A VISION FOR 21ST-CENTURY SCHOLARLY COLLECTIONS

a report for the

Delft University of Technology Library

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by Simon Bevan, Lorraine Estelle, Dave Jago, Alicia Wise, and Hazel Woodward

Information Power, Ltd.

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TU Delft Vision for 21st Century Scholarly Collections

At TU Delft Library we envision a future in which researchers are passionate about open science, and act collectively with the library to change publishing and collecting practices to accelerate the drive to cost-constrained full and immediate open access. They avoid publication in non-Plan-S compliant journals, no matter how prestigious, except where strictly necessary and then only according to an agreed and shared set of principles. Researchers fully embrace publishing innovations such as disseminating research via open platforms, and serve as open access and open science champions and role models internationally. The library facilitates this, and is recognised as a thought leader and valued partner. The library is focussed on ensuring that collection costs are constrained, and uses any money saved on collections to invest in driving change, first in the Netherlands and then in the international community of technical universities. STEM publishers want to work closely with TU Delft Library and a global alliance of technical university libraries and researchers.

To achieve this vision by 2030 will require considerable change. The seeds for less inspiring scenarios are already in place, and change is needed if this best-case scenario is to grow.

Worst case scenario

The library is caught between a rock and a hard place: researchers expect to publish more articles, and for them to all be available open access, but publisher prices continue to rise, publishers continue to expand the number of prestige journals they publish at premium prices, and the library receives no new resources. Rising costs for both subscriptions and open access charges deplete library funding – and what was sustainable in 2020 is no longer. Open access aspirations risk collapse in the face of harsh economic reality, and this in turn could undermine broader strategic confidence in and commitments to open science at TU Delft.

Likely scenario

Open science and open access are embedded in the TU Delft strategy and have in-principle support from researchers. However, this support cools when changes are required in the way researchers publish. Facing competition from researchers and universities internationally, researchers do not feel confident that they can change the way they publish and retain their prestige, access to research funding, or opportunities for promotion and advancement. The transition to open access continues, but slowly, and system-wide costs currently born in other countries and by industry are gradually shifting to universities in research-intensive countries such as the Netherlands.

International context

This situation will resonate with many institutions around the world, and is not unique to the TU Delft. The TU Delft library budget is c. €20m and roughly 3% of the total university budget. The collections budget is c. €6m (or roughly 1% of the total university budget) and expenditure on

journals locks up 75% of this. There is modest prospect for growth, and without a major strategy change this journals expenditure will continue to sustain rather traditional publishing practices.

In 2017 the journals market was worth $9.9 billion (c. €8.1 billion) to publishers. 41% of this global revenue came from the United States, 27% came from Europe, the Middle East and Africa, 26% came from Asia Pacific, and 6% came from the rest of the world (Outsell[1]). It is the largest publishers that set the ever-increasing tariffs for both reading and publishing in these journals, fuelled by a global increase in research and development funding. More researchers funnelling more outputs into the most prestigious journals drives ever-increasing price rises. Few new services or benefits are received in exchange: more money fuels the status quo rather than driving change or efficiency gains.

Libraries therefore need to champion not only open access but *cost-restraining forms* of open access. This means both gold and immediate green open access options need to be an essential part of our strategy as we seek to constrain costs while achieving 100% immediate open access for articles published by TU Delft authors.

The debate around whether there is risk to publishers of short embargo green OA is as heated as it is long standing. We take a pragmatic view: only the test of time will prove whether or not there is a real risk to subscription revenue from short embargo green OA. However, publisher perceptions of risk mean few are willing to incorporate short embargo green OA into their transformative (and other OA) agreements. It is in their interest to control costs and therefore pragmatic for us to find a way forward past this impasse.

Publishers incur costs to provide new OA services (e.g. adding author and funder metadata, informing authors about terms of agreements, depositing articles and metadata, providing new reports, etc). Therefore where a publisher enables all TU Delft authored articles to be immediately available Open Access, and is willing to provide new OA services, then we may offer modest financial incentives for publishers in otherwise cost-neutral agreements. We will seek to secure more affordable OA agreements with more publishers and enable researchers to retain a wide choice in where they publish.

Libraries also need to work globally to agree equitable ways of apportioning system-wide costs between their countries and institutions. CERN's leadership with SCOAP[3] provides a case-study of how this can work in research segments such as high-energy physics. TU Delft could exercise influence to galvanise this conversation across the world's leading technical universities.

