10 Rank Points

SUBJECT	LEVEL	GRADE	EXAMINING AUTHORITY
GENERAL PAPER	H1	A	CAMBRIDGE

Comprehension Questions

Literal-Inferencial

Explain the author's use of the word(s) <u>'very'</u> in line 59.
1. Rephrase key words in the <u>phrase</u>.
2. Give the contextual & inferential meaning.

Similes and Metaphors

What does the figurative expression 'ethical coma' (line 51) suggest about the situation of modern people?
1. Identify the image and the subject.
2. Note & match the characteristics of the image and the subject.
3. Rephrase the answer. First state the literal meaning, then provide the figurative meaning.
    - *just as… so does…*
    - *similarly…*

Comparison

Identify three contrasts between the characteristics and contributions of Bruce Lee and the media's response to his demise in paragraph 7, and those of Jack Lalanne in paragraph 8.
1. Identify **pairs**. They must be talking about the same idea.
2. Compare similarities/differences.

Irony

In paragraph 5, what is ironic about the belief that the home is a haven?
1. State what is expected
2. Show what the reality is
3. Using the connectors *'yet', 'instead of', 'but'* and *'however'* to show contrast

Paradox

Explain the paradox in the statement 'isolation is felt most profoundly among a crowd' (line 5).
1. State what appears to be contradictory
2. State what the truth is

Punctuation

Why has the author placed the sentence about perfect pitch (lines 55-57) inside brackets?

Inverted Commas

What is the literal meaning of the word in inverted commas, and what is the author's intended meaning? Include both elements in your answer:
- *The author does not actually mean that (state literal meaning); instead, the author means that (state the author's intended meaning)*

- **Note:** The second part of the answer may not be relevant if it wasn't mentioned or implied in the passage

'…those 'favoured' few…' (Line 66). Why does the author place inverted commas around 'favoured'? [1]

The inverted commas around the word indicate that he thinks they are the opposite of being fortunate and that they are not that blessed after all.

Brackets

2012 Examiner Report: The use of the brackets here shows that the information contained therein is additional to, not central to the main argument; alternatively, that it is interesting and worthy of note – what some candidates called a "fun fact"

*It is to provide **additional information** on [main argument].*

Ellipses

2004 Q2: What does the author intend for you to understand by the three dots (…) at the end of the first paragraph?

*The author is pointing out the idea that the cycle will be **repeated/suggests repetition.***

2007 Q2: 'pandemics spread by superbugs…' (line 5) Which phrase earlier in this first sentence explains the three dots at its conclusion? [1]

The phrase is, "seemingly endless catalogue" (line 1).
(Explanation: The list of examples of apocalyptic scenarios could be indefinitely extended)

Author's Intention

What is the author's intention/purpose…?
- The author is emphasising/highlighting…
- The author is criticising/mocking....

Tone/Attitude

POSITIVE	NEGATIVE	NEUTRAL
admiring/ laudatory	arrogant	aloof
amused	bitter/ angry/ resentful/ hostile	ambivalent
approving	brusque	cautionary
compassionate	callous	concerned/ worried
joyful	world-weary	defensive
judicious	condescending	detached
modest/ unassuming/ humble	confused/ befuddled	didactic
optimistic	critical	disbelieving
thoughtful	disparaging	dispassionate
philosophical/ reflective	cynical	ironic
respectful	skeptical	joking
earnest	pessimistic	nostalgic
sincere	disapproving	pensive
factual	disdainful	remorseful
frank/ honest/ candid	disheartened	evasive
forgiving	dejected	grudging
humorous	sarcastic	indifferent
informative		impassioned

impartial	lamenting/ sorrowful	indignant
supportive	malicious	sentimental
tolerant	mocking	serious/ grave/ grim
witty/ humorous/ ironic	naïve	shocked
	nasty/ abusive	solemn/ dignified
	pessimistic	sympathetic
	resentful	unemotional
	sarcastic	urgent
	satirical	whimsical
	flippant	
	hypocritical	
	insulting	
	intolerant	
	irrelevant	
	scorning/ biting/caustic	
	self-pitying	
	whining/ aggrieved/ complaining	

Word Bank

COMMON WORD	*SYNONYMS*
consequence	(after)effect/aftermath/fallout/repercussion/reaction
disastrous	adverse/calamitous/catastrophic/destructive/dire
daunting	intimidating/frightening
accomplishment	achievement
outcome	conclusion/result
slow	gradual/leisurely/lethargic/passive/sluggish
pleasurable	enjoyable/gratifying/satisfying/pleasing
challenge	not easy/problem/difficult task (noun) question/confront/dispute/protest against (verb)
obstacle	difficulty/hardship/hindrance/hurdle/obstruction
trade-offs	compromises/sacrifices
divide	gap/chasm
responsibility	accountability/guilt
Innate	natural/inherent/inborn/inclination/motivation/impetus
dramatic	drastic/extreme
infinite	limitless/endless
(in a) maze	immersed/trapped/lost
communicating	relaying/transmitting
interactive	engaging/two-way/(can) respond/react
repeated	recurrent/continual/incessant/constant
stress	pressure/strain/tension
dystopian (outcomes)	horrific/apocalyptic/terrible (outcomes)
stress-management	regulation/calming down
instantaneous	quick/straightaway/immediate
enslave	subjugate/make subservient/control/oppress

distracted	diverted/disrupted/interrupted
exterminate	decimate/annihilate/kill all
moral thought	values/ethics/principles
no equivalent	inapplicable/inadequate/irrelevant
privacy	personal space/confidential life
apportion	judge/determine
posing	creating
quandaries	conundrums/dilemmas
outstripping	faster than/overtake
studied	investigated
training	practice/instruction/guidance/to be coached
experience	past encounters
making	committing
mistakes	errors/blunders
continuous	throughout our lives/uninterrupted/constant/ongoing/unceasing
tacit	implicit/subconscious
crucial	vital
crisis	emergency
case studies	examples/scenarios
role play	simulation exercises/re-enactment
cognisant	conscious/aware
take the lead	take charge of/assume responsibility for
behaviour	conduct
illuminate	makes plain/enlightens/informs
quaiities	abilities/traits
shaping	forming/moulding/forging
inactive lifestyle	sedentary lifestyle

Essay Questions

Basic/Value Questions

Consider the <u>importance</u> of <u>toys</u>.

Toys:
- For fun/entertainment (with the intention for children – although adults can enjoy it)
- Could also be educational

Importance:
- Children
- Adults (who may also enjoy toys intended for children)
- Patients (therapy) e.g. Paro
- Toymakers: $$
- Change social perceptions e.g. Barbie dolls that are scientists/astronauts/handicapped/black (to show girls that they can be scientists/astronauts or to show that being handicapped is normal etc.)
- Imagination/Creativity
- Social Skills (teamwork/co-operation)

Should <u>privacy</u> be *sacrificed* for the sake of <u>national security</u>?

Privacy: **Individuals**
Confidentiality: **Corporations**
Sacrificed: Something of value / importance is being given up

National security: Terrorism/Cyber Attacks/Physical Warfare/Riots

'Still'

Is <u>geography</u> **still** <u>destiny</u>?

Geography:
- Location (trade etc.)
- Natural resources
- Natural disasters
- Individual: Affects social/cultural status (where one is born)

Still: Disruption to status quo
- Change in technology
- Rise of globalisation

Comparison Questions

Note: compare with the same *criteria* in each paragraph!

<u>Parents today</u> are not doing their job **as well as** <u>parents of the past</u>

1. Introduction
2. Parents today vs. parents in the past (*discipline*)
3. Parents today vs. parents in the past (*financial*)
4. Parents today vs. parents in the past (*emotional*)
5. Parents today vs. parents in the past (*academic*)
6. Conclusion

Malls are **more important** than parks

1. Introduction
2. Malls vs parks (*rest & relaxation*)
3. Malls vs parks (*money generation*)
4. Malls vs parks (*social spaces*)
5. Malls vs parks
6. Conclusion

Topic sentence: Parks are **more important** than malls when it comes to offering activities that mostly sedentary Singaporeans need.

Is self-reliance or interdependence **more** desirable?

Interdependence: 2-way

Elaboration:
Parks provide time and space for introspection — stress relief, exercise. (Important)
Malls may provide stress relief through shopping, but shopping only produces more financial stress. (NOT Important)

'No Longer' (*Time*)

Malls are *no longer* important

1. Introduction
2. Malls were important because… (traditional function)
3. However today, not so important because… (modern world context)
4. However today, not so important because… (modern world context)
5. However today, not so important because… (modern world context)
6. Conclusion

Parents today are *no longer* doing their job **as well as** parents of the past

1. Introduction
2. Parents in the past did their job well, they do their job as well today
3. Parents in the past did their job well, they do not do their job as well today
4. Parents in the past did their job well, they do not do their job as well today
5. Parents in the past did their job well, they do not do their job as well today
6. Conclusion

Absolute Questions

The <u>artist's</u> responsibility is **only** to <u>himself</u>.

An Artist refers to a person who produces works in any of the arts subject to aesthetic criteria. He could be a person practicing fine arts like a painter or sculptor. An Artiste is an artist specific to performing arts; an actor, a singer, a dancer, an acrobat or other public performer

- Choose widely-accepted examples, e.g. paintings, cartoons, music, etc.

'only to himself' — absolute, individual. Is an artist's responsibility **more than** merely to himself? i.e. community

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<u>Governments</u> should **always** satisfy the <u>desires of the people.</u>

Governments:
- power and influence
- ensure welfare (<u>S</u>ocial, <u>P</u>olitical, <u>E</u>conomic, <u>R</u>acial, <u>M</u>edia) via policies, laws etc.

Should: ideal vs reality

Desires of the people:
- welfare (SPERM)
- tangible vs. intangible, young vs. old, majority vs. minority

Should Satisfy	Shouldn't Satisfy
In a democracy, the people are the ones who choose their government. There is thus a social contract that the government should satisfy the desires of the people ● Must meet expectations, otherwise they will be overthrown. ● Even in the lead-up to elections, these promises are dangled in order to get votes.	The people's desires may be incongruous [inappropriate] with what society needs ● People don't know any better, and are misguided in their desires. ● Could lead to strife when people's selfish desires end up discriminating against other groups of people.
The government has the power to help the people ● Especially those who cannot help themselves ● Resources are in their hands for disbursement ● Governments have oversight	Unlimited wants of the people could strain the nation's limited resources ● populist policies that drain resources in an unwise manner e.g. Venezuela — populist policies lead to inflation ● Humans are selfish

To what extent is renewable energy **the solution** to the world's increasing need for energy?

Renewable energy: non-depletable (nuclear energy can be argued either way)

Yes, the solution because	No, not the solution because
Does not deplete, can feed our insatiable demand for energy	There are limitations to the amount of energy produced (can be inefficient) ● Solar energy has a very low cost-to-energy ratio
Environmentally-friendly, reduces pollution	Not actually that environmentally-friendly. ● disrupts ecosystem, massive use of land
Safer compared to non-renewable sources of energy ● e.g. Chernobyl	Not all places can support renewable energy ● e.g. Singapore has large cloud cover
Inexpensive options available for poor countries ● e.g. In rural Bangladesh, tiny solar panels embedded in thatched-roofed huts enable 18 million people who live in off-grid homes to have access to electricity. This is critical for low-income Bangladeshis who require the use of cell phones, water pump, health clinics and equipment for businesses.	

There has never been a time of greater peril. Access the validity of this statement in today's world.

Peril: grave danger (large scale)
- Climate Change
- Terrorism
- Warfare, civil uprising
- Health epidemics
- MUST PHRASE CORRECTLY:
    - e.g. racism → genocide, police profiling, social issues e.g. mass shooting (racism itself isn't perilous)
    - e.g. infringement of human rights → refugee crisis

Today's world:
- Advanced technology → the insidious spread and reach of social media, echo chambers (algorithms)
- Interconnected (globalised) → easy spread of health epidemics
- More permeable borders → terrorism
- Uncertain economy
- ↑ radicalisation of thought

Singular Assumption Questions

Note: Engage both the basic question and the assumption *within the same paragraph*

Is <u>increased military spending</u> justifiable when countries are **not at war**?

