

# JSAUR: A Peer-to-Peer Academic Publishing Framework

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## 1 Introduction

### 1.1 Academic Publishing

Academic publishing is the process in which research is distributed to the public. It typically involves three processes [5]: first, researchers submit a manuscript to a journal, where reviewers and editors evaluate its content through some academic criteria. Second, manuscripts are formatted using the journal's standards and distributed to the public. Third, the content is consumed by the public and used for further academic processes. The purpose of academic publishing is to disseminate knowledge, or to make information and ideas accessible to a wider audience.

Until the sixteenth century, the dissemination of knowledge was very minimal. Knowledge was shared predominantly amongst few elites through oral exchange or handwritten manuscripts that were limited in circulation. The first issue of the first academic journal was published on January 5, 1665 in the *Journal des sçavans* established by Denis de Sallo, where church history, legal reports, and obituaries were printed and circulated among a large network of scholars [2]. Since the *Journal des sçavans*, various historical events furthered the extent in which knowledge was disseminated, such as the publication of Diderot's *Encyclopédie* or the rise of public libraries that provided a platform for people who were not born of elite status to access scholarly information. The most recent event is the Open Access Movement, which was driven by the technological innovations of the World Wide Web [1]. This movement, through the rise of powerful search engines and online encyclopedias, has significantly reduced the issue of accessibility to information amongst the general public.

Students born in the early twenty-first century have the privilege to enjoy a near-unlimited access to information. However, a significant obstacle on the path to knowledge dissemination still exists, pertaining to the feasibility in which students, and much of the wider population, are able to contribute their ideas to academia.

### 1.2 Barriers to Entry

Although making a normal profit is crucial for the long-term stability of academic journals, there has long been a criticism of journals prioritizing profit over access. In 2012,

thousands of researchers boycotted *Elsevier*, one of the largest academic publishers in the world, due to restrictive access policies and high prices [4]. This boycott, known as the "Cost of Knowledge" protest, was not a unique instance. Controversies have stemmed from many respected journals charging abnormally high publication fees such as the *Public Library of Science* (PLOS), a non-profit that has an article process charge (APC) of over \$1749. While we recognize *PLOS* for being relatively transparent with their APC breakdown, their page on price transparency includes vague categories such as "services from acceptance to publication" and still lacks in justifying the high price of publishing [10].

Unaffordable prices are not the only factor deterring students from publishing research. Studies have shown that postgraduates students face barriers to publishing research due to reasons such as lack of funding, limited scientific writing, or a fear of rejection [8]. A high bar of what an "ideal" research should look like is a significant deterrence for student researchers, especially students who have not yet achieved a postgraduate degree. In recent years, various factors have raised this bar to an unprecedented height where student researchers have little chance to publish their research in journals where they can receive professional exposure.

During the COVID-19 pandemic, scientific journals all around the world saw a huge spike in COVID-related submissions, with *Elsevier* health submissions up by around 92% [3]. To combat the COVID-19 crisis, various journals streamlined editorial processes to rapidly disseminate critical health information. However, this also led to a significant increase in non-COVID research due to decreasing demands and increasing delays [11]. Today, there is little room for student researchers in academic publishing. To share their ideas, passionate students resort to alternative outlets like competitive science fairs and expensive student-only journals that often lack professional exposure. One of the core problems that this whitepaper will address are these high barriers of entry to academic publishing.

### 1.3 Transparency

We have already introduced the issue of monetary transparency through the example of *PLOS*. Another issue with

84 transparency arises when we look into the peer-review pro-  
85 cesses of academic journals.

86 Peer-review is one of the most important functions of  
87 a journal to check for the quality, accuracy, and bias of  
88 research before it becomes published. The process takes  
89 place during the production stage of academic publishing,  
90 where the manuscript is given to independent authors in  
91 the relevant field, who assess the manuscript for the afore-  
92 mentioned qualities. However, current peer-review is con-  
93 ducted by journals using methods that are criticized for ob-  
94 jectiveness and the methods used to select independent re-  
95 viewers is insufficient to maintain the highest levels of aca-  
96 demic standard.

