Most of the 100+ Finnish scholarly journals are published by small learned societies. Since 2015, the National Library of Finland and the Federation of Finnish Learned Societies have been working on a joint project which aims to provide the journals with the support they need for making a transition to open access. The project has launched an OJS-based shared publication platform (Journal.fi), which is already used by 50 journals. It has also been developing a new funding model for the journals. Since the subscription and licensing costs paid by the research libraries for these journals have been very small, it is not possible to simply use these funds to pay for open access. Instead, the project has been working on a consortium-based model, under which the Finnish research organizations and funders would commit themselves to providing long-term funding to the journals. In return, the journals would pledge to follow strict standards in openness, licensing, peer review and infrastructure.

**Keywords**
Scholarly journals; open access; funding models; libraries; platforms; Open Journal Systems

Many of the arguments used in discussions about open access (OA) are based on experiences within an international context, which is mostly dominated by big corporate publishers with high profit margins. However, most countries also produce their own domestic journals, which operate in somewhat different circumstances. The articles published by these journals are often in languages other than English, although some of them reach international audiences as well. The benefits of moving to OA are already apparent to many of these journals, but there are a number of issues, including funding, that they expect to be solved before they are ready for the transition. This is the case in Finland at the moment.

**Journals owned by the community**

In Finland there are currently more than 100 domestic scholarly journals which publish peer-reviewed content. Many of these journals are published in the Finnish national languages of Finnish and Swedish, although there are also a number of English-language journals which are aimed at an international audience.

At present, more than one third of these Finnish journals already provide open access to their content, either immediately or after a delay. Most of the other journals – including many of the most prestigious Finnish-language journals – are still only available in printed format, or as part of two national subscription-based services, Elektra and Edilex. Elektra is a non-profit service run by the National Library of Finland and Kopiosto, a national copyright organization, while Edilex is a commercial service concentrating on law-related resources. Both of them are widely available at Finnish research organizations.

Most Finnish journals are published by small scholarly societies, which each publish only one or two journals. This means that the journals are run by the research community instead of being owned by or outsourced to commercial publishers. The downside of this is that most
of the journals operate with very little money. They may have an editor or sub-editor with a part-time salary, but there is a strong reliance on community effort and unpaid work. Due to scant resources, many of the journals have also been short on technical expertise and infrastructure.

The main sources of income for the journals have been subscriptions, membership fees and state subsidy. Individual subscribers and society membership fees have been very important for many journals. On the other hand, the role of the research libraries as a source of revenue has been fairly small. A few of the journals have received support from research organizations, but this has been decreasing in recent years, partly due to budget cuts at many of the state research institutes, which have been forced to streamline their activities.

State subsidy is distributed by the Federation of Finnish Learned Societies, with more than €600,000 a year allocated to journals. The funding covers only a percentage of the total costs for each journal, which means that they must have other income as well. There are also a handful of more affluent journals which do not receive any subsidy, as it is only meant for covering deficits.

Figure 1. The revenues of 94 Finnish scholarly journals in 2015
The data were collected from the journals that applied for state subsidy. Source of data: Federation of Finnish Learned Societies

The Federation of Finnish Learned Societies collects extensive data on the policies and financial situation of each journal applying for a subsidy. According to these data, for the 90 or so journals receiving state subsidy, the total budget is currently in the range of €2 million a year. As shown in Figure 1, there are fairly large differences in cost structures between the journals. About 48% of the journals get by with less than €10,000 a year, and almost 70% with less than €20,000. The journals with a budget of less than €20,000 often rely on unpaid work, and if the journal has a print version, most of its budget goes on the printing and distribution costs. On the other hand, the journals with a budget of more than €20,000 usually spend most of their money on salaries and fees (see Figure 2).
In theory, the transition to OA should be a relatively easy process for Finnish journals, as there are no big commercial interests in the way. In practice, however, it is not quite that simple. The transition carries major risks for the journals, especially if the print version is discontinued, resulting in the loss of the subscription income that had been a key element for their economy. The scholarly societies may also lose some of their membership fee income as well, if the journal subscription has been included in the membership benefits.

