

BioASQ: The challenge and the community of biomedical semantic indexing and question answering

by Georgios Paliouras (MESINESP/Plan TL Session)

Abstract: The BioASQ challenge on large-scale biomedical semantic indexing and question answering is running for the 8th time in 2020. In these 8 years, a large number of academic and industrial research groups from around the world have joined the BioASQ community. Through their participation in the challenge, they have pushed the state of the art in semantic indexing and question answering to new levels. A notable example of the influence of BioASQ is the effect that it had on the way biomedical articles are indexed by the National Library of Medicine. One other significant contribution of BioASQ is the curation of a corpus of biomedical questions from a team of experts, who have also provided ground truth answers and supporting material, such as related documents. The BioASQ corpus will exceed 3500 questions this year.

In this talk, we will look back at the progress made during these years in the various tasks of the BioASQ challenge. We will highlight the main trends in technology and their effect in the performance of the participating systems. We will also revisit the main decisions that were made and their effect in the running of the challenge. Finally, we will present our short- and mid-term plans for the future, aiming to receive feedback and initiate a discussion for collaboration with related community efforts.

Biography: Georgios Paliouras is head of the Artificial Intelligence Laboratory SKEL at NCSR "Demokritos" in Greece, one of the largest AI labs in Europe. He completed his PhD thesis on Machine Learning at the University of Manchester, UK, in 1997 and since then he has performed basic and applied research in various fields of AI. He has chaired and has been keynote speaker in international conferences, has served as board member in scientific societies, and has served in the editorial board of international journals. He has been involved in many European research projects, in some of which as a coordinator (principal investigator). Among them, he has coordinated the BioASQ project, which led to the successful series of international challenges, and he is currently coordinating the project iASiS on the use of big data for precision medicine. He has supervised several postdocs, PhD theses and graduate theses. He has taught postgraduate courses and was an Adjunct Professor at the University of Houston in 2013-2016. He has co-founded spin-off companies and has served in their management board. He is also chairing on a voluntary basis the non-profit Duchenne Data Foundation.