ATLAS: AI-based Natural Language Processing of Low-Quality and Multilingual Data in Defence Applications with User Adaptation

Description

The AtLaS project, focused on advancing Human Language Technology (HLT) in Defence, combines artificial intelligence (AI) and Natural Language Processing (NLP) to handle low-quality and multilingual data. AtLaS' objectives include developing resilient systems for noise and multiple language handling, leveraging advanced training and technologies like denoising. It aims to improve Defence communication and intelligence gathering by participating in an HLT Challenge and creating adaptable systems for a European library of language technology.

AtLaS addresses four Defence Use Cases, involving monitoring NATO exercises, EU field team communication, media monitoring for EU operations, and analysing intercepted communications. Its methodology includes five Technology Tracks: Robustification, Speech and Document Recognition, Multilingual Text Generation, Information Extraction, and Adaptation. These tracks focus on enhancing system resilience, accurate data processing, context-aware translation, structured information extraction, and user-driven system adaptation. AtLaS also aims to enhance the European Defence Technological and Industrial Base (EDTIB), focusing on developing NLP components with Explainable AI tools.

AtLaS includes five progressively complex evaluation campaigns to test NLP capabilities and is committed to secure management adhering to EU standards.The team comprises 10 partners from EU countries, each contributing specialized expertise in areas like AI, speech processing, and digital security. The implementation timeline is structured across 12 work packages, covering project management, technology development, and demonstrator integration.In summary, AtLaS is a strategic EU initiative to enhance Defence capabilities through advanced language technologies, addressing critical challenges in information processing and interoperability in a diverse linguistic context.

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