Since the research libraries have been paying only modest amounts of money for these journals, it is not possible to simply flip the current subscription and licensing costs to support the transition to OA. The total acquisition budget of the university libraries is in the region of €30 million a year, of which only about 0.5% is spent on domestic journals. So, at a rough estimate, Finnish university libraries are currently spending somewhere around €150,000 on these journals.

Although the acquisition costs are small, domestic journals are valuable to the research communities and organizations, both as publication channels and as forums for discussion. According to the publication data collected by the Ministry of Education and Culture, about 8% of all peer-reviewed journal articles published by Finnish researchers come out in domestic journals. The share of domestic publications is higher in many fields within the humanities and social sciences, in some cases close to 50% of the total number of peer-reviewed articles.¹

Under the current funding model for the Finnish universities, 13% of the state funding is distributed according to the number and quality of the research publications produced by the employees of each university. Although most of this funding is obviously distributed based on international publications, the articles published in the 90 or so domestic journals receiving state subsidy also account for nearly €5 million of state funding paid to the universities annually. In this sense, the universities gain concrete financial benefits from domestic research publications.²

### Making open access viable for Finnish journals

During the last few years there has been a concerted effort on a national level to support Finnish scholarly journals in their transition to OA. The Kotilava project (2015–2017) has been a part of the larger Open Science and Research initiative funded by the Ministry of Education and Culture. It has been a joint project between the National Library of Finland and the Federation of Finnish Learned Societies.
The Kotilava project was initially based on the recommendations of an earlier report on the potential funding models for Finnish scholarly journals. It has had two main goals:

• to provide a centralized technical platform for Finnish journals
• to create a new, sustainable funding model for the journals.

The goals of the project were based on an analysis of both the current Finnish situation and the relevant international developments, including the work done by the Open Library of Humanities and the Fair Open Access Alliance. It can be argued that the mission of the project is in a certain sense conservative, as it is trying to preserve the current infrastructure consisting of journals run by the scholarly societies. In contrast, some open science activists – even in Finland – have been insisting that journals are an old legacy mechanism, which is no longer needed in scholarly communication.

However, as far as Finnish domestic journals are concerned, many of them actually do have a substantial audience as journals both within and beyond academia. In many cases they are an important incubator for new content, not just an anonymous publication channel for unsolicited articles. They can also be effective tools in building research communities and defining researcher identities. The OA journal Kasvatus ja aika (‘Education and Time’) is a good example of this: launched in 2007, it quickly revitalized the study of the history of education in Finland.

It might be more cost-efficient to build a megajournal-like generic national platform that could be used for the evaluation and dissemination of articles, but the current journal-based and community-owned infrastructure seems to be supported by researchers. Of course, this may change at some point, but at the moment it seems to be a better idea to work with the journals and try to enhance the current system by adopting new technologies and increasing the visibility and usability of the content.

A national platform for the journals

The newly branded Journal.fi platform was launched by the Federation of Finnish Learned Societies in January 2017. The Federation had been running a service based on Open Journal Systems (OJS) for its member organizations since 2006, but it had been in need of a major upgrade for quite a while. As part of the Kotilava project, the service was upgraded to OJS 3, which had been released by the Public Knowledge Project in August 2016. Journal.fi was one of the very first large-scale adopters of this new version, which caused some headaches during the implementation of the platform.

After the launch, Journal.fi has quickly grown to include more than 50 journals, most of them OA, and there are still other journals waiting for their turn to join. The Federation of Finnish Learned Societies provides the service free of charge to its member organizations, and it is also available to other journals for a small annual fee. The journals are using the service in different ways. Some of them are utilizing it to handle all of their internal processes, while some of them use it just for the dissemination of the finished articles. Some additional funding was received from OpenAIRE for piloting the use of an XML-based publication format with some of the Journal.fi journals.

