WHITEPAPER



independent open access academic publishing."

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Executive Summary

Open access to academic research outputs is crucial if we are to find solutions to global societal challenges, such as growing inequality, climate change and the current health crisis. Enabling equal access to knowledge can help bring social justice, however, this depends on the 'route' that is taken for transitioning to ubiquitous OA publishing.

In this white paper, we outline several important barriers the current academic publishing landscape presents to the transition to sustainable – but also just – open access publishing. We then **propose a new route to open access: Quartz Open Access.**

Currently, some of the most widely adopted 'routes' to open access are the 'Gold' and 'Diamond' model¹. Both imply immediate open access to published articles, however, the former in some cases requires an author-facing fee to cover the costs of publishing, while the latter does not require any payment from the authors or the readers.

Quartz OA is a platform cooperative promotes that sustainability, fairness, and independence in open access publishing

While in most countries of the 'Global South' (or low and lower-middle-income countries) the Diamond model of open access academic publishing is widespread², in the 'Global North' (or high-income countries) most academic research is still published behind a paywall. Costly institutional subscriptions create barriers to accessing knowledge in less well-funded institutions and contribute to perpetuating the existing inequalities. Currently, an increasing policy push for the commercial publishers to transition to open access has led to their co-optation of the 'Gold OA' model often accompanied by significant author-facing fees³.

To allow affiliated scholars to read and publish open access content without fees in a selection of journals, institutions and libraries are concluding the so-called 'Read and Publish' / 'Publish and Read' deals with commercial publishers. While this approach does allow to increase the amount of openly accessible research publications, it has its limitations. Indeed, it may create barriers for publishing articles in open access for scholars in less well-funded research fields, institutions, or lower-income countries. It also can limit academic freedom by 'nudging' scholars to publish exclusively in the journals included in these agreements. Finally, this can result in perpetuating the existing power structures and inequalities in the academic publishing landscape as the smaller publishers with less bargaining power can be left out of such agreements.

To counter these challenges of OA academic publishing, we propose a new, cooperative, 'route' to open access publishing - Quartz Open Access.

¹ The OA terminology can be somewhat confusing: several more 'routes' to OA exist and sometimes the same routes go by different names, for example 'Diamond OA' is also referred to as 'Platinum'. For more information, see a concise overview in this blog post by Lucy Barnes.

² Some of the more recent examples – and the ones that triggered a public outcry (the Refuse2Review / 9500isnotOA) – are the cases of Nature and Cell journals that introduced an open access option with APCs of... €9,500 and €8,500 respectively.

³ In particular, Latin America, Eastern Europe, and the Middle East have the highest share of Diamond OA journals, while Western Europe and US/Canada are dominated by the APC-model mostly co-opted by the large commercial publishers. For more fascinating insights about the geographic distribution and other aspects of open access journal publishing, see a recent 'OA Diamond Journals Study'.

While the 'Diamond OA' model is a more inclusive and equitable approach to open access publishing, it lacks sustainability being dependent on the financial support of host institutions, public grants, and unremunerated labour⁴.

Quartz OA is an ecosystem that facilitates exchanges of resources and funding among the open access community. It is **a new cooperative economy** and **a new channel to fund** and support **independent** open access publishing

We do not propose 'yet another' platform set to extract profits from the value created by someone else. We seek to create an ecosystem that would **help retain the value** in the hands of the academic community and **re-distribute the flows of funding fairly and transparently** among its members.

To do so, we build upon the 'platform cooperative' framework that has emerged as a way to create fairer and more inclusive economies. Under this framework, platform users and contributors (in our case, individual academics, institutions/libraries and journals/publishers) can become co-owners of the platform, participate in its governance and/or have a stake in profit distribution.

A number of platform cooperatives have sprung up in recent years to answer unfulfilled needs for fairer work in a variety of fields. This rekindled interest in cooperative models is rooted in the increasing realisation that the Silicon Valley-type 'sharing economy' platforms cannot entirely fulfil their promise of workers' empowerment being primarily driven by investor interests. Cooperatives have thus been 'modernized' to take advantage of the digital technologies allowing new forms of distributed democratic governance.