97 In 2014, *Nature* published two papers by Haruko  
98 Obokata regarding the discovery of a novel method to cre-  
99 ate pluripotent stem cells [6]. Shortly after publication, re-  
100 searchers around the world failed to replicate the results,  
101 and the paper was eventually retracted due to a problematic  
102 methodology. This incident is often attributed to *Nature's*  
103 reliance on the reputation of authors, which resulted in a  
104 less rigorous review process for Obokata, a prominent re-  
105 searcher in the field, where a failure to identify the critical  
106 flaws in her methodology resulted in significant damage to  
107 her career.

108 In 2015, the *Journal of Vibration and Control (JVC)* re-  
109 tracted sixty papers after it was discovered that a "peer-  
110 review ring" had been manipulating the review process [9].  
111 It was discovered that Peter Chen, a researcher, created fake  
112 reviewer accounts and submitted favorable reviews for his  
113 own papers and those of his colleagues. Due to journals,  
114 such as *JVC*, not disclosing the names of peer-reviewers  
115 for the sake of protection, it is difficult for the public to  
116 identify these problems, and we can only rely on journals  
117 to resolve these issues themselves.

118 These cases show that the current system that operates  
119 behind closed doors allows for unfair bias, manipulation,  
120 and detrimental errors. The bias towards author credentials  
121 shown in Obokata's case disproportionately harms student  
122 researchers who don't have the credentials to publish in a  
123 less rigorous environment. On a further note, while we re-  
124 cognize that most respected journals put many precautions  
125 to ensure an objective system, the power that journals wield  
126 over publications combined with their lack of transparency  
127 inevitably allows for the potential of undetected malicious  
128 actions.

## 129 2 Our Solution

130 We propose the Journal of Secondary and Undergraduate  
131 Research (JSAUR), a framework for academic publishing  
132 that continues the Open Access Movement in making the  
133 consumption of knowledge free. However, JSAUR will  
134 bring three new contributions:

135 1. A free-to-publish platform: While we acknowledge

136 the financial constraints that drive many academic  
137 journals to charge publication fees, we don't agree  
138 with this norm. JSAUR seeks to create an equal op-  
139 portunity to publication for all authors whose research  
140 shows reliability, impact, and novelty by eliminating  
141 publication fees.

- 142 2. Peer-review: We recognize that current platforms that  
143 allow any user to write open-access information, such  
144 as Wikipedia, are regarded as unreliable in the pro-  
145 fessional field. JSAUR will maintain an equally high  
146 level of academic rigor and credibility as traditional  
147 journals through a unique system of transparent peer-  
148 review.
- 149 3. Decentralization: We believe that knowledge is a pub-  
150 lic good. Therefore, journals shouldn't have power  
151 over its production, distribution and consumption, but  
152 simply act as a medium in which the former processes  
153 happen. JSAUR aims to create a transparent system  
154 where the power to determine academic criteria is  
155 placed in the hands of authors themselves.

156 JSAUR's name refers to high-school and undergraduate  
157 students as they are the most disenfranchised demographic  
158 in the field of academic research. However, JSAUR is not  
159 a journal exclusively for students. Authors of any back-  
160 ground can publish at JSAUR as the problems that we in-  
161 tend to solve pertain to the whole of academia.

## 162 3 Peer-Review

### 163 3.1 Decentralization

164 The traditional system of peer-review is proven to be effec-  
165 tive at ensuring academic quality if performed in an unbi-  
166 ased and optimal manner. The problems with this model  
167 stem from transparency issues and excessive centralized  
168 power. We will tackle these issues by decentralizing our  
169 peer-review process.

170 In our model, when an author (let's call them Author  
171 *A*) submits a manuscript for peer review, three other au-  
172 thors (*B, C* and *D*) from the same discipline are randomly  
173 selected to review the manuscript based on a set of stan-  
174 dard academic criteria outlined by JSAUR. These reviews  
175 are conducted double-blind, meaning that Author *A* and the  
176 reviewers (*B, C* and *D*) remain anonymous to each other.  
177 This approach minimizes bias and reduces the risk of peer-  
178 review fraud.