As with many other institutions, the TU Delft library is committed to funding community-owned open access infrastructure (e.g., the Directory of Open Access Journals, arXiv, etc) and has launched its own open access publishing services and platform. These efforts are laudable and promising, illustrate the institution's commitment to open science and open access in very visible ways, and expand access to research generally and things like negative results particularly. There are

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[1] https://www.outsellinc.com/product/science-technology-and-healthcare-2018/

opportunities to be innovative with new forms of academic books, for example enhanced digital editions and non- linear monographs.

But so far these do not yet have the scale or impact to really drive change, and add new costs on top of the old. We will pivot to achieve targeted objectives, and apply rigorous and critical assessments of their impact.

Aims

To realise this vision, and in the context of a new collection strategy, the TU Delft Library aims to:

1. achieve 100% cost-constrained Open Access for TU Delft authored research;
2. repurpose money and time currently spent on reading and publishing in journals;
3. improve researcher engagement and our open access publishing platform and services.

Implementation Plan

In order to achieve cost-constrained immediate Open Access for 100% of TU Delft authored research we will:

- Publish a clear, compelling vision of why the library champions open science and open access and cares so passionately about the topic.
- We will increase the proportion of our outputs made available through green Open Access, because the price growth for gold Open Access is currently unsustainable.
- Prioritise gold Open Access agreements with small, medium, and not-for-profit publishers. We will show flexibility in how we implement these agreements.
- Channel OA funding through universities/libraries/research departments rather than to individual researchers. This will enable the universities to eliminate double funding of APCs, negotiate better value for money deals with publishers, and effectively track, manage, and be accountable for this expenditure.
- Formally endorse Plan S, its principles, and commit to align our practices with its implementation requirements.
- Engage researchers so they understand and appreciate what the library pays for and how it supports their work – by providing content and through open access deals – and the library's value and return on investment.
- Invite researchers to take steps to change the way they disseminate their research outputs in order to support the work of the library.
- Explore whether and how a rights retention strategy might work at TU Delft.
- Provide no further support for journal titles that do not comply with Plan S according to its Journal Checker Tool (https://journalcheckertool.org/).

In order to repurpose money and time currently spent on reading and publishing in journals we will:

- Cap our journals and open access fund to 5 million Euros / year for the period 2021-2030 plus any further funds centralised via the library by departments and individual researchers. Currently this expenditure represents 78% of the library collections budget, and we will reduce this to a maximum of 65%.
- Aim to increase the central library budget and library-generated income in line with the overall growth in the university's budget (c. 3% per annum).
- On an annual basis, begin to critically appraise big deal collections and make collection decisions based on this analysis. Criteria will include value for money in terms of read (usage cost constraining pricing models) and publish (relevant article numbers, cost constraining pricing models); openness (https://osiglobal.org/2018/06/08/is-the-open-spectrum-a-better-way-to-get-open/); and alignment with Delft's open science principles.
- Continue to license both centrally via SURF and directly, and explore the potential for partnerships with other technical universities in the Netherlands or internationally.
- Review the *KostVerdeelModel* (KVM) that underpins division of costs between Dutch research organisations.
- Make the results of the annual appraisal and review available to faculty and the university leadership, and to other universities via SURF.

In order to improve researcher engagement and our open platform and services we will:

- Craft a professional publishing strategy to inform the evolution of our open platform and other services so they can deliver excellent user experiences, quality content, and revenue at competitive prices and in alignment with university mission.
- Explore joining the Library Publishing Coalition.
- Establish publication taskforces in each TU Delft faculty.
- Through the TU Delft Rewards and Recognitions Committee, and in partnership with the TU Delft Valorisation Centre, drive and support changing attitudes to assessment and promotion. Foster a culture of research excellence demonstrated through change or benefit to the economy, society, culture, public policy or services, health, the environment, or quality of life *beyond academia* and evidence of academic impact as well.
- Endorse and champion DORA.
- Make clear choices about when to influence the infrastructure and services provided by others (e.g. SCOSS), and when to provide services ourselves.
- Scale our own OA infrastructure and services to fill gaps in provision that benefit the TU Delft research community and that would otherwise not be serviced. This always requires clear strategy, business plans, competitive analysis and marketing.

