[Questions 2](#_Toc53607154)

[Deontology 6](#_Toc53607155)

[Utilitarianism 16](#_Toc53607156)

[Rights 26](#_Toc53607157)

[Contributing to Society 36](#_Toc53607158)

[Social Contract 46](#_Toc53607159)

# [Questions](#_Questions)

* "All students taking IS1103 must buy the textbook A Gift of Fire, 4th Edition, authored by Sara Baase, published by Pearson, from the NUS CO-OP."
  + Deontology = Ethical
  + Utilitarianism = Not enough info
  + Rights = Unethical
  + Contributing to Society = Not enough info
  + Social Contract = Ethical
* ["All agents must collect data of their targets on their own, they must not engage other parties to do such work for them."](#_Deontology)
  + Deontology = Unethical
* ["All agents must follow the guidelines in the Agent Field Manual when conducting operations."](#_"All_agents_must)
  + Deontology = Ethical
* ["All agents must not look at other people's laptops screens as that is very rude and unbecoming of an agent."](#_"All_agents_must_1)
  + Deontology = Unethical
* ["All agents are allowed to perform data collection activities through hacking, so long as they have obtained the rank 'Godlike' in the Hacking course administered by The Bowery. "](#_"All_agents_are)
  + Deontology = Ethical
* ["All agents must not intercept Instan Messaging (IM) messages from targets' phones if there are other ways to obtain the information."](#_"All_agents_must_2)
  + Deontology = Not enough info
* ["Before embarking on any operation, all agents must collect as much information about medical facilitaties in the area of operations as possible so as to facilitate effective and efficient use of the information for decision-making in times of medical emergencies."](#_"Before_embarking_on)
  + Utilitarianism = Ethical
* ["All agents must carry their medical information (such as blood type, allergies etc.) with them at all times when executing an operation, so as to facilitate rapid and accurate medical data collection, use and sharing during emergencies."](#_"All_agents_must_3)
  + Utilitarianism = Ethical
* ["Medical records in The Continental's medical archives must be indexed according to an agent's designated name only."](#_"Medical_records_in)
  + Utilitarianism = Not enough info
* ["Agents are not allowed to self-medicate when they are unwell. For all ailments, agents must seek medical attention from The Continental's Doctor."](#_"Agents_are_not)
  + Utilitarianism = Unethical
* ["Agents are only allowed to use physical cash when purchasing items from retailers during the execution of an operation. They must not use any form of digital payment methods or credit cards."](#_"Agents_are_only)
  + Utilitarianism = Ethical
* ["The Cartographer is only allowed to sell maps that The Cartographer created, not maps that were created by others."](#_"The_Cartographer_is)
  + Rights = Not enough info
* ["The Cartographer must ensure that the representations in the blueprints sold to agents must be of the highest accuracy possible."](#_"The_Cartographer_must)
  + Rights = Ethical
* ["The Cartographer must ensure that the training given to agents during Live Coaching and Demonstration sessions must be the best in the world."](#_"The_Cartographer_must_1)
  + Rights = Unethical
* ["The Cartographer must ensure that all techniques taught to trainees during the Live Coaching and Demonstration sessions must not have been referenced or copied from any publicly available source."](#_"The_Cartographer_must_2)
  + Rights = Unethical
* ["The Cartographer can provide agents with any map or blueprint from any source, as long as The Cartographer draws the blueprint or map by his/her own hand."](#_"The_Cartographer_can)
  + Rights = Not enough info
* ["The Tailor can only deliver a finished product to an agent if the work was done with the highest of quality standards possible."](#_"The_Tailor_can)
  + Contributing to Society = Ethical
* ["The Tailor can only deliver a finished product to an agent if the work was done using the highest quality raw materials available."](#_"The_Tailor_can_1)
  + Contributing to Society = Not enough info
* ["The Tailor should only accept orders that help to increase The Tailor's skills and proficiency in the craft."](#_"The_Tailor_should)
  + Contributing to Society = Unethical
* ["The Tailor is allowed to accept orders only if they are unlikely to violate Rule Number 2"](#_"The_Tailor_is)
  + Contributing to Society = Ethical
* ["The Tailor is allowed to process orders that may have some elements that have the potential to violate Rule Number 1"](#_"The_Tailor_is_1)
  + Contributing to Society = Not enough info
* ["All passengers taking the NUS Smart Shuttle must be seated on a seat in the NUS Smart Shuttle and have their seat-belts fastened all times when the vehicle is moving."](#_"All_passengers_taking)
  + Social Contract = Unethical
* ["All motorists sharing the road with an operational NUS Smart Shuttle must not overtake the shuttle at any time."](#_"All_motorists_sharing)
  + Social Contract = Ethical
* ["All self-driving A.I. products made by the company must be 100% unhackable before being sold to customers."](#_"All_self-driving_A.I.)
  + Social Contract = Unethical
* ["All ComfortDelGro attendants must ensure that passengers are seated with their seat belts fastened before allowing the vehicle to start moving. Should a passenger not comply with the rules, the attendant must ask the passenger to exit the shuttle."](#_"All_passengers_must)
  + Social Contract = Ethical
* ["All passengers must take care of their personal belongings at all times. ComfortDelGro will not be held responsible for any damages to personal belongings sustained by passengers while onboard the NUS Smart Shuttle."](#_"All_passengers_must)
  + Social Contract = Ethical
* ["The Continental will be banning visitors from staying in the hotel if they are found to be working in disease research laboratories in North Carolina, USA and Wuhan, China, as well as Fort Detrick US Army Institute of Infectious Diseases, on grounds that they contributed to the release of COVID-19 into the world and are therefore a threat to security."](#_"The_Continental_will)
  + Utilitarianism = Unethical
* ["The Continental will not allow the wearing of masks by hotel staff because the virus does not really pose a threat to mortality (the actual numbers of COVID-19 deaths in the community are in fact very low), and hotel guests will be negatively impacted if our staff wear masks, because they will be unable to experience the hotel's famous service-with-a-smile, which is very important in our hospitality industry."](#_"The_Continental_will_1)
  + Rights = Unethical
* ["All guests staying at The Continental must agree to be treated by The Continental's Doctor with Hydroxychloroquine should they be observed to exhibit COVID-19 symptoms. Guests will be charged the full cost of the medication in their hotel bill."](#_"All_guests_staying)
  + Social Contract = Ethical
* ["All guests who are able to show proof that they have received an Influenza vaccine injection more than 60 days before their arrival to The Continental need not be tested for coronavirus infection because they have already been infected through the Influenza vaccine injection and would have recovered from the virus by then."](#_"All_guests_who)
  + Deontology = Ethical
* ["Guests who exhibit COVID-19 symptoms will be restricted to the Seaside section of the hotel so that the sun, sand, ocean water and soil can act as natural remedies for the virus until they have been cured of the virus or they end their stay at the hotel. This section of the hotel will be closed to all other guests."](#_"Guests_who_exhibit)
  + Contributing to Society = Ethical
* ["The Sommelier cannot use RABIT's A.I. to provide recommendations if he does not know exactly how RABIT formulates the recommendations."](#_"The_Sommelier_cannot)
  + Deontology = Not enough info
* ["The Sommelier must ensure that the training data used to train RABIT's A.I. must be exhaustive and complete to ensure that the recommendations produced by RABIT are optimal."](#_"The_Sommelier_must)
  + Utilitarianism = Not enough info
* ["By seeking the services of The Sommelier, all customers agree to absolve The Sommelier of any responsibility should RABIT's recommendations result in injury or loss to the customer."](#_"By_seeking_the)
  + Rights = Ethical
* ["The Sommelier must perform maintenance operations on RABIT's configuration settings at a frequency and regularity mandated by RABIT's developers, and The Sommelier must follow the maintenance protocols strictly."](#_"The_Sommelier_must_1)
  + Contributing to Society = Ethical
* ["The Sommelier reserves the right, at the discretion of The High Table, to impose a fee on the customer consisting of a minimum of one Gold Coin per recommendation from RABIT, subject to prevailing exchange rates set by The Continental."](#_"The_Sommelier_reserves)
  + Social Contract = Ethical
* ["Honeypots should never be used in all future operations."](#_"Honeypots_should_never)
  + Rights = Ethical
* ["All Linux systems deployed by the Pawnbroker must have the following commands disabled for all users: cd, mkdir, ls, man, pwd, nano."](#_"All_Linux_systems)
  + Utilitarianism = Unethical
* ["All Linux systems deployed by the Pawnbroker must be hardened using obfuscation or encryption techniques so as to make it more difficult for hackers to use commands such as grep and locate to search for information."](#_"All_Linux_systems_1)
  + Deontology = Ethical
* ["All systems within The Pawnbroker's network must be configured with their firewalls blocking access to all unused ports. Ports being used by authorized apps must remain open."](#_"All_systems_within)
  + Social Contract = Ethical
* ["All Linux distributions must include safeguards that detect and block the execution of mass-scanning apps that have the capability to scan more than one IP address or port per command invocation."](#_\"All_Linux_distributions)
  + Contributing to Society = Not enough info
* ["With hundreds of hours of new content uploaded to YouTube every minute, we use a combination of people and machine learning to detect problematic content at scale. Machine learning is well-suited to detect patterns, which helps us to find content similar to other content we’ve already removed, even before it’s viewed."](#_"With_hundreds_of)
  + Social Contract = Ethical
* [" You may not publish or post other people's private information without their express authorization and permission...If the reported information was shared somewhere else before it was shared on Twitter...we may not treat this information as private."](#_"_You_may)
  + Contributing to Society = Unethical
* ["When third-party fact checkers identify false information on Instagram, we make it harder to find by filtering it from Explore and Hashtags, and reducing its visibility in Feed and Stories...Accounts that repeatedly share false information and their posts won't appear in certain places on Instagram. Deleting posts that contain false information won't affect these restrictions. Deleted posts can't be appealed with the independent fact-checkers."](#_"When_third-party_fact)
  + Rights = Ethical
* ["We believe that people share and connect more freely when they do not feel targeted based on their vulnerabilities. As such, we have higher expectations for content that we call cruel and insensitive, which we define as content that targets victims of serious physical or emotional harm.We remove explicit attempts to mock victims and mark as cruel implicit attempts..."](#_"We_believe_that)
  + Deontology = Ethical
* ["The University takes a strict view of cheating in any form, deceptive fabrication, plagiarism and violation of intellectual property and copyright laws. Any student who is found to have engaged in such misconduct will be subject to disciplinary action by the University"](#_"The_University_takes)
  + Utilitarianism = Ethical
* ["All users of an organization's IT systems must ensure that they use a different password for each different app or service that they utilize. For example, the password used for email should be different from the password used for internet banking etc. This is to make it more difficult for a hacker to compromise the entire IT ecosystem all at once."](#_"All_users_of)
  + Utilitarianism = Unethical
* ["All businesses providing financial-related services must ensure that multi-factor authentication measures have been implemented to safeguard business operations."](#_"All_businesses_providing)
  + Contributing to Society = Ethical
* ["All businesses providing financial-related services are banned from using PDFs with embedded links. This is to prevent security threats such as spoofing."](#_"All_businesses_providing_1)
  + Deontology = Unethical
* ["Certain facilities in the organization are protected by biometric security. You must consent to your personal biometric data being captured, stored and used before access to such facilities can be granted to you."](#_"Certain_facilities_in)
  + Social Contract = Ethical
* ["For the convenience and safety of all students, all merchants within the university campus must conduct all sales transactions using e-payment-only methods."](#_"For_the_convenience)
  + Rights = Unethical