179 During this process, Author *A* is also required to review  
180 the work of three other randomly selected authors (*E, F* and  
181 *G*) in their discipline. Once the reviews are completed, Au-  
182 thor *A* receives feedback from reviewers *B, C* and *D* to help  
183 improve their research to meet academic standards. Af-  
184 ter the peer-review process, the revised manuscript and its  
185 reviews are publicly disclosed on JSAUR. Users will then

186 democratically vote on the quality and relevance of the re-  
187 views and determine whether Author *A* has sufficiently im-  
188 proved their research based on the feedback received.

189 If the research passes the initial screening, a smart con-  
190 tract is activated, and the work, along with the identities of  
191 the authors and reviewers is published on a distributed In-  
192 terplanetary File System (IPFS) database and permanently  
193 recorded on the JSAUR blockchain (see sections 4.1 and  
194 4.2 for more details). If Author *A* provides a poor review  
195 that fails the democratic vote, they must write an addi-  
196 tional review that meets approval before their manuscript  
197 can be published. The original author (*E, F* and *G*) will  
198 also receive a new review from another randomly selected  
199 reviewer. The withdrawal process is much simpler, where  
200 authors can withdraw their publications from their accounts  
201 at their own discretion.

202 In this democratic model of peer-review, JSAUR pro-  
203 vides a medium in which authors receive peer-review and  
204 public screening, but has no potentially unfair influence  
205 over the work that is published. This process ensures that  
206 the contents of the research is the only factor that deter-  
207 mines whether it can be published. Transparency is solved  
208 under this system because users fully control the publica-  
209 tion process and all factors that contribute to the publication  
210 are publicly disclosed. Furthermore, this system does not  
211 suffer from influxes of submissions (such as the COVID-19  
212 influx) like traditional journals as the speed of the editorial  
213 process scales automatically with the number of submis-  
214 sions.

### 215 3.2 Incentive Mechanisms

216 In a decentralized system, participation in the peer-review  
217 process and public screening is entirely voluntary. Al-  
218 though democratic, this system also gives authors the abil-  
219 ity to engage in malicious reviews and abstain from pub-  
220 lic votes which are detrimental for the survival of the sys-  
221 tem. To address this issue, known as the Byzantine Fault,  
222 JSAUR has incentive mechanisms to motivate authors to  
223 positively engage with the platform without compromising  
224 academic integrity [7].

225 JSAUR's peer-review process (see section 3.1) is struc-  
226 tured to ensure active participation and high-quality re-  
227 views. Each author is required to provide three accept-  
228 able reviews for other submissions, while their own sub-  
229 mission must also receive three acceptable reviews. This  
230 reciprocal requirement mathematically balances the num-  
231 ber of reviews needed and those provided. Since all reviews  
232 are stored permanently on a blockchain and are publicly  
233 visible, authors are strongly motivated to produce qual-  
234 ity reviews to maintain their reputation. Additionally, the  
235 democratic voting system ensures that only well-reviewed  
236 manuscripts are published, as failed public screenings pre-  
237 vent publication.

238 To address the potential of a lack of participation in pub-

239 lic voting, JSAUR introduces a cryptocurrency incentive.  
240 The platform will randomly reward one of the first 100  
241 users who participate in the voting process (for each sub-  
242 mission) with JSAUR coins (see section 5.1). It should be  
243 noted that, to avoid bias, users are unable to see current  
244 vote counts or proportions until the vote is concluded after  
245 72 hours and at least 100 votes.

### 246 3.3 Conflict Resolution

247 We recognize that while our system of decentralized peer-  
248 review addresses several of the major problems of the tradi-  
249 tional system, there exists cases of conflict that we must ad-  
250 dress. Conflicts such as voting manipulation or anonymity  
251 conflicts will be addressed in section 4.4, while two other  
252 identified potential conflicts are addressed below.