- Contribute to the development of a university partnering and influencing strategy for industrial partners, with a specific and different approach for research information service providers in light of the university's position as both customer and key supplier.
- Through CESAER, facilitate conversation on openness and commercialisation.
- Consider hosting or jointly-funding new open access or open science services with and for industry where this complements TU Delft strategy and supports to TU Delft research community.

About this Report

In October 2020, the TU Delft Library tendered for consultants to help develop a vision and strategy to ensure that its collections remain cost effective, while continuing to respond to the needs of faculty and wider scientific trends, particularly with respect to interdisciplinary and cross-institutional research. Central to this challenge was to identify ways to continue pleasing customers while overcoming barriers and challenges. Further information is available at https://openworking.wordpress.com/2020/10/30/a-vision-for-21st-century-scholarly-collections/

Information Power was awarded the contract and assembled a team of consultants with experience in both the academic library and research publishing communities. We conducted interviews (**Annexe 1**), developed a PESTLE Analysis (**Annexe 2**), hosted roundtable discussions, developed a communications and marketing strategy (**Annexe 3**), and gathered and analysed financial and other data (**Annexe 4,** which is confidential to TU Delft Library).

Annexe 1 - Overview of TU Delft interviews

16 interviews were organised with the University's leadership team, members of Faculty, a member of SURF, Data Stewards and library staff.

Discussions with participants from such a variety of roles resulted in a wide range of views, however there were common threads that ran through the interviews.

1. Satisfaction with the library & its collections

There was a strong sense from everyone we interviewed that there are few complaints about the library and that it does an excellent job.

> "The library does a fine job. But the library is no longer just a library in the traditional sense. Granted, it still has lots of books and students are still encouraged to read. And the study space is really important for students as well. If they are in the library, they study. The library is a place of meeting, a place of communication, and a place of inspiration. It is very well organised. And we are really fortunate to have such a beautiful building which was designed by a member of the Faculty of Architecture. As far as researchers are concerned the role of the library has changed dramatically. They rarely go to the physical library now. Everything is digital and online."

> "It's a perfect collection, there are no complaints, and we also listen to people who ask for new content."

> "We have a decent collection of books, which is great. Most of the journals are there."

There was also a sense that expectations are high, and that faculty are not always aware that the content they access is provided by the library or about its cost. One of the Data Stewards said, "Researchers are not really aware that the libraries provide the resources, they just get annoyed if the thing they want is not there. The library needs to reach out to the community about its programmes and services. The library does a lot, but people are not aware". As one interview rather poetically put it, "the library has evaporated in the consciousness of researchers in the digital age".

One of the reasons for a lack of awareness is the access route. Journals "are rarely accessed via the library website. The starting point is Google Scholar".

> "I don't access them that often with the exception of OA. I use a VPN connection which enables IP recognition and I have the resources at my fingertips. I don't use the library catalogue to search/access. Students go to Google Scholar."

This theme of the invisible library emerged in other interviews, as one put it:

> "The library is almost invisible now. For researchers there is no reason to visit the library now."

There was also a hint, that although satisfaction with content provision was good, the library really struggles to connect and engage with faculty and researchers. One of the university's leadership said:

> "they are trying very hard to diversify by offering a variety of information services designed to help researchers – but not making much of an impact".

2. The breadth and the cost of the collections

The members of Faculty that we interviewed were not aware of the high cost of the collections. In one case, for example, there was a sense that the material accessed was freely available, or that the library provided sub-sets of content.

> "The libraries collections are quite well and most of the stuff is seamlessly available either because it has been digitised by societies or is made publicly available. I use material available from Project Euclid or JSTOR, they charge for access, but we have sub-set of their journals."

One of the Data Stewards noted, "Researchers are not really aware that the libraries provide the resources, they just get annoyed if the thing they want is not there."

However, library staff are very aware of the high cost. A recurring theme emerged about TU Delft's previous role at a national level in providing access to commercial companies. This scheme, and the funding that went with it, came to an end in 2000. There emerged a strong sense that as a result there is too much content in the collection, and that the national provision skewed the collection and possibly staffing.

Amongst some library staff there was also a strong sense that faculty and students use too much content, and that this increases the cost:

> "These extra finances stopped, and we stopped some subscriptions but had had to take it on again because of pressure from faculty. They are used to having these things, for example Scopus and Web of Science. We have a large collection compared to what is actually necessary."

> "Early career researchers download huge amounts of content, increasing the usage and raising the prices. The statistics don't give a real picture. The Library Committees were more aware, but now there is an expectation that everything should be available."