# Deontology

"All agents must collect data of their targets on their own, they must not engage other parties to do such work for them."  
  
Ethical View of **Deontology** = Unethical

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. This rule can universally apply to all agents. In this case, Agent 47 could have collected information on Professor X himself instead of relying on The Bowery King. Therefore, Universality helps qualify this policy to be ethical under Deontology.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. From the point of Data Privacy (Data collection and use), although this does not seem to be an emotional statement, this policy appears to be unreasonable and illogical. For example, if Agent 47 watched Professor X on TV to gather data about his target, and the TV programme was produced by Channel News Asia, does that mean that Agent 47 would be violating the policy because he did not observe Professor X physically or unmediated by a third party? Therefore, it seems illogical to have such a policy, and is not ethical under Deontology.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. It is unclear who this policy is meant to benefit, so it is difficult to determine who are the ends and who are the means. In this case, if the ultimate aim of this policy is to affect people, then who are the people it is meant to affect, and how are they affected? If the ultimate aim is an ulterior motive outside of people, then it is unclear what that ulterior motive is. Therefore, this component is unclear, and it cannot be said that this policy is ethical.

## "All agents must follow the guidelines in the Agent Field Manual when conducting operations."

Ethical View of **Deontology** = Ethical

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. This rule can universally apply to all agents. In this case, the Agent Field Manual is provided to all agents, and the clauses in the Agent Field Manual seem general enough to include all possible situations, and therefore can universally apply to all agents. Therefore, Universality helps qualify this policy to be ethical under Deontology.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. From the point of Data Privacy (data collection and use) and Data Confidentiality (data sharing), this policy appears to be non-emotional, reasonable and logical. In this case, the information in the Agent Field Manual appears to logical in protecting the Agent and The High Table, and the advice seems rational, in that following these guidelines do not seem to be in conflict with the Agent's operations. Furthermore, the information in the Agent Field Manual does not seem to reveal anyone's identities other than the obvious, making it a reasonable to share this data. Therefore, it seems reasonable and logical to have such a policy, and is ethical under Deontology.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. This policy seems to be treating people as ends in themselves. In this case, it is clear that the information in the Agent Field Manual has the ultimate aim of safeguarding the identifies of agents as well as The High Table, which ultimately benefits them, therefore a policy which seeks to ensure that all stakeholders take heed of the Agent Field Manual is in fact treating these stakeholders as the main beneficiaries. There does not appear to be any ulterior motives in this case that benefit other people at the expense of the beneficiaries, and this supports the judgment that this policy is ethical under Deontology

## "All agents must not look at other people's laptops screens as that is very rude and unbecoming of an agent."

Ethical View of **Deontology** = Unethical

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. This rule cannot universally apply to all agents. In this case, from a Data Privacy (data collection and use) point of view, even if agents make a conscious effort NOT to look, agents must still know where not to look, which requires them to look so that they know where not to look, but by looking at where not to look, they have already violated the policy. Especially if the laptop calendar app was shown on the laptop screen, and the laptop screen was left out in the public's eye, how could anyone have been able to not look? Therefore, under Deontology, this policy is not ethical.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. From the point of Data Privacy (data collection and use) and Data Confidentiality (data sharing), this policy appears to be emotional, unreasonable and illogical. In this case, the phrase of "rude and unbecoming" seems to be an emotional concept. Also, it is unreasonable to assume that people can even avoid looking at other people's laptop screens especially if the screens are left out in the public. It is also illogical to do so if looking at people's screens is the easiest way to gather important data. Therefore, it seems irrational to have such a policy, and is unethical under Deontology.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. This policy seems to be treating agents as means to The High Table's ends. In this case, the "unbecoming of an agent" seems to suggest that agents should uphold a certain conduct for the good of the organization, and the agents are not really positively affected themselves. Therefore, the effect to the agents are not the ultimate aim of the policy, as the agents are not really positively affected by the policy. Instead, the agents are merely a means by which the organization maintains a certain image, making the image of the organization the ends. Therefore, this policy is not ethical under Deontology.

## "All agents are allowed to perform data collection activities through hacking, so long as they have obtained the rank 'Godlike' in the Hacking course administered by The Bowery. "

Ethical View of **Deontology** = Ethical

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. This policy can universally apply to all agents. In this case, as long as agents undergo the required training and are certified, they will be allowed to use hacking in their operations, so the rule can be easily administered. Therefore, under Deontology, this policy seems to be ethical, at least with regard to this component.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. This policy appears to be non-emotional, reasonable and logical. In this case, from a Data Privacy (data collection and use) point of view, collection of Big Data has to be done carefully to preserve the Veracity of the data. The Volume, Velocity and Variety of Big Data also requires a well-trained operative to be handled properly. Therefore, it is only logical that agents must have a minimum competency to perform his/her/its operations well. Therefore, it seems rational to have such a policy, and is ethical under Deontology.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. This policy seems to be treating agents as ends in themselves. In this case, by preventing incompetent agents from performing tasks that they are not trained for, they are preventing such agents from hurting themselves, and by extension, the operation. Therefore, this policy's ultimate aim is to benefit agents, and there does not seem to be an ulterior motive. Therefore, under Deontology, this policy is ethical.

## "All agents must not intercept Instan Messaging (IM) messages from targets' phones if there are other ways to obtain the information."

Ethical View of **Deontology** = Unable to determine due to lack of critical information

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. It is unclear if this policy can universally apply to all agents. In this case, the phrase "if there are other ways to obtain the information" is ambiguous, as different agents may interpret this rule differently, so the meaning is not universally understandable. Therefore, under Deontology, it is unclear if this policy is ethical, at least with regard to this component.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. In this case, this policy appears to be non-emotional. However, its logic is unclear. In this case, from a Data Privacy (data collection and use) point of view, "other ways to obtain the information" may not imply the best way, and there is very little reason to perform an action if it is not the best way to complete the operation. With very little information on what the "other ways" are, it is difficult to objectively say if this policy is ethical or not under Deontology.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. If is unclear who are the ends and who are the means in this policy. In this case, from a Big Data (data privacy) standpoint, the purpose of not intercepting the IM messages of target phones seems to have the ultimate aim of protecting the target's privacy at the expense of the agent, meaning that it is treating the target as the end and the agent as a mean. However, there could be an ulterior motive in that a public open wireless network could be monitored by anyone, so someone could even be monitoring The Bowery's agent while The Bowery's Agent was monitoring Professor X's messages. So the organization could have wanted to protect the operation as  an end effect, and used the policy of "no IM interception" as a means to affect the operation in such a way. Therefore, it is unclear whether or not this policy is ethical or not, at least under this component.

## "All guests who are able to show proof that they have received an Influenza vaccine injection more than 60 days before their arrival to The Continental need not be tested for coronavirus infection because they have already been infected through the Influenza vaccine injection and would have recovered from the virus by then."