Military spending: weaponry, wages of personnel, research etc.
Justifiable: costs/benefits

Justifiable Because	Not Justifiable Because
Even in times of peace, countries still need to protect sovereignty. ● deterrence (show of military power e.g. North Korea) ● In an uncertain world, citizens feel > secure	In times of peace, it's a waste of precious resources ● can spend on other more pressing <u>domestic</u> needs e.g. necessities ● other more important issues in the <u>world</u> e.g. climate change
A strong military arguably increases a country's say on the international stage.	
Even though there is no war now, new threats require increased spending to pre-empt them ● Need to research on new threats to pre-empt them e.g. cybersecurity	

Given that the global population is growing rapidly, should people be <u>having more children</u>?

Should: in the ideal world (not what is currently happening)

Yes, they should because	No, they shouldn't because
Technology can mitigate resource scarcity ● it's resource distribution that is the problem, not the absolute amount of resources ● if people want kids, they should be allowed to	Having more children contributes to the problem of overpopulation ● strain on resources e.g. The Malthusian Theory of Population is a theory of exponential population growth and arithmetic food supply growth (population will > food supply)
Children, historically and culturally, represent the continuation of the family line. ● family name ● innate human desire to have offspring ● even if global populations are increasing, it shouldn't prevent people from fulfilling this basic need	Many children in need of homes. People should adopt them

Given that their people are starving, should countries <u>invest in space exploration</u>?

Should: ideal state

What? Pumping in of $$

Why? Discoveries (new frontiers), show of ability, maybe new resources, …

Yes, should invest because	No, should invest because
The investment in tech. for space exploration can be put to use in daily life and benefits the people ● e.g. microwave oven — not extravagant and a waste of money	Resources could be put to better use (> pressing needs) ● R&D on other areas e.g. agriculture
Can generate jobs in the space exploration industry ● must give convincing evidence (numbers)	Might lead to an uproar (social unrest) ● Starving citizens rebel against the government
Show of scientific prowess — benefits for their people ● other countries will latch on their ability to go to space, attract more FDI, scientists to the country	In the long run, space exploration research is not sustainable especially for poorer countries that are starving. ● Wealthier nations are in a better position to carry out space exploration and will be able to make more significant progress.

Discuss the view that <u>marriage</u> is <u>increasingly</u> <u>irrelevant</u> **in your society**.

Marriage: Legally binding
Increasingly: Change
Your Society:
- ↑ career driven
- Education – change in mindsets, $$, status
- Conservative vs liberal
  - A relationship need not end up in marriage
- Religious views: believers of religions may see marriage as more important

Note: REASONS (why/why not), don't just assert that e.g. marriage rates have dropped etc.

Double-barrelled Questions

Note: Generally better to tackle as a singular assumption question, with one part of the question taken as a given.

There are **no permanent friends**, only <u>permanent interests</u>.

Possible stands:
- (Yes permanent friends, no permanent interest)
- (Yes permanent friends, yes permanent interest)
- **No permanent friends**, no permanent interest
- **No permanent friends**, yes permanent interest

Format:
- Intro

- There are no permanent friends (address singular assumption)
- There are no permanent interests (counterargument)
- There are permanent interests x 3
- Conclusion

Friends: The friendship of the *leaders* of countries. Regardless of political agenda, based on affection.

'**Men only need to be good**, but women have to be exceptional.' To what extent is this true in the workplace today?

Exceptional: in abilities as compared to other women

Workplace: What is it like? Culture, principles e.g. meritocracy, expectations
- Male-dominated in certain industries e.g. STEM, military
  - Sexual harassment in these industries, especially military
- Increasing numbers of women in the workforce (even in traditionally-male dominated industries)
- Less labour intensive, more knowledge-based
- Glass ceiling, old boys' club (more men in the upper-echelons of management)

Yes, women must be exceptional because	No, women need not be exceptional because
Especially in physically-demanding industries, women have to overcome their natural disadvantages ● e.g. in the military ● **physical** build	Proliferation of technology has introduced more knowledge-intensive industries, so women need not be exceptional
In many cultures, women are expected to juggle the demands of both household and work ● 'Double shift / 2nd shift'	Laws are put in place to ensure that women just have to be as good as men (meritocracy)
In male-dominated industries, the minority (women) have to be exceptional in order to be heard ● perceptions, stereotypes, **mindsets**	

Singapore

National Day Rally 2019

1. Retirement age, currently 62, to increase to 65 by 2030
2. CPF contribution rates will be raised for workers above the age of 55
3. Reduced university, polytechnic fees for lower-income students
   a. Bursaries for university courses to increase from up to 50% to up to 70% of fees.
   b. Bursaries for polytechnic diploma programmes to increase from up to 80% to up to 95% of fees
   c. Increased bursaries for students at the ITE, Nanyang Academy of Fine Arts and LASALLE College of the Arts
4. Annual spending on early childhood education will more than double over the next few years
   a. Raise the income ceiling of households eligible for pre-school subsidies up from $7500 per month to $12000 per month, resulting in an additional 30,000 more households in Singapore who will qualify for pre-school subsidies

5. Singapore is expected to spend $100 billion over the next 100 years to protect itself from rising sea levels
   a. According to a Swiss study, by 2050, several cities in the world will experience 'unprecedented' climate shifts, with Singapore being one of them.
   b. Coastal defences would be needed to protect Singapore against rising sea levels, especially in critical areas such as East Coast and Jurong Island
6. Mr Lee laid out his vision for the Greater Southern Waterfront (GSW), which will be redeveloped as a new place to live, work and play. The GSW will have new attractions, similar to Universal Studios Singapore, as well as a 'Downtown South' resort to be built by NTUC, likely on Pulau Brani
7. Singapore's approach to US-China tensions 'principled'
   a. While the US-China trade dispute had economic implications for Singapore, it did not warrant immediate stimulus measures.
   b. If the situation does get worse, the government is prepared to 'promptly respond with appropriate interventions to sustain the livelihoods of our workers'
   c. With Singapore being the only other sovereign country besides China to have a majority ethnic Chinese population, this makes bilateral relations "unique", said Mr Lee. This is why Singapore must always be principled in its approach and not be swayed by emotions, he added.
8. Malays in Singapore have a 'unique identity' compared to their regional counterparts
   a. Malay community practices religion "in a spirit of mutual respect, tolerance and inclusiveness" in Singapore's multicultural society.

Characteristics

Singapore is Fast-paced / Competitive

- World Economic Forum Global Competitiveness Report:
  - Singapore was the 3rd most competitive economy in the world as of 2017
  - Singapore had the best higher education & training systems in the world as of 2017
- Singaporeans work the second longest time in the world according to OECD ranking in 2016.
- According to New York stock exchange millennials in Singapore worked the joint-second longest hours in the world.
- *Do, don't think*: Singaporeans are often said to be good 'managers' (do) and not visionary leaders (think).
- Precisely because SG society is competitive, many are finding hobbies to destress after a long day at work / school e.g. playing sports, watching movies, playing music, drawing etc

Singapore is Stressful

- MOM's labour market report: Singapore has the longest working hours in the world.
- By labour legislation, Singapore has also the worst maximum working hours in the world.
- In the 2019 Cigna 360 Well-Being Survey, a whopping 92 per cent of working Singaporeans report feeling stressed
- Of 600 Singaporeans and permanent residents polled in a recent survey, 31 per cent said they did not know how to relax and 48 per cent - almost one in two - said they were stressed out by the thought of doing nothing.

HOWEVER
- The context of Singapore requires it to remain pragmatic as it moves into an age of increasing competitiveness. While some may argue that such competitiveness may promote the idea of 'pursuit of excellence', the increasingly holistic education system gives me confidence that a deep-seated pragmatism

and the 'gentle pursuit of a modest competence' (pursue hobbies because you like it, not because you are good at it) are not mutually exclusive.
- Furthermore, recent medical studies by NUH show an increased understanding of the effects of stress in working adults and students, as well as greater mental health awareness; highlighting the need for people to find things to do for fun to relax and unwind.
- Government also recognises the effects of stress on its working population - which can lead to decreased productivity, poor work-life balance and struggles with their mental health
- Thus the emphasis on having working adults to frequently take part in community recreational activities (subsidising their event fees)
- Sports Facilities Master Plan (SFMP) to provide greater access to sporting facilities through new public facilities and redevelopment of current facilities - goal is to offer people with more opportunities to partake in recreational activities
- Singaporeans and PRs get $100 worth of ActiveSG credits.

Demographics

Low Fertility Rates

- Singapore's total fertility rate plunging to a seven-year low of 1.16 in 2017, down from 1.20 in 2016.
- For the population to replace itself without immigration, women need to have an average of 2.1 babies.
- Reasons for women staying single:
  - No longer having to marry for economic survival
  - Long work hours, high cost of living and a relatively long wait for Housing Board flats
  - Many women still get passed up for promotion or high positions because of motherhood
- Action taken aimed at tackling Singapore's baby shortage
  - Marriage and Parenthood package, introduced in 2001
  - Increased benefits for working parents
    - ➢ Paid maternity leave provisions (16 weeks if the child is a Singaporean citizen, 12 weeks if not)
    - ➢ Paid paternity leave (now increased from 1 week to 2 weeks) and childcare leave
    - ➢ Reduction in foreign domestic worker levies and childcare subsidies
    - ➢ Baby Bonus Cash Gift ($8000 extended for 5th child and beyond), Baby Bonus Plus (additional $2000 for each child)
  - However, financial and spatial burden remains a large limitation
    - ➢ CPF Family Housing Grant
    - ➢ Tax incentives

Ageing Population

- 20% of Singaporeans will be 65 or older by 2030.
- In 2010, the retirement age was raised from 62 to 65, and currently to 67 (with effect from July 2017)
- Unfavourable attitudes towards the elderly
  - Most of their children avoid taking care of them as the process might be seen as time consuming, leading to a clear disintegration of intergenerational ties. This is coupled with a generation gap which might further deteriorate the bond.
  - In the workplace, the elderly is often seen as useless/slow, as they may not be accustomed to the use of technology or the fast paced work life.

Youths / Students

- Youth in Singapore are image conscious. Most are concerned by how they look online and edit their photos.
- OECD: Singapore students spend the 3rd longest time on homework
- SOS: National suicide rate rose to 8,54 per 100,000 residents but overall teenage suicide rates fell from 15-year high of 27 in 2015 to 22 in 2016

The Disadvantaged

Poor, physically disabled, intellectually disabled, mentally disabled and any combinations of the above.

Strong financial position of the government and vast number of voluntary charity and welfare organisations in Singapore — **material needs** are addressed
- The poor are able to rent 2-room flats from the government at highly subsidized rates.
- Medisave, Medishield, Medifund: vital welfare security net
- Vast number of facilities with elderly-friendly and wheelchair friendly features
  - Arm support railings, wheelchair ramps at staircases & in buses
- All Singaporeans can easily send feedback to their district's MPs or Town Council, who will try to address their needs

Developmental programmes
- Schools for the intellectually disabled youth, like Pathlight and Northlight School have dedicated teachers and staff who give their utmost efforts in nurturing disadvantaged youths
- The Singapore Association for the Deaf organises training programmes organises training programmes to increase the employability of its beneficiaries.

Limitations
- Large proportion of these disadvantaged people do not successfully get employed in the end
- Perception that the disadvantaged are less capable and productive than the average worker, and may even cause trouble in the workplace

Poor do have opportunities to perform well in life
- Schooling costs are heavily subsidized under the Ministry of Education Financial Assistance Scheme
- Religious and voluntary organisations providing free or highly subsidized tuition classes

Media

- 2017 Reporters Without Borders World Press Freedom Index: 151st/180 countries
- Laws and Legislation empower the Media Development Authority (MDA) to censor journalistic content, including online content.
  - Media Development Authority Act
  - Films Act
  - Broadcasting Act
- MDA ordered closure of The Real Singapore (TRS) because of content regarded as overly critical. Two of its alleged contributed were accused of 'sedition', which is punishable by 21 years in prison.
- Defamation suits are common and PM Lee Hsien Loong has personally brought prosecutions against bloggers

Education

Holistic Education

- The O Level English syllabus in Singapore emphasises visual literacy, i.e. students' ability to decipher and interpret visual images
- Mental health: Each school has a counsellor.
- Holistic education promotes the pursuit of interests.
  - CCAs, art lessons, music lessons, non-compulsory O- and A-level art / music subjects
  - Direct School Admission (DSA) scheme, which started in 2004, allows secondary schools to admit students based on not just grades but their sporting and artistic merits.
  - Introducing new programmes for secondary schools, with a greater value placed on arts and outdoor education
- Lack of natural resources forces government to invest in human capital. A pragmatic society, we cannot lose any talents. Everyone is encouraged to find their own talent through exploration.

