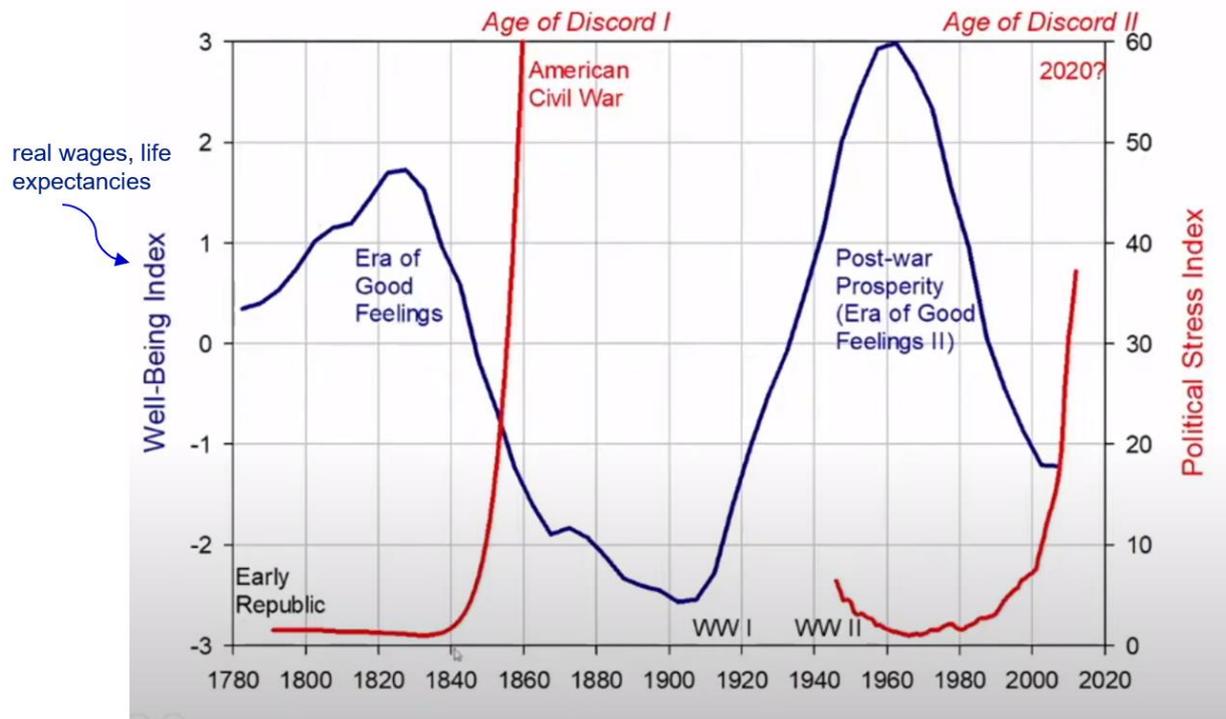
Like Spengler, Toynbee emphasized the importance of humankind’s spiritual needs. ¹⁰As man’s greatest need is for “spiritual improvement in ourselves and in our relations with our fellow human beings”, religion is the key to achieving the purposes of life. The victory of science over religion would be catastrophic. Religion should admit the role of science, but religion should not be dispensed with. Religion should be associated with science.

Peter Turchin’s Prediction of Worldwide Social Unrest in the 2020s

The next body of work that the students are introduced in this lesson is that of Peter Turchin. An Emeritus Professor at the University of Connecticut, with specializations in Ecology and Evolutionary Biology, Anthropology, Mathematics and Complexity Science, Turchin works in the field of historical social science, called “Cliodynamics”. In 2010, when Turchin was examining US historical data from 1780 to 2010, he became very worried because he saw that for several decades in the US prior to 2010, the well-being index of the American population declined dramatically, from around 1960 onwards. Initially, the political stress index remained very low from 1960 to 1985 but grew rapidly and very steeply thereafter all the way to that year, 2010. (See the graph below, reproduced from *Ages of Discord: A Structural-Demographic Analysis of American History*¹¹) This mirrored what happened in the US in the 19th century, prior to the American Civil War.

¹⁰ Sempa, Francis P, “Surviving the Future: Looking Back at the Toynbee-Wakaizumi Dialogue of 1970,” *The Diplomat*, Jan 4, 2018, <https://thediplomat.com/2018/01/surviving-the-future-looking-back-at-the-toynbee-wakaizumi-dialogue-of-1970/>

¹¹ Peter Turchin, *Ages of Discord: A Structural-Demographic Analysis of American History* (2016)



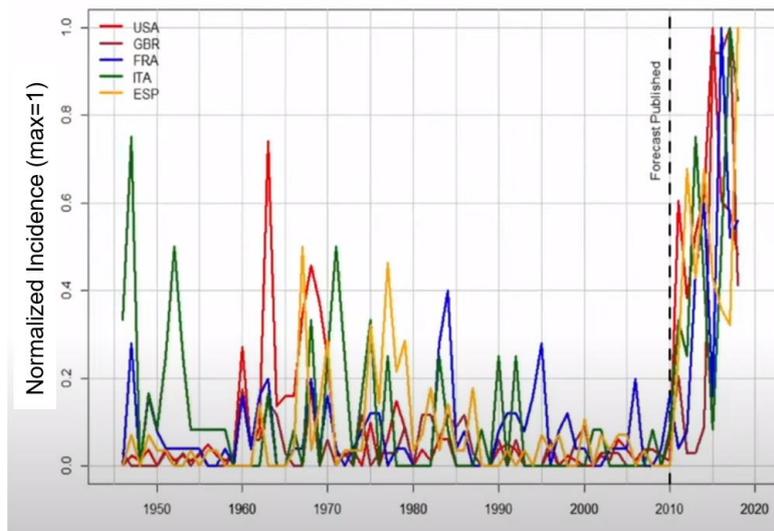
Source: Ages of Discord: A Structural-Demographic Analysis of American History

At the request of the journal *Nature*, he published a short article¹² where he made the forecast that “*the next decade is likely to be a period of growing instability in the United States and western Europe ...*”

Turchin turned out to be right. In January 2020, together with his co-worker, he revisited this forecast to see how well or how poorly it has been capturing what has been happening since then, and published his findings in the article, “The 2010 structural-demographic forecast for the 2010-2020 decade: A retrospective assessment”¹³. This time, he used data on anti-government demonstrations in the US and four other Western countries from 1946 to 2018 to depict political stress. The increase in these violent expressions of instability from 2010 was alarming. (See the graph below) In the graph, “Normalized incidence” is the incidence of anti-government demonstrations per year scaled so that the maximum for each country = 1.

