



Carnegie Mellon University

Language Technologies Institute



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Dr. Asma Ben Abacha is a staff scientist at the U.S. National Institutes of Health (NIH), National Library of Medicine (NLM), Lister Hill National Center for Biomedical Communications. Prior to joining the NLM in 2015, she was a researcher at the Luxembourg Institute of Science and Technology and lecturer at the University of Lorraine, France. Dr. Ben Abacha received a Ph.D. in computer science from Paris 11 University, France, a research master's degree from Paris 13 University, and a software engineering degree from the National School of Computer Sciences (ENSI), Tunisia. She is currently working on medical question answering, visual question answering, and NLP-related projects in the medical domain.

Multimodal Question Answering in the Medical Domain

Artificial intelligence (AI) is playing an increasingly important role in our access to information. However, a one-fits-all approach is suboptimal, especially in the medical domain where health-related information is more sensitive due to its potential impact on public health, and where domain-specific aspects such as technical language and case or context-based interpretation have to be taken into account. Bridging the gap between several research areas such as AI, NLP, medical informatics, and computer vision is a promising way to achieve reliable and efficient access to medical information. In this talk, I will discuss some of my recent projects on multimodal Question Answering (QA) including NLP methods for textual QA and Visual Question Answering (VQA). In particular, I'll present the lessons learned from working on QA from trusted answer sources and alternative NLP approaches such as recognizing question entailment and question summarization. In a second part, I'll address the task of VQA from radiology images and potential solutions to support the creation of large-scale training data through visual question generation. Throughout the talk, I'll present our recent efforts in creating relevant datasets and new approaches as well as the challenges that we organized to promote research in multimodal question answering.

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