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Personal capacity

Suggestion

The additional issue is proposed for the area (a - 'Patents') in the following wording:

Issue XX: Comprehensive monitoring of AI patenting.

Comprehensive procedures for patent monitoring related to various AI areas (technologies, algorithms, business methods, application areas) should be discussed and all issues should be identified.

- (i) what existing AI taxonomies could be implemented for the ongoing monitoring, how it should be actualised?
- (ii) how the integral AI taxonomy should be harmonised with IPC, CPC, F-Terms?
- (iii) what categories of AI patents should be monitored separately: disruptive patents, high-impact patents, fundamental patents, multidisciplinary patents and so forth?
- (iv) what research studies should be carried out to support the infrastructure of the comprehensive monitoring of AI patenting?
- (v) what is a target audience of monitoring results, what kind of information different specialists should receive, by what means and with what frequency?
- (vi) what processes should be automated and with what tools and technics? What information systems should be developed to support the comprehensive monitoring of AI patenting?

Rationale

Artificial Intelligence has a strong influence on the world economy and is drastically transforming all industries. Such enormous impact should be thoroughly explored and analysed.

Furthermore, rapid ongoing evolution of various AI areas should be correctly mapped to a wide variety of STI (science, technology and innovation) policy making, research projects and areas of interests of governmental bodies, companies, universities and individuals interested in AI. For this reason, consistent taxonomies should be implemented including not only popular AI topics (machine learning and neural networks) but also rare or hidden areas of AI (ontology area (ontology modelling, engineering etc.), graph storages, high-detailed information extraction methods & technics (NLP etc.) and so forth.

Moreover, 'Artificial Narrow Intelligence (ANI)' area should be clearly differentiated from 'Artificial General (Strong) Intelligence (AGI)'. Such differentiation will provide the basis for the identification of weak signals related to the most disruptive AGI technologies.

Context

AI has an extremely complex structure covering various technological areas. The scope of AI should include all technologies and methods aimed at the search for solutions without a predetermined algorithm.

However, the modern focus of AI mostly relates only to the two groups of methods: 1) machine learning and 2) neural networks. These two groups cover only the part of AI. In broader context, AI includes knowledge graphs, ontology modelling, information extraction and numerous other methods and technics. Moreover, it is crucial for a complex analysis to differentiate AI in the context of application areas: finance, medicine, transport and so forth.