¹² Peter Turchin, “Political instability may be a contributor in the coming decade,” *Nature* 463, 608 (2010)

¹³ Peter Turchin and Andrey Korotayev, “The 2010 structural-demographic forecast for the 2010–2020 decade: A retrospective assessment,” *PLoS One* 15(8), (2020).



USA and four other Western countries

Temporal trends in **anti-government demonstrations** in five Western countries, 1946-2018.

“...nothing presaged the outbreak of violence that we saw after 2010.”

Source: “The 2010 structural-demographic forecast for the 2010-2020 decade: A retrospective assessment”, Turchin and Korotayev

In his article, he says, “As Fig 6 shows, by 2010 violent expressions of instability had been on decline for 25–40 years, depending on the country. Seemingly nothing presaged the outbreak of violence that we saw after 2010.”

In class, Turchin’s concepts of “popular immiseration”, “elite overproduction” and “state breakdown” – three major internal forces that drive the pressures for political instability are introduced and discussed, alongside “international environment”, which affects a country’s stability as well.

Turchin’s concept of “elite overproduction” is worthy of an explanation here. According to him, it is a very important force for instability, but one that is least appreciated. Basically, elite overproduction results when the elite numbers and their expected quality of life increase to the point where they basically overwhelm or exceed the ability of society to sustain them. When there are too many elite aspirants for a single position, it leads to spiraling intra-elite competition and conflict, and that undermines the stability of and resilience of a society in a major way.

Weeks 3, 4 & 5

Currency Devaluation, Inflation, Indebtedness, and Inequality

As described on p.5, the first graded project (Qualitative Modelling Project 1), launched in week 4 and due in week 6, requires the students to build an original causal-loop diagram depicting the collapse of a present-day society – what led to its collapse and how it affected the population.

The theories described above, however, do not adequately explain the economic malfunctioning manifested in runaway inflation, indebtedness, and the chasmic gaps between the rich and the poor that have brought about social unrest and civil riots. I needed to prepare my students adequately to do the project.

To fill in the gap, the course content now delves into the question of why this is so, through the following material:

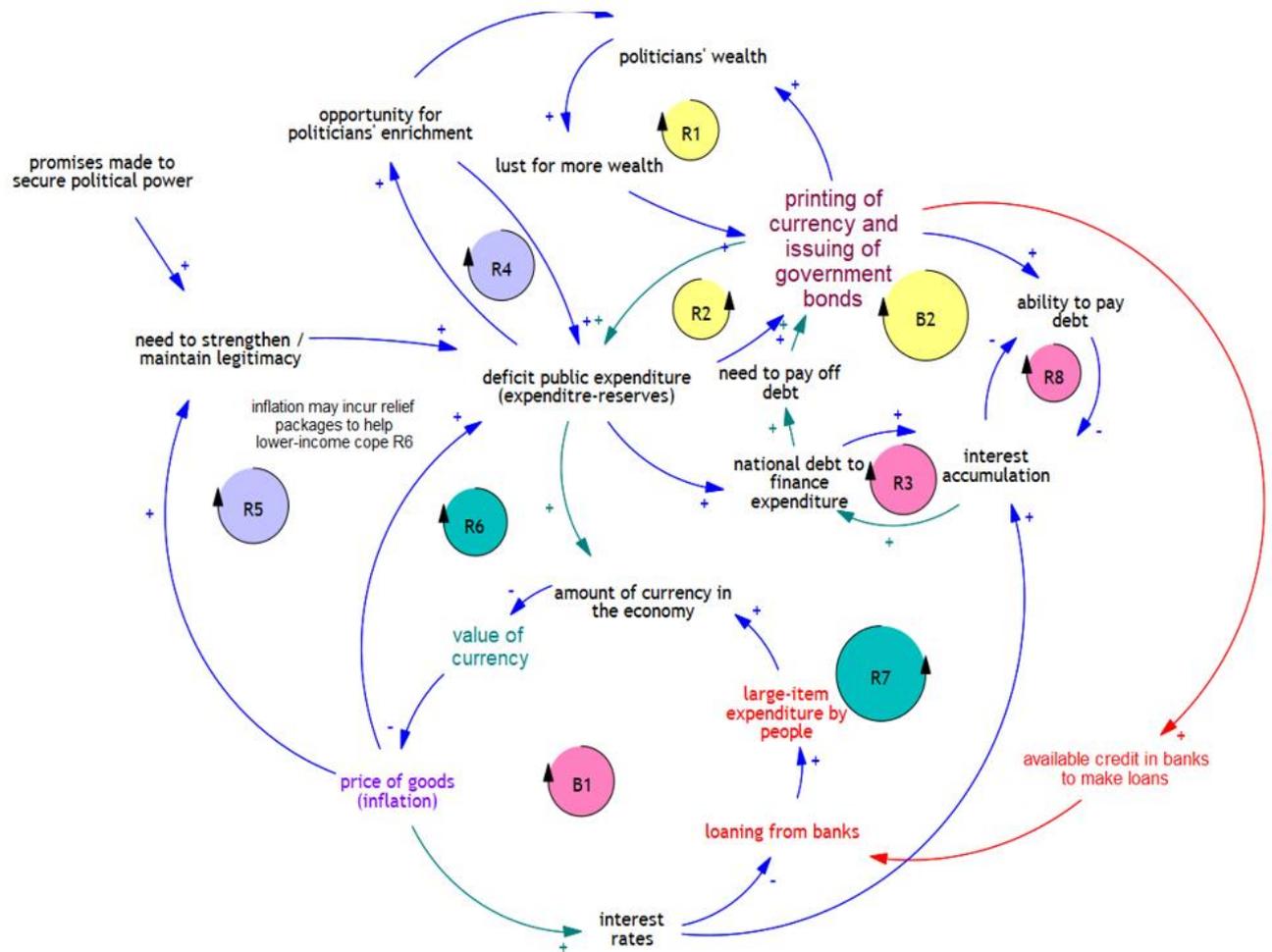
- “Principles for Dealing with the Changing World Order”, a book written by Ray Dalio¹⁴, who produced and narrated a video by the same title. Through this, the students learnt about the Bretton Woods Agreement that established the dollar as the world’s leading reserve currency, and about Nixon de-linking the US dollar from gold in 1971. They learnt how world powers typically rise and fall, with the latter being characterized by excessive borrowing and printing of money. Inequality grows unabated, leading to internal economic vulnerability and internal fighting which weaken the empire. When the empire can no longer borrow the money necessary to repay its debts, the end is nigh.
- “How Inflation Precipitates Societal Collapse”, a video produced by academyofideas.com¹⁵, explains with clarity and impact the insidiousness of inflation, by using Joseph Tainter’s lucid description of the clipping of coins in the Roman Empire, an irresistible ploy used excessively by the Roman rulers, how it led to great inequality, hardship, and famine, weakening the Roman Empire, and contributing to its collapse.
- “Hidden Secrets of Money (Episode 4)¹⁶”, produced and narrated by Michael Maloney, explains how our current monetary system works, creating currency through the issuing of government bonds and through the banking system, producing ever-growing inequality and indebtedness.