> "It should not only be the library which is responsible. Researchers should be aware, and not access and download too much. They like to talk about responsible metrics, but they need to take responsibility."

> "I think [the collections] serve teaching and research well and there are few complaints. That is not so much the question, it is about too high costs."

> "I think we have too much, and I also think that people are not aware of how much we have. We have so many journals and so much information so many databases and most of the time they don't even know."

3. Open Access and Open Science

We heard enthusiasm and a vision for open access across the university. There is also a hint that the pandemic has illustrated the importance of open science and transparency, for example, shared data for vaccine development, mask effectiveness, ventilator designs, etc.

> ""Open Access and Open Science are an absolute must."

> "If you hide behind a paywall your impact cannot be evaluated. OA is essential. If you publish in OA, you get more citations, and more people can read your work."

There was a recognition of having to pay more now as part of transition to open access, but also the need to start discussion on publication strategy at university level. However, for some library staff the length of the transition seems exceptionally long, a sense that transformative deals are window dressing for double dipping and that APC costs are not in line with the real costs of the services provided by publishers.

> "Transformative deals are increasing the cost. We know this would be the case in the beginning, but this has been going on so long and there is no end in sight. The costs of all these APC's being paid to publishers is not the ideal Open Access. The APC costs are not in line with the real costs that are being made by publishers."

The library was complimented on OA & OS training courses that are run for research students. However, there is also some confusion, particularly around issues such as copyright and Plans S and the library's role in funding open access.

> "There is unrest about Plan S, and the researchers don't understand why there is a problem in publishing in hybrid journals – where previously they could publish for free."

> "The library could be better in explaining the benefits of OA. Some people haven't really heard about it or didn't read the communications."

There were disciplinary differences, and a certain amount of complacency from well-established academics toward the end of their careers. A mature member of Faculty said:

> "Open Access isn't a problem; I make everything I publish available from my website. My only funding is my salary, but APCs have not been a problem. I don't pay them, but my work is available post embargo, [in my discipline] speed is not an issue, nice but not essential. Others can get my work through pre-prints. Journals are used for the 'stamp', we can access via arXiv. Younger people need the 'stamp', but they can pay APCs out of their grants, they can earmark the need in the grant application."

This tension is recognised by the university's senior management team, one of whom said:

> "If your name is not yet established, you do want to publish in "Nature" etc. It is understandable. It is particularly difficult for early career researchers as they are wanting to gain recognition for their work. Therefore, they want to publish in high impact journals."

It would also seem that at least in the area of Aerospace Engineering researchers might choose to go for green OA, because they expressed a desire to spend research money on research, not publication.

In terms of the workflow for open access, it would seem that TU Delft has a particularly good system. Researchers can use The Journal Browser, to look deal by deal to see if their APCs are covered, which removes a lot of the friction, the need for individual APCs and tracking them. However, if seems from the interviews, that researchers are not aware that the library is supporting the cost of OA publications. As one of the Data Stewards noted, "it is not an issue for them if their APC gets paid".

One Faculty member did not think that the library should be funding open access at all and said:

"The library is synonymous with being able to read. The library has changed to giving access – not the place you go to get stuff out. The library should be the provider of content and not the facilitator of open access. It is a zero-sum game, with money for content you get something, money for APCs gives me an uneasy feeling."

4. Double funding and APCs

The basic idea is that Faculty do not pay APCs as they are covered by transformative deals. However, our interviews revealed that there is some general confusion. It would appear that the workflow is not perfect yet in terms of reporting which researchers have taken up which transformative deals.

Neither is it clear if Faculty always take up the transformative deals and are perhaps instead paying for APCs from their research grants. The Data Stewards, for example, reported helping researchers include the amounts needed for open access publishing in their research grants. When asked why they would need that funding, because of the transformative deals already in place, one Data Steward thought the application for OA dissemination might be a way for researchers to indicate their compliance with the funders.

One member of the library staff said:

"We have no insight on how much money has been requested in grant proposals for dissemination/APCs. There is no evidence that if requested this money is used to pay for APCS. All our OA deals with the publishers, including pre-paid APCs come from the library collection fund. I would like to see partnership agreed with Faculty about this investment."

"The Library has no idea of the total number of APCs across the University. Sometimes publishers send the library information on APCs but certainly not all of them."

