

SGOAB: Saint George on a bike

Description

Our proposed contribution to Topic 3 of the Generic Services Public Open Data call is motivated by what we perceive as an opportunity to provide a high-performance (cultural heritage) metadata enrichment capability for the European Data Infrastructure. The service we propose focuses on images and the generation of detailed descriptions of their content. An image captures many aspects of a scene at once, not only what one may have thought of describing in words, but also what everyone else, in different places, times, and contexts, may see in it. Images are rich in content and significance, but they either lack metadata or, if they have it, it is usually not much more than a caption rather than a full description of what's going on in the image. The existence of a good description - such as we are proposing - will enable visually impaired people to better understand website content, and will make it possible to search for images based on concepts that appear in the image but not in the image caption (for instance, representations of pets in the 15th century art). Concretely, we propose a generic service (AIKON2B) to be integrated in the European Data Infrastructure, specifically as part of the EUDAT Collaborative Data Infrastructure (EUDAT-CDI) service catalogue. The use of supercomputing is fundamental for AIKON2B. The automatic description of images demands the processing of large volumes of data, which is a requirement for the training algorithm to work well and generate quality image descriptions. We have selected as use case of this generic service the metadata enrichment of the European cultural heritage collections. We will provide detailed enriched metadata on images from Europeana Collections. A text-based image search tool, based on this metadata, will allow users to understand how common patterns depend on the historical moment, the symbolic, and other cultural particularities of cultural significance.

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