Students then review and clarify in their minds what they have learnt about the monetary system and currency devaluation by working in groups to answer the question, “*What leads to inflation, what is done to mitigate it and what are the effects of both in society?*” by creating a causal-loop diagram and then explaining it to the class. This exercise sets them on a path of discovery as they build causal connections to uncover the feedback structure the underpin the issue. A sample of such a causal-loop diagram is given below.

¹⁴ Ray Dalio, *Principles for Dealing with the Changing World Order: Why Nations Succeed and Fail* (Simon and Schuster, 2021)

¹⁵ Academy of Ideas, “How Inflation Precipitates a Societal Collapse,” October 11, 2022, educational video, https://youtu.be/2UElC_YZ0Eo.<https://youtu.be/CFjlgZcYlKg?si=esa4Q1y3KWXw12AR>

¹⁶ Michael Maloney, “Hidden Secrets of Money Ep 4,” <https://youtu.be/iFDe5kUUyT0?si=Oxnjh6ptS3Lnf68s>



This group activity prepares the students to build their own causal-loop diagram for Qualitative Project 1, which is to depict the collapse of a present-day society – what led to its collapse and how it affected the population. For this project, the groups chose Venezuela, Somalia, Zimbabwe, Sri Lanka, Syria, Lebanon, and Equatorial Guinea. A sample of a completed group project on Venezuela is given under “Supplementary Materials”.

Joseph Stiglitz’s The Price of Inequality: How Today’s Divided Society Endangers our Future

In his talk at Google in 2012, Nobel Prize winner Joseph Stiglitz shared with Google staff how inequality hurts the US economy and how it undermines democracy and justice.¹⁷ The points made in his talk (see below) were shared with the students and discussed in class.

How is inequality bad for the economy?

- The success of those at the top does not benefit others except themselves.
- The success of those at the top does not reflect their contributions to society.

¹⁷ Joseph Stiglitz, “The Price of Inequality,” Talks at Google video, https://youtu.be/2UEIC_YZ0Eo. <https://youtu.be/woerUgtufUo?si=7HC9o2O6n6Em0PVu>

- The wealthy engage in rent-seeking (seeking a larger slice of the pie and making the rest of the pie smaller for everyone else).
- Laws that forbid the government from bargaining with drug companies encourage overcharging by these companies and leave the public with less funds.
- Investment is needed in education, technology, and infrastructure for the economy to work well. More money going to the rich means less money for these needs.
- Laws that favour speculators distort the economy as more resources move into speculation and less into creative activity.
- Inequality is systematically associated with instability.
- When you move money from the bottom to the top, there is a lack of demand for goods and services in the country.
- Society is paying a high price for inequality; we could have a stronger economy and a more equal society with less inequality

How does inequality undermine democracy?

- The wealthy have the means and motivation to influence who gets elected, leading to apathy in the country towards whether their votes would have any effect.
- This leads to inequality in political power, which leads to rules and regulations that lead to more economic inequality, in a downward vicious circle. For example, there are rules that have shaped market forces, such as bankruptcy laws that encourage speculation and protect for-profit schools in favour of students' rights and financial well-being in the area of student loans.
- Toxic ideas are being marketed by the wealthy who have the resources, the tools, the techniques, and the incentive to do that.

How does inequality undermine justice?

- Inequality erodes justice too. Take, for example, the housing crisis of 2008: there were those who owed no debt but were forced out of their homes. Yet, those who were responsible for setting off the crisis went unpunished.
- Men in important roles are making recommendations for tax cuts for the rich.