Most APCs are dealt with by the Library, but one member of the library staff would like to see a tighter system whereby all APCs go through the library. It would appear that the university does not have an APC University-wide cost code so that the amount spent of APCs outside of the library cannot be tracked.

SURF also agreed that the reporting on the take up of transformative agreements is patchy:

"We provide a dashboard for institutions. They are pulling data from PURE, Scopus and IRs. It is difficult at the moment, particularly as there is a lack of standards."

5. TU Delft's publishing platform

The publishing platform would appear not to be high on the agenda for most Faculty members, and this is likely due to low awareness.

"We created this publishing platform in response to requests from the community. We were inspired by international university presses. We need to achieve a critical mass [of content] but it is challenging."

"Some [Faculty] are very keen, but it [the publishing platform] is in a fragile state. We need to do more engagement and have a plan, but this has been held back because of the Corona virus."

All the interviewees recognised that not having their own publishing platform was a barrier to change and locks the library into continuing costly big deals. Clearly, the development of its own publishing platform is challenging.

"Academic assessment is a barrier. We need change in reward and recognition and all universities need to work together on new way of rewarding recognition. Diamond publishing needs more investment and more attention and infrastructure."

6. Big deals and SURF negotiations

There was a sense from some of the library staff that nationally negotiated deals are too costly, and that a more dynamic, title by title collection building approach would be better. There was also a sense that these deals worked to the advantage of the publishers because, "there is less administration costs to the supplier', which, while possible true, neglects to acknowledge these deals also reduce the administration costs of the purchaser.

Library staff described the big deals as a 'trap' and said that the library was being strangled:

"Almost everything is the result of a national deal, and that suits the big publishers which raise their prices. They say, 'you have a lot of new content you can use', but nobody asked for it and most of the time it's not so relevant. You pay more every year so that's a big trap. In the beginning, national deals were a good idea, but it's bouncing back on us. We pay too much because we have a lot of students. It's in the interests of the general universities. The technical universities are more diverse. It is also very important to work together of course, and I think the level of co-operation in the university system is a very good thing for such a little country and gives us a big voice."

"We are hostage to the publishers. The negotiation team at SURF always paid the same plus 5%. This is not about publisher effort, but about publisher monopoly. Our experience is that we do better in one-to-one negotiations, and our own contracts are better. I don't think the big deal has a good future. We should stop them; we pay too much and should cancel if there are less than 100 downloads."

There were ideas about how to disaggregate from the big deal, but also a sense that this would not be easy:

"Collections should grow from static to more dynamic. We worked on scenarios, and one was to stop everything and reform the collection, but it is too late for that now."

"Skip subscriptions package deals so we are not dependent of the national negotiation, so we are on our own. People would state what their interests are, and you would build up the collection that way, so that it is in balance. We would try to promote the journals that have the best Open Access deals."

"I would like to see the breakup of the big deals, to start from scratch and not be tied to national deals. However, there is a problem with the Elsevier 2017 agreement, because the national negotiators sold out the rights to the archival content, so we have no archival system. Nobody talked about that openly, so it was not known only as we were also thinking about having an embargo against Elsevier here then we heard about that. We would not only lose the rights to read new content but also the archives from the old agreements. You wouldn't have access to anything anymore so that's the big problem. In California and in Germany the researchers had access to everything other than the current content."

SURF explained that since 2005 Elsevier moved away from the concept of perpetual access to titles for individual institutions, because the consortium as a whole has rights to the Freedom Collection. The same

for Wiley – it has let go of core subscription rights, the customer is UKB – and has adopted the database model. Only T&F retain perpetual access rights and rely on an individual licence with each institution.

However, not everyone agreed that the lack of perpetual access rights was a major barrier, and one library member said that "perpetual rights is old thinking". However, this is likely to be a discipline specific issue. When asked about the importance of access to less recent material, one researcher said, "In my own research I have cited articles from the 90s and early 2000s. it is difficult to say until you explore an idea, what will be of relevance."

When asked about how deconstructing the big deal might be done, and how the success of the alternative would be measured, one suggestion was to make a tailor-made collection for a faculty to test the concept, picking, for example, Industrial Design, TPM, Physics/Maths or Aerospace.

> "Success would be measured by faculty satisfaction. For example, we stopped the Journal of American? and saved 30,000 Euros and never heard a word about it. We would negotiate with the library committee, meeting every half a year to see if they are happy with it. Start small scale until we that the capacity to expand it."

