Beds to Bytes

AI Presentation

Introduction (*add to learning path on Itslearning*)

Basic information about ML / AI:

- Very short introduction ~5 minutes
- AI will never replace actual medical work
  - … but how much actual work you are doing in a day?
- Links to great videos online (much better than I can make)
- Explain how they relate to the topic in the introduction -> students know why they watch those videos

- More AI use cases:
  - Multi-modal AI
  - 3D and World models
  - Robotics

AI Lifecycle: What happens when I send a message?

- Different models and their training
  - Training on your queries
  - “Do not use my queries for training” as an explicit opt-out, not always possible
- Deployment: AI providers, custom deployment, cloud services
- Context is the King
  - Context length, costs, and hallucinations
  - RAG and other ways of providing context
- AI actions: Tools and MCP
  - Principle of asking human consent for actions
- Guardrails in “normal” programming
  - E.g. bank code authentication to access own patient records

Privacy, Ethics,
and all other creative way to “shoot yourself into a foot”

- Good intentions are not compliance
- Privacy: the basics of GDPR *<how will my work change due to GDPR>*
  - Have it correct from the start!
- Ethics: European AI Act
  - Not everything can be automated / **AI`**tomated
  - Doctor’s / Nurses’ responsibilities
- AI customer is you - use it to make *your* life easier
  - Patients don’t care how it works if it works well
  - AI reduces toil, leaves time for meaningful and fulfilling work
- *<note: focus specifically on AI>*

AI, Internet and digital literacy

- We cannot expect anyone to interact fluently, as comfortable as with a phone call
  - Forcing AI upon patients makes for a bad time for everyone
- What benefits do patients get?
  - Notifications / reminders
  - Ability to stay at home / move home early, instead of being at a hospital
  - Less travels to a hospital, e.g. remote location
  - Getting a response from a doctor (a MAJOR benefit of chat support nowadays)
  - MUCH cheaper price option (for non-critical conditions)
- Who would adopt AI?
  - People all the time on their phones (any age really)
  - Youngsters with natural phone/AI skills
  - People more comfortable with phones than in-person visit

Task: Find X related to their expertise + summarize

- Format of the self study work - "find a relevant tool for your work, describe its benefits, compliance issues to solve"?
- This also helps the final task of simulating one patient case

Maybe some other interesting and interactive exercise

- Try some AI platform
- Do a short quiz with general questions

- Grade: pass / fail

Move to specialized >> AI for Virtual Wards | Hospital at Home

- “Automation” because AI is the first tool that can talk to regular people
  - Routine monitoring, asking patient about things they should have done
  - Reminders, explanations how to take medicines etc.
  - Exercise instructions
  - Always available for the patient
- Analysis and summary for the doctors to see; less digging through documents
- Similar to existing AI systems from business (e.g. Alexa)
  - Because they had money to build useful AI systems first
- Example app: Miracle of the Mind (wellbeing self help)
  - <probably another demo would be better>