**Part A, Casual Layer Analysis**

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| **Litany** | * Decline of critical thinking * Increase of outsourcing critical thinking |
| **Systematic cause** | * Technology and the Internet have become very accessible thanks to the advance of consumer digital devices and the funding from the government, providing free internet hotspots almost everywhere. [1] * Algorithms intensify polarization, since all media platforms cost money to host and serve anything, they calculate what you're most likely to click based on your user data, what you're most likely to click is usually what you want to watch, consciously or not. * Increase of survival thinking, the decline of economy that makes the average quality of living worse, increases inequality, and the busier lifestyles for average population. [2] * Polarization of people, excluding outside knowledge or opinion. (Whether because of politics, race, or religion. The formation of such a group decreases critical thinking within the group since they only seek out the likeminded opinion.) [3] * Passive learning, the education system focuses more on exams and gives study lists of what will be within the exams, most of which always have the correct answer. Even in subjects like literature interpretation, depriving students of the chance to think about the material critically. [4] * The rise of Large Language Models, it can do almost everything for you, including your homework. |
| **Worldview** | * Believing the seemingly mass of voice on the internet, unaware of the fact that the algorithm makes echo chambers. * "if the majority of people I on the internet is saying this, this must be correct,” thus falling victim to propaganda and false information. * Trusting what they see first on the internet (The only time where people are doubtful about the internet content is April Fools Day, which is quite ironic) * Shortened attention span, from the rise of short-form content on Youtube, Tiktok, Instagram. * Trusting the "experts" blindly (unaware of the fact that some people have invisible affiliation, thus expert is not exactly equal to immediately trustable.) * Limited time to deal with the everyday life errands and to verify all information you see. (thus using only the shorter-term solution instead of thinking about a long-term solution) * Not enough content that induces critical thinking, or such content isn't entertaining enough. (such as videos that provides questions and opposite perspectives like LINE TODAY WORLD) * Idolization of online personalities: trusting whatever they say without thinking. (Popular political figures or just some content creators on the Internet.) |
| **Metaphor** | * No hesitation before jumping over the fence. * The collective behavior of a hivemind. |

**Part A, Visualization**

From the factor the affects everyone to factors that affect an individual, the factor down the hierarchy intensifies the above.

1. Societal-structural problem (in-equality, decline of economy, polarization)
2. Expansion of social media and streaming services
3. Echo chamber and platform algorithms (including search engine, Google will try to give a user something they’re likely to read based on the user’s data)
4. Oblivious to the intrinsic evil and the broadness of the world. No one is truly good and there could be multiple opinions to a topic.

**Part A, Used Future**

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| Pushing SDGs goals in the school education in Taiwan. |
| * Became part of the exam or assignments, deeper understanding usually takes more time and with diminishing rewards compared to the stress of exams for the teens |
| PBL projects (at least in my high school) |
| * The assignment was time-consuming and ultimately became "just something to get over with" |
| Decreasing the stress of the high schoolers by taking extracurricular activities into college entrance exams, and changing the outline of the high school class |
| * This increases the workload of an average high school student, since traditionally they only had to worry about exams. Today they have to worry about other projects in order to compete in the college exam, resulting in a more severe survival thinking and decrease the actual effective critical thinking. |

**Part B, Preferred Future**

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| **Litany** | * No one inherently trusts an informed fact without proper reference or verifying the information themselves * There's always room for discussion. |
| **Systematic cause** | * The education system encourages critical thinking and no longer implicitly encourages linear thinking of finding or memorizing a sole answer. (e.g. the exam became small essays like some European countries do, and group or individual projects became a larger part of the grading.) * The quality of life is increased, from aspects such as the cost of living, improved economy, and lessened general exhaustion from having to deal with repetitive schoolwork. * There exists multiple information (newsletter/paper, scientific paper, database reports, articles in any topic) hubs that are verified to be mostly trustable (by scholars or the communities), and hosted by nonprofit organizations, a person no longer needs to scour the search engine to find trustable information.   + It’s like if you know a person who’s good at a certain thing, you trust them to a certain degree about the things they say on that topic. But it’s still on you to verify things if they don’t mention a reference. * Social medias and entertainments now require a function like Twitter’s “community notes” where a person can attach a note with proper reference to stop misinformation or add more insights. |
| **Worldview** | * It's frowned upon to speak without thinking or verifying information. * People were shown the benefit of advocating critical thinking (such as for online personalities, most of their audience will know that it doesn't benefit anyone to yell random unverified information.) * Generally heightened awareness to the consequence of no critical thinking. * Increased self-awareness, if a person is self-aware, they will know when they’re triggered and should pause and think. [6] |
| **Metaphor** | * Think for yourself * Trust but verify |

**Part B, why this is the preferred future**

With the increase of critical thinking, people could usually make better judgements, not relying on hindbrain and acting recklessly. In order to make better judgements, multiple sources or perspectives of information should be thoroughly considered, or the pros and cons of consequent decisions adequately weighted. It requires a person to not be confined within an echo chamber, go out into the world, and open their ears. If the situation mentioned above suffices, there could be less pointless fights and less strain on all sides, when everyone stops and thinks about it.

**Part C, Back-casting**

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| **Decision needed to arrive at the preferred future** |
| * Increased governmental funding to the educational institutes. * Extensive advocation and education to critical thinking. * "Future starts with you!" consciously think critically about a piece of information and present your well-thought opinion to your family and friends and even people on the internet, soon enough they'll pick up this tendency of thinking and likewise spreading it to others. * Imposing requirements or restrictions on social media and entertainments by law and legislation. * Start a database that aims to evaluate the credibility of websites that provide information. (<https://mediabiasfactcheck.com>, I just found this, maybe this but for Taiwan) |
| **Plausibility of the preferred future** |
| Not very plausible.  This future is very dependent on the nature of humanity, the point of most inventions is to reduce the need for a person to put effort into acquiring something themselves, it's easy to fall into the same type of rhythm of not thinking as much. Critical thinking may not increase after the pressure of living is lifted, since thinking requires energy and effort, why think more when you're doing just fine. In addition, without usually costly outside forces, it’s likely not going to change for the better. |

**Reference**

1. <https://itaiwan.gov.tw/>
2. <https://www.forbes.com/sites/markcperna/2022/10/11/penny-for-your-thoughts-why-quality-thinking-is-declining-worldwide/>
3. <https://www.forbes.com/sites/helenleebouygues/2022/10/04/reducing-polarization-through-critical-thinking-and-common-ground/>
4. <https://www.psychologytoday.com/us/blog/the-intuitive-parent/201703/the-emerging-crisis-in-critical-thinking>
5. <https://www.forbes.com/sites/zakdoffman/2024/11/12/new-chrome-safari-firefox-warning-do-not-google-these-words/>
6. <https://www.psychologytoday.com/us/blog/click-here-for-happiness/201903/what-is-self-awareness-and-how-do-you-get-it> “We each tend to have different perspectives on a variety of topics, but as we develop these perspectives, we develop our self-concept, get comfortable with ourselves, and have a preference for our own opinions. However, limited perspectives lead to limited thinking, so by being open to the views of others, we can expand our perspectives to be more universally inclusive.”