On the other hand, senior leadership in the university support national collaboration:

> "National negotiations are really important. In my opinion it would be better if they could be done at a European level, but I recognise that this would increase the complexity too much. Quite clearly there is strength in numbers, and I think a smaller consortium of just 4 technical universities would not have the 'clout' to drive a good deal. Better to stay national."

Another told us that he thinks on balance, national negotiations are a good thing. However, he pointed out that the latest national agreement with Elsevier had "limited success". He feels that the Dutch university system is very horizontal (i.e., that there is not a hierarchy as in the UK) and that this makes for good collaboration and a better negotiating position.

During the course of our project, the issue of the consortium redistribution of cost for the Elsevier deal was raised. SURF explained:

> The first model was developed by UKB, based on the parameters of historical spend, financial means and the collection itself, using a percentage of list prices to apportion cost - .5 to sciences, .25 to medical and the rest to other disciplines, depending on the number of students per faculty. When OA was built into the deals the number of articles were added. The three pillars are now:

> 1/3 income of the institutions

> 1/3 number of students in the institution in relation to the collection of the deal

> 1/3 number of publications per deal.

However later in the interview there seemed some indication that there is still an element of historic print spend. "For Elsevier TU Delft always paid the highest price, they always got extra funding from the government, they used to take 4 print copies of every publication, whereas the other universities deselected".

This current model leads to unpredictability when a publisher's portfolio of journals changes. It would seem that the distribution of the CUP deal is likely to cause a similar problem because in this renewal the

portfolio of journals has changed a lot, which changes the previous distribution (based on the number students in the institution in relation to the collection).

We asked library staff about alternatives to working with SURF, possibly with the other technical universities, but there was little enthusiasm.

> "Yes, but it never came to a solution because every time there was something else, like the Open Access discussion - so people said, 'well not now, let's stick together for now and talk about this later'. The four technical universities would not be such a strong collaboration as it seems, because there is competition. My idea is a consortium with Rotterdam and Leiden. You could negotiate a complete package for the three. Within our Technical University we have industrial design, architecture and some humanities, so they could take advantage of such a package."

7. Specific Requests

In the course of the interviews with members of faculty, a few specific requests emerged. They were generally discipline specific, and touched on issues such a digitisation projects, indexing projects, tools for collaboration and shared platforms for collaboration across institutions and disciplines and the long-term collection and curation of books.

Clearly, physical collections are still important, especially in some disciplines. The Faculty of Architecture has a separate Faculty library of print materials (the only Faculty Library to survive) which is managed by the library. They like print because of the quality of the graphics and the ability to browse. One member of the Faculty of Architecture faculty members requested an online browse functionality. While search functionality serves the science well, the architects welcome the serendipity which comes from browsing.

In mathematics, for example, books and older books are very important. One mathematician commented, "The role for the library is as a keeper of books, there should be one copy of every book. This could be done through a centralised archive (with other universities)." He also expressed concerns about renting access to books online.

Although this project was focused primarily on content for research, the issue of textbooks came up on a couple of occasions. The issue is common across all academic libraries, but worth noting, as it is part of the overall library provision:

> "Textbooks have become very expensive for students to purchase so we try to provide alternative open resources for them to use."

> " I get the books I need – older books- at the library physically. There is only one snag, and that is with course books online. Course books that were available ten years ago are no longer available [due to publisher licence restrictions and changes] and students cannot get them."

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Annexe 2 - PESTLE Analysis

Factors to Consider	International & National	University
Political Government policy Political stability Tax Industry regulations Global trade agreements and or restrictions	• Member of the EU • US and European economic dominance under challenge by China • NL government funding in decline for universities; priority on STEM; election in March 2021 • Global spending on Research & Development rises by c. 2.5% pa and there is an annual growth rate of researchers of 3.2% p.a. (OECD) • Growing demand for higher education • Growing demand for tech transfer and collaboration with NL industry • Support from the EU and NL governments for Open Access • NWO to implement Plan S and has launched an Open Science Programme of €1m for projects of up to €50k. •	● A leading technical university focused on science, engineering, and design. ● TU Delft Strategic Framework 2018-2024 with strapline 'impact for a better society'. ● Ambition for all disciplines to be top tier and to be global number 1 in a sub-set of these. ● University engages in academic networks edX, CESAER, 4TU, and IDEA League. ● Strong focus on Open Science. ● Aim to align with the UN Sustainable Development Goals. ● University aspires to more public private partnerships at local, regional, and national level. ● Has good strategic dialogue with government, funders, other universities.
Economic Exchange rates Globalisation Economic growth/ decline Inflation Interest rates Cost of living Labour costs Consumer spending	• NL 17th largest economy • H2020 budget cut • Economic uncertainty post-COVID • Impact of Brexit and Global Trade Disputes? • Journals market $9.9 billion. 27% from EMEA.	● Receives c. 400 m Euros / year from NL government; 210 m Euros from research funding; 70m Euros from teaching fees; and 31m other. ● University gets more H2020 project funding than any other university in NL – just over €36m/year. ● Diversifying research focal points.

