Advanced Studies – Machine Learning and NLP (Research and Applications)

Dr. Kevin Koidl
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ADAPT Research Centre
Research Fellow Trinity College Dublin and ADAPT research centre. Lecturing focus on ML/NLP. Student supervision in ML/NLP related areas.

Main research areas are related to ML/NLP usage in Web in Personalisation and Recommendation Systems. Other research areas are Data Awareness (bigfoot.ie) and e-Learning (edtech).

Focus on conceptualisation of Cognitive ‘Intelligent’ Content -> multi-dimensional, context-aware content.

Research Commercialisation in ML/NLP Trinity College Dublin Spin-out (wripl.com) and International Crowed Sourced Short Literature Translation Project (Kaffeeshouse.com).

Social Enterpreneurship Advisor Enactus Global and Startup/Research Commercialisation Advisor Ireland.

Speaker on Privacy, Data-awareness and AI impact on society.
Lecture Topics and Dates

**Lecturing Dates:** 6/3, 13/3, 20/3, 27/3
**Time:** 2 p.m. – 4 p.m.
**Lab:** 20/3 and 27/3

6/3 – Introduction, Overview and basic concepts NLP/ML
13/3 – Refresher and Advanced NLP/ML Concepts
20/3 – Application Areas I and Lab
27/3 – Application Areas II and Lab

Classes are partially based on course given in TCD
https://www.scss.tcd.ie/kevin.koidl/cs4062/
Go to lecture slides of TCD lecture:

https://www.scss.tcd.ie/kevin.koidl/cs4062/03-ml.pdf
You are a company that is selling books. You want to use advanced NLP/ML to boost your SEO (Search Engine Optimization) and make your books easier to find.

a) Why is this challenge related to NLP/ML?
b) What is the fundamental research area that SEO underlies?
c) List the main challenges you see in boosting SEO with NLP/ML. What data do you need and where can you get it?