Week 5 (continued)

*Dmitry Orlov's Five Stages of Collapse*¹⁸

Dmitry Orlov was born in Russia and moved to the United States at the age of 12. He was an eyewitness to the collapse of the Soviet Union over several extended visits to his Russian homeland between the late 1980s and mid-1990s.

He proposes that societies that have been pushed beyond the point of sustainability tend to move through a set sequence of collapse stages: Financial, Commercial, Political and Social.

Financial collapse is marked by a loss of faith in "business as usual". The future is no longer assumed to resemble the past in any way that allows risk to be assessed and financial assets to be

¹⁸ Dmitry Orlov, *The Five Stages of Collapse – Survivors' Toolkit*, 2013

guaranteed. Financial institutions become insolvent; savings are wiped out, and access to capital is lost.

Commercial collapse soon follows. Faith that “the market shall provide” is lost. Money is devalued and/or becomes scarce, commodities are hoarded, import and retail chains break down, and widespread shortages of survival necessities become the norm.

Political collapse ensues. Faith that “the government will take care of you” is lost. As official attempts to mitigate widespread loss of access to commercial sources of survival necessities fail to make a difference, the political establishment loses legitimacy and relevance.

Social collapse follows. Faith that “your people will take care of you” is lost, as local social institutions (charities or other groups) that rush in to fill the power vacuum run out of resources or fail through internal conflict.

Finally, there is cultural collapse. Faith in the goodness of humanity is lost. People lose their capacity for kindness, generosity, consideration, affection, honesty, hospitality, compassion, charity. Families disband and compete as individuals for scarce resources. The new motto becomes, “May you die today so that I die tomorrow” (Solzhenitsyn, the Gulag Archipelago).

The Doomsday Clock

This next segment of the course asks the question, “What are our greatest threats to human existence at this point in time?”

Students learn that on January 23, 2024, the Doomsday Clock was set at 90 seconds to midnight.¹⁹ This is the same time as it was last year, the closest to midnight the clock has ever been.

The Doomsday Clock, maintained by the Bulletin of the Atomic Scientists since 1947, is a metaphor for how close humanity is to self-annihilation. It is set every year by the Bulletin’s Science and Security Board in consultation with its Board of Sponsors, which includes 11 Nobel laureates.

They say that in 2024, humanity is still as close as ever to global catastrophe, which could involve nuclear war, climate change, or maybe even artificial intelligence. There is grave concern among them that advances in artificial intelligence could sow chaos, making it harder to prevent global disasters.

The Global Risk Report

¹⁹ “2024 Doomsday Clock Statement,” Science and Security Board, Bulletin of the Atomic Scientists, January 23, 2024 <https://thebulletin.org/doomsday-clock/current-time/>

Through the Global Risk Report²⁰, students learn that in addition to grave concerns about climate change, misinformation and disinformation, along with societal polarization, rank high on the list, especially over the current and short term.

The report warns that over the next two years, close to three billion people are expected to head to the electoral polls across several economies - including Bangladesh, India, Indonesia, Mexico, Pakistan, the United Kingdom, and the United States. It is expected that societal and political divides will be widened through the leveraging of misinformation and disinformation. This will pose the most severe global risk through the stirring up of civil unrest in the form of violent protests, hate crimes, civil confrontation, and terrorism.

“Beyond elections, perceptions of reality are likely to also become more polarized, infiltrating the public discourse on issues ranging from public health to social justice. However, as truth is undermined, the risk of domestic propaganda and censorship will also rise in turn. In response to mis- and disinformation, governments could be increasingly empowered to control information based on what they determine to be “true”. Freedoms relating to the internet, press and access to wider sources of information that are already in decline risk descending into broader repression of information flows across a wider set of countries.”²¹

How is the ranking of global risks determined? Global Risk Report 2024 presents the findings of the Global Risks Perception Survey (GRPS) 2024, which captures insights from nearly 1,500 global experts from September to October 2023. The report analyses global risks over three timeframes: current, over the short term (2 years) and over the long term (10 years). The purpose of the report is to support decision-makers in balancing current crises and longer-term priorities.

For the current timeframe, the respondents were asked to select up to five risks that they believe are most likely to present a material crisis on a global scale in 2024. The results are given below.

CURRENT RISK LANDSCAPE

“Please select up to five risks that you believe are most likely to present a material crisis on a global scale in 2024.”

FIGURE B



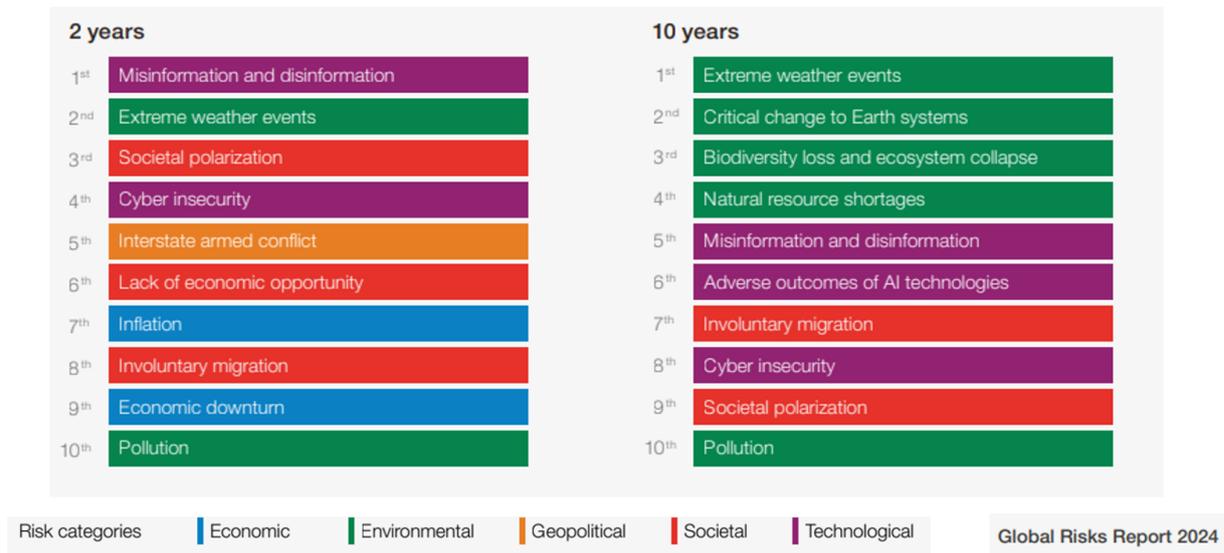
²⁰ The Global Risks Report 2024, 19th Edition, World Economic Forum, https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2024.pdf