- 253 1. Public Vote Disputes: We recognize the potential and  
254 probability of biased or unrepresentative public votes.  
255 Therefore, reviewers and authors that receive over a  
256 third of the public vote (but less than the simple ma-  
257 jority required to pass) may appeal for a re-vote. Re-  
258 votes are identical to normal public votes, but users  
259 who voted in the original vote are unable to vote in  
260 the re-vote. A re-vote for a given submission may only  
261 occur once.
- 262 2. Governance Disputes: JSAUR is built with the future  
263 intention to be fully decentralized and without a cen-  
264 tralized moderation team. Therefore, community re-  
265 quests to change features such as research criteria, re-  
266 view criteria, or smart contract requirements must be  
267 addressed. JSAUR will enable user-led petitions to  
268 change these features which require half of all authors  
269 voting with a super-majority (2/3 of votes) to pass.  
270 These submissions only undergo public voting when  
271 at least 100 authors agree to it by signing.

## 272 4 Technical Architecture

### 273 4.1 Delegated Proof-of-Stake

274 Blockchain, introduced by Satoshi Nakamoto in 2008, is  
275 a highly secure method for storing immutable information  
276 [9]. It uses a distributed ledger where a network of users,  
277 known as "nodes," collectively agree on a consensus algo-  
278 rithm to verify incoming data. JSAUR employs blockchain  
279 to address three key issues:

- 280 1. Incentives: As discussed in section 3.2, blockchain  
281 records are both immutable and publicly accessible,  
282 creating a strong reputation-based incentive. This en-  
283 courages reviewers to provide constructive feedback  
284 and motivates authors to enhance their research to  
285 meet academic standards.
- 286 2. Long-Term Sustainability: JSAUR cannot guarantee  
287 permanent protection against events that could dis-  
288 rupt its network or website, a blockchain ensures that

crucial information—such as research data, author details, and reviews—remains secure. This allows JSAUR to be reconstructed elsewhere, preserving academic integrity and information.

3. Domain Object Identifiers (DOIs): DOIs are a universally recognized method of identifying research as they permanently point to an article even if its address has changed. However, JSAUR disagrees with the centralized system of assigning DOIs, which require subscription costs and trust in third-party Registration Agencies. Since research data is stored on the JSAUR blockchain in unique blocks, blockchain addresses can provide as a full substitute for traditional DOIs while being fully decentralized.

To implement a well-functioning blockchain, JSAUR must develop a reliable consensus algorithm, establish an incentive mechanism for validation, and ensure that users can participate in validation without needing extensive technical knowledge. JSAUR will use a Delegated Proof of Stake (DPoS) consensus mechanism to address these challenges.

In a DPoS system, each node is given a certain number of votes, which can be used to support a user or “delegate” they trust. The more votes a delegate receives, the more likely they are to be selected for validation. To become a delegate, a user must stake a set amount of JSAUR coins, similar to Proof of Stake. During validation, five selected delegates update the blockchain by adding the latest JSAUR information. This information, known as a “block”, is the data that contains the data on the newest 100 publications and JSAUR coin transactions in this period. Delegates who correctly update the blockchain are rewarded with JSAUR coins, and small rewards are also given to the participants who voted for the successful delegate. If there is a discrepancy among the elected delegates’ updates, nodes and delegates must reach a consensus on the correct update before it is added to the blockchain. Delegates who fail to update the blockchain correctly will lose their eligibility for future elections and forfeit their stake. When authors decide to withdraw an article, it is removed from JSAUR’s IPFS using a garbage run, and the next elected delegate will validate the removal of a publication. However, the records of adding and removing the publication is permanently stored on the blockchain to ensure transparency.

The largest systematic issue with DPoS is the risk of collusion. If popular delegates work together and are elected, DPoS systems run the risk of being compromised from 51% attacks [12]. JSAUR plans to deal with this in two methods: first, we will prohibit delegating nodes from revealing their identity to other nodes. A delegating node may only rally votes through their public history of either voting for trusted delegates or performing correct val-

idations. If delegates reveal their identities, especially to other delegates, the JSAUR network is instructed to vote to remove them from the eligible pool of delegates. Second, JSAUR coins awarded to voters is static, which means that nodes that vote for less-popular delegates are rewarded with a higher share of reward. This allows nodes to find a balance between trustworthy voters while preventing network power being concentrated in a small group.