Does it Work?

- Routinely ranked at or near the top in global comparisons of mathematical ability and boasts one of the most admired educational systems in the world.
- Education system constantly placed among the best in the annual PISA Ranking.
- In 2016, the UK announced that half of England's primary schools would adopt the style of maths teaching that is used in Singapore, with up to £41m in funding over 4 years to train teachers and provide new textbooks.
- While Singapore's school system earns much admiration abroad, it is frequently disparaged at home
  - Parents fear that exam-oriented systems place too much strain on their children
  - Emphasis on academic achievement can come at the expense of a balanced upbringing

Environment

Economics

Economic Growth is Crucial

- When Singapore was expelled from Malaysia in 1965 and thrust into an unwanted independence, it was a typical Third World country. Its per capita income of $500 was the same as Ghana's then.
- For example, a factory worker at a rubber slipper factory in the past would earn $87 a month. Today, a lower-income Singaporean worker would earn about $1,860, which is about an increase of 5.5 times after adjusting for inflation.

Widening income gap

- In Singapore, the richest 10% of households saw their monthly income per household member grow from S$8,571 in 2007 to S$13,215 in 2017. In contrast, the poorest 10% of households experienced an income growth of S$219 during the same period.
- This suggests that the income gap between Singapore's highest and lowest income earners grew by 54% from S$8,236 in 2007 to S$12,661 in 2017.

● Wages for the lowest-paid jobs, including cleaners and security guards, have stagnated in the last decade. Furthermore, the economy has become so dependent on low-wage and low-skilled foreign workers that subsequent efforts to raise productivity and invest in technology have met with opposition from small and medium-sized local companies that are unwilling to compromise their own earnings.

Family & Marriage

● Singaporeans are getting married and having children at an older age. Rather than making rash decisions (unplanned child birth), they wish to advance in other areas of life (such as a stable career) before starting a family.

Crime & Punishment

World Ranking

● Singapore was recently ranked second on the Economist Intelligence Unit's Safe Cities Index for 2017, coming in just behind Tokyo.
● The World Justice Project's Rule of Law Index 2017-2018 ranked Singapore first for order and security.

Crime Rates

● In 2016, the island nation's police reported 135 total days without any crimes including snatch-theft, house break-ins and robbery.

Science & Technology

Smartphone Usage

● Singapore and Hong Kong boast some of the world's highest smartphone penetration rates.
  ○ Smartphone penetration rate: number of active smartphone users per 100 people within a specific population
● 87% of Singapore's population own smartphones
● Singaporeans spend on average 38 minutes per session on Facebook, almost twice as long as Americans, according to a study by Experian.
● Picking up hobbies online (to destress): MeetUp app.

Arts and Culture

● Need for Singaporean books to reflect our experiences and resist the danger of a 'single story'.
  ○ By weaving together fact and fiction in the retelling of the history of Singapore, *The Art of Charlie Chan Hock Chye* sought to change the accepted narrative
  ○ Alfian Sa'at's poems on race cause readers to question the racial harmony that we assume we have
  ○ Amanda Lee Koe's *Ministry of Moral Panic* challenges widely accepted norms in society
● Culture of censorship
  ○ National Arts Council's funding for *The Art of Charlie Chan Hock Chye* was withdrawn because the the threat that it may 'undermine the authority and legitimacy' of the government

- Propagate hate speech or derogatory remarks
  - In 2012, the Singapore film Sex. Violence. Family Values which contained several racist lines received much public backlash after its trailer was released. In the film, there were multiple scenes where the characters were trading insults at each other, one of whom being an Indian, based on common stereotypes of Indians. Later, a heavy ban was imposed on the film.
- Young impressionable audiences may be misled
  - The play Five Easy Pieces in Singapore was based on the crimes of Belgian child rapist-cum-murderer Marx Decroux. The play featured many scenes depicting the sexual abuse of the children by Marx where undressed children were filmed and aired for viewers. Ultimately, while the play was intended to raise awareness of the presence of sexual predators and educate children on sexual abuse that could happen to them, young children below 18 were banned from watching.

Politics

"To survive, you have to be exceptional."

- The alternative, PM Lee warned, was being 'pushed around, shoved about, trampled upon; that's the end of Singapore and the end of us'
- Fear or being dwarfed by vast neighbours in Southeast Asia.

Freedom of Speech

FOR	AGAINST
It is considered by the United Nations and other developed countries such as the US to be a fundamental human right. • The Universal Declaration of Human Rights (UNHDR) states in Article 19 that "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers." • Similarly, it is also enshrined in the First Amendment to the US Constitution. • Denying freedom of speech is comparable to the infringement of other kinds of human rights. Embracing freedom of speech for Singapore can truly elevate her status as a First World country. • While Singapore has done very well economically, she is often criticized by many Western countries for her "poor human rights record", as reported by Human Rights Watch in 2015.	The unique socio-political circumstances of Singapore require stronger governmental controls to ensure minimal disturbances to the socio-economic stability. • PM Lee Hsien Loong and Kishore Mahbubani have both used the metaphor "sampan" to describe Singapore, suggesting that any small disturbances could easily topple the country. Freedom of speech, while having merits, can be abused to cause serious damage e.g. hate speech. • In the Singaporean context, speech that can potentially cause social disorder can be injurious to the country's well-being. This is clearly articulated in the Sedition Act. The assumption that the ill-effects of freedom of speech are only temporary needs to be challenged. • Assumption: False information and extremists' views will be disregarded by the informed majority over time. The Asian perspective on governance and freedom of speech is different from the generally more liberal point of view adopted by most of the West. Interfering with freedom of speech for the greater good of society in the

	Asian context can be seen as responsible governance. ● In other words, the costs of having completely no regulation for speech are far too great.

- Presidential Council of Minority Rights ensures all laws and actions of the parliament do not infringe on minority rights.

The Constitution

The right to freedom of speech and expression in Singapore is constitutionally guaranteed in Article 14 of the Singapore Constitution.
Only Singapore citizens are granted this right. In addition, the Singapore Parliament is entitled to restrict the right in 2 situations:

1. Where the restrictions are designed to:
   - Protect the privileges of Parliament
   - Provide against any contempt of court, defamation or incitement to any offence.

2. Where Parliament considers that doing so is necessary or expedient in the interest of:
   - Singapore's security
   - Friendly relations with other countries
   - Public order
   - Morality

For example, section 298 of the Penal Code makes it an offence to utter a word within hearing distance of a person, with the deliberate intention to wound that person's religious or racial feelings. This restriction can be said to be in the interest of public order, due to the need to maintain racial and religious harmony in Singapore.

Roy Ngerng

Roy Ngerng, a blogger, was found guilty for a blogpost that had allegedly defamed the Prime Minister Lee Hsien Loong of Singapore. On December 17, 2015, the Supreme Court ordered Ngerng to pay the PM S$150,000 in damages. The Court in this case determined that the right to sue for defamation overruled the defendant's right to freedom of speech. Even though the plaintiff was a public figure and the defendant was discussing a matter of public concern, the Court still ruled that the plaintiff's cause of action for defamation was allowed.

Plaintiff: a person who brings a case against another in a court of law.

Key Facts:
- The blog entitled "Where Your CPF Money is Going: Learning from the City Harvest Trial" was posted on Ngerng's personal blog, The Heart Truths, on May 15, 2014.
- On May 18, Lee Hsien Loong demanded Ngerng to remove the disputed blogpost, to publicly apologize to him, and to write him with an offer of damages and costs. Ngerng removed the post on May 19 and made a public apology on May 23.
- The PM stated that Ngerng's actions were not sincere and refused to accept the offer. He asked for aggravated damages, stating that Ngerng failed to remove a YouTube video.
- On November 7, 2014, the High Court of Singapore ruled that Ngerng was guilty of defamation with damages to be assessed. The case is the first defamation case in Singapore that is purely about an online article.
- The High Court Judge Lee Seiu Kin ruled that "there is no doubt that it is defamatory to suggest that the plaintiff is guilty of criminal misappropriation."

"If you make a defamatory allegation that the Prime Minister is guilty of criminal misappropriation of pension funds of Singaporeans, that's a very serious matter. If it's true, the Prime Minister should be charged and jailed. If it's not true, the matter must be clarified and the best way to do that is by settling in Court. If it's untrue, it will be shown so. If it's true, the Prime Minister will be destroyed." - PM Lee

The Media

Key Terms

The Press — the people (such as reporters and photographers) who work for newspapers, magazines, etc.

New Media — means of mass communication using digital technologies such as the Internet.

Traditional Media/Old Media — the mass media institutions that predominated prior to the Information Age; particularly print media, film studios, music studios, advertising agencies, radio broadcasting, and television

Social Media — websites and applications that enable users to create and share content or to participate in social networking.

Fourth Estate *(or Civil Watchdog)* — refers to the press and news media both in explicit capacity of advocacy and implicit ability to frame political issues.

Watchdog Journalism — informs the public about goings-on in institutions and society, especially in circumstances where a significant portion of the public would demand changes in response. This might involve:
- Fact-checking statements of public officials.
- Interviewing public figures and challenging them with problems or concerns.
- Beat reporting to gather information from meetings that members of the public might not otherwise attend, and to observe "on the ground" in broader society
- Investigative journalism, which involves information-gathering on a single story for a long period of time

Value

Watchdog

Domestic Press
- The Straits TImes reported that there was a misuse of public funds in the constituency led by an opposition political party
- Russian press has also reported that the Russian government is persecuting LGBTQ+ individuals in Chechen, Russia, by beating them and incarcerating them because of their sexual orientation

When the domestic press falls prey to pressures by the government, the international press has been known to step in to fill the void.
- Vox has reported multiple times on China's brutal crackdown on the Uighur Muslim minority, while the New York Times has run multiple exposes about Syria's secret torture prisons that were used to crush civil dissent.
- TIME has reported that the Philippines' President Duterte is unfairly sending out death squads to murder all and any suspected drug addicts and drug smugglers. This happened when the Philippine press was pushing Duterte's agenda and covering up the deaths.

Citizen Journalism

Citizen journalism has empowered citizens to share unbiased news, especially in countries where the mainstream media are limited.
- YouTube videos of citizens under fire from government forces / terrorists in Syria

Public Opinion

Media commands tremendous power over public opinion. Both news and entertainment media influence the political views of individuals.

- Since media presentations impact election outcomes, media expenditure is the largest chunk of campaign budgets.
- Candidates spent US$4.4 billion dollars for media content and coverage during the 2016 US presidential campaign
- Media often portrays the benefits of obtaining credit cards or participating in investments without really discussing the pitfalls of excessive spending on credit cards or borrowing to pay off bank loans.

Campaigns that influence social/moral views of individuals.
- A record high of 74% of Americans believe same-sex marriage should be legal, approximately 40% higher than it was thirty years ago.

Diversification of Opinions

- On the Ukrainian Civil War, news organisations, governments and individuals located in the European Union and Ukraine were sympathetic to the Ukrainians' plight. News articles shared on social media by Europeans shed a negative light on Russian rebels and Russia's actions in Ukraine. Conversely, in Russia, there is greater support for the Russian forces and rebels. Russian news organisations on social media, like Russia Today, adopt a pro-Russia stance to the same events.
- On the Israeli-Palestinian conflict, the Arab States, and sometimes Russia, are supportive of the Palestinians and draw attention to their suffering, while condemning Israeli actions. On the other hand, Israel and the West defend the actions of the Israeli military and emphasise Israel's right to self-determination. Different terms are used to describe the Israelis -- 'Invaders' is frequently used by the Arabs, while 'defenders' is used more prevalently by the West.