²¹ The Global Risks Report 2024, page 8

The respondents were also asked to rank the risks in order of severity over the short and long term. The results are given below.

GLOBAL RISKS RANKED BY SEVERITY OVER THE SHORT AND LONG TERM

FIGURE C



According to the report, how these risks will materialize and be managed will depend on trajectories related to global warming and how earth systems are affected; on technological, acceleration, shifts in geopolitical power; and changes in population size, growth, and structure around the world.

Weeks 3 and 5

Padlet Presentations by Students

Yet, all the content described above would not be adequate in doing the topic of societal collapse justice, nor would it be sufficiently interesting and relatable to the students.

Padlet #1: Eschatology and Dystopic Fiction

There is the fascinating area of eschatology, a branch of theology concerned with the final events in the history of the world or of humankind, that the students would benefit from learning about. In addition, there are intriguing and thought-provoking films and novels on dystopic societies in our pre- or post-apocalyptic world.

It would be unfeasible and ineffective for one person – the teacher - to share all this content with the class. Wherever possible, I find ways to keep “teacher talk” or “teacher delivering the content” to the minimum, favouring student-led activities. With this in mind, I set my students the task of working in pairs to read up on an eschatology or dystopic fiction of their choice. They researched their choice from week 1 and presented what they had learned in week 3. The class

learnt what Buddhist, Christian, Hindu, and Physical eschatology predict about our future. For dystopic fiction, students shared with their classmates the themes and storylines of novels such as 1984, Brave New World, Fahrenheit 451, Feed, Do Androids Dream of Electric Sheep, and films such as “Don’t Look Up”, “I am Mother” and “Divergent”.

The presentations were carried out using Padlet, the same platform used in week 1 for the sharing about past civilizations and why they collapsed. It provides a refreshing change from using PowerPoint to present. The latter is reserved for more formal presentations, such as those for their graded projects. The students were encouraged to see their Padlet presentations as a means of sharing what they had learned about the topic with their peers. It was their opportunity to contribute to one another’s learning.

Padlet#2: Why Do Some Societies Make Disastrous Decisions?

There is also the question, raised by Jared Diamond in chapter 14 of his book “Collapse”: “Why do some societies make disastrous decisions?” He provides a comprehensive categorization of decision failures that have led to societal collapse, illustrated with real-life cases of past societies.

The decision failures fall into four categories:

1. Failure to anticipate a problem before it arrived
 - (a) Lacked prior experience
 - (b) Experience happened so long ago as to have been forgotten
 - (c) Reasoning by false analogy

2. Failure to perceive a problem that has actually arrived
 - a) Origins of some problems are imperceptible
 - b) Distant managers
 - c) Slow trend concealed by wide up-and-down fluctuations

3. Failure to even try to solve a problem once it has been perceived
 - (a) Rational behavior, arising from clashes of interest between people
 - (i) Good for me, bad for you and for everyone else
 - (ii) Tragedy of the commons
 - (iii) When the principal consumer has no long-term stake in preserving the resource but society as a whole does
 - (iv) When the interests of the decision-making elite in power clash with the interests of the rest of society

 - (b) Irrational behavior (behavior that is harmful for everybody)
 - (i) Usually arises when each of us is torn by clashes of values; we may ignore a bad status quo because it is favored by some deeply held value to which we cling
 - (ii) Sunk-cost fallacy - Reluctance to abandon a policy in which we have already invested heavily

- (iii) Public may widely dislike those who first perceive and complain about the problem
 - (iv) Clashes between short-term and long-term motives of the same individual
 - (v) Crowd psychology
 - (vi) Groupthink
 - (vii) Psychological denial
4. Failure to succeed in attempts to solve a problem
- (a) The problem may be beyond our present capacities to solve
 - (b) A solution may exist but be prohibitively expensive
 - (c) Our efforts may be too little and too late

This too, was presented by the students to their classmates. Working in pairs or singly, they researched for real-life examples to illustrate the decision failures that they had been assigned to share with their class, using Padlet as their mode of presentation.

Padlet#3 – Chapters from Clay Christensen’s Book, “How Will I Measure My Life?” (Done only in Jan – April 2023)

Using management theories, Christensen shares his thoughts on how we can find happiness in our careers and relationships. Working in pairs, the students choose a chapter from the book and share it with the class.

