2. Pawel Paczuski and Jan Mulawka: **Architecture for supporting radiologists with natural language processing tools and structured reporting**

In this article we present the idea of using Natural Language Processing (NLP) techniques during creation of radiological reports as a way to simplify creation of structured reports. To prove this concept we describe architecture of a structured reporting system that focuses on increasing productivity of a working radiologist while maintaining high quality of report content. Radiologist creates reports using set of predefined templates with possibility of customization. The architecture allows for supporting radiologists with NLP to e.g. recognize concepts, suggest ICD-10 codes in order to eliminate ambiguities and help with structuring resulting content. The software was used in two different working environments: independent teleradiological practice and network of clinics. Our analyses indicate that introduction of the system to the workflow of radiologists increases their productivity and overall satisfaction with shape and content of reports created with its support.