# Article information:

EXACT: a collaboration toolset for algorithm-aided annotation of images with annotation version control | Scientific Reports
<https://www.nature.com/articles/s41598-021-83827-4>

# Article summary:

1. EXACT is an open-source software solution for collaborative annotation of images that meets specific requirements not satisfied by existing solutions.

2. It supports both online and offline use, multi-centre support, user-friendly API, extensible plugin system, image-set administration with restricted access, and annotation version control.

3. EXACT's architecture includes a three-tier design with data, application, and presentation tiers, and features such as inference, data privacy, annotation maps, image set versioning, crowd-sourcing, and annotation templates.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article "EXACT: a collaboration toolset for algorithm-aided annotation of images with annotation version control" presents a new open-source software solution for collaborative image annotation. The article highlights the importance of interdisciplinary cooperation in scientific research and the need for efficient and user-friendly tools to facilitate this cooperation. The authors identify specific requirements for collaborative annotation software, including online and offline usability, multi-centre support, extensible plugin system, image-set administration, bounding boxes and polygon annotations, single-click support, annotation templates, guided screening, version control system for annotations, and deep learning model inference.

The article provides a detailed description of the architecture of EXACT and its key features. The software is designed as a three-tier architecture containing the data, application, and presentation tier. The application tier uses Django as its web framework with four main modules: images, users, annotations, and plugins. The presentation tier is programmed in HTML and JavaScript using OpenSeadragon as a JavaScript-based image viewer with WSI support.

While the article provides a comprehensive overview of EXACT's features and architecture, it does not provide any evidence or examples to support its claims about the software's effectiveness or superiority over other open-source solutions. Additionally, the article does not explore potential risks or limitations associated with using EXACT or collaborative image annotation more broadly.

Furthermore, the article appears to be promotional in nature rather than objective reporting on scientific research. While it acknowledges that other open-source solutions exist for collaborative image annotation, it positions EXACT as a novel solution that meets specific requirements not satisfied by existing solutions. This positioning may be biased towards promoting EXACT over other open-source solutions.

Overall, while the article provides valuable insights into the development of collaborative image annotation software and highlights important considerations for interdisciplinary cooperation in scientific research, it could benefit from more objective reporting on the effectiveness of EXACT compared to other open-source solutions and exploration of potential risks associated with using such software.

# Topics for further research:

* Limitations of collaborative image annotation software
* Comparison of open-source solutions for image annotation
* Risks associated with using collaborative annotation software
* Best practices for interdisciplinary cooperation in scientific research
* User experiences with EXACT software
* Integration of deep learning models in image annotation software

# Report location:

<https://www.fullpicture.app/item/a3ff364415665c004f5db548ae17d647>