Section 1 – Career

- 2. What Makes Us Tick
- 3. The Balance of Calculation and Serendipity
- 4. Your Strategy is Not What You Say It Is

Section 2 – Relationships

- 5. The Ticking Clock
- 6. What Job Did You Hire that Milkshake for
- 7. Sailing your Kids on Theseus’s Ship
- 8. The Schools of Experience
- 9. The Invisible Hand Inside your Family

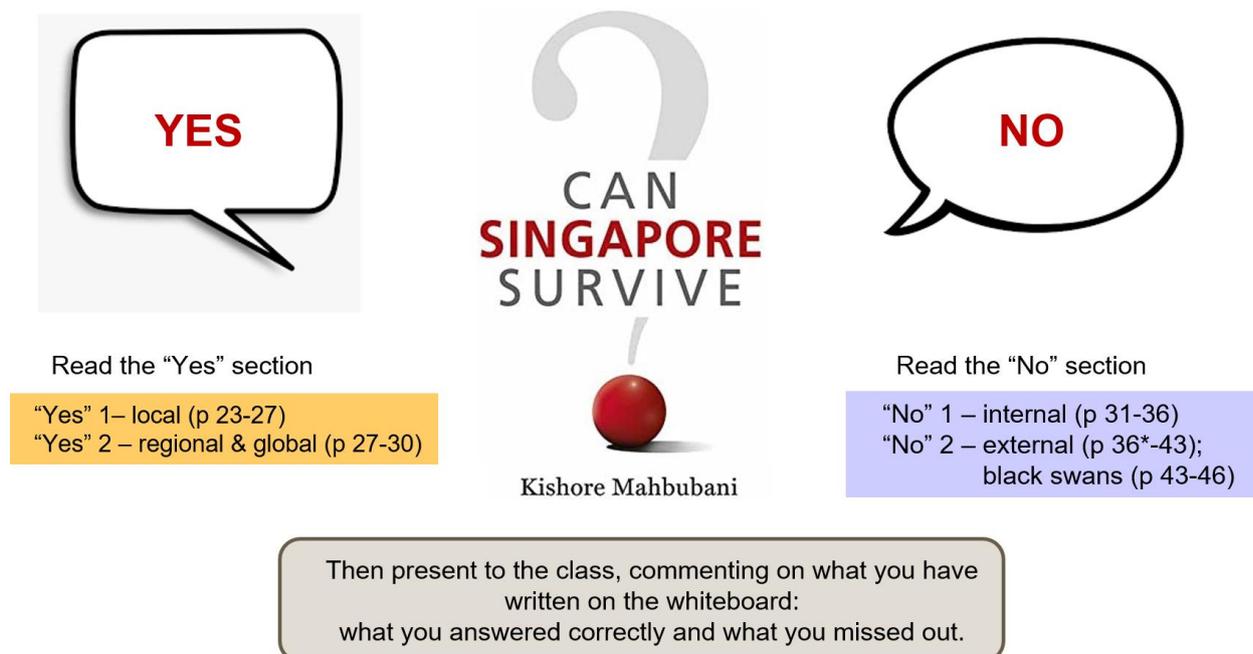
Section 3 – Staying out of jail

- 10. Just This Once

Week 6

Can Singapore Survive?

One of my favourite lessons in the course is “Can Singapore Survive?” As most of my students are Singaporeans, and would have some knowledge and opinions about this, I designed an activity to activate their background knowledge. The class is divided into two groups. Working as a group, half the class brainstormed for “Yes” and listed the reasons on the whiteboard. The other half brainstormed for “No” and listed their reasons on the whiteboard. The students could do quick internet searches to fill in any information gap as they do this. After presenting their reasons to the class, the two groups are then assigned relevant passages from the Introduction of Kishore Mahbubani’s book, “Can Singapore Survive?” to read. In these passages, he gives his reasons for “Yes” and “No”. The groups added to the whiteboard any new thoughts/information they had learnt from him, and then took turns to share with the class the learning they had gained. (See figure x below.)



The class then watched selected parts of Deputy Prime Minister Lawrence Wong’s Budget 2024 speech, which supports Singapore’s first rollout of our Forward SG programme. Serendipitously, this speech was delivered on February 16, 2024, a few days prior to this lesson. The Forward SG report, released on Oct 27, 2023, is the culmination of a 16-month long effort that engaged more than 200,000 Singaporeans in conversations on refreshing Singapore’s social compact. The report sets out policy recommendations and how different segments of our society can better contribute to the nation’s shared goals and is the island-state’s response to the threats that we are facing currently and in the near future.

Week 7 & 8

Quantitative Modelling Project

To enhance their understanding of specific issues that often confront societies, students embark on their second graded project – Quantitative Modelling – in week 7. This involved replicating one of the following models from Hartmut Bossel’s book series, “System Zoo”. They simulated the completed model and produced the required charts.

- (a) Debt crisis (Z607)
- (b) Pension dynamics (Z602 + Z603)
- (c) Environment, tourists, infrastructure, population (Z412D)
- (d) Tragedy of the commons (Z417)

After this, they modify the structure of the replicated model to customize it to a recent real-world crisis affecting a society or country. Suggestions of real-world crises that could be depicted by each of the models, respectively, are given to the students, but they could find their own cases to model, if they preferred.

- (a) The downfall of China’s property giant, Evergrande
- (b) Protests by French citizens against the raising of pensionable age
- (c) How tourism affected Boracay
- (d) Indus river water wastage and pollution by the fashion industry

Week 9

For the topic of Resilience, introduced in week 9, I used Dennis Meadow’s Resilience Game as a stimulus activity to initiate discussion on this concept. The students play this game in groups of four, with each team competing to build the highest possible, self-supporting, sustainable tower using only the materials provided. Each group is given 50 toothpicks, 25 foam peanuts and a paper plate. They discussed their design goals and strategy and planned the coordination of their team members before executing their plan. They are given 5 minutes to strategize and then another 5 minutes to build the peanut foam tower. The height of their tower is measured.

As the goal of the game is to build a sustainable tower, I then simulate an earthquake by inserting the tip of my ruler under the lip of the paper plate and rotating it. All or most of the teams find their towers falling, and their towers were measured again! Falling towers can happen even after the second round. We play two rounds and then discuss the lessons gained from the game. I find this game an excellent way to start a discussion on how we often do not anticipate that a shock may occur to bring down what we have built, and that our short-term goals often conflict with long-term ones. Students learn the difference between short-term and long-term goals: short-term goals usually have to do with immediate gratification and achieving small wins, while long-term goals are more about planning for the future and achieving bigger objectives. They make for greater resilience. They learn to mitigate the conflict between short-term and long-term goals, by recognizing the trade-offs and by clarifying our values and priorities.

