Homework 1

Alex Haltom ahaltom3@gatech.edu

1 QUESTION 1 - SEMANTIC NETWORK STAR WARS

1.1 Semantic Network Guide

Use Figure 1 below to follow the full semantic network representation of this problem. As you will see, the locations of the characters are listed at the top of the sections, the characters and shuttle are listed below the locations, and the moves are indicated by the movement of the shuttle and character icons along with a verbal description of the move along the arrow connecting the states. Moves will be generated and the tester will then decide whether the move is valid and also a non duplicate. Invalid states will have a red X below them with a description of the error.

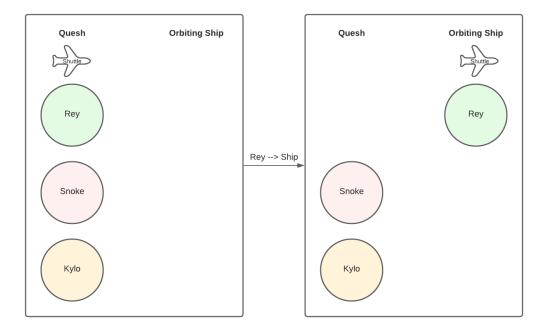
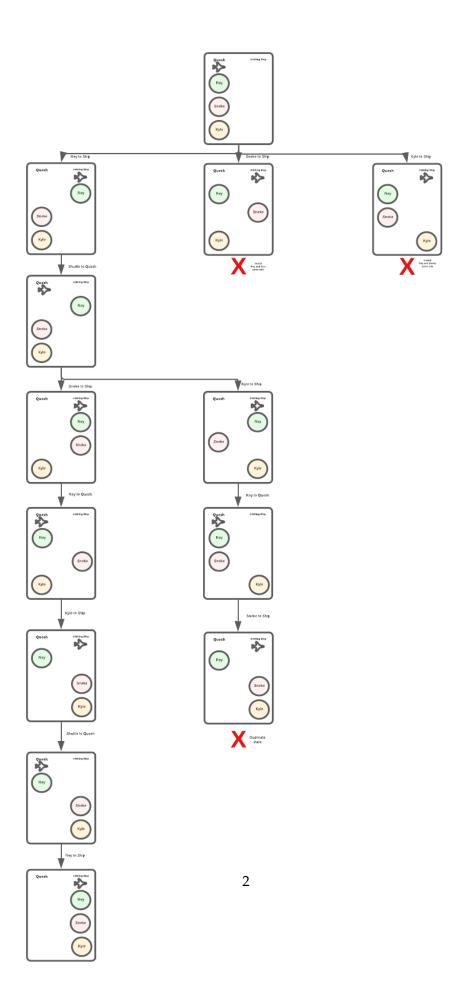


Figure 1—Semantic Network Guide

1.2 Full Semantic Network Representation



2 QUESTION 2 - GENERAL DATA PROTECTION REGULATION

2.1 Usage of personal data to personalize individual user experiences online

The General Data Protection Regulation (GDPR) was passed in 2016 by the European Union and attempted to take back control of user data from companies. In general, it enforced more regulations for companies on data use and data protection.

When discussing the GDPR in regards to the usage of personal data to personalize user experiences online, Art. 22 states, "1. The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her." (GDPR, 2019). Based upon this Art. 22 section 1, it seems that companies who personalize user experiences online have to be extremely careful about what decisions they make. Art. 22 goes into further detail when it's okay to use automated processing on data. For example, it is okay to use automated processing to personalize user profiles when explicit permission is given to the company by the user.

If companies use artificial intelligence to create personalized experiences, they might quickly become non compliant of the GDPR rules depending on how their AI model learns and processes the data. In Art. 22, companies must get explicit permission from users to process their data and throughout the GDPR articles, it's clear that companies need a reason for all of the data they collect. If the model discovers a new data point that could be valuable in creating a better individualized experience for the user then the company must receive consent from the user.

2.2 TikTok

One company who has personalization deeply embedded into their business model, is TikTok. This social media platform makes money by having users stay engaged on their app which is done by showing them videos users will be interested in. The app knows which videos the user is interested in by gauging a lot of metrics such as likes, comments, views, watch time, and more. Without this personalization, users would be much less likely to be engaged on the app.

2. 3 European Economic Area

The European Economic Area consists of all countries in the EU plus Iceland, Liechtenstein, and Norway. (Tufts, n.d.) The countries only in the EEA (and not in EU) are still impacted by most laws passed by the EU including the GDPR. The exact process of how an EU law becomes an EEA law is described on this website: eealaw.efta.int.

2.4 Relevant GDPR sections

There are several sections of the GDPR which are relevant to my example I chose above, Tiktok. Below I will cite two sections and explain how the examples I chose are relevant with respect to the EEA.

- Art. 3 GDPR Territorial scope
- Art. 8 GDPR Conditions applicable to child's consent in relation to information society services

Art. 3 GDPR is relevant in this case as "1. This Regulation applies to the processing of personal data in the context of the activities of an establishment of a controller or a processor in the Union, regardless of whether the processing takes place in the Union or not." (GDPR, 2019). The processing of TikTok user data does not happen in the EEA, so the company must comply with GDPR if it would like users from the EEA.

Art. 8 GDPR is relevant in this case because "2. The controller shall make reasonable efforts to verify in such cases that consent is given or authorized by the holder of parental responsibility over the child, taking into consideration available technology." (GDPR, 2019). 25% of TikTok users are between the ages of 10-19, so there is a considerable amount of users under 16 which is the age where parental consent of personal data is no longer needed (Hodge, 2021). If this company wishes to continue providing this service to young users in the EEA, they must do a great deal to remain compliant with Art. 8 and getting parental consent for the personal data processing of a child.

2.5 GDPR adaptations

Some ways that TikTok may have adapted to these GDPR regulations might include: additional data protection and transparency changes and also additional consent notifications especially if the user is under the age of 16. In recent years

though, TikTok has been under fire for not respecting these privacy laws and was even fined heavily under GDPR for children privacy violations.

2.6 Possibility of EEA using TikTok without waiving GDPR rights

It appears to be extremely challenging for TikTok to become compliant under GDPR, but it is possible for TikTok to continue offering its service to EEA residents if it enacts the following changes as a start:

- Collect data that will not identify the user, even if a breach were to occur.
- Perform the data processing of EEA residents in a non third country so the regulations can be closely watched.
- TikTok must maintain data transparency in the correct language and must continue to require parental consent for those under the age of 16.

The most important bullet point would be the first bullet point because if TikTok was able to maintain their current profiling while also not collecting enough data to identify an individual then it appears they would be compliant under GDPR.

3 REFERENCES

- 1. General Data Protection Regulation (GDPR). (2019, September 2). Retrieved February 6, 2022, from https://gdpr-info.eu/
- 2. Hodge, N. (2021, July 23). Tiktok fined \$883K under GDPR for children's privacy violations. Compliance Week. Retrieved February 6, 2022, from https://www.complianceweek.com/regulatory-enforcement/tiktok-fined-8 83k-under-gdpr-for-childrens-privacy-violations/30619.article
- 3. How EU law becomes EEA Law. How EU Law becomes EEA Law. (n.d.). Retrieved February 7, 2022, from https://eealaw.efta.int/
- Tufts. General Data Protection Regulation (GDPR). General Data Protection Regulation (GDPR) | Access Tufts. (n.d.). Retrieved February 7, 2022, from https://access.tufts.edu/general-data-protection-regulation-gdpr