Unifying Force

- During WW2, propaganda was used in America to increase support for the war and commitment to an Allied victory
  - through the use of posters and other media, patriotism was drummed up and people were persuaded to come together to contribute to the war effort
- In the 70s and 80s, the Singapore government used TV, print and radio to launch many campaigns to ensure everybody was on the same page
  - e.g. National Courtesy Campaign, Stop at Two Campaigns, Speak Mandarin Campaign
- Numerous beheading videos released by the Islamic State of Iraq and Syria (ISIS), which were meant to instil fear in the public, as well as attract individuals who would like to join them in their "Holy war".

Instant coverage of news events and the dissemination of this information through the mass media means that people all over the world react to the same events, often in the same way.
- The news coverage of the September 11 attacks brought the world together in an unprecedented way. The attack was viewed in real-time across the globe, eliciting grief and a feeling of solidarity with the American victims
- The sense of solidarity was also seen after the Charlie Hebdo attacks in 2015
  - Media coverage of the 1.6 million strong crowd in Paris, along with images of the slogan 'Je suis Charlie', caused emotions to swell.
- Media coverage of the deaths of iconic celebrities also shows how much the mass media has brought people together.

Impact

Disenfranchised Minority Groups

- The way women and non-white characters are portrayed in the mass media makes them second-class citizens
  - 50% of all films fail the Bechdel test, a test that asks whether a work of fiction features at least two named women who talk to each other about something other than a man.
  - In the same way, ethnic characters are also often stereotyped: Asians are portrayed as nerds and Africans dressed in exotic animal skins

Traditional vs New Media: Trustworthiness

- We saw the worst effects of this with the "fake news" phenomenon stemming from the 2016 U.S. Presidential election campaign. With so much digital content being published across online outlets, blogs, social channels and more, legitimate and fact-checked journalism was drowned out.
- News in print may be a day old but the delay between when the news happened and when it is seen by readers allows experienced professionals to filter through the relevant facts and claims.

Trust

- Respondents with different political views also have different perceptions of the pervasiveness of bias in the news. For example, Democrats believe just 44% of TV, newspaper, and radio news is biased, Republicans believe 77% of it is biased. But both groups believe there is widespread bias – between 74% and 83% – in news shared on social media.
- Singapore Press Holdings is known for being a 'mouthpiece' of the Singapore government, frequently self-censoring and self-policing its content.

National Security

- Russia's 2016 misinformation campaign attempted to disrupt American democracy
  - Automated bots to create social media accounts that help push its narratives
  - Spreading of fake news to promote Russia's interests
  - Returning in 2020?

Privacy

- 'If you are not paying for the product, you are the product.'
- Companies like Facebook and Google toll through posts and messages of users to deliver targeted advertisements to users
- Google's street view has frequently been challenged by privacy campaigners who question whether the logistical and commercial benefits of making every property in every street visible to the web is worth the sacrifice to the individual's right to privacy
- However, there exist privacy settings and users' own choices to use these platforms.
  - 10-year challenge: Social media trend that became viral, concerns that companies were using the photos for facial recognition researchs

Fake News

- After the November 2015 Paris terror attacks, rumours quickly spread that the Louvre and Pompidon Centre have been hit and that Francois Hollande had suffered a stroke.

- Breitbart is a far-right news agency that spreads untruthful far-right content, like allegations that Hillary Clinton ran a child sex ring in a pizzeria in the United States.

Social Cohesion

- The International Humanist and Ethical Association (IHEV) cites the issues over religious insensitives on social media have increased exponentially over the past few years.
- The Charleston Shootings in America: the criminal Dylan Roof had previously searched the internet on "Black on white crimes" and felt an urge to translate the online conversation into actions. He eventually took the lives of 9 African Americans on 17 June 2015.
- Reddit prides itself for its anti-censorship policy and became a platform for inflammatory remarks. Subreddits (threads) can be often found criticizing the African-American community while glorifying white supremacy, gaining the site the title of the "most violently racist content" on the Internet.
- Cyber bullying: Amanda Todd (2012)

Corporate / Political Agendas

- Showing support for the Democrats by the left-leaning New York Times
- In reading about gun control, people usually prefer sources that affirm their existing attitudes. They also tend to interpret ambiguous evidence as supporting their existing position. — media companies know the political leanings of their target audience and exploit this biasness.

Echo Chambers

- Sixty-four percent of Americans say they "frequently" (27 percent) or "occasionally" (37 percent) share news stories with friends, family or social media followers. However, Americans who share news stories admit that their sharing is mostly done with people who hold similar (68 percent) rather than different views from their own (29 percent).

Herd Mentality

- Over 17 million people worldwide participated in the 2014 ALS Ice Bucket Challenge
- Feud over famous YouTubers James Charles and Tati Westbrook. '#JamesCharlesIsOverParty' hashtag on Twitter trended for a few days.
- When the news broke out that Jordyn woods had slept with Tristan Thompson, husband of Khloe Kardashian, the Internet went crazy. News media such as Fox News and The Daily Mail helped to fan the flames by posting updates and heavily biased reports on the situation that turned people against Jordyn Woods.
- One example is seen from the Boston Marathon case. An innocent man was framed by the "vigilant warriors" on Reddit. This man, Sunil Patil, had gone missing and his family had put up photos on the Internet, searching for him. What started out as a comment that said, "He looks like the suspect" became "He is the suspect" and that lead to a full-fledged witch hunt for the poor innocent man who had absolutely nothing to do with the incident.

Diversity of News Media

- The constant reporting on these issues by Fox News crowds out other more legitimate and objective news. Fox News' news then becomes every other news outlets' news. It is not uncommon for viewers of CNN or MSNBC to see these news outlets quoting Fox News as the sources of their own reporting.

Control

Censorship

Censorship is a policy of suppression of public expression which may have the capacity to undermine the governing authority or inflame public sentiments. Censorship can curtail insidious material deliberately or subconsciously made through new media.

- China: 2 million censors police the Internet and activity of users ("Great Firewall of China")
- In Hong Kong, where China is duty-bound to respect a free press, Beijing has employed an assortment of measures such as selective violence against editors and arrest of reporters.
- Hong Kong Journalists Association described 2014 as the 'darkest year for press freedom in several decades'

Social Cohesion

- PM Lee Hsien Loong has called Singapore a 'sampan', describing how volatile its social fabric can be.
- After the 2015 Paris terror attacks, rumours quickly spread that the Louvre and Pompidon Centre had been hit, and that Francois Hollande had suffered a stroke
- Censorship can protect country's morale during times of disaster

Conduit for Government Propaganda

- North Korea
- Skeptics of the Singaporean press also raise suspicions about the Straits Times as most members of the paper's management board are serving or have previously served in the Singapore government

Responsibility

(Irresponsible) Selective Coverage

- When children were being separated from their families at the border, MSNBC, CNN and Fox News dedicated only 1 hour and 8 minutes to the crisis — combined. During that same span, the three networks spent 34 hours and 28 minutes covering Omarosa Manigault Newman and her tell-all book.
- The biggest unreported story in the world right now is climate change.
  - As Adam Hunt, media and communications director at global media agency Internews' Earth Journalism Network, put it: "Environmental news can be boring, scientific, complicated and full of gloom and doom."
- Lianhe Wanbao is a tabloid newspaper containing tabloid journalism on sensational news.
  - The newspaper curates topics that are trending among its audience, before delivering them in a concise report.
- A study by the Media Insight Project in America:
  - Only 41 percent of Americans report that they watched, read, or heard any in-depth news stories, beyond the headlines, in the last week. Slightly more people, 49 percent, report that they invested additional time to delve deeper and follow up on the last breaking news story they followed.
- In America, even as hate crimes occur with more frequency, newsrooms for the most part tend to treat them as individual problems, not as systemic problems that require better follow-through and focus.
  - "Hate crime is treated as a single event by a perpetrator or a group of perpetrators, instead of looking at it in the context of a lot of systemic problems," Benson said, because many of those in the media have "a belief that the system is fundamentally sound."

Responsible Coverage

- In October 2018, the U.N. Intergovernmental Panel on Climate Change published a watershed report on climate change, warning that a bigger crisis could come sooner than we thought.
- In the week that followed, The Post and the New York Times ran front-page articles with the news as well as analyses and reactions about the report over the days that followed. But if you flipped on your television, you likely didn't hear much, if anything, about it. You might have heard about President Trump's latest rally or Kanye West's visit to the White House, but this earth-shattering story was buried.

Reputable News Sources

- The Guardian – editorially independent. journalism free from commercial bias and influence from large stakeholders
- Mainstream press comprises professional journalists, editors and publishers who have to adhere to a strict code of conduct. If they fail to fulfill their professional duty, their own news agencies, along with the public and the courts can call them out for it.
- BBC, New York Times and The Guardian — strict protocols to follow
    - the public can trust them to give impartial, correct information that is free from judgement
- Updates or corrections are readily published too, if the press does make a mistake, as seen in The Economist.
- BBC now has a news segment called BBC Factcheck where news reporters at BBC dispute fake news and spread the facts and truth instead. CNN equivalent: Keeping Them Honest

Effective

Effectiveness of Individuals in Detecting Fake News

- In SG, ¾ said they were confident of their ability to distinguish real news from fake news. However, only 10% succeeded when put to the test.

Effectiveness of Government Censorship

- The China government's attempt to clamp down on posts relating to the TIananmen Square Protests which occurred on the 4th of June 1989 failed. Key words such as "June 4th", "six four" or "protests" are blocked from search catalogues. Nonetheless, Chinese netizens often seek to commemorate the event on 4th June which oblique references and images, such as "1-9-8-9" or "25 years have passed." Occasionally, some of the postings go undetected.
- Virtual Proxy Networks (VPNs) are gaining popularity in China.

Justified

Laws May Be Malicious

- People spreading fake news in Malaysia could be sentenced to 6 years in jail under a new law in 2018
- India dropped a similar law within 24 hours after it was announced thanks to human rights campaigners speaking out against these plans

The Environment

Impact

- "Although climate change affects everyone, the impacts are not evenly distributed." - Eddie Bautista, Executive Director, People's Climate March
- The Intergovernmental Panel on Climate Change projects that temperatures in 2100 will be up to approximately 5 degrees higher than it is today, when even 2 degrees can lead to unpredictable catastrophic effects
- The effects of climate change will kill at least 150 million people this century. All these premature deaths could be avoided if average global temperatures could be reduced by just 1.5 degrees Celsius.

The Three Tipping Points

1. Arctic Ice Cap
2. Arctic Methane (50 times as toxic as CO2)
3. Ocean Acidification (Eg. Planktons can't live → The basis of our food chain)

Even if we went "cold turkey" now, there are time lags in the climate system. There would still be a catastrophic shift in the balance of our atmosphere.

China

- Massive industrialisation and urbanisation
- Holds mass demonstrations
- Recently surpassed US as the world's number 1 polluter
- The chinese media talks about climate change daily (empowering people)
- The government changed plans towards renewable energy, and started prioritising wind and solar energy rather than coal

Kiribati

- 1 billion people depend on fisheries and coral reef for their source of proteins -- starvation
- Severe flooding may cause islands to be underwater soon -- loss of livelihoods, have to relocate them
- Long term strategy by the government: bought a piece of land in Kiti for migration

India (LDC)

- Priority on development and poverty
- The poor of India gets the worst of climate change
  - Food crops were destroyed by the flood
- Not everyone has access to energy (300 mil people have no access in india)
- Use of cow dung for cooking energy (700 mil households cook using biomass)

Indonesia

- 2015 forest fires. Their emission of carbon daily exceeds that of the US economy
- Expansion of palm oil (take over 80% of their forests due to high demand by consumers)
- Life of forest species and people are at risk

Typhoon Haiyan: one of the biggest storms to have ever hit the planet; a million people were forced to leave their homes

"Given the current rate of current emissions, we will exceed our world's 'carbon budget' in 30 years.