Quartz OA is powered by three key components:

Ecosystem:

The platform cooperative allowing exchanges between the journals/ publishers, academics and institutions/libraries.

Micro-donations:

A browser extension allowing readers to support open access content and communities, using Web Monetization, a technology that enables automatic micro-donations to the content the users access.

Crowdfunding:

Enabling financial support for open access, either through Quartz OA donation buttons at the journals' and publishers' websites or through dedicated crowdfunding campaigns.

⁴ Indeed, as the 'OA Diamond Journals Study' reveals, about 20% of Diamond OA journals are either considering or planning to abandon this model, and the lack of financial sustainability does play a role in their decision.

⁵ For more info and resources on platform cooperatives, see the Platform Cooperativism Consortium and the works by Nathan Schneider and Trebor Scholz

This is how Quartz OA could benefit the academic community:



Libraries, institutions and funders will be able to automatically channel funds to those open access journals that are relevant to their researchers, optimizing their open access strategy



Individual academics will be able to contribute to the sustainability of independent open access publishing initiatives and get recognition for their contributions.



Trusted independent journals and publishers will be able to access additional streams of funding contributing to their economic sustainability, as well as a network of scholars willing to support fair open access initiatives.

Curious to learn more? Jump to 'Our proposal' section of this white paper for a more detailed discussion of Quartz OA.

We invite a diverse community of individual scholars and academic institutions to participate in the technological, organisational and conceptual development of Quartz OA. There are many ways in which you could take part in this initiative: from commenting on this paper to contributing your expertise for the development of the platform cooperative, to participating in the pilots and spreading the word about us.

Jump to the 'How can you contribute' section of this report to know more.

We value every contribution and look forward to meeting you!

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The challenges of Open Access publishing

The need for global open access (hereafter, OA) to academic research outputs is increasingly recognised within academia and beyond. However, there are still many challenges that need to be overcome if we are to find a fair and sustainable way to transition to ubiquitous open access publishing. While some of these challenges are symptomatic of the broader academic landscape and can only be addressed at the system level – such as the academic career promotion incentives – others, we believe, can be addressed through collective action. In this section, we will describe our perspective on some of the key issues with the current approaches to open access publishing and then outline our proposal for alleviating some of them.

1. The common 'routes' to open access and their challenges.

There is an ever-growing number of ways to make the research results accessible free-of-charge - or 'routes' to OA - most common of which are referred to as 'Green', 'Gold' and 'Diamond'. The 'Green OA' model implies self-archiving by the authors of a version of their article on a personal website or in research repositories. In this case, the published version remains behind a paywall and the authors do not retain the copyright to their article. Often, an embargo period is required by the publishers, thus, this route does not provide immediate open access to the article.

The 'Gold OA' model implies article publication in academic journals in immediate open access and generally allows the authors to retain the copyright. In some cases, under the Gold OA model, the costs of publishing are covered through author-facing fees or APCs⁷. This latter approach has been co-opted by many commercial publishers, forced by the academic institutions and research funders to seek ways to transition to open access publishing. However, these have been criticised for leveraging the 'open access' paradigm to further secure their positions in the academic publishing ecosystem⁸. Indeed, replacing subscription revenues with high APCs, these 'legacy' publishers still have leverage over the prices and APC increases above the cost of inflation have already been noted. Moreover, many journals adopt the so-called 'hybrid OA' model, where some content is provided in open access (covered by an APC) and some remains subscription-based. This approach has been criticised for 'double dipping' where the publishers benefit from both APCs and subscription fees. Furthermore, the APC-based Gold OA model shifts the costs from accessing knowledge to disseminating it: 'global open access to read' (but not to publish) creates new challenges and forms of exclusion¹⁰. It privileges those from wellfunded institutions and research fields and high-income countries. This results in a unidirectional flow of information

⁶ There are other models and terms, such as 'Black OA' (implying illegal online sharing of 'paywalled' articles), see a glossary in Barnes (2018a) for more information.