The validation network for JSAUR blockchain transactions operates separately from the publication platform and will require users to undergo additional processes and orientation before registering as nodes. This DPoS system minimizes environmental impact compared to Proof of Work and avoids the centralization risks seen in traditional Proof of Stake systems. In this network, users familiar with blockchain validation can participate as delegates, while those less familiar with the technology can still engage by voting for delegates.

## 4.2 Smart Contracts

The immutable nature of blockchains requires all information submitted to be correct. JSAUR will achieve this using smart contracts: digital programs that execute when a set of criteria are fulfilled. Rather than being backed by law, smart contracts are objective agreements that are backed by software or hardware (in this case, it is backed by the JSAUR blockchain). JSAUR smart contracts oversee the publication process, and are activated through the conditions shown in 3.1. JSAUR smart contracts have the following features:

1. The author must be Know-Your-Client (KYC) verified (see section 4.4)
2. The manuscript submitted by the author must have passed initial screening and formatting (see section 4.3)
3. The author must have written three reviews to other submissions, all reviews must have passed a public screening vote by simple majority.
4. The author must have received three reviews and updated their research accordingly. These actions must pass a public screening vote by simple majority.
5. If conditions 1 through 4 are fulfilled, the usernames of the author, reviewers, manuscript metadata, and public voting results are structured in a block that will be validated in the JSAUR blockchain.

The manuscript metadata contains the date of publication, author(s), and a pointer to the publication and reviews which are stored on IPFS.

The smart contract layout above ensures that publications who make it on the blockchain have passed all JSAUR



publication and peer-review stages. For transparency, authors will be known of their smart contract progress during the publication stage. After publication, all users on JSAUR are able to view these details to easily view the decision making process. In the instance where the JSAUR platform decides to update the smart contract features, they may do so using petitions described in section 3.3. Furthermore, since smart contracts are the last stage before submissions become immutable, early submissions will be handled by a centralized JSAUR administration before the smart contract can be deployed with absolute correctness in its record keeping.

### 4.3 Artificial Intelligence

The rise of large language models (LLMs), particularly ChatGPT, has demonstrated the ability for Artificial Intelligence to make complex logical reasoning but also highlight areas where LLMs are unable to precisely handle independently. JSAUR will use aspects of AI to increase objectivity and efficiency, while reducing bias. JSAUR will train models that assist with the following aspects:

1. **Elementary Manuscript Feedback:** One of the immediate applications of AI in JSAUR is providing elementary feedback on submitted manuscripts. Although AI is not yet equipped to offer content-specific feedback, its proficiency in language processing allows it to accurately screen for vocabulary and grammatical errors. This initial screening ensures that human reviewers can dedicate their attention to evaluating the substance of the research.
2. **Formatting Assistance:** AI also plays a critical role in streamlining the publication process by automating the formatting of manuscripts into the standardized JSAUR template in LaTeX. This approach is more efficient than human formatting and more precise using a well-trained model.
3. **Keywords and Tagging:** With the author's consent, AI is used to assign relevant keywords to published articles. This feature enhances the searchability of articles within the JSAUR database, making it easier for researchers to find and reference work that aligns with their interests.

In the long term, JSAUR expects the development of more sophisticated models to handle additional tasks to assist in fully decentralizing the network.

1. **Advanced Feedback Analysis:** As AI technology continues to mature, JSAUR plans to expand its role in the peer-review process. In addition to the community-driven screening of reviews, AI will act as an additional layer of protection against malicious or inadequate feedback. By identifying patterns of bias or er-

rors, AI can help ensure that feedback is constructive and aligned with the journal's standards.

2. **User Assistance:** Understanding that JSAUR's features may be complex for new users, particularly student authors, we plan to deploy AI as a virtual assistant. This AI-driven support will guide users through the publishing process, answer common questions, and provide real-time assistance. AI will also be used to help users become familiar with blockchain fundamentals, helping more users to participate in the JSAUR blockchain validation.
3. **Website Maintenance and Autonomy:** While the initial launch and development of the JSAUR network will be done by human developers in the JSAUR administration, we plan to gradually incorporate AI into assisting this development. In the long run, this also involves AI being able to fully take over JSAUR website maintenance, which will allow the website to become truly decentralized.