Control

Protocols and Agreements

- Kyoto Protocol: USA did not ratify and in 2001, US President Bush abandoned the protocol.
- Copenhagen climate conference: protestors attempted to storm the hall when negotiators could not come to an agreement.
- The landmark 2015 Paris climate agreement saw more than 150 countries coming together to discuss and negotiate on the actions to be taken as a nation and to decide on their individual goals to combat climate change. A notable aspect of the summit was the inclusion of a segment where developed countries with better green technology and expertise focused on how to aid technological, financial and skills transfer to less developed countries (LDCs), to help reduce carbon emissions in LDCs.
    - USA withdrew from the agreement.
    - Even after the much-lauded United Nations Climate Change Conference in 2015, the non-binding nature of subsequent Paris agreement means that no penalties can be enforced if countries do not keep to what they had agreed to with regards to reducing their carbon emissions. (pay lip service)
    - Many countries such as Taiwan and Kenya have since implemented laws that aim to eliminate single-use plastics by 2030.

Technology

- Carbon capture is able to trap the carbon dioxide underground, with high retention rates of up to 85%, even after 500 years. In the United States, up to 50 million tons of carbon dioxide is stored underground.
- According to the National Energy Technology Lab, North America alone has enough storage capacity to store more than 900 years' worth of carbon dioxide, assuming current production rates
- Tesla's success in manufacturing electric cars over the years has also seen carbon emissions from vehicles dipping in countries who have embraced the use of such technology. This also led to Tesla's current investment in its Gigafactory, to provide sufficient lithium batteries to deal with the demand for electric cars. Tesla's CEO Elon Musk claims that a hundred of such Gigafactories would be sufficient to power the entire world's population, though it would not come cheap.

Renewable Energy

- Germany's famous Energiewende, or energy transition, in recent years has been clear evidence of its desire to shift its nation's energy reliance to renewable sources, and its dedication to the cause has seen a 27% decrease in greenhouse gas emissions between 1990 and 2014.
    - However, significant monetary costs: around 1.5 billion euros is spend every year on energy research.
    - Today, 40-50% of Germany's energy comes from renewables such as wind, solar and hydro.
- Switzerland obtains most of its power from hydroelectric plants

SHORTCOMINGS
- Despite the lure of government subsidies, there are still too few companies making renewable kit (almost all the wind turbines in British seas, as one example, are produced by a single firm)

- Many common types of renewable generators only produce power intermittently—when the sun shines or when the wind blows. Wind turbines, for example, spin only about a third of the time. That means countries which have a lot of renewable generation must still pay to maintain traditional kinds of power stations ready to fire up when demand peaks. Furthermore, the average output of energy per unit cost is far lower than that of fossil fuels.
- In 2018, renewables had contributed to electricity prices rising 50% in Germany and five times more in California than in the rest of the US despite generating just 17% of the state's electricity.
- In April 2018, a research institute at the University of Chicago led by a former Obama administration economist found solar and wind were making electricity significantly more expensive across the United States.

UNDERFUNDED
- By 2040, 75 percent of global emissions will come from emerging economies like China and India. It is understandable, and noble, that wealthy advanced economies want to reduce their territorial emissions, and they should continue doing so, but if emissions don't fall in emerging economies, all is lost. Advanced economies could flatline their emissions tomorrow and all would still be lost. Cheaper clean energy technology is a global public good, and advanced economies are both morally obliged and economically well-positioned to provide it. Yet, global renewable energy research is consistently underfunded, leaving emerging economies with no choice but to resort to relatively cheaper fossil fuels for their energy.
- Mission Innovation, an international effort to coordinate and accelerate clean energy R&D, was launched with much fanfare in 2015. So far, 24 nations and the European Commission have pledged to double their R&D spending. However, few countries are on track. It looks like they will average about a 50 percent increase.
- There is, of course, the free rider problem — everyone benefits from R&D eventually, no matter who pays for it — but free rider problems abound in climate policy, and R&D seems uniquely overlooked.
- A country like Germany could eliminate its production-based emissions entirely and it would scarcely make a dent in global emissions, whereas, for a tiny fraction of the cost, it could unilaterally double the global clean energy R&D budget and stimulate far more innovation, with arguably greater impact.
- Despite this, the cost of renewable energy has tumbled to the point where almost every source of green energy can now compete on cost with oil, coal and gas-fired power plants.
    - Even the most expensive renewable energy technology, concentrated solar power (CSP), is competitive against fossil fuels in some circumstances. The cost of developing a CSP plant ranges from around $0.10/kWh to $0.27/kWh, with an average price of around $0.18/kWh.
    - The cost of developing new power plants based on fossil fuels typically range from $0.05/kWh to over $0.15/kWh.

Responsibility

Individuals

- In one of the most dangerous countries in the world for environmental activists, Leng Ouch, went undercover to document illegal logging in Cambodia and exposed the corruption robbing rural communities of their land, causing the government to cancel large land concessions
- Facing heavy government scrutiny and restricted use of tools like email or social media, Myint Zaw from Myanmar launched a national movement that successfully stopped construction of the Myitsone Dam on Myanmar's treasured Irrawaddy River

Corporations

- Apple has projected demand for iPhones to soar due to its ability to 'serve as a flashlight or a siren', provide first-aid instructions and act as a radio in disasters that are becoming increasingly frequent with climate change
- Google also stands in profit from more users using Google Earth to visualise climate change and analyse data

Governments

ECONOMIC GROWTH VS ENVIRONMENT

- The uncomfortable truth to be faced by policy makers worldwide is that economic growth is ecologically unsustainable. Global energy consumption needs to be reduced in order to minimise the negative repercussions on the earth's climate, but this is difficult to achieve as countries continue to grow their economies. China's recent economic growth, for instance, is strongly powered by cheap coal, and the same holds true for India, South Africa, as well as some Eastern European countries. The carbon emissions from these activities ultimately serve to hinder the fight against climate change.
- Matters are made worse when certain governments make promises that favour their citizens but not the environment. Recently-elected Brazilian president Jair Bolsonaro has been very vocal about his desire to relax laws against illegal logging, farming and mining in the Amazon, and this saw the world's greatest rainforest lose 739 square kilometers in May 2019 alone
- With the current wave and trend of protectionism and populism, where climate change entails a switch from the 'sunset' fossil fuel industry toward the usage of renewable, alternative forms of energy, protecting the jobs and profits in the fossil fuel industry is seen as more important than combatting climate change.
- An acute example is US President Donald Trump's election campaign greatly focusing on the needs of coal miners, promising to keep their jobs. The continuous anti-climate propaganda eventually influenced a wave of anti-climate sentiments within citizens, culminating in the withdrawal of the US from the 2015 Paris climate agreements
- 21 developed countries including Switzerland have reduced greenhouse gas emissions without compromising their economic growth. Singapore, one of the wealthiest countries in the world, has also made the switch to a cleaner fuel mix and is well on track to meet its 2020 pledge to reduce emissions by 16 percent below business-as-usual levels
- If developed countries do not address the problem of climate change fast, they may have to deal with millions of climate refugees at their shores in less than 30 years, according to World Bank predictions

MORAL LEADERSHIP

- When the United States pulled itself out of the Kyoto Protocol in 2001, Canada also felt it was justified to exit the Doha Agreement in 2011. This is why the rest of the world felt dismayed when The US again walked away from the Paris Climate Accord in 2016. The message sent was that if a global superpower was not going to take its climate responsibilities seriously, then other countries with fewer resources could do the same.
  - Even though optimists observed that in the immediate aftermath of the US' decision, a significant number of the US states and the rest of the world doubled down on their commitment to fight climate change, this is no more than a knee-jerk reaction. Recent months have seen a fair number of countries trying to pull back a little from some of the things that were originally agreed upon. In recent months, China, currently the top carbon polluter, has also indicated its intent to backpedal and push for a more divided approach, where rich countries are not the only ones compelled to take on carbon reductions.
- However, leaders of the developed world have pointed their fingers back at rapidly developing countries like China, whose emissions long surpassed that of the US from since a decade ago.
  - Yet, the truth of the matter is that many of these developing countries' current emissions are not just for themselves, but also from the production of goods for the US and other rich countries.

- ○ Furthermore, developed nations did benefit from an early start and have historically been the leading cause of global warming when they were industrialising
- ○ It can even be argued that decades of the Western model of consumerism-led economic growth has led to a permanent shift in the worldview of consumers – today, it is automatically accepted that greater material wealth implies a higher standard of living. Such a belief is almost never questioned, and is seemingly immune to criticism – woe behold any political party that proposes an alternative vision of economic growth, for they will be immediately dismissed as naïve tree-huggers who do not understand the 'truth' of the situation. Consumerism is the religion of the modern world. The origins of such a religion that has destroyed homes and contributed to severe environmental degradation all across the developing world? Developed economies.

PRIORITIES OF DEVELOPING NATIONS
- The governments of many developing countries counter that they currently cannot sustain themselves, let alone grow, without heavy reliance on fossil fuels.
- In East Asia and the Pacific, the number of people living in extreme poverty declined by 85% between 1981 and 2011 but the amount of carbon dioxide per capita rose by 185%
- For survival's sake, global warming has to take a backseat to feeding, housing, and providing a livelihood for their citizens

Stakeholders

- Oil Mining Industries: Eg. Exxon
- Senators and governments that don't believe in climate change
  - ○ Senator James Inhofe has made regular speeches opposing global warming, and has consistently voted in favor of big oil companies on oil-related bills. According to OpenSecrets.org, Inhofe has received almost $2 million in political contributions from the coal and oil industry.
- Fox news, newspapers that vilified scientists who spread the truth on climate change
- Fossil fuel interests, makers are in denial
  - ○ e.g. think tanks and front groups funded by profit interests
  - ○ Koch Industries

Climate Protests

- From marches and rallies to tree planting and beach clean ups, New Zealand's youth are doing all they can to bring attention to the issue of climate change.
- 15 March 2019 School Climate Strike
  - ○ Over 24 hours of climate action, organizers of the climate strike believe more than 1 million students skipped school on Friday to protest government inaction on climate change.
  - ○ From Australia and New Zealand, to Asia, Europe, Africa, North America and South America, students from all over the world took to the streets to demand change.
  - ○ The student movement was inspired by 16-year-old Greta Thunberg, now nominated for a Nobel Prize, who kicked off a global movement after she sat outside Swedish parliament every Friday beginning last August.

Fossil Fuel Industry

- Detrimental Impacts to the environment
  - ○ Dumping megatons of carbon into the atmosphere
- Attacking advertisements, blackmailing
- Monopolistic industries have political links and agendas to fulfil

○ Controlled by big carbon polluters
○ The nine Democrats selected by House Speaker Nancy Pelosi to serve on the Select Committee on the Climate Crisis received a combined $198,000 from fossil fuel industry political action committees in the 2018 election cycle. — conflict of interest

Effective

Effect of the Media

- 'Attenborough effect': 53 percent reduction in single-use plastic usage over the past 12 months after the release of BBC's Blue Planet II.
- In October 2018, the U.N. Intergovernmental Panel on Climate Change published a watershed report on climate change, warning that a bigger crisis could come sooner than we thought.
- In the week that followed, The Post and the New York Times ran front-page articles with the news as well as analyses and reactions about the report over the days that followed. But if you flipped on your television, you likely didn't hear much, if anything, about it. You might have heard about President Trump's latest rally or Kanye West's visit to the White House, but this earth-shattering story was buried.
- Underreported: As Adam Hunt, media and communications director at global media agency Internews' Earth Journalism Network, put it: "Environmental news can be boring, scientific, complicated and full of gloom and doom."

Why Have Climate Summits Failed?

- James Hansen's testimony on the news: strong scientific evidence, political movement and media attention but no effective political response
- US never ratified the Kyoto Protocol, and refuse to discuss climate change
- Countries' carbon budget proposed is unrealistic
- After the Kyoto Protocol expired, efforts to enact another greenhouse gas emissions limit among countries have come to naught. Developed and developing nations continue to disagree on who should be responsible for more of the cuts in greenhouse gas emissions.
- In a recent paper for the US centre for progressive reform, John Knox, a law professor at Wake Forest University, shows how the US has failed to ratify at least 10 important international environmental agreements, including the Basel convention on waste, the treaty on genetic resources, the Antarctic Liability Annex, the biodiversity convention, the UN convention on the law of the sea, and others.

The Political Problem

- Inequities in society, privilege of the rich
- Only the marches that don't cost the system money are successful
  ○ e.g. rights for voting
- When governments exercise their political will, the environmental outcomes can be tremendous
  ○ 1987: Montreal Protocol — international treaty designed to protect the ozone layer by phasing out the production of numerous substances that are responsible for ozone depletion.

