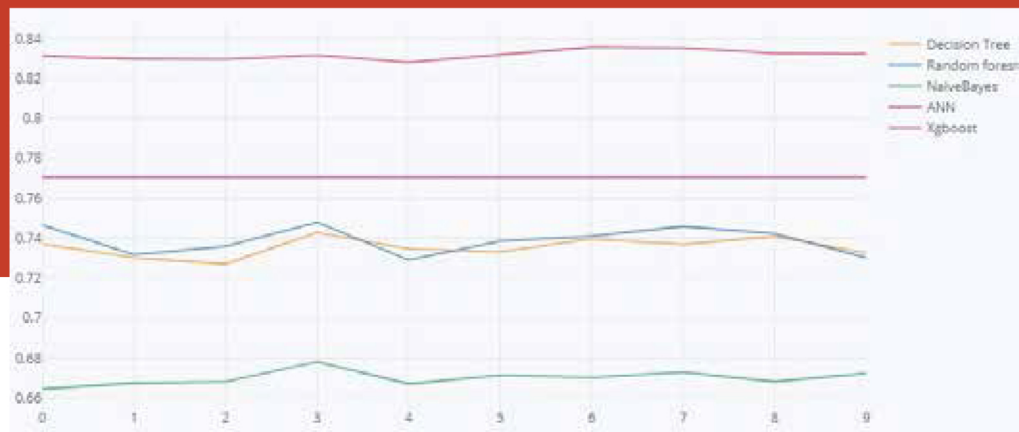


# 65 PROJECT ONLINE SOCIAL NETWORK

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Online Social Network (OSN) can be used to connect people across the world. Facebook is the biggest OSN and is addictive to many users. Its clients use it for exchanging messages, pictures and statuses. Connections between users on Facebook are represented through the concept of friendship. Good relationship among the clients in a communal system plays an important role when trying to frame a social network.

The goal of this proposed system is to predict toxic (suspicious) and nontoxic friends of OSN by using an ensemble of machine learning algorithms. Currently, most of the existing business improvement methods are based on social networks of user interests. So, to improve the business strategies, this system will classify ego-user's network friends into 3 clusters -- high active, medium active and low active friends. The system predicts suspicious and non-suspicious friends in each cluster based on interaction statistics. This proposed system introduces new algorithms -- XGBoost and ANN method to achieve higher accuracy than existing algorithms -- Random Forest, Decision tree and Naïve Bayes. It also suggests the best approach for conducting this type of research on similar OSN communication data.