Ethical View of **Deontology** = Ethical

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. For example, can this policy apply to everyone seeking to stay at The Continental? This seems to be the case because even if guest cannot show proof, they will simply have to undergo testing. Therefore, with regards to Universality, this policy is ethical.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. For example, assuming that the information regarding Influenza vaccines and the incubation periods of coronaviruses are correct, is it logical that guests can be exempted from testing? It would seem that this is a non-emotional policy, and it does seem to be logical, since the exemption of testing will conserve resources such as time and money, increasing the convenience for guests while keeping the status quo. Therefore, this policy does seem to pass the Rationality test, and is therefore ethical.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. In this case, reducing the need for testing seems to regard people as ends in themselves, as it increases the convenience of the guests while cutting down on wastage of resources. The means in this case would be the proof that the guests can provide (obtained at their own expense). Therefore, the user is treated as an end, because there does not seem to be an ulterior motive beyond increasing convenience of the guests while reducing costs, and this policy is ethical under Deontology.

## "The Sommelier cannot use RABIT's A.I. to provide recommendations if he does not know exactly how RABIT formulates the recommendations."

Ethical View of **Deontology** = Unable to determine due to lack of critical information

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. For example, can this policy apply to everyone using A.I. recommender systems? This seems to be the case. Therefore, with regards to Universality, this policy is ethical.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. For example, is it logical that in order to use A.I. recommender systems, one must understand exactly how the A.I. works to produce a certain recommendation? It would seem that although this is a non-emotional policy, it does not seem to be logical, since people successfully utilize many systems in their daily lives even though they may not fully understand how they work. Therefore, this policy does not seem to pass the Rationality test, and is therefore not ethical.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. For example, having to totally understand something before one can use it seems to regard people as a means to an end. The end in this case may be that the user of the recommender system would be able to explain to the customer how the system came to a specific conclusion, which would effect an improvement on the customer's understanding and confidence of the system, but not necessarily benefit the user nor the customer in terms of tangible outcomes. Therefore, the user is treated as a means of getting to that end, because the ulterior motive seems to be to improve the confidence in the system, so this policy is not ethical under Deontology.

## "All Linux systems deployed by the Pawnbroker must be hardened using obfuscation or encryption techniques so as to make it more difficult for hackers to use commands such as grep and locate to search for information."

Ethical View of **Deontology** = Ethical

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. For example, can this policy apply to every one of The Pawnbroker's Linux-based systems? This seems to be the case. Therefore, with regards to Universality, this policy is ethical.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. For example, is it logical to obfuscate or encrypt the information in the systems to prevent hacking? It would seem logical to do so, especially since most obfuscation and encryption techniques only adversely affect unauthorized attackers, they do not prevent authorized users from using the system normally. Therefore, this policy does seem to pass the Rationality test, and is therefore ethical.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. In this case, since utilizing obfuscation and encryption serves to benefit authorized users due to an increase in security, the ultimate aim of this is to have a beneficial effect on authorized users by making the system less risky to rely on, which therefore suggests that authorized users are the ends and not the means. There does not seem to be an ulterior motive to this, therefore, this policy is ethical under Deontology.

## "We believe that people share and connect more freely when they do not feel targeted based on their vulnerabilities. As such, we have higher expectations for content that we call cruel and insensitive, which we define as content that targets victims of serious physical or emotional harm.We remove explicit attempts to mock victims and mark as cruel implicit attempts..."

Ethical View of **Deontology** = Unethical

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. For example, can this policy apply to everyone posting on Facebook? This seems to be the case. Therefore, with regards to Universality, this policy is ethical.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. For example, is it logical for Facebook to remove explicit attempts to mock victims and mark them as cruel implicit attempts? It would seem that this policy is rather emotional due to its need to highlight "cruel and insensitive", although it does seem logical to do so to prevent people from harm. If reworded without the "cruel and insensitive", this policy would be ethical. However, as it stands, this policy does not seem to pass the Rationality test because it is emotionally written, and is therefore not ethical under Deontology.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. For example, removing offending posts seems to regard people as an end so that they will not feel targeted based on their vulnerabilities. However, an ulterior motive could also be that Facebook wants users to continue using its product, and they may stop using it if they feel targeted. This means that making people feel better is a means to the end of Facebook wanting people to continue using its service. Therefore, the user is treated as a means of getting to that end, because the ulterior motive seems to be to make people continue using the service, so this policy is not ethical under Deontology.

## "All businesses providing financial-related services are banned from using PDFs with embedded links. This is to prevent security threats such as spoofing."

Ethical View of **Deontology** = Unethical

Universality

In considering Universality, we need to determine if the rules can universally apply to everyone. For example, can this policy apply to all businesses providing financial-related services? This seems to be the case. Therefore, with regards to Universality, this policy is ethical.

Rationality

Under the condition of Rationality, we need to evaluate if this policy is non-emotional, and can be reasoned from logic. For example, is it logical to ban the use of PDF with embedded links to prevent spoofing attacks? It would seem that although this is a non-emotional policy, it does not seem to be logical, since there are many other ways to do spoofing, and since the use of PDF is very prevalent among the industry, it will be difficult to police the use of embedded links within PDFs. Therefore, this policy does not seem to pass the Rationality test, and is therefore not ethical.

Means-Or-Ends

The discussion about Means-Or-Ends requires consideration for whether the policy treats people as means to an end or ends in themselves. In this case, banning the use of embedded links within PDFs seems to be an ulterior motive to achieve the ends of increased security, but this is achieved by preventing people from using such as feature, so this method treats people as the means to the end, which is unethical under Deontology.

# Utilitarianism

## "Before embarking on any operation, all agents must collect as much information about medical facilitaties in the area of operations as possible so as to facilitate effective and efficient use of the information for decision-making in times of medical emergencies."

Ethical View of **Utilitarianism** = Ethical

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). It is clear that the policy confers mostly benefits with few damages. For example, from a Big Data perspective, finding more information about a place before going to a place will surely allow people to make more informed decisions, leading to better outcomes, as compared to making uninformed decisions, leading to uncertain outcomes. Therefore, the net increase in utility due to this policy is evident, making this policy ethical under this component.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. In the case of this policy, it is easy to see how all affected stakeholders can be accounted for. In this case, the policy directly affects the agents because requiring the agents to collect more information before embarking on an operation will surely benefit their decision-making abilities, since informed decision-making is always better than uninformed decision-making. Also, because agents can make better decisions, they will also become less of a burden to everyone else, thereby benefiting other stakeholders. Hence, it is ethical under this component.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. The consequences of this policy are easy to account for. In this case, only the final benefits to all are used to judge this policy to be ethical under Utilitarianism, there are no need take into account other concepts such as duty or virtue.

## "All agents must carry their medical information (such as blood type, allergies etc.) with them at all times when executing an operation, so as to facilitate rapid and accurate medical data collection, use and sharing during emergencies."

Ethical View of **Utilitarianism** = Ethical

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). It is clear that the policy confers mostly benefits with few damages. For example, carrying one's medical information with them at all times during an operation will enable them and medical personnel to make more informed decisions, leading to better outcomes, as compared to making uninformed decisions, leading to uncertain outcomes. The damages to agents may include an inconvenience of carrying such information with them. From a Big Data perceptive, there are no privacy or confidentiality issues with such information because such information alone cannot be used to identify the agent. Therefore, the net increase in utility due to this policy is evident, making this policy ethical under this component.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. In the case of this policy, it is easy to see how all affected stakeholders can be accounted for. In this case, the policy directly affects the agents because it is the agents who must carry the medical information with them. It is also easy to identify other stakeholders, such as the medical personnel that have to attend to the agents in emergencies. Hence, it is ethical under this component, because all stakeholders can be accounted for.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. The consequences of this policy are easy to account for. In this case, only the final benefits to all are used to judge this policy to be ethical under Utilitarianism, there is nothing else that matters.

## "Medical records in The Continental's medical archives must be indexed according to an agent's designated name only."

Ethical View of **Utilitarianism** = Unable to determine due to lack of critical information

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). For this policy, it is unclear what the net benefit or damage is. In this case, from the point of view of someone wanting to find information from the archives, it will probably be more convenient (and this beneficial) use the data by search via a single parameter, such as the designated name. However, as it is possible for agents to have similar names, it may in fact make searching more difficult (and therefore be damaging), as it would take more work to discern one agent from the other. Same for other stakeholders such as the archive's curator, who wants to be able to store and use the information easily, yet make sure that the archive is scalable and robust even when there are many people with the same name. Therefore, from a Big Data perceptive, the net change in utility due to this policy is ambiguous.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. In the case of this policy, it is easy to see how all affected stakeholders can be accounted for. In this case, the policy directly impacts two stakeholders. First, there is the user of the archive, who wants to find the information. Next, there is the curator of the archive, who wants to be able to store the information properly with a sustainable cost. Therefore, this component is fulfilled.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. The consequences of this policy are difficult to account for. In this case, the damages to all stakeholders cannot be easily compared against the benefits. Therefore, the consequences are unclear, making the ethicality of this policy undeterminable under Utilitarianism.

## "Agents are not allowed to self-medicate when they are unwell. For all ailments, agents must seek medical attention from The Continental's Doctor."