Rhine River Cleanup — Originally Europe's biggest sewer. Ultimately, it was pressure from an outraged public that forced politicians to take fast action. Since then, investments in industrial and public water purification plants have amounted to 60 billion euros (over $75 billion), with local governments investing a yearly amount of one billion euros in water purification.

Indifference on Climate Change

- There are other pressing issues in life
  - Minimum wage, healthcare, etc.
  - Everyone has a finite pool of worry
- As climate change is a long term risk, it is hard to be perceived as an urgent threat
- There is no silver bullet solution for climate change
- Rational and emotional side of our thinking contradicts each other since climate change is a scientific cause yet moving us to action requires emotional momentum
  - There needs to be an inspiring vision of a post carbon economy to excite people and drive them to change

Awareness of Climate Change

- University of Chicago: 71 percent of Americans understand that the climate is changing, and a majority know that humans are driving it. Forty-eight percent of Americans say they are more convinced by climate science than they were five years ago, in large part due to their experiences with extreme weather.
  - But only 44 percent of respondents said they support a carbon tax, 29 percent oppose one, and 25 percent said they neither support nor oppose a carbon tax.
- Republicans are deciding its real. Three years ago, only 49 percent of Republicans thought so, but by last December it was 64 percent, as a Monmouth University poll found.

Justified

Nuclear Energy

- Bad press from events such as Chenobyl, yet they cause the least amount of deaths on average
- Nuclear power plants produce just 65g of CO_2 per kWh, far lower than other energy sources
- The US and Russia have been actively decommissioning their nuclear warheads from the Cold War. This creates a steady influx of highly enriched uranium fuel that can be used in nuclear power plants, bypassing uranium mining and CO_2 emissions entirely.
- Germany has invested heavily in renewable energy, while France lies on the other end of the spectrum with 80% of their energy needs met by nuclear. The result: Germany's CO_2 emissions are double that of France's, and Germans pay double of what the French pay for their energy bills. i.e. nuclear is way cheaper!

Renewable Energy

Solar and wind energy are the most popular forms of renewable energy.

ENVIRONMENTAL EFFECTS
- Hundreds of thousands of birds and over a million bats are killed each year at the blades of wind turbines
- Most cheap solar panels can break down in as little as 5 years, releasing toxic chemicals such as lead and chromium. These toxic chemicals leak into the soil and hence into water supplies. Solar panels create 300 times more toxic waste per unit of energy than do nuclear power plants.
- Wind farms only return 2.5 watts per sq metre, compared to nuclear which returns 1000 watts per sq metre. Other than the sheer inefficiencies brought about by renewable energy, they also threaten to damage our environment as we clear land to install renewable energy sources. Are we not, then, destroying the very things we seek to protect?

HEALTH EFFECTS

- One Harvard University study estimated the life cycle costs and public health effects of coal to be an estimated $74.6 billion every year. That's equivalent to 4.36 cents per kilowatt-hour of electricity produced— about one-third of the average electricity rate for a typical US home
- Most of these negative health impacts come from air and water pollution that clean energy technologies simply don't produce. Wind, solar, and hydroelectric systems generate electricity with no associated air pollution emissions. Geothermal and biomass systems emit some air pollutants, though total air emissions are generally much lower than those of coal- and natural gas-fired power plants.
- In addition, wind and solar energy require essentially no water to operate and thus do not pollute water resources or strain supplies by competing with agriculture, drinking water, or other important water needs. In contrast, fossil fuels can have a significant impact on water resources: both coal mining and natural gas drilling can pollute sources of drinking water, and all thermal power plants, including those powered by coal, gas, and oil, withdraw and consume water for cooling.

JOB CREATION
- Renewable energy registers a 12% faster growth than the US economy as a whole.
- Compared with fossil fuel technologies, which are typically mechanized and capital intensive, the renewable energy industry is more labor intensive. Solar panels need humans to install them; wind farms need technicians for maintenance.
- Renewable energy already supports thousands of jobs in the United States. In 2016, the wind energy industry directly employed over 100,000 full-time-equivalent employees in a variety of capacities, including manufacturing, project development, construction and turbine installation, operations and maintenance, transportation and logistics, and financial, legal, and consulting services. More than 500 factories in the United States manufacture parts for wind turbines, and wind power project installations in 2016 alone represented $13.0 billion in investments.
- Increased support for renewable energy could create even more jobs. The 2009 Union of Concerned Scientists study of a 25-percent-by-2025 renewable energy standard found that such a policy would create more than three times as many jobs (more than 200,000) as producing an equivalent amount of electricity from fossil fuels.
- In addition to the jobs directly created in the renewable energy industry, growth in clean energy can create positive economic "ripple" effects. For example, industries in the renewable energy supply chain will benefit, and unrelated local businesses will benefit from increased household and business incomes

Science and Technology

Artificial Intelligence

(This topic came out for my As woohoo!)

Broader Context / Introduction

- Thought-capable artificial beings appeared as storytelling devices in antiquity, and have been common in fiction, as in Mary Shelley's *Frankenstein*. At the core of it, artificial intelligence connotes machine intelligence, and this is juxtaposed against natural intelligence.
- It has only been in the last five-to-ten years that the technology has been ready for consumption, and today, a number of scientists and engineers fear that, once we build an artificial intelligence smarter than we are, a form of A.I. known as artificial general intelligence, doomsday may follow. Those who are more optimistic, however, argue that artificial intelligence has immense potential to transform society.
- Bill Gates and Tim Berners-Lee, the founder of the World Wide Web, recognize the promise of an A.G.I., a wish-granting genie rubbed up from our dreams, yet each has voiced grave concerns.
- Elon Musk warns against "summoning the demon," envisaging "an immortal dictator from which we can never escape." Stephen Hawking declared that an A.G.I. "could spell the end of the human race." Such advisories aren't new, and will soon be more common.

AI Saves Human Costs

- Because artificial intelligence models machines after a human brain, and an optimally performing one (it can work longer hours and perform cognitive functions with less human error) at that, this significantly reduces manpower costs for firms.
- In a 2017 MIT Sloan Management Review survey, one in five companies reported they had "incorporated AI in some offerings or processes", and it is estimated that overall, AI could deliver $13 trillion in additional global economic activity by 2030, which is a big plus for governments and businesses.

…but causes displacement of workers

- On the other end of the spectrum, AI is obviously problematic, it saves costs for some, but for the lay-worker, the problem is not AI's ability to augment human labour, but rather its ability to substitute it.
- There are scary predictions that up half the jobs we know today will disappear soon, and that 47% of total US employment is at risk from automation.
- Fears of machines pushing people out of the job market are, of course, nothing new, and in the past such fears proved to be unfounded. But artificial intelligence is different from the old machines. In the past, machines competed with humans mainly in manual skills, creating more knowledge-based jobs where humans still have an edge over machines. Now they are beginning to compete with us in cognitive skills. And we don't know of any third kind of skill—beyond the manual and the cognitive—in which humans will always have an edge, which generates a real fear of the phenomena known as "capability replacement"

…really?

AI relies on operating in familiar environments. Even in machine learning applications, where AI is feared to take over knowledge-based jobs, AI needs to 'learn' from a large amount of pre-existing data so that it can make accurate predictions based on the data it is fed. In unpredictable environments, such data is usually limited or non-existent. Where a job requires people to deal with lots of unpredictable things and messiness—unpredictable people, unknown

environments, highly complex and evolving situations, ambiguous data—people will stay ahead of robots. Whether it's creative problem solving or the ability to read people, if the environment is fundamentally unpredictable, humans have the edge.

In fact, researchers in Quartz found four themes where jobs for humans will thrive:
- **People**: This includes jobs that rely on strong interpersonal skills like chief executives, school psychologists, social work teachers, and supervisors of a variety of trades.
- **Numbers**: These are jobs that apply math to business problems, like economists, management analysts, and treasurers.
- **Bugs and bad things**: This includes human health-related jobs, like allergists, immunologists, and microbiologists and other environmentally-oriented professions such as toxicology.
- **Spaces and structures**: These are jobs that manage the physical world, like engineers and environmental scientists

SHORT-TERM ARGUMENT

At least for a few more decades, human intelligence is likely to far exceed computer intelligence in numerous fields. Hence as computers take over more routine cognitive jobs, new creative jobs for humans will continue to appear. Many of these new jobs will probably depend on cooperation rather than competition between humans and AI. Human-AI teams will likely prove superior not just to humans, but also to computers working on their own.

LONG-TERM ARGUMENT

However, as AI continues to improve, even jobs that demand high intelligence and creativity might gradually disappear. The world of chess serves as an example of where things might be heading. For several years after IBM's computer Deep Blue defeated Garry Kasparov in 1997, human chess players still flourished; AI was used to train human prodigies, and teams composed of humans plus computers proved superior to computers playing alone.

Yet in recent years, computers have become so good at playing chess that their human collaborators have lost their value and might soon become entirely irrelevant.

So while we aren't eager to contemplate the prospect of our irrelevance, perhaps we have to.

Saves Time

- Numerous companies are bringing artificial intelligence services to the financial industry which will aid people in their decision making. Along us to make more snap judgments, but informed decisions.

…but such judgements can be unreliable and discriminatory

- For instance, while AI has certainly been heralded to be able to use facial recognition systems to distinguish criminals quickly, many say it is not yet ready to be given the burden of upholding the law, much less national security.

- Artificial intelligence algorithms powering facial recognition need massive amounts of data to function—and in the US, these systems have not been given enough data on people of color to function properly. If used in law enforcement, that malfunction could mean wrongful identification of an innocent person.
- The limitation of AI is that software is only as smart as the information it's fed. If that's predominantly images of, for example, African Americans that are 'suspect,' it could quickly learn to simply classify the black man as a categorized threat and exhibit learned racial bias.

Saves Lives

- In Nigeria, <u>machine learning is being used by doctors</u> for the early detection of birth asphyxia—the third highest cause of under-5 mortality in Africa.
- In farming, there are growing instances of unmanned aerial vehicles or drones being outfitted with precision sensors, in order to run the fields and get the data that's needed. These airborne surveillance engines can look for stunted crops, signs of pest or weed damage, dryness and even pests.
- According to IBM, 90% of all crop losses are due to weather problems. By feeding weather data into <u>machine learning algorithms</u>, farmers will be able to predict the weather, know when to plant and how best to avoid damage and maximise yield per acre. In acrid lands or the tempestuous tropics, this seems like the best way to increase food production in a time when the world really needs it.
- Changing weather patterns and water availability is altering productivity in certain agricultural regions. At the same time, world population continues to grow and is projected to reach at least 9 billion people by 2050. Much of the growth is clustered in developing countries, where rapid economic expansion is allowing for increased calorie availability and consumption with an increased demand for protein. Demand for food already far outstrips supply – preventing this shortage may very well be one of the most important challenges of the 21st century.

…but it is a double-edged sword

- The same way that AI has the power to save lives and eliminate poverty, it is also likely to empower all kinds of people – including rogue states, criminals, and terrorists
- The most widely discussed example involves weaponizing "drone swarms", fitting them with small explosives and self-driving technology and then setting them loose to carry out untraceable assassinations as so-called "slaughterbots".

To prevent the negative impacts of AI…

- We must first acknowledge the dual-use of all forms of AI. As with all kinds of technology, AI can be used with both good or bad intentions, and for civilian or military purposes.
- Next, after the acknowledge that, we need engineers and scientists to work with policymakers to come up with a code of ethics, as Google has done.
- We must ensure that policy frameworks developed in a less AI-infused world would adapt to the new world we are creating.

Augmented Reality

What it does:
- AR works by deploying virtual images over real-world objects. The overlay is executed immediately with the input received from a camera or another input device like smart glasses. Hence, AR technology brings virtual objects into the surrounding environment.
- Enhance/improve the experience of the environment we are in
- Solves our day-to-day problems

Trade off: AR may present new risks even though it could be free for use.
- Many cases of high profile data breach and mishandling cases in the last couple of years by large corporates such as Google.
- Camera data → able to locate where you are in the physical world and tracks what you see, who you interact with and so on.
- Although that data is necessary for AR to work, it dramatically increases the privacy risks through capturing

video data of our private lives round-the-clock.