⁷ Where APC stands for 'Article Processing Charge'. The term has been criticised, however, as only a small part of the fee paid by the authors covers the costs directly related to the publication of the article (such as typesetting, for example) while another part serves to cover indirect costs of running a publishing business, cf. Tennant (2018).

⁸ cf Holmwood (2018)

 $^{^{9}}$ See Padula et al. (2017). Some recent examples of APCs - €8,500 in Cell and €9,500 in Nature - have sparked opposition among academics, e.g. the Refuse2Review / 9500isnotOA initiative

¹⁰ Cody (2018b); Holmwood (2018); Kingsley (2018)

from these countries to the 'Global South' or low and middle-income countries that have fewer possibilities to cover the APCs charged by the 'Global North' publishers¹¹.

Finally, the 'Diamond OA' – most common in the 'Global South'12 – implies providing immediate open access to the publications and no fee is charged to the authors who retain the copyright of their articles. This model is most commonly funded by the institutions, public bodies and learned societies and, in many cases, relies on unremunerated work of academics and volunteers. This approach, while being more inclusive and allowing equal access both to reading and publishing, lacks economic sustainability¹³.

Thus, each of these models has its benefits and each provides a step towards a transition to open access publishing. However, in our view, none of these models in their current state can fully answer the needs of the academic community while being at the same time economically sustainable and viable in the long term.

2. The tension between for-profit and not-for-profit initiatives in OA publishing

Open access publishing requires new infrastructures and new actors within the academic publishing landscape. While numerous initiatives have sprung up to enable the transition to open access, there seems to be an invisible 'contest' between the non-profit platforms and initiatives and for-profit ones backed by the 'legacy' publishers and Silicon Valley venture capital firms¹⁴.

The 'danger' of the for-profit initiatives may be in their lack of accountability and transparency and a drive for the 'platformisation' of the academic digital infrastructures bringing with it the challenges of the 'platform capitalism' ¹⁵. The criticism towards the latter is now mounting in academia and the broader society as the model does not bring the promised 'liberation' of the workers but, to the contrary, often exacerbates the existing societal problems and inequalities ¹⁶.

Another challenge that for-profit publishing initiatives present is the risk of their being acquired by the large commercial publishers seeking to expand the portfolio of their projects and to retain their control of the scholarly communication ecosystem. A growing number of such acquisitions have been taking place in recent years.

¹¹ cf. Raju et al. (2020)

¹² In particular, in Latin America, Eastern Europe and the Middle East, see Bosman et al. (2021). Also, see a discussion of Diamond open access and its implications for social justice in the African context in Raju et al. (2020)

¹³ The results of a recent study of Diamond OA journals suggests that about 20% of these lack economic sustainability and consider (and some even plan) to transition to a subscription-based model. See Bosman et al. (2021)

¹⁴ Pooley (2017)

¹⁶ See for example the polemics around Knowledge Unlatched in Barnes & Gatti (2019); Knöchelmann (2018)

¹⁶ cf. Scholz (2017)

 $^{^{17}}$ Such as the acquisitions of SSRN and bepress by Elsevier, of Publons by Clarivate Analytics, and, recently, of Hindawi by Wiley

3. The promise of collaborative approaches and the questions of academic freedom

Within the academic community, there is growing realisation that **collaborative** approaches could offer a viable alternative for a transition to open access and could help protect research outputs from oligopoly control¹⁸. A host of collective initiatives have sprung up to provide an alternative to the 'author pays' model or to reduce the costs of independent scholar-led publishing and help academics reclaim the ownership of scholarly communication. Many such initiatives involve library 'subscriptions' to open access journals¹⁹ or a policy push towards commercial publishers' transition to open access (e.g. the ambitious European 'Plan S' of the cOAlition S).