Using AI to automate repetitive and basic tasks will allow authors to concentrate on the research itself and speed up the process of disseminating information. We recognize the current issues where LLMs exhibit bias and potential for error in subjective fields (such as advanced feedback analysis) and therefore will only deploy AI in areas where it can perform at least as well as a human expert.

### 4.4 Privacy and Security

To ensure the credibility and authenticity of research submitted to JSAUR, we will use a KYC process for users who wish to submit papers for peer review. KYC is a standard identity verification procedure designed to prevent fraud, ensure compliance with legal requirements, and maintain the integrity of the academic record.

Users submitting papers for peer review must provide identification documents, such as a government-issued ID, which are verified by trusted services which are initially chosen by JSAUR, but may be changed to more secure service in the future by users using the petitioning model in section 3.3. This service is responsible for confirming that the user is a real individual and that the documents provided are authentic. For student authors under the legal age in their jurisdictions, identity verification must be completed by a parent or guardian.

Despite these measures for security, privacy is also one of JSAUR's top priorities. After verifying their identities, users have the option to publish their work anonymously post verification. This allows authors to maintain privacy while ensuring that the system can hold them accountable if necessary. JSAUR encrypts user data using AES-256, one of the highest encryption standards, and will not hold this data past verification or in any publicly visible location.

492 Recognizing that not all users may be eligible for or  
493 comfortable with the KYC process, JSAUR will allow  
494 users to publish without undergoing verification. These  
495 publications will still be accessible on the platform and  
496 given equal exposure opportunities, but they will not be eli-  
497 gible for peer review and will be clearly marked as non-  
498 peer-reviewed research. This dual system ensures that  
499 JSAUR remains inclusive while maintaining high standards  
500 for peer-reviewed work.

501 As future zero-knowledge proof (ZKP) verification pro-  
502 cesses mature, JSAUR can also update the platform to use  
503 these methods to maintain secure decentralization with less  
504 requirements on authors' personal data.

## 505 **5 Economic Model**

### 506 **5.1 Cryptocurrency**

507 Traditional cryptocurrencies like Bitcoin and Ethereum,  
508 while revolutionary in their use of blockchain technology,  
509 are frequently criticized in that they are not backed by any  
510 physical or measurable assets. Their value is derived pre-  
511 dominantly from supply and demand dynamics in the mar-  
512 ket, which can lead to rapid fluctuations in price. This  
513 volatility has contributed to the view of cryptocurrencies  
514 as unstable and risky. Furthermore, the speculative nature  
515 of these currencies has given rise to dangerous market bub-  
516 bles. This not only harms investors but also undermines the  
517 credibility of cryptocurrencies as a reliable store of value or  
518 medium of exchange.

519 The JSAUR coin represents a new paradigm in cryp-  
520 tocurrency by being backed by something measurable and  
521 intrinsically valuable: the supply of knowledge. Unlike  
522 traditional cryptocurrencies, the value of the JSAUR coin  
523 is directly tied to the academic and research output of the  
524 JSAUR platform. As more research papers are published,  
525 reviewed, and disseminated through JSAUR, the supply of  
526 knowledge increases which requires the JSAUR coin as a  
527 mechanism to keep this democratic process sustainable for  
528 validators. This approach grounds the coin in a tangible  
529 and ever-growing asset.

530 The JSAUR coin is designed to serve multiple roles  
531 within the JSAUR framework as described by previous sec-  
532 tions. In order to create a sustainable model without un-  
533 necessary inflation, the rewards that are outlined below will  
534 half for every doubling of the value of a single JSAUR coin.

- 535 1. **Public Voting:** one of the first 100 users who partici-  
536 pate in the voting process of a submission will be ran-  
537 domly selected to be awarded one JSAUR coin as an  
538 incentive against abstention.
- 539 2. **Staking Incentives:** the JSAUR coin creates an in-  
540 centive for users to maintain the JSAUR blockchain,  
541 which is a critical feature that ensures the security,  
542 transparency, and longevity of the platform. Delegates

543 who validate blocks are rewarded 5 JSAUR coins and  
544 nodes who voted for that delegate equally share 5  
545 JSAUR coins.