Market for Personal Data

- Data brokers: Privacy advocates call them privacy deathstars
- Oracle claims to sell data on more than 300m people globally, with 30,000 data attributes per individual, covering "over 80 per cent of the entire US internet population at your fingertips."
- Data brokers mine a treasure trove of personal, locational and transactional data to paint a picture of an individual's life. Tastes in books or music, hobbies, dating preferences, political or religious leanings, and personality traits are all packaged and sold by data brokers to a range of industries, chiefly banks and insurers, retailers, telecoms, media companies and even governments.
- The European Commission forecasts the data market in Europe could be worth as much as €106.8bn by 2020.
- Jeffrey Chester, executive director of the Center for Digital Democracy based in Washington states that everyone now is invisibly attached to a living, breathing database that tracks their every move.
- Even consumer data leaders such as Facebook, Google, Twitter and Snapchat have signed up as customers of brokers such as Acxiom, Oracle, Experian and others, because of the wealth and granularity of offline and cross-device data they have accumulated.

Acquiring sensitive data can be surprisingly easy
- In October, Spanish researcher Joana Moll was able to buy the online dating profiles of 1m people for €136 from data broker USDate. The profiles of unsuspecting customers, garnered from online dating app Plenty Of Fish, included 5m photographs and details like their date of birth, zip code and gender as well as intimate information like sexuality, religion, marital status and whether they smoke, drink or have children. Plenty of Fish says it does not sell user data to USDate, and was unclear about the provenance of this data set.

BUT recent laws made it harder to do so.
- The General Data Protection Regulation (GDPR), came into force in the EU on May 25, 2018, and was designed to modernise laws that protect the personal information of individuals. It also boosts the rights of individuals and gives them more control over their information.

Corporate Responsibility

- Data brokers often claim that the data collected are anonymous
- But anonymity doesn't guarantee privacy. Not even in a crowd of millions. That's the finding of a new study by Massachusetts Institute of Technology (MIT) researchers who found that anonymized mobility data can still result in privacy risks when that data is combined with data from other sources.
    - MIT in 2018: researchers took two anonymous data sets from Singapore, one from a mobile company and one from a local transport system, and used a statistical model to match user's location stamps between both records. In a week, 16.8% of users were matched, and within a month's time, over 55% were matched.
- We need to know the incentives of the companies, end-users, and third party application developers (stakeholders in the ecosystem). It is important for companies to uphold their reputation, and to push for development where all parties' incentives are aligned.
- Sometimes, the business model makes it challenging to not impose on personal privacy in attempts to benefit end-users.

Politics

Post-truth politics — a political culture in which debate is framed largely by appeals to emotion disconnected from the details of policy, and by the repeated assertion of talking points to which factual rebuttals are ignored.

[Personal Interests of Elected Politicians]
Boris Johnson, the new PM of the UK, embarked on several projects as the mayor of London which made no real economic sense and ended up costing taxpayers millions of dollars — these included 'Boris Buses', 'Boris Bikes', and a 'Garden Bridge' that cost $43 million without a single brick being laid. These projects were aimed more to build a brand for Boris than to benefit the Londoners.

[Ability of Elected Politicians]
The USA is one of the only countries that do not adjust their minimum wage each year based on inflation. Because politicians, rather than economic officials, are in charge of setting the minimum wage, the minimum wage debate rarely yields a satisfactory conclusion.

[Populism and Larger Interests of Society]
Americans currently owe $1.6 trillion in student debt. Yet, Bernie Sanders' and Elizabeth Warren's plans to cancel all student loan debt will punish the millions of Americans that did not get to go to college by allocating taxpayers' money towards funding education for PhD students that will eventually go on to command high wages.
In America, the average score on the college entrance exam, the SAT, increases almost linearly with income. This is symptomatic of a larger problem of income inequality, where the rich get better opportunities and more quality education. Those who do not get into college are those who truly need financial support.

Responsibility

Social Contract

Social contract arguments typically posit that individuals have consented, either explicitly or tacitly, to surrender some of their freedoms and submit to the authority (of the ruler, or to the decision of a majority) in exchange for protection of their remaining rights or maintenance of the social order.

- In a social contract where people forego some parts of their liberties to the government, governments are obliged to reciprocate by not only providing for the people, but also sparing no expense in fulfilling the people's every wants.
- In Switzerland especially, the semi-direct democracy they have institutionalised has resulted in referendums being held almost four times a year. Whether it is for the most seemingly inane deliberation, or a decision that might have immense impact on the society, the Swiss government has an inextricable relationship with their populace when it comes to making decisions.
- Similarly, in the UK, Brexit is a direct by-product of such a referendum. While its impact has yet to prove beneficial for the British public, it is nonetheless a reflection of governments responding to the demands of their people.

Government's Resources vs People's Wants

- The economic travesty that Greece is embroiled in is symptomatic of such a dilemma where the government puts the demands of the people above all else. Despite the government being in heavy debt with the EU, the Greek government persisted with implementing populist policies that favoured the welfare of the people ahead of economic sustainability.

- Similarly in Venezuela, well-meaning populist policies eventually collapsed due to rampant hyperinflation and food and medical shortages. In this case, resource itself wasn't the main problem — Venezuela still boasts the biggest oil reserve on the planet. Instead, prioritising the immediate satisfaction of the people instead of sound economic plans led to the squandering of billions of bolivars and the current humanitarian crisis that the country finds itself embroiled in.

Society's Needs vs People's Wants

- Iraq, under Saddam Hussein's iron-fisted rule may lack the liberties that the people so desired. However, the liberation of the people following his downfall did not lead to the immediate satisfaction of the people. Instead, it had led to a civil war where various tribes and factions — once held in check by Saddam Hussein -- still grapple for power, to this very day.

Terrorism

- The November 2015 Paris attacks, Nice truck rampage in July 2016 and London attacks in 2017 are cases in point of lone or small-group operations that highlight that terrorism is ever-present
- Armed with technological expertise, terrorists are increasingly able to carry out cyberattacks that can generate widespread fear and disruption. For instance, in 2016, Ardit Ferizi provided the personal information of over a thousand US government and active military personnel to the ISIS after hacking into a private company's database and extracting them.
- In 2016, six Indonesian militants were arrested for planning to fire a rocket at Singapore's Marina Bay from Batam island. Such an attack could not have been foiled without the close bilateral cooperation between SIngaporean and Indonesian authorities.
- According to Deloitte's Asia-Pacific Defense Outlook 2016 report, Singapore is one of the five Asian economies that are nine times more vulnerable to cyberattacks as compared to other Asian economies. This shows that the threat of modern terrorism is not evenly distributed among countries, and more wealthy economies arguably face a higher risk of an attack.

Arts

Value

Promote Individualism

- The coming-of-age film 'Love, Simon', which discusses the lifestyle and difficulties of the gay protagonist – an identity that is out of the society's norm - exposes people to the lives of the LGBT community and the discrimination they get, and hence raises awareness on the issue.
- This can be seen in the Marvel film 'Black Panther', released in 2018. The film is the first to have an all-black ensemble cast and aired in the big cinema screen, and in a country like the United States, where the white superiority is prevalent. This black representation was welcomed greatly by the general public all around the world and went on the list of the top ten highest grossing films of all time.

Responsibility

Impressionable Children

- Bobo Doll Theory: children learn through observations and interactions with those around them.
- According to a study in 2012, children exposed to sex early face two times the risk of having unprotected sex and according to the Ohio State University researchers, children exposed to violent content are more likely to show aggression and display violent tendencies.

Disrupt Social Order

- Chinese artist Ai Weiwei produced art pieces that questioned the Chinese government's right to rule, human rights and democracy in China which are politically sensitive topics that may incite political unrest over the course of around 20 years.
- And Tango Makes Three was decried for belying the deep-rooted Singapore conventional family value of heterosexuality as it was about gay penguins starting a family.

Essays

Some of my past essays! Not the best but all scored at least 35 marks, using the examples in this document. Just to show y'all that mugging GP does pay off :')

Prelims: Discuss the view that environmental conservation efforts today are nothing more than token gestures

Ever since the Industrial Revolution in the 1800s, man has been contributing to environmental degradation on an unprecedented scale and at an exponential rate. The UN Intergovernmental Panel on Climate Change has warned that global temperatures could rise a further 5 degrees Celsius by 2100, but even 2 degrees will lead to unprecedented catastrophic effects. Fortunately, today, more than ever, social media and globalisation has empowered individuals, corporations and governments to contribute to environmental conservation efforts on a large scale. Optimists argue that their efforts are far more than just token gestures, with many stakeholders going out of their way to create positive change for the environment. Yet, pessimists argue that these instances are regretfully far from the norm. Amidst growing concerns over the fate of our planet and continued inaction by major stakeholders, I proffer that environmental conservation efforts today are nothing more than just token gestures.

Governments would like us to believe that they genuinely care for the environment and put in their best efforts to promote environmental conservation. They point to landmark climate agreements, such as the Paris Climate Accord which saw more than 150 countries 'banding together' to combat climate change, as clear evidence of their intentions and utmost efforts. Indeed, after the Paris Agreement, many countries such as Taiwan and Kenya have implemented laws that aim to eliminate all single-use plastics by 2030, and they appear to be following through with them. Governments also point to their efforts to transform energy sources within their countries, arguing that the scale of these efforts are testament to them being far more than just token gestures. Germany's famous Energiewede, or energy transformation, has led to a 50% reduction in its territorial greenhouse gas emissions from 1990 to 2014. Other developed countries like Singapore have also made switches to cleaner forms of energy, reducing greenhouse emissions. These efforts, they argue, show that governments are willing to go above and beyond the minimal targets set by the international community and that governments truly have the best interests of our environment in mind. Hence, it is argued, environmental conservation efforts today are far more than just token measures.

Be that as it may, these instances of responsible governments are more the exception than the norm in today's world where cutthroat competition among economies lead governments to prioritise economic growth over the environment. The non-binding nature of the Paris Agreement shows us how easy it is for countries to sign agreements as token gestures, only to pay lip service to them in the future (or carry out policies that barely make a dent on global carbon emissions). Case in point is Donald Trump, whose presidential campaign in 2016 was built on election promises that included protecting the jobs of coal miners against the rise of renewable energy. The pursuit of economic growth has led the US to withdraw from the Paris Agreement in 2017, which was seen by the government and workers alike to be slowing down the US economy. While this has seen several US states and countries double-down on environmental efforts, such enthusiasm is nothing more than a knee-jerk reaction and would prove to be rather short-lived. Already, China is planning to scale back on some of its promises and push for a more divided approach where developed countries share less of the burden in reducing global emissions. Such a 'let them eat cake' mentality (where developed countries fail to emphasise with the needs of developing countries which have to, unfortunately, prioritise feeding their population over protecting the environment) is similarly shared by many other developed economies with the moral obligation (noblesse oblige) and economic ability to help developing countries adopt cheaper renewable energy sources but turn a blind eye to them. Such unwillingness to do more and go beyond mere token gestures show us that countries, to this day, are still unwilling to give up their economic growth for environmental conservation efforts – the global clean energy R&D budget is astonishingly low, even though wealthy

nations could easily and unilaterally double the amount – and is testament to the fact that environmental conservation efforts today are nothing more than token gestures.

Environmental activists argue that technology and media today have empowered individuals to be increasingly aware of, and take steps to combat, climate change. They argue that the surge in enthusiasm as a result of increased awareness through social media show us that individuals are doing more than just token gestures in combating environmental degradation. The recent social media hashtag, #PrayForTheAmazon, has become viral after concerned netizens shared horrifying images of the Amazon fires. This has led to many donations to non-profit organisations that champion the cause of environmental conservation. Furthermore, social media has empowered individuals to band together in environmental conservation. On 15 March 2019, over a million students worldwide skipped school to protest climate inaction, united by social media. This climate protest was inspired by Greta Thunberg, a 15 year old climate activist who has become a worldwide phenomenon after staging a protest in August 2018 outside the Swedish parliament, and subsequently giving chilling speeches to world leaders, blaming them for climate inaction. The ever-increasing awareness and unprecedented scale of individual efforts, it is argued, show us that environmental conservation efforts by individuals today are far more than just token gestures, as truly passionate individuals are doing all they can to combat climate inaction and other environmental issues.