Ethical View of **Utilitarianism** = Unethical

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). For this policy, it is quite evident that there is little benefit as compared to the damage, which means that there seems to be a net decrease in utility. In this case, if agents are required to seek The Doctor's advice on all ailments big and small, The Doctor will quickly become overwhelmed, which damages The Doctor's productivity. Furthermore, small ailments that could be addressed by over-the-counter medication might now take much longer to address under this policy, as there might be a long queue to see The Doctor, which damages the agent's productivity. While the policy may prevent rare by serious complications from happening (which is a benefit), such serious complications could be mitigated by other means, such as showing's one's medical records to pharmacy staff before purchasing over-the-counter drugs. Therefore, there is a net decrease in utility, and this policy is not ethical under Utilitarianism.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. In the case of this policy, it is easy to see how all affected stakeholders can be accounted for. In this case, the policy directly impacts two stakeholders. First, there is the agent, who is mentioned specifically in the policy. Next, there is The Continental's Doctor, who is also specifically mentioned. The Continental is also a stakeholder, as it employs The Doctor. Therefore, this component is fulfilled.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. The consequences of this policy are easy to account for. In this case, the damages to all stakeholders can be easily compared against the benefits. Therefore, the consequences of this policy are clear and this policy does not require other rules to evaluate.

## "Agents are only allowed to use physical cash when purchasing items from retailers during the execution of an operation. They must not use any form of digital payment methods or credit cards."

Ethical View of **Utilitarianism** = Ethical

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). For this policy, it is quite evident that there is great benefit as compared to the damage, which means that there seems to be a net increase in utility. In this case, from a Big Data perspective involving Data Privacy (collection of data), if agents do not use credit cards or digital payment, they will not need to disclose to the retailer personally identifiable information such as name, credit card number or mobile phone number, which in turn allows them to achieve Plausible Deniability easier than if they had to disclose such information, so this is a benefit, especially since Plausible Deniability is very important to agents. The possible damage would be the inconvenience of handling physical cash, but that is probably minor when compared to the huge benefit of being able to maintain anonymity. Therefore, there is a net increase in utility, and this policy is ethical under Utilitarianism.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. In the case of this policy, it is easy to see how all affected stakeholders can be accounted for. In this case, the policy directly impacts two stakeholders. First, there is the agent, who is mentioned specifically in the policy. Next, there is the retailer, who is also specifically mentioned. In the case of the use of credit cards, the bank/credit card company is a stakeholder, but relatively unimportant because the main transaction is between the agent and the retailer. Same of if mobile payment was used, the telecommunications company will be involved, but is not a main actor in the relationship. Therefore, this component is fulfilled.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. The consequences of this policy are easy to account for. In this case, the benefits to all stakeholders can be easily compared against the damages. Even the each stakeholder's importance to the relationship is easily accounted for. Therefore, the consequences of this policy are clear and this policy does not require other rules to evaluate.

## "The Continental will be banning visitors from staying in the hotel if they are found to be working in disease research laboratories in North Carolina, USA and Wuhan, China, as well as Fort Detrick US Army Institute of Infectious Diseases, on grounds that they contributed to the release of COVID-19 into the world and are therefore a threat to security."

Ethical View of **Utilitarianism** = Unethical

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). In this case, it is unclear how discriminating against people who work in certain professions will increase the security of the hotel. In fact, the only real quantifiable metric is that this policy will seek to decrease number of customers eligible for stay at the hotel, which will in fact be a net decrease in utility. Therefore, this policy of discrimination is unethical under Utilitarianism.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. In this case, it is clear that the main stakeholders in the community can be easily accounted for, and they are The Continental, its staff and its guests, as well as the people being discriminated against. Therefore, this accountableness requirement is met.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. In this case, it is clear that the consequences of the discriminatory policy are not the only factors at play, there seems to be some inherent biases or prejudices embedded in the policy, making it unethical.

## "The Sommelier must ensure that the training data used to train RABIT's A.I. must be exhaustive and complete to ensure that the recommendations produced by RABIT are optimal."

Ethical View of **Utilitarianism** = Unable to determine due to lack of critical information

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). In this case, it is difficult to measure the aggregate utility because it is difficult to quantify in any relative or absolute terms. Training the A.I. exhaustively will have the benefit of ensuring that the A.I. has all the data required for it to process all possible outcomes, thus giving it the ability to select the optimal outcome. However, the amount of resources required to produce an exhaustive data-set may be so expensive that it defeats the purpose of having an A.I. recommender system in the first place (which is to save time and resources so as to be able to serve a larger number of customers). Therefore, from this standpoint, it is unclear if there really is Aggregated-Utility in this case.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. In this case, it is clear that the main stakeholders in the community can be easily accounted for, and they are The High Table, The Sommelier, and The Sommelier's customers. Therefore, this accountableness requirement is met.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. In this case, even the consequences of this policy are unknown, because an optimal recommendation from RABIT may not result in a successful operational outcome for a customer, hence, consequentialism in this case is not well defined.

## "All Linux systems deployed by the Pawnbroker must have the following commands disabled for all users: cd, mkdir, ls, man, pwd, nano."

Ethical View of **Utilitarianism** = Unethical

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). In this case, many of the commands mentioned in this policy are fundamental for any work done within Linux. If these commands are disabled, while it may prevent potential unauthorized hacking incidents from happening, thereby potentially benefiting security, it will definitely be disruptive for authorized users how need to perform work in the system, such as system administrators, thereby definitely damaging productivity. Therefore, from this standpoint of potential benefit verses definite damage, it is clear that there is no Aggregated-Utility, and therefore this policy is not ethical under Utilitarianism.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. For example, in this case, while some stakeholders in the community can be easily accounted for, such as The Pawnbroker and potential hackers, there may be other stakeholders unaccounted for, such as the system administrators working for The Pawnbroker, and The Pawnbroker's customers, and more. Therefore, this accountableness requirement is not met.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. In this policy, it is clear that the consequences are that navigation and traversal within the directory system will be prevented, as well editing of files, and this will stop hackers from being able to perform those actions, regardless of the duties or rights of others. Therefore, under Utilitarianism, this component is fulfilled.

## "The University takes a strict view of cheating in any form, deceptive fabrication, plagiarism and violation of intellectual property and copyright laws. Any student who is found to have engaged in such misconduct will be subject to disciplinary action by the University"

Ethical View of **Utilitarianism** = Ethical

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). In this case, it is possible to quantify utility in relative terms. By disciplining students who have engaged in misconduct, this produces a benefit as it serves as a deterrent against future cases of misconduct, not just from the perpetrator, but also as an example to the community and other would-be offenders, thus preventing them from becoming actual offenders. While there may be damages to the perpetrator and associates, the overall impact on the rest of society and the community is positive, as cheating, deceptive fabrication, plagiarism and violation of IP and copyright will have profound negative impacts to all members of society if left to fester unchecked, as members in the community will start to lose confidence in their society and their own lives, which in turn will lead to a regression to anarchy, chaos and great uncertainty of the future. Therefore, from this standpoint, it is clear if there really is Aggregated-Utility in this case.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. In this case, it is clear that the community can be easily accounted for, as all members of society are impacted by this policy, even those who are not currently part of NUS, because the effects of this policy will ripple out to the rest of society. For example, when students graduate, they will bring their values and skills into the workforce, which will have profound impact on the country's economy, and by extension, the world. Therefore, this accountability requirement is met.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. In this case, the consequences of this policy can be predicted and extrapolated quite easily and logically, and it is clear that this policy does not take into account factors such as a student's political, economic, social, or technological background in rendering disciplinary action. Therefore, this policy is ethical under Utilitarianism.

## "All users of an organization's IT systems must ensure that they use a different password for each different app or service that they utilize. For example, the password used for email should be different from the password used for internet banking etc. This is to make it more difficult for a hacker to compromise the entire IT ecosystem all at once."

Ethical View of **Utilitarianism** = Unethical

Aggregate-Utility

Aggregated-Utility is about considering the net benefits (which means an increase in utility) or damages (which is a decrease in utility). In this case, it is difficult to measure the aggregate utility because there is insufficient information given. For example, if a user only uses a small number of apps or services, then it would seem possible to have a different password for each. However, if the user has a large number of apps or services, then it becomes much more difficult to abide by this policy, not just because the user has to remember a large amount of information, but also because there is an upper-bound to the number of possible password combinations, especially if there are limits such as a character limit or character-set limit (eg. only alpha-numeric characters). Therefore, from this standpoint, it is unclear if there really is Aggregated-Utility in this case.

Accountableness

Accountableness is about the ability of the policy to account for all affected stakeholders within the target community. In this case, it is clear that the main stakeholders in the community can be easily accounted for, as they are the users of an organization's IT systems. However, there could be people who depend on these users for service and support, and that part of the population is less well defined. Therefore, this accountableness requirement is not met.

Consequentialism

Consequentialism is about whether only the consequences are taken into account regardless of all other factors. In this case, even the consequences of this policy are unknown because it is difficult to quantify the effects to the users and people who depend on these users, hence, consequentialism in this case is not well defined.

# Rights

## "The Cartographer is only allowed to sell maps that The Cartographer created, not maps that were created by others."

Ethical View of **Rights =** Unable to determine due to lack of critical information

Natural rights:

Natural-Rights refers to the fundamental rights of humans to life and property that they create or obtain by mixing their labor with natural resources. In this case, if The Cartographer created the maps himself/herself, then The Cartographer has Natural-Rights to the maps and can decide what to do with the maps, including selling them or giving them to other people. Also, other people can also give the maps to The Cartographer to own/sell, so that is a case of The Cartographer obtaining the maps from others. As long as The Cartographer did not steal, kill, deceive or coerce anyone in order to obtain the maps, The Cartographer should have full rights to the maps do as The Cartographer pleases, as that is The Cartographer's Natural-Rights to property. Therefore, because it is unknown if others had given their rights to The Cartographer, it is unclear if this policy is ethical or not.

