Literature Review

Eduardo Oliveira

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Todo list

Article Title	DOI	Source	Publication Date	Main Topics	Key Takeaways	Specific Examples/Use Cases	Key Challenges/Opportunities	Overall Perspective
An overview of the NFAIS conference: Blockchain for scholarly publishing	10.3233/ISU-180015	Information Services and Use	2018	NFAIS conference overview; impact on researcher workflows; peer review, IP, research output	Blockchain promises structured, decentralized, secure approach; initiatives exploring use across research lifecycle	ARTiFACTS, Po-et, Knowbella Tech, decentralized citation ledgers	Opportunity for horizontal discovery, trust & transparency; need for awareness & adoption	Significant long-term potential, short-term expectations might be inflated
Blockchain and scholarly publishing could be best friends	10.3233/ISU-180016	Information Services & Use	2018	Decentralization, unbundling, creator empowerment; dominance of internet platforms; researcher recognition	Blockchain can redistribute power in content discovery, foster trust; focus on creator needs crucial	Steem, BAT, LBRY	Content accessibility & monetization challenges; opportunity for efficient economic ecosystem; shift in revenue models needed	Potential for efficient ecosystem, but new revenue models might be required
Making the unconventional conventional: How blockchain contributes to reshaping scholarly communications	10.3233/ISU-190053	Information Services & Use	2019	Advancing Garfield's vision; blockchain for platforms, open science, recognition, infras-	Blockchain can help researchers get credit for all work; ARTiFACTS secures provenance &	ARTiFACTS platform	Opportunity to make pre-published research accessible, enhance careers	Blockchain, via platforms like ARTiFACTS, can realize comprehensive researcher recogni-

Table 1: Recurring Themes and Blockchain Applications in Scholarly Communication

Recurring Theme	**Corresponding Blockchain Applications (Examples)**	**Potential Benefits**	**Key Challenges**
Peer Review Enhancement	Ants-Review (incentivized reviews), Open-Pub (transparent & private system)	Increased efficiency, transparency, quality, and incentivization of reviewers	Ensuring anonymity, preventing bias, achieving broad adoption among researchers
Open Science and Data Sharing	QPTDat project (data certification), Open Lab (sharing experiment methods & data)	Improved data integrity, provenance, accessibility, and reproducibility of research	Balancing data privacy with openness, ensuring data quality and curation
Author Recognition and Attribution	ARTiFACTS platform (provenance & attribution), Token system (validated record of contributions)	More comprehensive and validated recognition for diverse academic work, increased control over intellectual property	Establishing meaningful value for non-monetary tokens, ensuring broad acceptance of new recognition metrics
Decentralization and Transparency	Open-Pub (decentralized publication system), Decentralized citation ledgers (NFAIS conference)	Reduced reliance on intermediaries, increased openness and accountability in publishing processes	Overcoming resistance from established institutions, ensuring effective governance of decentralized systems
Emerging Applications	NFTs for digital assets, "Bitcoin for science" (concept for research funding)	New economic models for scholarly outputs, alternative funding mechanisms for research	Addressing environmental concerns of some blockchains, ensuring practical and scalable solutions

References