One of the central aims in developing the platform has been to make it a seamless part of the national and international scholarly publishing infrastructures (see Figure 3). The article-level metadata can be harvested from Journal.fi to other systems via APIs, and the Federation of Learned Societies has also been advancing the use of permanent identifiers in Finnish journals, including DOIs for the articles and ORCIDs for the authors. To enable the use of DOIs for all the journals on the platform, the Federation has negotiated a deal with Crossref. The long-term preservation of the journal content will be ensured in co-operation with other national projects.
A national consortium to fund journals?

The other aim of the Kotilava project has been to create a national consortium, which would provide funding for Finnish OA journals. A study conducted before the project found that the journals generally agreed that a consortium-based funding model would be the best solution for them. The adoption of article processing charges (APCs) was not considered desirable for two main reasons, which were that:

- the management of APCs would cause a lot of extra work for the journals and the research organizations
- the introduction of APCs would restrict the availability of publication channels for researchers without proper project funding or organizational backing.

The potential members of the consortium would include all of the organizations that benefit from the existence of the journals, e.g. Finnish universities, universities of applied sciences, research institutes and research funders. The income received from the consortium and the state subsidy would complement each other, especially as there are plans to change the way the subsidy is distributed, if the new consortium-based funding model gets implemented.

The consortium model is based on voluntary participation from the funders and publishers. Although the proposed model uses the number of articles as a basis for distributing the costs between organizations of different size and publication volume, it is not meant to be an APC model. Instead of being merely an exchange of money for specified services, the idea is that the participating organizations will make a commitment to support the domestic OA journal infrastructure.

Most of the money would be collected from the member organizations and distributed to the journals based on the number of peer-reviewed articles researchers affiliated with a funder organization have published in each of the journals. Because of this, the research universities with a large number of publications in domestic journals would pay a greater share of the costs than the less research-intensive organizations. The proposed compensation for each article is €800, although the sum may yet be adjusted at some point. The model will be using three-year averages to make the annual costs and income more predictable.
In addition to the article-based payments, the funding model also contains an annual fixed charge of €1,500 for the organizations that are joining the consortium. This was added mainly because it provides a way to support the consortium even for those organizations that do not produce peer-reviewed research articles. Whether this money will be needed for the administration of the consortium or whether it can be used to subsidize the article-based payments is still under consideration.

The funding model is designed to be a compromise between different interests. Although many of the research organizations would end up paying more than they do now, they should be made to feel that they get compensated for the money they spend. Their researchers would continue to have access to competitive high-quality publication channels which provide visibility and metrics for their work. In return for the funding, the journals would also pledge to follow certain fairly strict standards in e.g. openness, licensing, peer review and infrastructure (see Table 1).

<table>
<thead>
<tr>
<th>Journal.fi</th>
<th>Funding model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate or delayed OA (max 12 months embargo) required</td>
<td>Immediate OA required</td>
</tr>
<tr>
<td>Metadata CC0 required</td>
<td>Metadata CC0 required</td>
</tr>
<tr>
<td>DOIs and ORCIDs recommended</td>
<td>DOIs and ORCIDs required</td>
</tr>
<tr>
<td>CC licences recommended</td>
<td>CC licences required</td>
</tr>
<tr>
<td>Registration to DOAJ recommended</td>
<td>Registration to DOAJ required</td>
</tr>
<tr>
<td>SHERPA/RoMEO policy recommended</td>
<td>SHERPA/RoMEO policy required</td>
</tr>
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Table 1. The requirements for joining the Journal.fi platform and the funding model

Under the new model, the journals would retain their independence and they would be run by the scholarly societies in each field as before. Funding from the consortium would replace the loss of subscription income and possibly some loss of membership fees for those societies that have been using the journal as a membership benefit. In addition, the funding would provide a more level playing field for the existing OA journals, most of which have so far been operating with very modest resources.