Negative rights:

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. In this case, The Cartographer has the freedom to do whatever he wants to do to the maps, as long as he is humanly able to do so. Therefore, restricting The Cartographer's rights to sell the maps does not seem to be ethical under Negative-Rights.

Positive Rights:

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. It is unclear what obligations The Cartographer has to the other map creators or The Cartographer's customers with regards to selling of maps. In this case, if an agent purchases a map from The Cartographer, it is The Cartographer's obligation to ensure that what is represented on the map is exactly what is desired by the customer. The customer does not need to know where the map comes from, therefore, The Cartographer may not have an obligation to the map creator (if the map was obtained from someone else). Therefore, this part of the argument is unclear under Positive-Rights.

## "The Cartographer must ensure that the representations in the blueprints sold to agents must be of the highest accuracy possible."

Ethical View of **Rights =** Ethical

Natural Rights:

Humans have fundamental rights to life and property that they create or obtain by mixing their labor with natural resources. In this case, if The Cartographer created the blueprints, then The Cartographer has Natural-Rights to the blueprints and can decide what to do with the blueprints, including selling them or giving them to other people. Also, other people can also give the blueprints to The Cartographer to own/sell, so that is a case of The Cartographer obtaining the blueprints from others. As long as The Cartographer did not steal, kill, deceive or coerce anyone in order to obtain the blueprints, The Cartographer should have full rights to the blueprints to do as The Cartographer pleases, as that is The Cartographer's Natural-Rights to property.

Negative Rights

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. In this case, The Cartographer has the freedom to do whatever he wants to do to the blueprints, as long as he is humanly able to do so. Therefore, this component is fulfilled because The Cartographer can indeed choose to provide blueprints that are of the utmost accuracy, as that is his right. That being said, The Cartographer can also decide to provide blueprints that are of poor accuracy, but the next component (Positive-Rights) will demonstrate why this cannot not be the case.

Positive-Rights:

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. By virtue of the fact that The Cartographer is selling the blueprints in exchange for a fee, it is clear that The Cartographer has obligations to customers. In this case, the value of blueprints are to facilitate planning, and if the blueprints are not accurate, then the planning will not be reliable, and that would defeat the purpose of the blueprints in the first place. Therefore, The Cartographer has an obligation to paying customers to provide blueprints that are as accurate as possible, since that is the sole purpose of such blueprints in the first place. If The Cartographer is unable to provide accurate blueprints to the best of The Cartographer's ability, then The Cartographer has no business selling blueprints to agents. In summary, this policy is ethical, as it compels vendors to do their best for their clients, as it is their obligation as vendors to do so.

## "The Cartographer must ensure that the training given to agents during Live Coaching and Demonstration sessions must be the best in the world."

Ethical View of **Rights = Une**thical

Natural-Rights:

Humans have fundamental rights to life and property that they create or obtain by mixing their labor with natural resources. In this case, if The Cartographer created the coaching plan, then The Cartographer has Natural-Rights to the plan and can decide what to do with the plan, including training agents based on the plan for profit. Also, other people can also give their training plans to The Cartographer so that The Cartographer can practice them, so that is a case of The Cartographer obtaining the training plans from others. As long as The Cartographer did not steal, kill, deceive or coerce anyone in order to obtain the plans, The Cartographer should have full rights to the plans to do as The Cartographer pleases, as that is The Cartographer's Natural-Rights to property, which includes the knowledge of the training plan contents. However, this does not address the "best in the world" requirement as stated in the policy, so we will defer judgment until we examine the next two components (Negative/Positive-Rights)

Negative-Rights:

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. In this case, The Cartographer has the freedom to do whatever he wants to do to the training plans, as long as he is humanly able to do so. Therefore, The Cartographer has the liberty to choose to provide training that is world the best in the world, but also has the liberty to decide to provide training that is not the best in the world.

Positive-Rights:

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. It is clear that The Cartographer has no obligations to customers to provide "best in the world" training, because there is no definition for what qualifies as "best in the world" training. For example, who can say what "best in the world" CPR training looks like? How would one go about determining what "best in the world" means, according to what measurements or benchmarks? Especially for training plans and coaching sessions, there is no way to compare such things, since the quality of the execution depends on many factors that are not within the control of the trainer, such as the customer's own physical and mental abilities. Therefore, The Cartographer has no obligation to provide "best in the world" training, which makes this policy unethical.

## "The Cartographer must ensure that all techniques taught to trainees during the Live Coaching and Demonstration sessions must not have been referenced or copied from any publicly available source."

Ethical View of **Rights = Une**thical

Natural-Rights:

Humans have fundamental rights to life and property that they create or obtain by mixing their labor with natural resources, and as long as they did not obtain these items through stealing, killing, deceiving, or coercing other human beings, they should have the rights to do whatever they wish to their life and property. For example, if The Cartographer physically demonstrates a technique to a trainee, it can be said that The Cartographer created the demonstration, and so has the rights to perform the demonstration. Furthermore, even if The Cartographer referenced some textbook or Youtube video in order to learn the technique, because The Cartographer did not steal, kill, deceive or coerce anyone to get that knowledge, it would still be within The Cartographer's Natural-Rights to obtain, since The Cartographer's observations of the textbook or Youtube video could be said to be The Cartographer's own labor, and any knowledge created from that labor belongs to The Cartographer. Therefore, this policy is not ethical under Natural-Rights.

Negative-Rights:

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. For example, The Cartographer has the freedom to observe whatever he wants to do to observe, as long as he is able to do so based on virtue of the fact that it is the right of all human beings to observe their surroundings, especially since the information is in the public domain. Therefore, The Cartographer has the liberty to choose to use that publicly available information to teach and coach trainees. Again, this policy is not ethical under Negative-Rights.

Positive-Rights:

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. The Cartographer does not have any obligations to the producers of the publicly available information. In this case, since the information is in the public domain, and The Cartographer can create his/her own demonstration and coaching plans based off the information, The Cartographer does not have to answer to the people who created the publicly observable information, since the information is made public for all who wish to observe it. The Cartographer also does not have an obligation to his/her customers to ensure that the coaching and demonstrations are derived from public knowledge, since the customer would already know that it is public information, and since The Cartographer owns the rights the performance of the demonstration that he/she created. In summary, this policy is not ethical under Positive-Rights.

## "The Cartographer can provide agents with any map or blueprint from any source, as long as The Cartographer draws the blueprint or map by his/her own hand."

Ethical View of **Rights =** Unable to determine due to lack of critical information

Natural rights:

Humans have fundamental rights to life and property that they create or obtain by mixing their labor with natural resources, and as long as they did not obtain these items through stealing, killing, deceiving, or coercing other human beings, they should have the rights to do whatever they wish to their life and property. For example, if The Cartographer obtained the knowledge to hand-draw the required maps and blueprints via his/her own labor without resorting to stealing, killing, deceiving or coercing other human beings, then the policy would be ethical. However, as The Cartographer has admitted that he/she "is but one person", implying that he/she could not have created all the knowledge in the world. This means that there will be knowledge that The Cartographer might not have the Natural-Rights to own. Therefore, the policy is not ethical, because there may be information in the world that is not publicly available, of which The Cartographer cannot claim to have created.

Negative-Rights:

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. For example, The Cartographer has the freedom to draw anything if he/she has the hands to do so, since that is his/her human right. Especially if The Cartographer had the capabilities to obtain the knowledge required to draw the blueprint or the map, he would have the liberty to do so. Therefore, under Negative-Rights alone, this policy would be ethical. However, this needs to be tested against the final component, Positive-Rights.

Positive-Rights:

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. The Cartographer does not have any obligations to the producers of the publicly available information, but there might be obligations to producers of non-public information. For example, if the information is in the private/secret domain, and The creator of the information has put in effort to secure the information so that it can continue to be hidden from the public or protected from certain types of uses, then The Cartographer does not own the right to the information, and therefore The Cartographer actually has an obligation not to use or sell the information in the way that it is meant to be secured or protected, as doing so might have negative repercussions on his/her paying customers, who expect to be able to own the items that they buy from The Cartographer.  In summary, this policy is not ethical under Positive-Rights, because The Cartographer does not own all knowledge in the world, especially the information that is protected, and therefore does not have the rights to use such knowledge which he/she does not own to create the maps and blueprints, regardless of how they are created.

## "The Continental will not allow the wearing of masks by hotel staff because the virus does not really pose a threat to mortality (the actual numbers of COVID-19 deaths in the community are in fact very low), and hotel guests will be negatively impacted if our staff wear masks, because they will be unable to experience the hotel's famous service-with-a-smile, which is very important in our hospitality industry."

Ethical View of **Rights = Une**thical

Natural-Rights

Natural-Rights refers to the fundamental rights of humans to life and property that they create or obtain by mixing their labor with natural resources. In this case, no matter whether or not the manager is correct about the mortality rate of COVID-19, the wearing of masks is a choice that the hotel staff should make themselves since that choice and their own health can be considered the staff's property, and the staff did not steal, kill, deceive or coerce anyone to obtain that right. Therefore, this policy is unethical under Natural-Rights as it takes away the staff's right to choice regarding their own health.

Negative-Rights

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. In this case, hotel staff have the freedom to wear masks or not, and there should be nothing stopping them from exercising their right to do so, unless there are Positive-Rights opposing these Negative-Rights. Therefore, we need to look at the next component before passing judgment.

