

Network AI Challenge

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Context / Objectives

- AI discussed in NMRG and other groups
- Lack of AI-focused people/community
- Challenge as a “tool” to
 1. Attract other people working on AI
 2. Demonstrate concrete activity in this field in our group
 3. Support the building of the AI activity in the group (e.g. to define use cases, reference datasets...)

1. Use case definition

- Not defined yet
- How to?
 - Availability of datasets or experimental platforms
 - Broadly understandable use case to attract as many as possible participants.
Anyone understands the problem of recognizing digits/letters/objects in images, can we find something similar in our domain ?
 - But still an important problem to solve with a practical impact
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- ▢ Define criteria (in accordance to the objectives of the challenge)

1. Use case definition

- How many use cases?
- Defines use cases based on criteria
 - Objectives, scoring, baseline solution
- In cooperation with other standardization fora, communities, groups
 - ITU-T Focus Group on Machine Learning for Future Networks including 5G (Vishnu)
 - Share experience (e.g. challenge setup)
- Check existing challenges: <https://openml.org/>

2. Identify datasets and platforms

- Public existing datasets vs. creating a new dataset
- Pure offline analysis or real-time application (in a simulator)
- Open challenge platform
 - <https://openml.org/>
 - <https://codalab.lri.fr/>
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 - ☐ Need an in-depth study of these platforms
- Platform for doing testing (e.g. simulator)
- What will be make available to the participants?

3. Publication of the challenge

- How to make the challenge attractive?
 - Sponsoring, award
- Identify places to propose the challenge
 - hackathon for students (student projects)
 - IETF hackathon
 - specific calls for challenges in (AI) conferences
- Write the proposal
- Prepare the logistics