One of the challenges such initiatives present is the potential 'locking' of the libraries into subscriptions to open access journals the relevance of which to their affiliated scholars is difficult to gauge. Moreover, policy initiatives - while being crucial for creating the mechanisms and stimuli for scholars to publish their research in open access - can potentially contribute to preserving the status quo in the academic publishing landscape. Indeed, such policies may benefit large established publishers and leave out smaller independent initiatives that have less bargaining power thus reinforcing the existing power structures²⁰. Finally, they may be limiting academic freedom by 'nudging' researchers to only publish in the outlets supported through these policies and 'deals' between the commercial publishers and academic institutions²¹.

To sum up, the need for open access to academic research outputs is increasingly recognised and a host of initiatives have sprung up to enable a transition to open access publishing. However, it is becoming apparent that **the questions of social justice**, **fairness**, **academic freedom**, **independence**, **and sustainability are key for the success of any new initiative in this field**. Moreover, such a transition is hardly possible if the status quo is preserved and the roles and power distribution in the academic publishing ecosystem remain unchallenged and unchanged.

¹⁸ See for example such initiatives as the Radical OA collective, Free Journal Network, ScholarLed collaboration, Libraria and COPIM as well as the pieces by Adema & Moore (2018); Barnes (2018b); Cody (2018a); Neylon et al. (2019); Pia et al. (2020); Tennant et al. (2019)

¹⁹ See for example the 'Subscribe-to-Open' initiative or PLOS' Community Action Publishing model

²⁰ cf. Green (2019); Pia et al. (2020)

²¹ cf. Green (2019)

Our proposal: Quartz OA

We also share the opinion that the existing roles and power distribution within the academic publishing ecosystem need to be re-imagined and join the calls for the return of academic publishing into the hands of academics.

We believe in the power of collective approaches to a sustainable, fair, and inclusive transition to open access publishing

With Quartz OA we seek to bring economic sustainability to scholar-led independent open access journal and book publishing and to mobilise a 'network of antidiscipline'22- a community that would proactively engage in transitioning the academic publishing system towards a fair, just, sustainable and independent open access.

We are developing a platform that will bring together trusted OA journals and publishers on the one hand and a community of academics and institutions or libraries committed to fostering open access publishing on the other.

The platform will allow an exchange of services and support – both financial and inkind – between the journals and publishers²³, individual academics, and institutions/ libraries.



²² Referring to a thoughtful piece on the state of academic publishing by Kallio (2017) where 'antidiscipline' stands for the unwillingness to follow the implicit rules that push academics to perpetuate the status quo in academic publishing.

²³ To define a basic set of criteria to ensure journal/publisher trustworthiness we will build upon the principles elaborated by COPE, DOAJ, OASPA and WAME, INASP and AJOL as well as FOAA and integrate our own values of openness, equality, inclusiveness and diversity. These criteria will be subject to a vote of the Quartz OA academic community. We also envisage a possibility for various academic communities within Quartz OA to adapt these criteria to their own needs.

Why Quartz OA?

We believe that the current 'routes' to OA do not fully answer the needs of the academic community and the public for fair, sustainable and independent open access. With Quartz OA we aim at bringing an additional source of capital – financial, social and reputational – to the open access movement:

- · We are building an ecosystem where **contributions to fair open access** publishing be it authoring, reviewing, editing or publishing are recognised and valued.
- ·We strive for more **inclusive**, **just and equitable open access** publishing where underrepresented and niche scholarly communities are nurtured and supported.
- · We believe that **everyone should have equal opportunities to publish in open access** regardless of their background or scientific discipline. Using the metaphor of Quartz an abundant, cheap, and hard material we believe that this model could help foster the open access movement and contribute to its sustainability.

Although some commentators propose that the future of more accessible, ethical, transparent, and creative form of scholarly communication requires unremunerated off-work time of the academic community members²⁴, we cannot help but wonder if this proposition is inclusive of those whose financial situation does not allow them to engage in such 'labour of love'. Although we believe in the power of non-financial motivations, we also think that unpaid work may contribute to perpetuating the existing structural inequities²⁵ and result in the lack of participation of those who do not have the possibility (or the luxury) to invest their 'off-work' time in unpaid activities. This is why with Quartz OA we wish to give the journals and publishers the possibility to remunerate the work of those who contribute to their development.

