EURO PRACTITIONERS' FORUM

Discussion groups summary

Topic 1: OR and GenAI - how they complement each other

Carl Johan Kellerth Fredlund (Jeppesen ForeFlight), Susanne Heipcke (FICO)

Presentation of 8 levels of agentic AI usage (cf. https://www.bassimeledath.com/blog/levels-of-agentic-engineering)

Polls on use of genAI tools among attendees:

- majority regular users
- few ‚addicted' users
- 1/3 no or little use of genAI
- widely used for searching and documentation
- some uses for development
- some uses for content creation (emails, slides)
- useful for creating tests, good for validating
- little used for modeling – doubts about usefulness/ possibility to achieve parity with human experts
- very few advanced users (multi-agent systems)

Few companies have established guidance/rules on use of genAI tools

Can AI be innovative?

- yes, AI generates content and ideas through learned patterns and associations, like humans
- just getting a checklist with ideas is useful
- humans are generally better for now

Code reviews:

- moving in a direction where fewer humans review code
- risk of not reviewing code. AI might make mistakes and we won't understand the code
- prescan with AI + one human reviewer
- risk of trusting the AI too much when verifying a review, especially if it almost never makes a mistake

- AI will eventually reduce the number of programmers, but not all fields will be affected equally (web developers vs optimization experts
- There is a risk of the loss of skills in certain areas when you rely on AI, programming languages, tools.

Topic 2: Practical struggles of getting solutions into production

Björn Thalén (B3 Indes) , Torkel Haufmann (Sintef),

- The struggle is real and rarely technical
- Courage to stop it
- “Falling in love with your model is the first step to failure”
- High level sponsorship
- Planners can stop it
- Misaligned KPI’s
- Data

- Sell drafts not solutions
- OR on the side
- Window of Enthusiasm
- Key users
- 4h workshop with everyone
- Show early
- OR is part of AI
- “They don’t care that it is OR”
- People, people, people.

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Topic 3: Academia vs. Industry: The relevancy gap

Vladimir Fux (Zalando), Sander Van Aken (Flix SE)

Gap

- **Impact done differently:**
  - in academia we might solve not something practical, but we have the chance to build knowledge that lasts (legacy), while industry projects come and go
- **Collaboration:**
  - Industry has data and problems
  - Academia happy to provide solutions (but lacks actual/real problems definition)
- **Different timeframes:**
  - Academia: Deep novel solutions, which might take time to productionize
  - Industry: Fast simple solutions with iterations

Bridging the gap

- **Problem-Solution exchange:**
  - open sourcing datasets/problems, problem definition repositories, etc.
- **Experience exchange:**
  - master and PhD students in companies
- **How we educate OR:**
  - **Problem structuring:** we might need to teach how to understand problems of business people and also educate/inform them about potential approaches to come to common problem understanding
  - **Choosing the right solution:** given the problem, we need to teach on how to recogize specific patterns and choose the right/fitting solutions, e.g. for non-core OR roles
- **Different Success Measure for Academia: ?**