DEMOCRATISATION OF ACADEMIC PUBLISHING

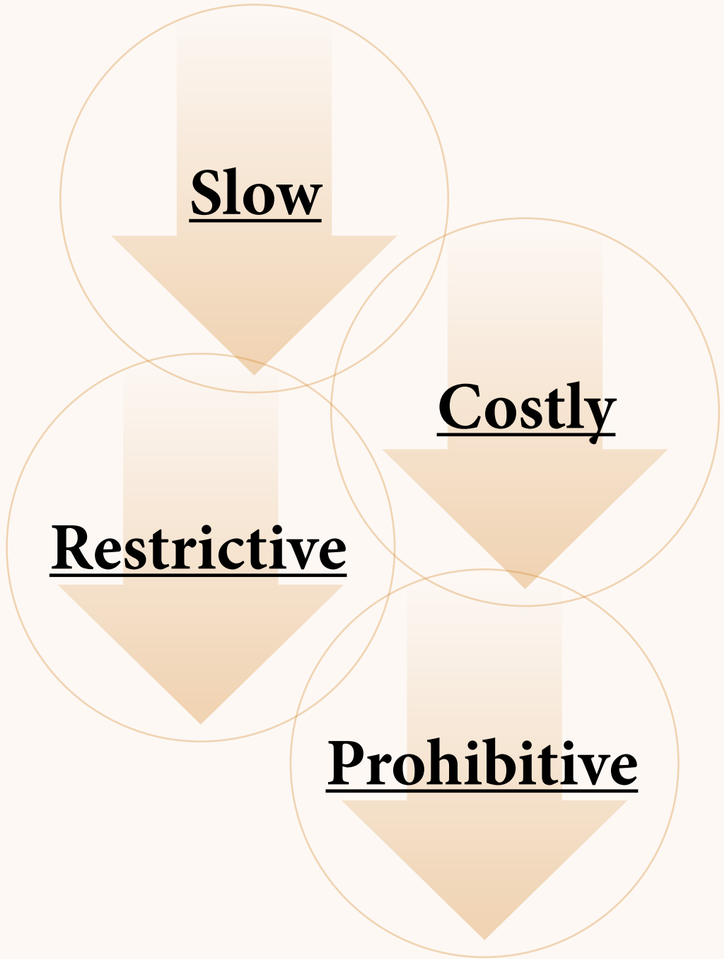
Ruđer Bošković Institute — Centre for Informatics and Computing

The Platform for the Democratisation of Academic Publishing — DAP

The Limits of Traditional Scientific Publishing

Traditional scientific publishing can be slow, costly and opaque. It can take months or even years for an article to be peer reviewed, and the review process is often controlled by a small group of gatekeepers.

In addition, the cost of publishing in traditional journals can be prohibitive, especially for researchers with limited financial resources or from developing countries. These constraints can significantly restrict scientific progress and innovation and limit the dissemination of important research findings.

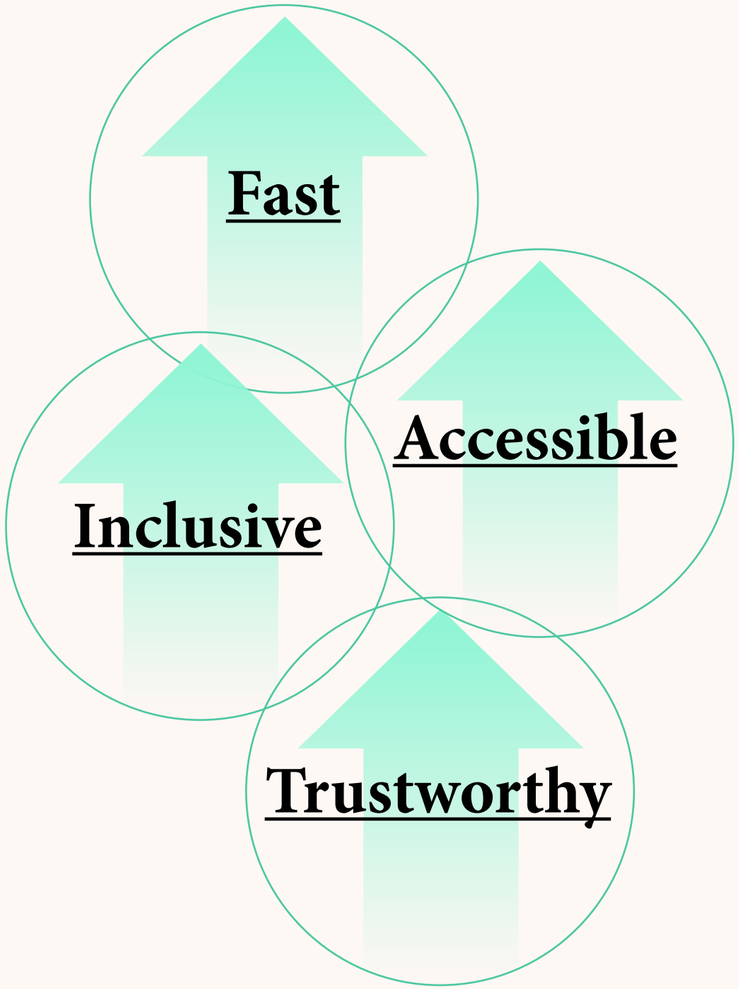


Introduction to DAP

The Platform for the Democratisation of Academic Publishing (DAP)

DAP aims to create a democratic, trustworthy and efficient game-changing infrastructure for academic publishing.

