

Assignment 1

1. How and where is facebook using Machine Learning to improve user experience? (2.5 marks)

- Personalized ads: Facebook recommends products and shows ads according to the post user interacts with, their liked pages and their search history.
- People you may know: The user is recommended/encouraged to send friend requests to other users based on similar interests, the same workplace or school or residents of the same area.
- Boosting engagement on a post: Businesses on Facebook can target their specific audience with ads and marketing tactics based on users' interests, engagement, and liked pages. Targeting specific audiences leads to more engagement on a post than targeting random users.
- Recommended pages: Facebook recommends other pages for the user to follow as per their interests and engagement on the platform.
- React buttons: Instead of a simple like, Facebook incorporated 5 react button a while back which can tell users' reactions on different posts and comments. This feature helps the platform to learn about the content's nature and also flag down racist, sexist, homophobic, bullying, and threatening posts and comments.
- Facial Recognition: Facebook asks a user to tag other users in a picture if the algorithm recognises familiar faces.

2. How do you think deep learning can change the world and do wonders? (2.5 marks)

Deep Learning can revolutionize the medical world by a number of applications. Deep learning can introduce minimal invasive surgery for operations that take over 6 hours to complete. In early stages of the program, it can help surgeons and diagnosticians simulate and work out possible outcomes of complex surgeries.

3. What is your dream AI project that can become into reality and can have a commercial value. Justify your answer. (5 marks)

Roald Dahl's short story, 'The Great Automatic Grammatizator', revolves around an inventor who builds a machine that can produce novels and articles after taking in a number of styles, plots and writing techniques from famous magazines and novels. After pushing buttons and pulling levers for your preferred style of writing, the genre and plot: the machine generates the relevant script needed.

Although the story is fictitious, the machine is not impossible to build with NLP (Natural language processing). I would like to build something that can help people write short tailored content by giving specific keywords as input to the algorithm and choosing what kind of style they want to write it in. This can help students and business workers write error-free and grammatically sound emails and content in a number of minutes or even seconds. Another source of inspiration for my dream project is BaseH, a company in Pakistan working on an AI news/content generator named Dante.