Such optimism is, however, regretfully misplaced. One has to consider: for all the enthusiasm these individuals seemingly have for the environment, how much does the average individual truly care and do for the environment? It is admittedly noble that individuals want to share stories and promote environmental conservation on the internet, but the reality is that our intensely public, performative age motivates us to do so only to gain a good public image and appeal to our social media followers. These non-profits are in reality largely underfunded, as individuals simply share their cause for a momentary feel-good effect before going back to their hedonic treadmill which has arguably been one of the prime causes of environmental degradation in developing economies. Furthermore, even though individuals are increasingly aware of environmental issues, the psyche of the modern man has not changed. While over 70% of Americans believe in global warming and more than half believe that such warming is man-made, only 29% of these believers support a carbon tax and most neither support nor oppose one. Amidst increasing competition in today's globalised world, environmental apathy has risen and environmental conservation often takes a backseat to more 'pressing' issues. As a result, these people may appear passionate about the environment on social media, they may attend climate protests, they may demand the government to take action, but paradoxically, they are unwilling to take concrete steps themselves to counter climate change even as rising consumerism in these Western societies continue to destroy homes and natural habitats in the developing world. Especially within the developed world, it is evident that people still do not perceive climate change as an immediate threat. It is my greatest hope that we – as collective individuals – can put our social media clout and 'environmentally-conscious' image aside and for once, act on our words, instead of letting our social media posts be mere token gestures.

(Didn't manage to write a conclusion, please don't do this!)

CA1: To what extent should the media be responsible for curbing the spread of misinformation?

Unless we live on the high mountains of Afghanistan, or in a research base in Antarctica, we are exposed to the media all the time. From morning cartoons on newspapers to television channels, from social media sites like Facebook to video games like Crossy Rod and Candy Crush, the media plays a large role in our daily lives. While we are no strangers to the media, the recent advent in technology and globalization in the 21st century has brought about a surge in misinformation both online and offline. Who should be responsible for curbing this spread of misinformation that has threatened democracies and sparked violence worldwide? I believe that while individuals and governments have a part to play in curtailing this spread of misinformation, the media has a pivotal role and should be the most responsible in this battle of fact from fiction.

Many critics argue that governments, instead of the media, should take the most responsibility in curtailing the spread of falsehoods, since they have the most to lose. The spread of misinformation threatens democracies, induces hatred and can have disastrous consequences to countries in the long run. Case in point is the 2016 presidential election in the United States. In the race that took the world by storm, Russia created bots with the sole purpose of flooding social media sites with falsehoods that support its national interests and narratives. This attempt to undermine American democracy worked – the Democratic and Republican parties are now more polarized than ever, racial tensions are at an all-time high and violence at campaign rallies are unprecedented. Such damage is especially disastrous for smaller countries around the world. Singapore is often described as a 'sampan' – a wooden boat – due to its highly volatile social fabric. Should insidious information spread in these societies, societal tensions could start to rise exponentially. When hatred is induced and electorates are misinformed, democratic societies start to fall apart. This is less than desirable for governments.

However, the bitter truth is that many efforts by governments to crack down on misinformation are shortsighted or even malicious. When governments take it into their own hands to control misinformation, there is often a large scope for abuse. In Malaysia, people who spread misinformation can now be sentenced to up to 6 years in jail, under a new law that was passed in 2018. In India, a similar law was implemented but was removed 24 hours later due to the efforts of human rights campaigners. These misinformation laws, often introduced before elections and comprising sweeping statements, may be abused by governments to silence free speech against the ruling party. China has definitely not been shy to do so, frequently arresting journalists both in the mainland and Hong Kong for speaking out against the government. Furthermore, it can be argued that the media has plenty to lose from the spread of misinformation. When viewers start to distrust media providers, viewership falls and profits plummet. Today, a simple online search will reveal the relative trustworthiness of different cable news channels and newspapers. Additionally, if deemed hazardous to societies by governments, media companies will simply be blocked from circulating their content in some countries. Singapore has often done so to protect citizens from malicious falsehoods. From a business standpoint, it seems that the media has much at stake. Should they not, then, take responsibility for curbing the spread of misinformation?

Some critics also posit that individuals should take the responsibility since they have the ability to stop the spread of misinformation. Today, individuals have more tools than ever to fact-check news stories. Websites such as Politifact rate the truthfulness of popular news stories in real time. The internet allows people to look for the truth and empowers citizens to spread the truth on various platforms on YouTube. Hence, they argue, individuals should take responsibility in this battle of truth from lies.

While it should be conceded that individuals have significant ability to shape the battlefield of truth from lies, the efforts of individuals alone are not enough and the media needs to take responsibility as well. In a poll conducted in Singapore, 3 out of 4 respondents were confident of their ability to distinguish real news from fake news. However, only 10% succeeded when put to the test. Even for a highly educated and technology savvy country like Singapore, individuals are limited in their ability to distinguish fact from fiction. Much less can be said about less educated countries. While individuals should play their part, their efforts will clearly not be enough. Media companies should also step in due to their significant potential to create change. With many new resources, such as artificial intelligence and fact-checkers at their disposal, companies such as Facebook have the capability to reduce the spread of misinformation online. Recent strides that have been made include using artificial intelligence to identify fake news and implementing algorithms that limit the reach of stories with questionable degrees of truth. While some may say that these features are a long way from being fully functional and reliable, consistent efforts by these companies to limit misinformation show us that the media holds much ability to curb the spread of misinformation. As such, it seems reasonable that the media should take responsibility for curbing the spread of misinformation – even more so than individuals should.

The roles of the media, the government and the individual in curbing the spread of misinformation have been discussed. I proffer that the media should hold the most responsibility in this battle, simply because the spread of misinformation is largely the fault of the media. Tabloid newspapers and biased cable news channels like Fox News are deliberate drivers in the spread of misinformation. Profit-driven companies tweak the truth and create sensationalist content to increase their viewership and profits by appealing to their target audience. That is not all – social media companies are contributing to the echo-chamber effect due to their irresponsible handling of content. Algorithms are implemented to present users with content that aligns to their pre-existing beliefs, often with altered versions of the truth to suit their target audience. These falsehoods are reinforced when users in the same echo chamber 'comment' or 'like' these posts, causing a herd mentality that often harms the truth and promotes lies. These echo chambers have facilitated the extreme left and right wing divides in the United States, where arguments are often based on different versions of the truth. If people do not hear the voices of opposing viewpoints, how can a society be cohesive? Yet, whose fault is it that these echo chambers and fake news are created? Should we not hold the media accountable for facilitating the spread of misinformation? If so, should the media not take the ultimate responsibility of cleaning up after the mess it has created?

All things considered, individuals, governments and the media all have a role to play in curbing the spread of misinformation. When done responsibly, all three stakeholders could bring about positive change. However, the media should be responsible to a larger extent than governments and individuals due to what is at stake for them, their ability to create change and their accountability for what they have created. The battle of fact from fiction is a battle larger than any individual, government or media platform. It is worth more than a small bump in profit from sensationalist news articles, worth more than the time it takes to fact-check a story before sharing it on social media, and worth more than winning the next election. It is something that concerns us all.

Promos: How important is media regulation for a well-functioning society?

Unless we live in the high mountains of Afghanistan, or in a research station in Antarctica, we are exposed to the media all the time. From the morning cartoons in newspapers, to cereal boxes, t-shirts, bus advertisements, right down to games like Crossy Road and Candy Crush, the media plays a huge role in shaping societal norms and mindsets. Although media regulation has its pros and cons in shaping a well-functioning society, one might proffer the argument that media regulation is important, as long as it is done in the interests of society.

Critics often posit that freedom of expression is a fundamental human right, and hence freedom of expression through the media should be protected at any cost. Indeed, freedom of speech and expression is outlined in the United Nations' Universal Declaration of Human Rights and is considered by many established democracies such as the United States to be a fundamental human right. Yet, the flaw in such an argument is that it is based on a very western-centric perspective. While the absence of media regulation its very well with the western ideals of autonomy and freedom of the individual, the same cannot be said about many other societies around the world. Case in point are Asian countries and communities that have a sense of community over self. The Prime Minister of Singapore has called Singapore a 'sampan', describing how volatile its social fabric can be. Singaporeans are often quick to defend their religions, cultures and faces when they are insulted, so is it such a wonder that the Singapore Government actively monitors media content being published to make sure that they would not wound the religious feelings of its citizens? Is it such a wonder that so many Singapore citizens supported the government in silencing Amos Yee, when he published videos that threatened the social fabric of the nation? Clearly, when done with the best interests of society in mind, media regulation can be a powerful tool to protect communities from insidious material that can

inflame public sentiment, and to quell social unrest. It can even be considered responsible governance, all things considered. Down to its core, every government, even the most established democracies, have an incentive to regulate the media. Is the United States no longer the land of the free if the National Security Agency actively tolls through social media sites and other webpages to censor extremist content in the interests of national security? Evidently, media regulation, though valued to different degrees in different societies, is important to maintaining a well-functioning society, as long as it is done responsibly and in the interests of the society.

Critics also posit that media regulation can often reduce objective journalism, leading journalists to do the bidding of the ones in power. The lack of objective journalism can lead to the downfall of a functioning democracy and allow a country to slip into an autocratic dystopia. Even in Hong Kong, where China is duty-bound by treaty to respect a free press, Beijing has employed an assortment of measures to quell objective journalism, such as the systematic violence against editors and arrest of reporters. The Hong Kong Journalists' Association described 2014 as the 'darkest year for press freedom in several decades'. Yet, does this mean that media regulation is necessarily unimportant, or even detrimental, to a well-functioning society? The bitter truth is that objective journalism, although highly sought after, is often inadequate or non-existent. Even when the media is not regulated, the profit-driven nature of many media companies today do the bidding of political parties and create sensationalist content that is often highly misleading, biased and irresponsible. News media are willing to hype up anything – whether a male athlete is female, and octopus picking a winning sports team, or a monkey picking a winning presidential candidate. It is no wonder that after the 2015 Paris terror attacks, rumours quickly spread that the Louvre and Pompidon Centre had been hit, and that Francois Hollande had suffered a stroke. To prevent such falsehoods that may have negative effects on a country's morale after a disaster, some form of media regulation is necessary. This is not to say that countries should follow China in covering up their own atrocities, but rather put in place a system to regulate the spread of 'fake news' that have been ever-increasing in recent years. When such media regulation is done properly, a country or society can be protected falsehoods that may incite undesirable public sentiment, contributing to a well-functioning society especially in times of crisis.

So far, we have been looking at instances where the premise that media regulation is done in the interest of society is met. However, when media regulation is overdone, it can be detrimental to society. In China, an estimated two million censors police the internet, monitoring social networking sites and chat rooms. China practices extreme media regulation in order to keep the ruling party, the Chinese Communist Party, in power. The resulting lack of checks and balances on the government leads to the failure of the fourth estate. This can also be seen in the United States, where President Nixon attempted to silence the media during his impeachment process, and even Donald Trump, who makes the media his enemy. Media regulation is a tempting tool of leaders of countries to slide into dictatorship, consolidating their power at the expense of the freedom of the individual and more importantly, the elimination of the fourth estate which motivates government officials to act in the interests of their people. Such regulation is no longer done with the interests of society in mind and can very well be detrimental to a well-functioning society. Evidently, media regulation is important, but it is much more important that those in power consider the impacts of regulation and no do so merely for their personal gains.

By and large, media regulation is important for a well-functioning society, as long as it is done in the interests of society. Be it in the land of the free and the home of the brave, or the hermit kingdom that lies north of the Korean

peninsula, some form of media regulation is done – and it does have its merits. However, the question is how much of such regulation should be done. In a world of rising inequality, digital divide, sensationalism in the news and a blurring line between fact and fiction, this is a complex issue. The importance of media regulation then differs from country to country, community to community and culture to culture. Each society is fighting its own battles – fact against fiction ; democracy against autocracy ; third-person objectivity against first-person subjectivity. However, one thing is clear. As long as governments in the world regulate the media with the best interests of society in mind, media regulation is desirable for society. Media regulation is important, but what is more important is the intent behind it.