²⁴ Cf. Pia et al. (2020)

²⁵ (Allan, 2019; Dryden, 2013; Grant-Smith & McDonald, 2018; Overgaard, 2019; Schneider, 2018a; Thompson, 2012; Wildenhaus, 2018)

Where does Quartz OA stand in comparison to other 'routes' to open access?

	Green OA	Gold OA	Diamond OA	Quartz OA
What is it?	Self-archiving by the authors of an article version in a repository, personal website etc.	An OA publishing model often involving an authorfacing fee (or APC).	An OA publishing model where no fees are charged either to authors or to readers.	A cooperative 'route' to sustainable independent OA.
Who sustains it?	Organisations maintaining the repositories.	Institutions or researchers paying APCs.	Institutions, learned societies, and other organizations support (e.g. infrastructure) Volunteers by contributing time and resources.	Institutions, individuals, public funds backing OA with voluntary contributions.
Who wins?	Commercial publishers retaining the copyright and value from the paywalled final article.	Public by having open access to publications and publishers by capturing the value through author facing fees.	Public by having open access to scientific knowledge.	Public by accessing scientific knowledge Institutions by making more targeted investments in OA Independent OA publishers by accessing additional streams of funding and OA community support. Academics by getting recognition for their contributions to OA.
Downside?	Subject to publishers' conditions and embargoes (e.g. not allowing immediate OA to the final publication)	Economic barriers for publishing academic knowledge in open access.	Potential lack of financial sustainability for independent OA publishing.	Relies on voluntary support by the academic community.

Key components of Quartz OA

Quartz OA will be powered by three key components:

- **1. Ecosystem**: The platform cooperative allowing exchanges between the journals/publishers, academics and institutions/libraries.
- 2. **Micro-donations**: A browser extension allowing readers to support Open Access content and communities, using Web Monetization, a technology that enables automatic micro-donations to the content the users access.
- 3. **Crowdfunding**: Enabling financial support for Open Access, either through Quartz OA donation buttons at the journals' and publishers' websites or through dedicated crowdfunding campaigns.

What does Quartz OA offer?

Institutions and libraries

- Optimizing institutional open access strategies by automatically channelling funds to those open access journals that are relevant to the affiliated researchers
- Allowing more academic freedom to affiliated scholars and avoid the risk of 'lock' into irrelevant subscriptions
- Participating in Quartz OA platform and its governance

Academics

- Contributing to the sustainability of independent open access publishing initiatives
- Getting recognition and visibility for contributing to OA, receiving financial and in-kind rewards
- Getting affordable access to ethical OA publishing
- Participating in Quartz OA platform and its governance

Journals and publishers

- Accessing additional streams of funding to improve economic sustainability
- Getting support from a network of scholars willing to contribute to fair open access publishing
- Rewarding the academics' contributions to OA.
- Gaining visibility and trust through the participation in the Quartz OA community
- Participating in Quartz OA platform and its governance

To dive a bit deeper into how the proposed initiative could work, we will now address the questions of its ownership, financing, and values²⁶.

²⁶ Following the suggestion by Pia et al. (2020)

Ownership

With the development of digital publishing technologies many have assumed that technological change and better leverage of the web will automatically bring a solution to the problems of structural power and diversity of geographical inclusion in scholarly communication – but that did not happen²⁷. This is not only the case of academic publishing. Society at large is increasingly realising that the technological developments alone cannot bring the solution to the societal 'ills' and that the governance of the technological platforms dominating many aspects of our lives needs to be re-thought.

Indeed, the 'traditional' way of organising under the privately held and investor-funded company framework does not allow individuals and communities creating value to retain it²⁸. Recently, broad-based ownership frameworks have (re-)emerged as a way to democratise the economy through participative governance and profit-sharing mechanisms²⁹. In particular, platform cooperativism has been proposed as a promising approach to developing digital platforms allowing users to co-own these and share the profits they generate³⁰.