Construction Results

	Round 1		Round 2	
	Tower Height (inches)		Tower Height (inches)	
	Initial	Final	Initial	Final
Group 1				
Group 2				
Group 3				
Group 4				

Ways to increase resilience were then covered: raising barriers, improving efficiency, adding buffers and redundancy. The students worked in groups of four, with each group choosing one of the following options to work on and present to the class. This activity gives the students the opportunity to apply the concepts they have just learnt about resilience to their lives. (See appendix X for samples of the students' slides. They were given up to 30 mins to discuss and create the slides.)

Discuss how you can increase resilience

Choose one:

1. Your resilience as a student
2. The resilience of your employability / career progression
3. The resilience of your family
4. The resilience of RC4
5. The resilience of Singapore
6. Your resilience as an individual



- What would be the analogy of "height of the tower" in that system?
- Consider possible shocks you might face
- How to protect yourselves against these shocks
 - Raise the barrier
 - Improve efficiency
 - Create larger buffers
 - Increase redundancy

Present using [2-3 slides](#)

A sample of a group's slides on Family Resilience is shown below:

Potential shocks

Height:

- Happy family and general well-being → create a sense of belonging

Base:

- Health and education
- Financial freedom
- Good familial relationships

- **Financial shocks**
 - Loss of employment, unexpected expenses such as medical emergencies
 - Places stress on existing resources
- **Health shocks**
 - Serious illness or injuries to family members, mental health problems
- **Relationship shocks**
 - Divorce, loss of a loved one, strained relationships
- **Environmental shocks**
 - Natural disasters, pandemics, pollution etc.
- **Societal shocks**
 - Discrimination, political unrest etc.

Raise the Barrier

- Financial Planning
- Good insurance policies
- Vaccines to protect against deadly diseases
- Having a first aid kit or AED at home in case of emergency
- Have emergency kits stocked with essential supplies such as food, water, medications

Improve Efficiency

- Spending money on cheaper alternatives with the same quality
- Develop and adhere to a budget to maximize financial resources.
- Having effective communication to ensure family members are on the same page regarding goals, tasks, and expectations.
- Delegate roles and responsibilities in the family based on strengths

Create large buffers

- Having comprehensive health insurance ensures protection against costly medical bills associated with terminal illnesses, offering financial security and peace of mind, and not financially burdening family members
- Diversification of Investment in housing assets, stocks bonds
- Having a savings plan or family fund setting aside some part of your monthly income

Increase redundancy

- Multiple streams of income, encourage more family members to work
- Cross-train family members with basic skills such as cooking, first aid, washing dishes

National Resilience

Following this, we covered National Resilience, taking our material from “National Resilience: Developing a Whole-of-Society Response”, written by Charles Ng, then Assistant Director of Singapore’s National Security Coordination Secretariat.

He outlines the challenges in building national resilience: Firstly, there is no common lexicon for resilience among governments. Secondly, there is a distinction between “evergreen resilience virtues” (such as good leadership), and “threat-specific” resilience virtues. Because resilience is threat specific, it is difficult to measure and assess resilience. For example, a society may be resilient to a terrorist attack but not against a pandemic. In addition, institutional capabilities required for inculcating resilience are dissimilar, depending on the kind of threat in question. Resilience can only be properly assessed once it is actually tested. Lastly, resilience requires structural and conceptual shifts that are difficult for governments to execute. In the Cold War era, due to the threat of nuclear war, security became the purview of the government. This led to the professionalization of security work within vast national bureaucracies. In contrast, 21st century threats are lower in intensity and have greater unpredictability. There is thus a need to blend the efforts of the government, local communities, the media, religious organizations and NGOs.

Charles Ng also proposes that it is no longer enough to invest resources to prevent a threat from manifesting or to respond effectively to the threat when it arises. We need to accept that some threats will eventually come to fruition, but society must absorb the stress and recover rapidly. Allocating resources for rapid recovery (instead of solely prevention) becomes essential. Resilience as a doctrine of governance involves avoiding overspecialization and overconcentration of resources; striking a balance between diversification and specialization to protect ourselves from unexpected changes in the global economy; acknowledging the tradeoffs that need to be made; and identifying the values and traits of society that cause it to falter or survive or thrive in the face of a crisis.

Resilience of Singaporeans

After examining resilience from a national strategy viewpoint, we delved into the resilience of Singaporeans. We used the Singapore Resilience Study, a special report that outlined the purpose of the study, which was to establish the baseline of measurement of resilience in the Singapore population “to provide the benchmark for future studies and to render visible the significance of resilience to well-being”.²² The resilience profiles of 2,021 Singaporeans aged 27-78 were examined, and the mean and median resilience scores were found. The respondents were categorized according to age, education, housing type, gender, and employment status. The findings were able to indicate which of these categories correlated with above average resilience scores and which correlated with below average resilience scores.

²² [Singapore Resilience Study](#)

Week 10 – 13

Qualitative Modelling Project 2

This directly feeds into the third graded project, which requires students to build an original causal-loop diagram depicting what makes a particular community in Singapore vulnerable and how their resilience might be strengthened. This project involves a visit to a department/agency/organization involved in providing this service and an interview with a representative from this institution or with a member of this group. The purpose of this is to strengthen/clarify the students’ understanding of the needs of this group and the support available to them.

Students’ Response to the Course

Question: Which lessons stood out the most for you in this course? What did you learn that you found most meaningful, relevant, beneficial, or surprising? Please provide any suggestions for improvement that you may have.

I have organized the students’ responses under the broad lesson topics in the column on the left.