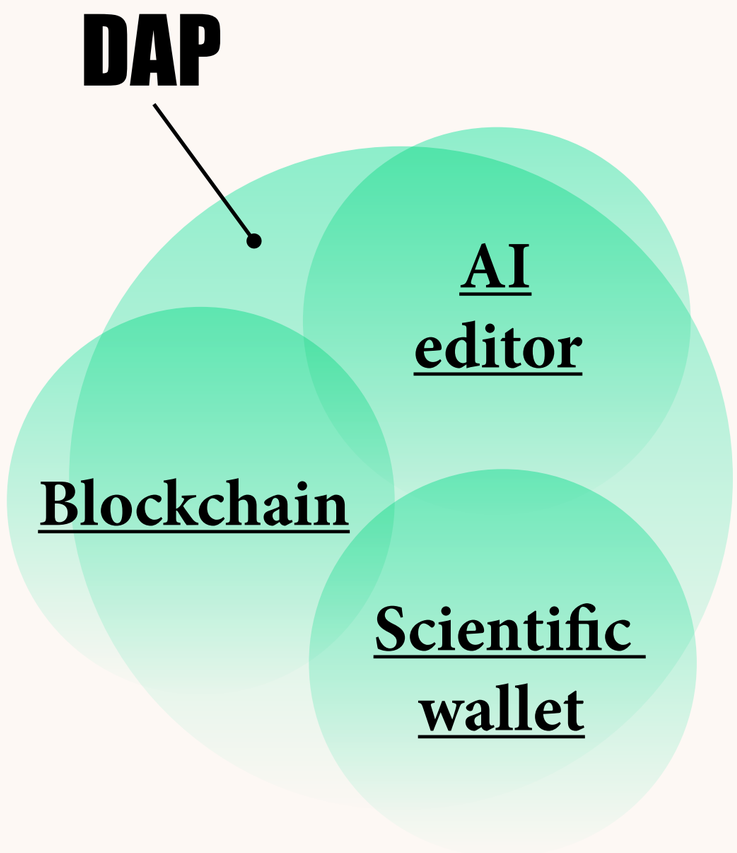
The goal of DAP is to give authors, researchers and the public more control over academic knowledge and information, to improve research practice and to prevent breaches of research integrity.



The distinct benefits of DAP

One of the most important benefits of DAP is the ability to streamline the peer review process, to recognise the efforts of authors, reviewers and publishers and to make the entire publication process traceable and trustworthy. DAP a decentralised, open peer review system on a global scale will allow the pools of potential reviewers to be shared among publishers based on reviewers' expertise, and to rank them based on the quality of their past engagement with the review processes.

The use of blockchain technology allows for a tamper-proof record that improves the overall integrity of the peer review process, but also enables the use of the scientific wallet, which increases the privacy of participants and enables the token-based reward economy.



Use case description vision level

The Democratisation of Academic Publishing (DAP) intends to improve the current scientific publishing system. DAP uses the blockchain technology to make research metadata read-only, secure, and more accessible.

It also uses scientific tokens (Ergions) to reward reviewers, editors, and authors. By using the blockchain technology, DAP will offer faster and more efficient publication processes, significantly increase trust, and reduce the potential for fraud. DAP is a decentralized system, which will be managed by a community of users rather than a central authority.

Virtual editor that automatically recognizes the scientific domain/field. In the vision the Virtual editor will also help in comparing reviews, thus increasing review quality, and possible other tasks, largely dependent on the future development of AI usage possibilities.

Use case description vision level

The main advantages and innovations of the DAP platform are:

- Open Access Publishing without APC
- Tracking of work and processes of authors', reviewers', editors' etc. work using blockchain technologies (Track and Trace)
- Introduction of the Ergion tokens to award all stakeholders (primarily authors, reviewers and editors) for their efforts
- Globally accessible database of published articles metadata with their reviews, and authors, editors

Role of EBSI in UC and EBSI values provided

The DAP use case uses EBSI to make trace of every detail of all processes in DAP academic publishing.

It uses Track and Trace technology for tracking events, like:

- article submissions,
- review submissions,
- acceptance, etc.

This provides a high level of trust in the publishing process itself, as well as high transparency, virtually disabling many avenues of possible academic fraud.

Also we use offchain-file-storage developed by Trace4eu team.

FEATURED ARTICLE

Exploring potential therapeutic combinations for castration-sensitive prostate cancer using supercomputers: a proof of concept study

Tomić, Draško; Murgić, Jure; Fröbe, Ana; Skala, Karolj; Vrljičak, Antonela; Medved Rogina, Branka; Kolarek, Branimir; Bojović, Viktor