The adoption of the 'platform cooperative' framework in the academic publishing context can be an effective way to establish fair governance mechanisms and go beyond the 'for-profit vs. not-for-profit' dialectic. It would allow to create an organisation that would be for the profit of the academic community and be protected from a takeover and a change of ownership through democratic governance mechanisms.

Thus, drawing upon the 'platform cooperativism' framework, we developed the following preliminary propositions for the ownership design of Quartz OA:

In the academic publishing ecosystem, drawing a line between 'good' and 'bad' actors has often been guided by the 'not-for-profit vs. for-profit' dialectic, where the not-for-profit status is usually considered to be more appropriate by the academic community (cf. Neylon et al. (2019); Pooley (2017)). Focusing exclusively on the legal or tax status of an initiative, however, has its limitations. Indeed, the not-for-profit status does not prevent an organisation from being purchased by larger commercial players (as is demonstrated by the example of bepress' acquisition by Elsevier) and does not prevent it from changing its status to for-profit (as shows the controversial case of Knowledge Unlatched, cf. Knöchelmann (2018)). Another – and, probably, more accurate - heuristic for telling 'good' from 'bad' governance can be the way the value is appropriated, whether the capital created returns to the academic community and what proportion goes to the external investors (Neylon et al. 2019).

²⁷ cf. Neylon (2018)

²⁸ cf. Scholz (2015, 2016)

²⁹ See Kelly & Howard, 2019 and the work of the Democracy Collaborative.

³⁰ A number of platform cooperatives have sprung up in recent years to answer unfulfilled needs for fairer work in a variety of fields. See, for example, Stocksy United photography coop or Ampled for music artists. Also see an overview of platform cooperatives in journalism in Schneider (2018b). This rekindled interest in cooperative models is rooted in the increasing realisation that the Silicon Valley-type 'sharing economy' platforms cannot entirely fulfil their promise of empowerment and improving the livelihoods being primarily driven by investor interests. Cooperatives have also been successfully used in many tech communities and 'modernized' to take advantage of the digital technologies allowing new forms of distributed democratic governance and resisting corporate 'enclosure' (Schneider, 2018a). Also see Scholz (2015, 2016); Scholz & Schneider (2016).

- **1. Multi-stakeholder participation and ownership**. The different types of platform users will have a stake in the ownership and the governance of the platform. Our community initiatives will enable a fair redistribution of value.
- 2. Participatory, democratic, and decentralised governance. Democratic participation of the community (e.g. 'one member one vote' principle) with dedicated policies fostering diversity and inclusion.
- **3. Shared Economic Value**. Any economic benefit made by the platform will be distributed among the cooperative members. These will have a choice to either reinvest it in the community or to withdraw the earned amount.

Financing

In what follows, we cover three key points concerning the financial aspects of Quartz OA functioning: (1) financing of Quartz OA platform development; (2) sources of funding for the Quartz OA community; (3) potential sources of profit for the academic community members co-owning the platform.

1. Financing Quartz OA platform cooperative development:

Adopting the platform cooperative structure brings with it a range of limitations for the funding of the platform development and maintenance. Indeed, by deliberately rejecting the 'Silicon Valley-type' start-up approach and opting for community ownership, we set a limitation in terms of sources of capital we could attract for platform development.

Currently, we benefit from funding received under the 'Grant for the Web'³¹ for the development of our micropayment technology and bootstrapping a community around it. In the short- to medium-term, we will seek support through other similar funding mechanisms. In the long term, we plan to finance our team's work through voluntary donations from the Quartz OA community or a 5-10% fee (with a possibility of opting out) levied on each transaction, re-investing any surplus back into the community or platform development.

Finally, to enable the development of the Quartz OA technology and community, we do not exclude the participation of third-party investors. We are looking into ways to enable such participation at the same time limiting the investor control over the cooperative and excluding the possibility of an acquisition by a commercial entity³².