Broad lesson topics	Students’ Responses
Past civilizations Present-day civilizations (learnt via Qualitative Project 1)	“I think the first few lessons going through the history and reasons for the collapse of different societies were the most interesting. It is something that is not taught in all other courses and exposes me to the different situations around the world.” “Week 1 was the most interesting for me as it talked about historical civilizations, eschatology, and dystopic fiction.” The lesson in the first week was the most interesting content-wise. The Resilience Game was also quite fun and memorable.” “I found it interesting to learn about different societies. It was meaningful to expand our knowledge on different present and past civilizations.” “The analysis to see the factors that could result in societies collapsing was rather refreshing as well.”
Theories of Societal Collapse	“Lessons on themes of societal collapse gave us more frameworks to consider a large complex, issue.” “I found the lesson on the various theories of societal collapse very interesting.” “I found the lessons on the various theories of societal collapse very interesting.”

Danger of Inflation	<p>“The danger of inflation is very relevant in helping us to understand the current economic trend. This helps us to be better prepared. I like all the economic perspectives of this course.”</p>
Can Singapore Survive?	<p>“Another lesson that stood out for me was the one in week 6 where we had to “debate” on whether Singapore could survive as a society.”</p> <p>“Can Singapore survive?” stood out the most to me as I feel that this topic is the most relevant and relatable to us. I have always been rather optimistic about the government and the future of the country but after this topic and understanding more from the book, I gained more perspectives of the flip side for “No, Singapore will not survive.”</p> <p>“I understand the need for action and to not underestimate or take for granted the success of Singapore today. Padlet #3 (Clay Christensen’s How Will I Measure My Life?) was especially interesting because it made me reflect a lot about my goals and direction in life. I think these segments are must-haves and the most insightful.”</p>
Resilience	<p>“Resilience game is a fun but impactful way to learn about short vs longer term goals.”</p> <p>“I really like the Resilience Game in week 12. It is good to do something materially and then learn from it. It is interesting and we also learn some knowledge about resilience from it. When we try to increase the resilience of our tower, we find that it is not that easy.”</p> <p>“To me, I think the lessons that left the strongest impressions on me are the Padlet#3 sharing and the Resilience Game. I found them interesting as they are more directly related to our lives and help us to apply the macro theories we had learnt about societal collapse to a more personal level as well. The resilience game also provides more hands-on experience which makes the lesson more engaging.”</p> <p>“Rather than resilience being a topic of societal collapse, societal collapse could be on explaining a case study of resilience and its importance. Systems thinking can be applied to specific topics in situations/case studies for projects, such as the Tragedy of the Commons.”</p>
Padlet Presentations	<p>“The Padlet sharing topics are very interesting, especially the Padlet presentations #2 (Decision Failures) and #3 as we get the opportunity to step out of the modelling and learn more insights about personal and behavioral dilemmas and do our own research.”</p>

	<p>“The decision failures that my partner and I covered for our Padlet #2 presentation on Why Societies Make Disastrous Decisions” were very interesting.”</p> <p>“Maybe have a Padlet presentation on the Singapore context.”</p> <p>“Greater weightage should be given to the Padlet presentations. A bigger proportion of learning occurred in preparation for the Padlet topics, which were more interesting and beneficial to understanding societal collapse than the qualitative causal-loop diagrams.”</p>
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Students’ Overall Feedback on the Course

- “Perhaps the projects could be more Singapore-focused.
- “Visit different societies/communities that are on the verge of collapse.”
- “I wish to know more about Singapore’s economy in a global scale and how to manages its relationship with other countries.”
- “I thoroughly enjoyed the project-based assessments. I think the timeline was also great; did not really clash with my other courses.”
- “I think this is a topic that is interesting and is not available in other modules in NUS. It is able less depth intensive and allows us to be exposed to different aspects of life and society.”
- “Effective teaching.”
- “I like the opportunities we had to present our own thoughts and ideas.”
- “Good work balance.”
- “Fun projects and class presentations”
- “The content is very relevant to the current world.”
- “The level of difficulty was just right. It encouraged us to think critically about issues but was not too demanding.”
- “Seminar sessions were friendly and encourage discussion.”

Impact of the Course on Students

The feedback results below provide an indication of the extent to which the course affected my students' knowledge, understanding and attitudes on societal collapse and on resilience as it affects themselves and others.

The scores below are the mean scores given by 31 students. They were asked to choose a score from 1(least) to 10 (most) that best fits their response to each of the items below, before the course and after the course:

	Before the course	After the course	Difference
(a) Knowledge and understanding about societal collapse	3.69	7.93	4.24
(b) Desire to find out about societal collapse for myself	4.48	7.48	3.00
(c) Knowledge and understanding about resilience	4.69	8.00	3.31
(d) Desire to find out about resilience	4.34	7.14	2.8
(e) Desire to contribute to increasing my own resilience	5.72	8.28	2.56
(f) Desire to contribute to increasing the resilience of others in my life	5.30	7.90	2.60
(g) Desire to contribute to increasing the resilience of one or more vulnerable groups in my country	5.14	7.45	2.31
(h) Desire to contribute to increasing the resilience of my country	4.69	7.07	2.38

Final Comments

The main challenge in teaching this course is that the content plays out continuously on the world stage and in every nation of the world. The scenes are always changing, sometimes gradually and sometimes abruptly. I keep track of relevant events, decisions, and trends as best as I can and as consistently as I can. Every crisis that occurs becomes a possible case that might become useful in illustrating a theory or concept.

In addition, it is multidisciplinary, drawing on realms of knowledge that include history, anthropology, geography, economics, eschatology, energy policy, and political science. One cannot claim any level of training or expertise in all of these areas, but it would be a pity if one refrained from developing and teaching this course for this reason. The topic of societal collapse and resilience is relevant, important, and urgent for all of us, and it is needful to share what know with one another.