

Research Challenges in Coupling Artificial Intelligence and Network Management

draft-irtf-nmrg-ai-challenges-03

Jérôme François, Alexander Clemm, Dimitri Papadimitriou, Stenio Fernandes, Stefan Schneider

NMRG@IETF 119



Summary

- Last call last until mid January
 - draft-irtf-nmrg-ai-challenges-02
- Positive feedback
 - + detailed comments requirng addings or clarification
 - Draft-irtf-nmrg-ai-challenges-03 available

Main Changes 1/2

- Updates in section 4 related to problems AI could solve
 - + Network Observability as an example of a complex problem: aggregation of data in a human-interpretable way (**visualization** problems)
 - Refined of IBN problems with a focus on intent interpretation and translation
 - But the list is not expected to be exhaustive (and cannot be)
- In section 6.1.2
 - Extend the examples of mapping between algorithms and problems to solve but **we remain that we do intend to give a set of documented solutions in this draft** → we actually highlight this is a challenge per se
- In section 6.2 (performance of models)
 - Adaptive models to ensure performance are still good enough
 - Integrate new data or forget previous data

Main Changes 2/2

- In section 7.1. Data for AI-based NM solutions
 - + problem of the definition of data to collect
 - → Extend the problem of finding the right algorithm for a problem by also collecting the right data
- In section 8.2. AI-based products and algorithms in production systems
 - Differentiating non-critical vs critical NM tasks as this impacts if we can accept some delay till a ML/AI system is stable

Conclusion

- Explain modifications on the mailing list
- Review modifications by NMRG participants
- Ask for assessing if the raised comments have been properly addressed or not
- → If fine go for IRSG review ? Otherwise second last call ?