Positive-Rights

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. In this case, it makes it clear that service-with-a-smile does seem to be an obligation that The Continental and its staff have towards its guests, since that is the defining feature of a successful hospitality business. This policy is therefore ethical under Positive-Rights if the hotel staff chooses to work for The Continental and serve guests, as that is the staff's choice to proceed with the employment conditions, thus willingly accepting the obligation. However, since this conflicts with the Primary component of Natural-Rights, the policy can be considered unethical overall.

## "By seeking the services of The Sommelier, all customers agree to absolve The Sommelier of any responsibility should RABIT's recommendations result in injury or loss to the customer."

Ethical View of **Rights =** Ethical

Natural-Rights

Natural-Rights refers to the fundamental rights of humans to life and property that they create or obtain by mixing their labor with natural resources. In this case, customers have the right to decide whether or not to seek the services of The Sommelier, since that choice can be considered the customer's property, and the customer did not steal, kill, deceive or coerce anyone to obtain that right. Therefore, this policy is ethical under Natural-Rights.

Negative-Rights

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. In this case, customers of The Sommelier have the freedom to seek The Sommelier's services, and there is nothing stopping them from exercising their right to do so. Therefore, under Negative-Rights, this policy is ethical.

Positive-Rights

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. In this case, it makes it clear that customers will have an obligation not to hold The Sommelier responsible for any injuries or loss should the customers decide to engage his services. This is ethical under Positive-Rights if the customer chooses to engage The Sommelier's services, as that is the customer's choice to proceed with the transaction, thus willingly accepting the obligation.

## "Honeypots should never be used in all future operations."

Ethical View of **Rights = Une**thical

Natural-Rights

Natural-Rights refers to the fundamental rights of humans to life and property that they create or obtain by mixing their labor with natural resources. For example, in this case, investigators have the right to create a honeypot and use it to obtain whatever information they need for their investigation, as long as they do not steal, kill, deceive or coerce anyone to get that information. Unfortunately, a honeypot relies on deception to gather information. This means that it violates the rights of other human beings who encounter the honeypot unknowingly. Therefore, this policy is ethical under Natural-Rights, as it prevents such violation from happening.

Negative-Rights

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. In this case, investigators have the right to do whatever they need to catch the hackers, as long as there are no Positive Rights to oppose them. Therefore, we need to examine the next component before making a judgement on this.

Positive-Rights

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. In this policy, it is unclear what obligations the investigators have to the people in the honeypot. However, as anyone could have entered the honeypot, it will be rather difficult to say that the investigators have no obligations whatsoever, since basic human rights still should be protected which is a default obligation for all human beings. Therefore, this policy is ethical under Rights.

## "When third-party fact checkers identify false information on Instagram, we make it harder to find by filtering it from Explore and Hashtags, and reducing its visibility in Feed and Stories...Accounts that repeatedly share false information and their posts won't appear in certain places on Instagram. Deleting posts that contain false information won't affect these restrictions. Deleted posts can't be appealed with the independent fact-checkers."

Ethical View of **Rights =** Ethical

Natural-Rights

Natural-Rights refers to the fundamental rights of humans to life and property that they create or obtain by mixing their labor with natural resources. In this case, Instagram has the right to decide whether or not to filter and reduce the visibility of some accounts, since all actions that occur on Instagram are considered part of Instagram's property, and Instagram did not steal, kill, deceive or coerce anyone to obtain that right. Therefore, this policy is ethical under Natural-Rights.

Negative-Rights

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. In this case, Instagram has the freedom to filter and reduce visibility of any piece of content on their site, and there is nothing stopping them from exercising their right to do so. Therefore, under Negative-Rights, this policy is ethical.

Positive-Rights

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. In this case, it makes it clear that Instagram has no obligations to its users, especially since it is providing the service free-of-charge to users. This is ethical under Positive-Rights if users seek to use Instagram services on their own accord, therefore Instagram is not violating any Positive-Rights, and therefore this policy is ethical.

## "For the convenience and safety of all students, all merchants within the university campus must conduct all sales transactions using e-payment-only methods."

Ethical View of **Rights =** Unethical

Natural-Rights

Natural-Rights refers to the fundamental rights of humans to life and property that they create or obtain by mixing their labor with natural resources. In this case, merchants have the right to decide whether or not to do transactions via e-payments, since that choice can be considered the merchant's property, and the merchant did not steal, kill, deceive or coerce anyone to obtain that right. Therefore, this policy is unethical under Natural-Rights because it infringes on this right.

Negative-Rights

Negative-Rights refers to the rights to freedom, liberty, and to act without interference. In this case, merchants have the freedom to choose whatever payment methods they wish, and there is nothing stopping them from exercising their right to do so. Furthermore, students have the right to decide whether or not to purchase from these merchants using the payment options available through the merchant. Therefore, under Negative-Rights, this policy is unethical, because it infringes on these rights.

Positive-Rights

Positive-Rights refers to the obligations that can be imposed on others to force them to do or stop them from doing something. In this case, it would seem that merchants do not have an obligation to customers to provide certain types of payment options, just as customers do not have an obligation to transact with the merchant if the customer is not satisfied with the merchant's products or services. Therefore, this policy violates these rights, and it is unethical under Positive-Rights to force the merchant and the student to transact in a certain way when there are other options available.

# Contributing to Society

## "The Tailor can only deliver a finished product to an agent if the work was done with the highest of quality standards possible."

Ethical View of **Contributing to Society – Ethical**

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is clear that this policy does compel The Tailor to achieve this goal. In this case, mandating that the "highest of quality standards" must be applied to The Tailor's work forces The Tailor to do the job well. Therefore, it is clear that this component has been fulfilled under Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. Forcing The Tailor to adhere to high quality standards does seem to benefit others in the community other than The Tailor. In this case, agents can benefit from the confidence of being able to rely on The Tailor's services knowing that The Tailor is honor-bound to do the best for the customer. Therefore, this component does Contribute to Society in this regard.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. It is clear that most people in the community will agree that this policy will result in good activities being practiced. In this case, since high quality work from The Tailor will increase the confidence of agents during operations, agents will feel that they will be able to worry less about their clothing and focus on their performing their tasks. Therefore, it is easy to say that this policy is ethical under Contributing to Society.

## "The Tailor can only deliver a finished product to an agent if the work was done using the highest quality raw materials available."

Ethical View of **Contributing to Society –** Unable to determine due to lack of critical information

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is unclear if this policy achieves such an aim. For example, just because the highest quality materials are used does not mean that the work is done as well as possible, or honesty, responsibly or creatively. Therefore, it is unclear that this component has been fulfilled under Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. Forcing The Tailor to use the highest quality materials might not benefit others in the community other than The Tailor. In this case, while the quality of the raw materials may contribute to the quality of the final product, The Tailor's craftsmanship is just as important, or even more so. In fact, it seems possible to create a good product even without using the highest quality raw materials, as evidenced by products in our everyday life. In fact, it could be said that in order to obtain the highest quality raw materials, much waste might be incurred, and might not be sustainable or good for the environment, thereby potentially harming others in the community. Therefore, it is unclear if this component fulfills the goal of the ethical view.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. ​​​​​​​It is unclear if most people in the community may agree that this policy will result in good activities being practiced. For example, there may be many people in society that believe that expensive and branded clothes like Chanel and LV are worthwhile due to the high quality of the raw materials used to produce them, but other people may think that less expensive labels such as Uniqlo are just as good or even better because they are more sustainable to produce. Therefore, it is difficult to say that this policy is ethical under Contributing to Society.

## "The Tailor should only accept orders that help to increase The Tailor's skills and proficiency in the craft."

Ethical View of **Contributing to Society –** Unethical

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is unclear if this policy achieves such an aim. For example, just because The Tailor's skill level increases does not mean that the work was done well, since it is possible to gain experience at the expense of the customer. Therefore, it is unclear that this component has been fulfilled under Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. Forcing The Tailor to only take on orders for The Tailor's benefit is not ethical. In this case, while the argument that an increase in The Tailor's skills could potentially benefit future customers, it would also mean that certain types of existing and future orders would be discriminated against, meaning that there will be customers in the community that will be concretely and negatively impacted. Therefore, it seems that this policy might only benefit The Tailor and not others in the community, making this component unethical view.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. It is unclear if most people in the community may agree that this policy will result in good activities being practiced. For example, if you were an agent whose order was discriminated against, you would feel that this policy would not be good. However, if your order was accepted, you would think that it is a good policy. However, in terms of the community as a whole, it seems that a larger number of people would be negatively impacted than the number of positively impacted people. Therefore, it this policy is unethical under Contributing to Society.

## "The Tailor is allowed to accept orders only if they are unlikely to violate Rule Number 2"

Ethical View of **Contributing to Society – Ethical**

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is clear that this policy seeks to achieve such an aim. In this case, by enabling The Tailor to apply some observational expertise in discerning the agent's proposed design, this not only enables The Tailor to focus on the orders that have at least a minimum chance of success, and not having to waste resources on the orders that have no chance to succeed. In this way, The Tailor can be said to be doing the job responsibly and honestly. Therefore, it is clear that this component has been fulfilled under Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. This policy would be beneficial to The Tailor as well as other members in the community. In this case, by enabling The Tailor to vet an agent's design, The Tailor can better allocate resources to promising projects while preventing less plausible projects from wasting resources. This also enables agents to quickly discover the problem with their designs and iterate their designs, thereby increasing their chances of success. Therefore, this policy does indeed have Communal-Benefit.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. It is very likely that most people in the community will agree that this policy will result in good activities being practiced. For example, most people would agree that having an additional safety-net would be a good activity to have. Furthermore, this policy has the potential to see resources being more optimally utilized, thereby leading to higher success rates in operations, which seems obvious to most people.