- 546 3. **Governance:** the maintenance fees of the JSAUR web-  
547 site, KYC partnerships, and additional services re-  
548 quired to keep the JSAUR network running will be  
549 eventually covered with JSAUR coins.

550 We believe that since JSAUR coin is a currency that  
551 holds its value outside of the platform, it could be used fur-  
552 ther purposes such as education-related markets.

### 553 **5.2 Grants and Donations**

554 The success and sustainability of JSAUR as a decentral-  
555 ized academic platform are deeply rooted in the support of  
556 its community. In the early stages of JSAUR, maintain-  
557 ing the platform, covering startup costs, and ensuring its  
558 growth will rely heavily on donations and grants from in-  
559 dividuals and organizations that believe in the mission of  
560 democratizing access to academic publishing.

561 JSAUR will implement a transparent system for manag-  
562 ing donations. Budgeting details that involve all donations  
563 are publicly displayed and regular updates and reports will  
564 be provided to donors, detailing the impact of their con-  
565 tributions and the progress being made towards JSAUR's  
566 goals. This transparency ensures that every donation is  
567 used effectively and in alignment with the platform's mis-  
568 sion. Most of the initial budget is going to be used for re-  
569 search and development of the new blockchain, cryptocur-  
570 rency, and decentralized elements.

## 571 **6 Further Considerations**

### 572 **6.1 Legal Compliance**

573 Operating in a decentralized environment presents unique  
574 legal challenges. JSAUR must navigate a complex web  
575 of regulations that vary significantly by country and re-  
576 gion, including those related to data protection, intellec-  
577 tual property, and financial transactions. To ensure compli-  
578 ance, JSAUR will work closely with legal experts to moni-  
579 tor and adapt to regulatory changes in jurisdictions around  
580 the world.

581 One of the key legal considerations for JSAUR is the pro-  
582 tection of intellectual property (IP) rights. JSAUR must im-  
583 plement robust measures to protect these rights and prevent  
584 unauthorized use or distribution of content. Smart contracts  
585 and blockchain records will play a crucial role in enforcing  
586 IP rights, ensuring that authors' contributions are respected  
587 and that any use of their work is properly credited and com-  
588 pensated. Additionally, we will provide clear guidelines to  
589 users on how to handle IP issues.

590 Although the JSAUR coin is categorically different than  
591 traditional cryptocurrencies, its importance to the platform  
592 means that JSAUR must ensure that it satisfies regulations

593 around the world and be designed to avoid being misused  
594 in areas such as money laundering.

## 595 6.2 Social Perceptions

596 As a decentralized platform, JSAUR is going to face skepti-  
597 cism from the traditional academic community accustomed  
598 to established, centralized institutions with long histories.  
599 Overcoming this skepticism will require time and a suf-  
600 ficient demonstration of JSAUR's commitment to quality,  
601 transparency, and ethical standards in academia. In the  
602 early stages of development, endorsements and case studies  
603 from respected academics and successful implementation  
604 of the concepts outlined in this whitepaper will be impera-  
605 tive for JSAUR to build credibility.

606 JSAUR has a responsibility to challenge established per-  
607 ceptions regarding decentralization and cryptocurrencies.  
608 Initial deployments and uses of the JSAUR coin must be  
609 closely documented to properly differentiate the our net-  
610 work from the thousands of other cryptocurrencies. In  
611 order for these social perceptions to change, it becomes  
612 JSAUR's mission to demonstrate that the technologies as-  
613 sociated with decentralization can be used to change tradi-  
614 tional systems for the better.

## 615 7 Conclusion

616 We have proposed a system that applies the power of decen-  
617 tralization, blockchains, and artificial intelligence to cre-  
618 ate an academic journal that addresses long standing issues  
619 in traditional publishing such as barriers of entry, lack of  
620 transparency, and centralized control. We created a equi-  
621 table and democratic process that achieves the purpose of  
622 academic publishing - to disseminate knowledge - while  
623 ensuring a more objective process of maintaining academic  
624 standards than traditional academic journals. Furthermore,  
625 we have shown that cryptocurrencies and blockchain tech-  
626 nology are excellent tools that society can use to step into  
627 the next digital age.

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