2. Sources of funding for the Quartz OA community:

Quartz OA contribution

We pledge a contribution of 2,500 USD to the development of the cooperative. This contribution will be distributed among the early supporters of the platform to be then re-distributed among partner journals through the micro-payment mechanism. The latter may then use this funding to reward those who contribute to the development of their journals. This contribution will help launch the first flows of finance and make them circulate among the members of the Quartz OA community.

³¹ https://www.grantfortheweb.org/blog/2020-flagship-grantees

³² We are looking into the 'revenue share' schemes of funding by third parties and the bylaws clauses which could be used to prevent the cooperative's buyout (drawing in particular on Schneider (2018b)).

Libraries and institutional members' support

We see libraries and institutions as cornerstones of our platform providing support to the OA movement. Libraries and institutions will be able to pledge their financial support to the Quartz OA community. This funding will then be distributed to those journals and publishers their affiliated researchers read and wish to support. The amount of support will be voluntary and will be distributed among the journals in proportion to the engagement of scholars with these. This mechanism would allow libraries to support the OA publishers and journals more strategically without limiting the academic freedom of their affiliated scholars and without the risk of a lock into a subscription that is of no relevance to the affiliated researchers.

An investment in Quartz OA can allow libraries to become the drivers and enablers of transformative change by strategically supporting open access initiatives³³ and taking action to establish more equitable and just models of scholarly publishing³⁴. While such initiatives as Unsub allow institutions to liberate funds from being locked in subscriptions with commercial publishers, Quartz OA will provide tools for a wise investment of these funds into the open access movement.

Individual academic and general public members

Individuals joining the Quartz OA community will be asked to contribute a voluntary membership fee. This fee will go to the user's account and will then be used for micro-payments to the partner journals as the user reads these.

Individuals may receive payments from journals to which they contribute/provide services (e.g. for their peer reviews or language support). While some scholars may wish to withdraw these funds, others can choose to use these to re-invest in the scholarly community either through micro-payments or by participating in the crowdfunding of community initiatives.

3. Potential sources of profit for platform co-owners.

Commercial journals and publishers

While independent scholar-led journals and publishers will be able to access the network of academics free-of-charge, there may be a potential for allowing commercial publishers to access this network for a fee at a later stage. Any profit that the cooperative will make through this channel will then be distributed among the cooperative owners. The amount of the fee as well as the criteria for charging it can be decided by the cooperative owners. However, we can foresee a pricing model that charges a higher percentage to publishers with high APCs or low commitment to Open Access.

³³ See the arguments in favour of the importance of the libraries' role in OA transition in Banks (2016); Halperin (2020); Lewis (2017); Pia et al. (2020)

³⁴ Roh (2016); Halperin (2020)

Values

Finally, to guide the development of the platform and the community, we have identified four key values and principles:

1. Sustainability

Bringing economic sustainability to OA publishing is one of the key goals of Quartz OA. However, we also seek to contribute to the social and environmental aspects of sustainability. Helping advance open access to scientific knowledge, the Quartz OA community will contribute to achieving the UN's Sustainable Development Goals, many of which rely on scientific advances as a way to tackle the grand challenges our society faces today. Apart from helping advance the open access paradigm, we would like to go further and create responsible investment practices in our community. Our technology would allow re-investing the funds earned through the platform into a variety of community initiatives as well as a range of sustainability-oriented organisations, foundations, and cooperatives.

2. Openness and Transparency

We support the values of openness as applied to open access in scholarly communication as well as open science and open peer-review. We also strive to adopt open source technologies in our work where possible and make our code free and open source. Finally, we build upon the open and platform cooperativism approaches as antithetical to the 'walled' corporate platforms³⁵.

A related key value for us is transparency as applied to the conditions of participation in the cooperative, setting caps on salaries and profits as well as transparency about data collection and sharing. In the cooperative setting, the key decisions will be in the hands of the community and designing the governance mechanisms allowing for the participation of the members are now our key priority.

