

1. The project before me (I went first, so Marilyn is the one before me according to the convention) was “A Terminological Hierarchical Ontology System for Query-Based Risk Level Identification in the Exchange of Information between Actors Participating in the Health Information Exchange Arising under HIPAA, the HIPAA Privacy and Security Rules, and the HITECH Act as supplemented by the HIPAA Omnibus Rule”
 - a. **Problem:** is to identify the risk level associated with exchange of information in a hospital. The problem is important as the data in Electronic Health Records is very sensitive and cannot be disclosed to everybody as per the law.
 - b. **User:** The mentioned users for this approach range from government officials to patients. It is not explicitly mentioned in the presentation as to the earlier practices of safeguarding information but I guess it is by encryption (<https://www.hhs.gov/sites/default/files/ocr/privacy/hipaa/understanding/consumers/privacy-security-electronic-records.pdf>)
 - c. **AI Methods:** used Protege to create an ontology
 - d. **Data:** Electronic Health Records that are available via the health information exchange. The preprocessing techniques performed are not mentioned.
 - e. **Evaluation:** The created ontology has not been evaluated on any tasks or is not mentioned in the presentation
 - f. **Trust/Human Values:** preventing the misuse of personal information of the parents
 - g. **Human-AI:** I guess the sole purpose of using an ontology with restricted classes is to foster trust. But, it has not been explicitly explored as to how the ontology is being used to provide explanations to the end users.
 - h. **Project's Impact:** The impact of this idea is huge, but I guess there needs to be evaluation done faring it against the existing literature to make a comment as to whether people would adopt this solution.
2. The project after me was “Measuring the Spatio-Temporal Psychological Impact of Government Policies during Covid-19 Pandemic in different US states using Twitter Data”.
 - a. **Problem:** Identifying the trust compliance of the public towards the rules implemented during Covid19
 - b. **User:** Policy Makers and Public Health Specialists
 - c. **AI Methods:** Naive Bayes, Random Forest, Balanced Random Forest, SubSample Balanced Random Forest, Semantic Encoding and Decoding Optimization.
 - d. **Data:** The dataset used comprises the Tweet IDs collected during Covid19. The tweet IDs hydrated using a hydrator. In addition to this, the government policies data, diagnostic and statistical manual of mental disorders, ontology for drug abuse and geonames and the subreddit for depression, addiction and anxiety.
 - e. **Evaluation:** Precision, Recall and F1-score
 - f. **Trust/Human Values:** political and social values affecting the compliance of policy (trust issue of compliance)

- g. **Human-AI:** There's no solution built, by the work can be used to gain insight for the policy makers which can be further used to reformat the tool to get policies and hence obtain more human centric policies
 - h. **Project's Impact:** The project is useful for policy makers to better assess the sentiment of the people in a region.
3. The fairness dimensions are as follows:
- a. **Data Modality:** The fairness issues that arise from the different types of data (structured/unstructured) fall under this category. For example, a dataset consisting of information regarding credit card usage might be having more entries for males compared to females.
 - b. **Type of Model:** There are two types of models - black box and white box and three types based on the type of training - supervised, unsupervised and semi-supervised. Different models might have different fairness issues, for example, IBM has found the model for facial detection to be unfair to black people.
 - c. **Type of Fairness:** Group and Individual fairness refers to the model having the same predictions for a similar group or an individual.
 - d. **Cause:** The fairness issues can be caused by two factors - "How it originated" and "Where it originated".
 - e. **Testing Verification:** Direct, Indirect and Hidden biases contribute to the testing verification. Direct bias occurs if we use protected attributes to create the models. And in indirect bias, a correlating feature contributes to the bias and in hidden bias, we are unsure of which feature is causing the fairness issue in the model.
 - f. **Analysis:** Data scientists try to maximise the model performance and select features accordingly which might lead to fairness issues in the model.
 - g. **Mitigation:** There are different approaches to mitigate the bias in a model and improve upon fairness, namely, in-processing, pre-processing, and post-processing.
4. The type of fairness that I would be concerned about is the type of fairness - group discrimination or individual discrimination as the ordering needs to be fair to both the individuals and the group as a whole.