On average, the income from the consortium is expected to cover about one third of the costs for each journal, although it seems likely that there will be differences in the cost structures between the journals even in the future. As before, the societies could continue subsidizing their journals from membership fees and other sources of income. The rest of the funding would come from the state subsidy. The journals might also be able to cut some of their present costs, especially if they give up on publishing a print version or find ways to co-operate with other journals by sharing some of their resources.

Obviously, the publishers should be able to trust that the consortium will be around for the long term. The commitment of the funders is the key in ascertaining the sustainability of the model.

There are still a number of issues (listed below) which may require further discussion if the implementation of the consortium model moves along.

- The journals should be able to retain their editorial independence so that an affiliation or a non-affiliation with a member organization will not have any effect on the publishing decisions.
- In addition to the peer-reviewed content, most of the journals also publish non-peer-reviewed articles, book reviews and discussion pieces. In many journals, the amount of non-peer-reviewed content exceeds the number of peer-reviewed articles. The question remains whether these materials should be taken into account in some way in the funding model.
- The model does not solve the funding issues of journals that are aimed at an international audience, with most of the authors coming from countries other than
Research libraries and the cost of open access

The Kotilava project has been able to reach most of its targets. There have been big steps forward with the Journal.fi platform, with plans for further enhancements. The project has developed a funding model that may still require some adjustments but would probably work just fine if implemented. The journals themselves have been enthusiastic about moving to OA, as long as their funding is secured for the long term. The Ministry of Education and Culture has also provided some further funding to keep the work going after the original project funding ended in September 2017.

The one key issue remaining is whether the research organizations and funders will find it worthwhile to commit themselves to supporting the domestic journals. The first comments from the university rectors in May 2017 were quite promising – the initiative was thought to be important and the costs reasonable. The plan was to launch the model in 2018 with about 30 journals, with more journals joining during the next two years. The cost for the first year was projected to be in the range of €200,000, which would then rise to about €600,000, depending on how many organizations and how many journals eventually joined the consortium. However, when the Kotilava project approached the rectors of the universities and universities of applied sciences later in the year, only one of the research universities expressed interest in joining the consortium. By contrast, almost all of the universities of applied sciences were ready to join. What happened?

The main problem seemed to be that the university libraries were unwilling to support the funding model in its present form. The libraries were concerned that the payments might be taken from their acquisition budgets. They argued that while they support OA in general, the proposed article price of €800 is too high for the universities, which would end up paying most of the cost. According to the libraries, their acquisition budgets are already tied up with the costs of the licence agreements they have with the major international publishers, and since these are prioritized by the faculty, the libraries will not be able to allocate extra money to the domestic journals.

The arguments used by the libraries highlight some of the issues that will have to be dealt with in the transition to alternative OA funding models. The current journal prices are not necessarily a direct reflection of their actual value to the research community. Unfortunately, it seems that the publishers that have not pursued aggressive pricing policies in the past may be at a disadvantage even when the business models of scholarly publishing are changing. The Finnish research organizations recently signed a new three-year, €27-million deal with Elsevier. The deal includes a 50% discount on the APCs for most of Elsevier’s gold and hybrid OA journals.\[^{15}\] Even with this discount, the APCs for most of these journals are likely to be higher than the proposed article cost for the Finnish OA journals.

Although the initial response from the universities was disappointing, there will be further negotiations on the consortium model in 2018. The launch of the new funding model will be delayed at least until 2019, which means that some of the journals that have already made the transition to OA may have to make decisions regarding the use of APCs. Although there are short-term issues, which seem to make the transition more difficult than anticipated, it is clear that a permanent solution that involves the research organizations, research funders and journals would be beneficial to all of these stakeholders.
**Abbreviations and Acronyms**
A list of the abbreviations and acronyms used in this and other Insights articles can be accessed here – click on the URL below and then select the ‘Abbreviations and Acronyms’ link at the top of the page it directs you to: [http://www.uksg.org/publications#aa](http://www.uksg.org/publications#aa)

**Competing interests**
The author has declared no competing interests.

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**References**