3. Fairness

Our ability to achieve social justice, equality and inclusion through open access depends on the assumptions we build upon in transitioning to these. For Quartz OA, fairness in Open Access publishing is not only about fostering 'open to read' but also 'open to publish'. In developing our platform, we are guided by the desire to allow for diversity and multiple forms of participation and to redress power imbalance in the academic publishing context³⁶. We are engaging with various academic communities around the globe to take into account their needs and requirements since the early stages of platform development. We strive to provide fair recognition for the contributions to advancing open access - be it authoring, reviewing, editing or publishing. We also aim at facilitating the 'ethical' publishing behaviour by creating a trusted community of journals committed to advancing open access academic publishing.

³⁵ See, for example, the discussion in Fuster Morell & Espelt (2018)

³⁶ We are guided by the definition of 'inclusive infrastructures' in the academic publishing developed by the OSCDNEt research group, cf. Okune et al. (2018)

4. Independence and Freedom

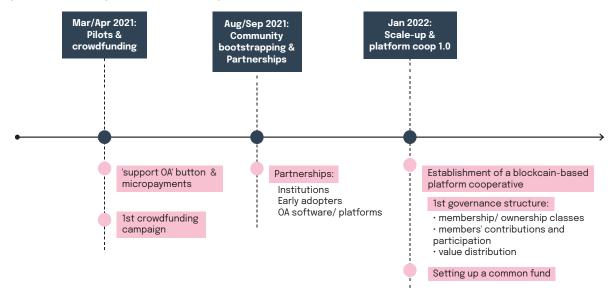
Quartz OA strives to build an independent and sustainable academic publishing ecosystem and help retain the value generated by the academics within the scholarly community. We seek to make this community independent of commercial interests through democratic governance and broad-based ownership.

We seek to support independent OA journals and publishers and those that consider becoming independent from commercial publishers. This can be possible by providing a source of community support - both financial and in-kind - for such initiatives.

Finally, institutional membership in Quartz OA would allow the libraries and other institutions to invest in a wide range of journals simultaneously giving their affiliated academics freedom in choosing which outlets they wish to support by reading, publishing, and reviewing.

What next?

The roadmap below shows the next steps and our key milestones for Quartz OA platform cooperative development for the near future.



- **1.** Our immediate next step is launching a pilot program with 5-10 journals to start building the Quartz OA community. These partner journals and publishers will implement the 'support OA' button and will launch a crowdfunding and community-building campaign.
- **2.** This will be followed by an extended pilot testing the Web monetization (a technology for automatic micro-payments from web browsers³⁷) functionality, further building the community and establishing partnerships with institutions and other key actors in the OA academic publishing ecosystem.

We will engage the open access community in the creation and definition of our platform cooperative organisation. The platform coop will be officially launched by January 2022.

How can you contribute?

At this stage there is a great number of ways you could become involved in our growing community, here are just some of them:

1. Comment on this white paper

We want to hear your thoughts on any aspect of the paper. You can comment in our pubpub publication (https://quartzoa.pubpub.org/white-paper-2) or you can drop us an email at hello@decentralized.science

2. Twit about this initiative or circulate this white paper (it is published under a CC BY 4.0 licence, so feel free to do so) or talk about it to your peers – to build the community we need to spread the word about it, our initiative will not take off without the support of the vocal proponents of the open access movement.

³⁷See webmonetization.org

3. Recommend any journals and publishers that you would like to see as a part of our Quartz OA community. Or if you are a journal editor or publisher yourself and you would be interested in collaborating in a pilot – do get in touch!

4. Share your expertise!

Right now we are getting to some of the key aspects of our organisation design and will be needing additional inputs on such topics as:

- a. the legal aspects of setting up a platform coop
- **b.** the economic aspects of token system design
- **5.** Help us build the platform. Are you interested in participating in the development of our technology? Get in touch at hello@decentralized.science!
- **6.** Help translate this report. The report is shared under the CC BY 4.0 and you are welcome to translate it to other languages. Do get in touch before you do so at hello@decentralized.science we can thus avoid work duplication and coordinate efforts!

We look forward to hearing from you and hope to read many constructive comments on this paper!

Yours.

Quartz OA team

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