Therefore, it this policy is ethical under Contributing to Society.

## "The Tailor is allowed to process orders that may have some elements that have the potential to violate Rule Number 1"

Ethical View of **Contributing to Society –** Unable to determine due to lack of critical information

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is unclear what this policy seeks to achieve. In this case, it is unknown if the elements play a significant role in suggesting the identity that the clothing set seeks to convey, so it will be difficult for The Tailor to do the job well, since the definition for "well" cannot be determined. Therefore, it is unclear that this component has been fulfilled under Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. It is unclear if this policy would be beneficial to The Tailor as well as other members in the community. In this case, because it is unknown whether or not the elements that have the potential to violate Rule Number 1 play a significant role in establishing the identity of the clothing set, it is not possible to ascertain the benefits or damages to any party in the community. Therefore, it is unclear if this policy has Communal-Benefit.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. It is very unlike to get a consensus in the community regarding agreement that this policy will result in good activities being practiced. In this case, because there is little clarity on which elements would violate Rule Number 1, and how significant a role they contribute to the look of the clothing set, it is unlikely that people will agree on the details, and whether or not the details will produce good activities or outcomes.

Therefore, it is unclear if this policy is ethical or not under Contributing to Society.

## "Guests who exhibit COVID-19 symptoms will be restricted to the Seaside section of the hotel so that the sun, sand, ocean water and soil can act as natural remedies for the virus until they have been cured of the virus or they end their stay at the hotel. This section of the hotel will be closed to all other guests."

Ethical View of **Contributing to Society – Ethical**

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is clear that this policy does compel The Continental to achieve this goal, assuming the information about COVID-19 is correct. For example, restricting infected guests to specific parts of the hotel will keep other guests safe (as long as those uninfected guests do not visit those areas), and this forces infected guests to stay away from uninfected guests responsibly. Therefore, it is clear that this component has been fulfilled under Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. For example, this restriction of movement of infected guests will be beneficial to uninfected guests. Therefore, this component is fulfilled in the policy.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. It is clear that most people in the community will agree that this policy will result in good activities being practiced. For example, preventing spread of a disease, no matter how dangerous, is almost always be a good thing. Therefore, it is easy to say that this policy is ethical under Contributing to Society.

## "The Sommelier must perform maintenance operations on RABIT's configuration settings at a frequency and regularity mandated by RABIT's developers, and The Sommelier must follow the maintenance protocols strictly."

Ethical View of **Contributing to Society – Ethical**

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is clear that this policy does compel The Sommelier to achieve this goal. For example, mandating that The Sommelier must be performance maintenance operations on RABIT, strictly in accordance with the maintenance protocols, forces The Sommelier to perform the work responsibly, and hopefully honestly as well. Therefore, it is clear that this component has been fulfilled under Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. For example, The Sommelier's due diligence in performing the maintenance operations will benefit end users of the system, as that ensures that the system is performing as per specification. Therefore, this component is fulfilled in the policy.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. It is clear that most people in the community will agree that this policy will result in good activities being practiced. For example, since maintenance work done by The Sommelier will increase the general confidence of RABIT's users, at least pertaining to the notion that the system is indeed functioning as it should, most in the community would agree that this is a good policy to have. Therefore, it is easy to say that this policy is ethical under Contributing to Society.

## "All Linux distributions must include safeguards that detect and block the execution of mass-scanning apps that have the capability to scan more than one IP address or port per command invocation."

Ethical View of **Contributing to Society –** Unable to determine due to lack of critical information

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is unclear that this policy does compel Linux users to achieve this goal. In this case, mandating Linux distros to include restrictions on the use of certain apps says nothing about using Linux honestly, responsibly or creatively. Therefore, it is unclear what this policy hopes to achieve when examined under Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. In this case, the policy will benefit the community by reducing the risk of getting hacked via such mass-scanning apps. Therefore, this component is fulfilled in the policy.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. It is unclear that most people in the community will agree that this policy will result in good activities being practiced. In this case, while there may be hackers utilitzing such mass-scanning apps for malicious uses, there may also be many users using them for legitimate uses, such as in their business operations or in school. Therefore, it is difficult to say that this policy is ethical or not under Contributing to Society.

## " You may not publish or post other people's private information without their express authorization and permission...If the reported information was shared somewhere else before it was shared on Twitter...we may not treat this information as private."

Ethical View of **Contributing to Society –** Unethical

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is clear that this policy may encourage people to behave creatively but irresponsibly. For example, it is a simple matter to post someone's private information via a proxy channel, such as posting it on Youtube before sharing the Youtube video on Twitter. Therefore, it is unclear if this component fulfills the requirement of Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. In this case, this policy of not treating information as private if it has been reported elsewhere is not beneficial to the community as it makes it very easy for bad actors to continue doxxing actions against other people. Therefore, this component is not fulfilled in the policy.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. It is clear that most people in the community will disagree that this policy will result in good activities being practiced. For example, since it is rather easy for bad actors to circumvent user protections and continue their harressment activities, most people will agree that this policy is not effective, and in fact seems to only protect the company's liability. Therefore, it is easy to say that this policy is unethical under Contributing to Society.

## "All businesses providing financial-related services must ensure that multi-factor authentication measures have been implemented to safeguard business operations."

Ethical View of **Contributing to Society – Ethical**

Virtuous-Activity

Since a Virtuous-Activity can only be said to be virtuous if the work is done well (eg. honestly / responsibly / creatively), it is clear that this policy does compel businesses to be more responsible and honest. For example, mandating the use of multi-FA forces the businesses to engineer their services more responsibly and honestly, because these approaches will make their products more secure against hacking threats. Therefore, it is clear that this component has been fulfilled under Contributing to Society.

Communal-Benefit

Communal-Benefit requires that actions must be beneficial to others in the community besides the person performing the action. In this case, this policy will increase the overall security of the system, thereby benefiting not just the businesses, but the customers as well. Therefore, this component is fulfilled in the policy.

General-Agreement

General-Agreement is about whether or not most people in the community will agree that the action is a good activity. It is clear that most people in the community will agree that this policy will result in good activities being practiced. In this case, since this policy will increase cyber-security, which will lead to a reduction in hacking cases, which will in turn lead to less financial losses due to hacking, most in the community would agree that this is a good policy to have. Therefore, it is easy to say that this policy is ethical under Contributing to Society.

# Social Contract

## "All passengers taking the NUS Smart Shuttle must be seated on a seat in the NUS Smart Shuttle and have their seat-belts fastened all times when the vehicle is moving."

Ethical View of **Social Contract**: Unethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. A State-Of-Nature does exist for the main party in this instance. In this case, it is undesirable for passengers on the NUS Smart Shuttle to risk being hurt. It is also undesirable for the University to have people hurt on its premises. This undesirable State-Of-Nature therefore does exist, and a Social Contract may be able to improve the situation and lift the stakeholders out of this State-Of-Nature, therefore this component is fulfilled under this Ethical View.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract. This policy assumes that all parties in the community are rational and reasonable, and will cooperate by tolerating and abiding by the rules that all accept, even those they do not like. In this case, the passenger may not like the rule that s/he has to sit on a seat and wear a seat-belt, but is rational and reasonable enough to tolerate the rule and abide by it in order to benefit from the Social Contract and leave the State-Of-Nature. Therefore, since all parties in this Social Contract can be rational, reasonable and cooperative, this policy is ethical under the Social Contract.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. The rule in the policy may not be fair for all, assuming a typical passenger's Political-Economic-Social-Technological situation. For example, if the shuttle is crowded, there may not be enough seats for everyone. Also, for special-needs individuals such as wheel-chair-bound passengers, they may not be able to sit in the seats. Therefore, it is not fair for all passengers, making this policy unethical.

## "All motorists sharing the road with an operational NUS Smart Shuttle must not overtake the shuttle at any time."

Ethical View of **Social Contract**: Ethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. A State-Of-Nature does exist for the different parties in this instance. In this case, people use a vehicle on a road to travel faster than walking, therefore the undesirable State-Of-Nature is slow transportation, of which can be improved by accepting a Social Contract regarding safe road use. Therefore, this component is fulfilled under this Ethical View.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract. This policy assumes that all parties in the community are rational and reasonable, and will cooperate by tolerating and abiding by the rules that all accept, even those they do not like. For example, the motorist may not like the rule that s/he has to travel behind an NUS Smart Shuttle (presumably at a slower pace than the motorist is used to), but is rational and reasonable enough to tolerate the rule and abide by it in order to benefit from the Social Contract and leave the State-Of-Nature. Therefore, since all parties in this Social Contract can be rational, reasonable and cooperative, this policy is ethical under the Social Contract. This also means that road-user who do not abide by these rules are not being ethical.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. The rule in the policy appears to be fair for all, assuming a typical motorist's Political-Economic-Social-Technological situation. For example, since all motorists must abide by road traffic rules, and the policy can be considered a road traffic rule (along with other rules such as not crossing a double white line or beating a red-light etc), it is unbiased for all motorists using the road. Therefore, it is fair for all motorists, making this policy ethical under Social Contract.

## "All self-driving A.I. products made by the company must be 100% unhackable before being sold to customers."

Ethical View of **Social Contract**: Unethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. An undesirable State-Of-Nature does exist for the different parties in this instance, of which a decent Social Contract should be able to improve upon. In this case, it is undesirable that customers may lose a lot of revenue if potential passengers are afraid to use the shuttle. Also, passengers may get hurt if the A.I. gets hacked. Therefore, this component is fulfilled under this Ethical View, because there indeed exists an undesirable State-Of-Nature.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract. It is difficult for this policy to assume that all parties in the community are rational and reasonable, and will cooperate by tolerating and abiding by the rules that all accept, even those they do not like. In this case, it is unreasonable to require that all A.I. products that are sold on the market are unhackable, because that is impossible with current technology practices.Furthermore, not all stakeholders will benefit, as the hackers would want to compromise the system as that is their job to do so, while the A.I. developers would want to secure the system, so cooperation in this sense is impossible as there is a conflict of interests. This suggests that this policy is not ethical under Social Contract.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. The rule in the policy does not appear to be fair for all, assuming a typical developer's Political-Economic-Social-Technological situation. For example, since it is impossible for all developers to develop A.I. that is 100% unhackable, it is biased towards developers that can develop systems that are 100% unhackable (which do not exist). Therefore, it is not fair for all developers in the company, making this policy unethical under Social Contract.

## "All ComfortDelGro attendants must ensure that passengers are seated with their seat belts fastened before allowing the vehicle to start moving. Should a passenger not comply with the rules, the attendant must ask the passenger to exit the shuttle."

Ethical View of **Social Contract**: Ethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. An undesirable State-Of-Nature does exist for the different parties in this instance, of which a Social Contract should be able to improve upon. In this case, it is undesirable that passengers get hurt due to their own non-compliance with the safety rules. It is also undesirable for the company to be blamed for the mishaps. Therefore, this component is fulfilled under this Ethical View, because there indeed exists an undesirable State-Of-Nature.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract. It is easy for this policy to assume that all parties in the community are rational and reasonable, and will cooperate by tolerating and abiding by the rules that all accept, even those they do not like. In this case, even if the passengers do not like the rules of having to be seated and buckled up, they will cooperate with the attendant because it increases their own safety, which means that the Social Contract does get them out of the State-Of-Nature. There are no conflicts of interest for any stakeholders in this case, therefore this policy is ethical under Social Contract, at least under the component of Cooperation.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. The rule in the policy does appear to be fair for all, assuming a typical attendant's Political-Economic-Social-Technological situation. For example, assuming that the attendant is properly trained to carry out the instructions and has the capabilities required for the job, the same rule can be applied to all attendants in an unbiased manner. Therefore, this policy is fair for all attendants in the company, making this policy ethical under Social Contract.

## "All passengers must take care of their personal belongings at all times. ComfortDelGro will not be held responsible for any damages to personal belongings sustained by passengers while onboard the NUS Smart Shuttle."

Ethical View of **Social Contract**: Ethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. An undesirable State-Of-Nature does exist for the different parties in this instance, of which a Social Contract should be able to improve upon. In this case, since the NUS Smart Shuttle provides passengers convenient transportation, the undesirable State-Of-Nature would be that passengers have to walk to their destinations. Therefore, this component is fulfilled under this Ethical View, because there indeed exists an undesirable State-Of-Nature which can be improved by a Social Contract.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract. It is easy for this policy to assume that all parties in the community are rational and reasonable, and will cooperate by tolerating and abiding by the rules that all accept, even those they do not like. In this case, even if the passengers do not like the rules of having to take full responsibility for their own personal belongings, they will still cooperate in order to benefit from the Social Contract that gets them out of the State-Of-Nature, which is to use the NUS Smart Shuttle's transportation service. If the passengers do not agree, they should not board the shuttle in the first place. Therefore this policy is ethical under Social Contract, at least under the component of Cooperation.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. The rule in the policy does appear to be fair for all, assuming a typical passenger's Political-Economic-Social-Technological situation. For example, assuming that the passenger understands what the rule means, the same rule can be applied to all passengers in an unbiased manner. Therefore, this policy is fair for all passengers in the shuttle, making this policy ethical under Social Contract.

## "All guests staying at The Continental must agree to be treated by The Continental's Doctor with Hydroxychloroquine should they be observed to exhibit COVID-19 symptoms. Guests will be charged the full cost of the medication in their hotel bill."

Ethical View of **Social Contract**: Ethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. In this case, the State-Of-Nature is clearly that guests infected with COVID-19 is undesirable, and they may spread it to other guests if they are not treated early, of which a Social Contract between the guests and The Continental to provide treatment may be beneficial to elevate the all parties out of that State-Of-Nature, assuming the treatment is effective against the virus. Therefore, there definitely is a State-Of-Nature, and this component is fulfilled.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract. In this case, to stay in The Continental, the guest must be rational and reasonable enough to agree to treatment, even if the customer may not like the conditions of the treatment. Therefore, this policy is ethical under this component.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. In this case, the rules in this policy are fair for all who seek stay at The Continental, as they can clearly refuse to stay if they are not agreeable to the terms and conditions. Therefore, this policy is ethical under Social Contract.

## "The Sommelier reserves the right, at the discretion of The High Table, to impose a fee on the customer consisting of a minimum of one Gold Coin per recommendation from RABIT, subject to prevailing exchange rates set by The Continental."

Ethical View of **Social Contract**: Ethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. In this case, a customer may be seeking help from The Sommelier because the customer may need more information about optimal loadouts. This means that the customer is currently lacking information, which is undesirable from the customer's perspective, making that situation a State-Of-Nature, of which a Social Contract with The Sommelier to provide that desired information may be beneficial to the customer to elevate the customer out of that State-Of-Nature by improving the customer's amount of information.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract.In this case, to get the benefit of the recommendation from The Sommelier, the customer must be rational and reasonable enough to accept the need to incur a service fee, even if the customer may not like to pay the charge of Gold Coins. Therefore, this policy is ethical under this component.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. In this case, the rules in this policy are fair for all who seek to engage The Sommelier's services, as one must have a minimum requirement to be able to access The Continental in the first place (one Gold Coin). Therefore, this policy is ethical under Social Contract.

## "All systems within The Pawnbroker's network must be configured with their firewalls blocking access to all unused ports. Ports being used by authorized apps must remain open."

Ethical View of **Social Contract**: Ethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. In this case, being at high risk of getting hacked is undesirable and the situation can be improved by using a firewall to block unused ports, thereby reducing the level of risk. Hence there is a State-Of-Nature.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract. In this case, to get the benefit of having a lower risk of getting hacked, users of the Pawnbroker's systems must be rational and reasonable enough to accept the possible inconveniences that come with extra restrictions, even if the users may not like such inconveniences. Therefore, this policy is ethical under this component.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. In this case, the rules in this policy are fair for all since firewalls nowadays can be obtained for very low cost (free!), and configuring such a system is considerably easy for properly-trained IT personnel. Therefore, this policy is ethical under Social Contract.

## "With hundreds of hours of new content uploaded to YouTube every minute, we use a combination of people and machine learning to detect problematic content at scale. Machine learning is well-suited to detect patterns, which helps us to find content similar to other content we’ve already removed, even before it’s viewed."

Ethical View of **Social Contract**: Ethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. In this case, the undesirable state is when problematic content exists, of which the use of Machine Learning can reduce by removing the content before it is viewed, thereby elevating Youtube out of that State-Of-Nature. Therefore, a State-Of-Nature clearly exists, and this component is fulfilled.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract. In this case, to get the benefit of using Youtube, users must be rational and reasonable enough to accept that content may be removed by Youtube through Machine Learning, even if the customer may not trust or like Machine Learning. Therefore, this policy is ethical under this component.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. In this case, the rules in this policy are fair for all who seek to use Youtube's services, especially since there are many alternatives to Youtube should the user not accept this policy. Therefore, this policy is ethical under Social Contract.

## "Certain facilities in the organization are protected by biometric security. You must consent to your personal biometric data being captured, stored and used before access to such facilities can be granted to you."

Ethical View of **Social Contract**: Ethical

State-Of-Nature

A State-Of-Nature is defined as a state that is undesirable and can be improved upon. In this case, the lack of security due to the ease of compromising a person's access items (such as keys or access cards) or the ease of finding out what one knows (such as a password) leads to a situation that is possibly insecure, which creates a State-Of-Nature that is clearly undesirable and should be improved.

Cooperation

Under the requirement of Cooperation, a Social Contract requires people to be rational and reasonable when cooperating, tolerating and abiding by rules that all accept, even those that they do not like, so as to benefit from the Social Contract. In this case, to get the benefit of the biometric security, one must be rational and reasonable enough to accept the need to allow the collection and storage and use of certain personal biometric information, such as fingerprint, or retina scan, or voice identification, even if the customer may not like to share such information. Therefore, this policy is ethical under this component.

Fair-Play

Fair-play requires that rules must be fair (unbiased) for all, whilst accounting for their PEST (Political-Economic-Social-Technological) situation. In this case, the rules in this policy are fair for all who seek to gain access to the facilities, as one must fulfill a certain security requirement to be able to access such places, and providing biometric information imposes no added expense on the person seeking access, since the biometric information defines what the person already is. Therefore, this policy is ethical under Social Contract.