habits		• Promotion and assessment procedures reify traditional prestige publication system.
Social Consumer trends/ tastes, Fashions Consumer buying habits Lifestyle factors Career attitudes Work-life balance Population demographics	• High standard of living • Widening socio-economic gap • Good English language skills in workforce • Liberal society • Open stance on and rapid immigration (20% of population = immigrant, half from western origin and half from elsewhere. • NL government funding growing for pensions, climate change, infrastructure and housing. • Open Knowledgebase in development.	• Oldest, largest technical university in NL. • Carefully growing numbers of staff and students. TU Delft in 2018 had 977 research staff, 1296 PhDs and 23232 Masters students, and only 12,081 undergrads. 1m students have used its MOOC. • TU Delft remains committed to having a thriving campus as well as online presence. • TU Delft values: diversity, integrity, respect, engagement, courage, trust • Low awareness of value library adds; some researchers don't understand Plan S or why hybrid OA an issue. • Contributing to discussions about Open Knowledgebase but currently unclear what the opportunities and risks for TU Delft will be. • Emphasis on multi-disciplinary studies (e.g., with Leiden, Rotterdam, Erasmus Hospital).
Technology Automation Innovation Disruptive technologies Social networking Upgrades Robotics Artificial Intelligence Security	• Good telecommunications infrastructure. • Tech-savvy work force has made it easy for global IT companies such as Microsoft, Cisco, Interxion, Infosys, Huawei, Oracle, Netflix, Intel, IBM, Uber, Verizon, Google, and Elsevier have strong presence. • Competitive edge in artificial intelligence and data analytics.	• TU Delft global leader in quantum nano, bio-nano, civil engineering, maritime technology, architecture, transport, water management, aerospace technology and robotics. • Active start-up ecosystem and, according to Reuters, TU Delft is among the top 10 most innovative universities in Europe. • Amsterdam has an acute shortage of tech talent and many jobs are not filled due to this shortage.

	• Heavy use of social media in the Netherland.	• QTech is a 9th shadow faculty at TU Delft with funding from Microsoft.
Legal Employment law Common law Local labour law Health and safety regulations	● Strong employment rights ● Liberal social laws. ● Strong on data confidentiality and privacy ● Strong copyright laws, including permission to self-archive after 6 months (i.e., the Taverne Amendment). ● VAT 9% for publications; not for APCs or databases which are classed as services.	● Changing attitudes to assessment and promotion with new emphasis on research, education, leadership, and social impact. ● TU Delft Valorisation Centre works on patents and tech transfer, and less so on copyright.

Environmental
 	
Sustainability
CSR
Ethics
Transportation
Procurement
Supply chain management
	● Climate change.
	● Risk of flooding.
	● Surprisingly, NL current target is to generate just 14% of its power from renewable sources (far behind other N European countries.
	● The rise in ethically and environmentally conscious stakeholders.
	● Ethical sourcing pushes up prices.
		● TU Delft makes a significant contribution to the solution of societal challenges by combining science, technology and design in a responsible manner.
		● TU Delft promotes outreach to the wider (local) public; we strengthen global engagement via joint research initiatives.
		   ● TU Delft promotes and facilitates Open Science and Open Innovation.
		   ● TU Delft increases the number of large-scale public-private partnerships.

Annexe 3 - TU Delft Library OS and OA Communication Strategy

The library provides a wide array of digital collections and other resources, along with support and expertise to help faculty publish and share their research outputs. However, it is not always clear that it is the library that provides funding for access to research materials, open access publishing, and open infrastructure, or that the cost of these services is high and rising.

This communications strategy is designed to achieve two things:

- To help researchers at TU Delft understand and value the library, its collections and services, and its thought leadership on open access and open science
- Engage researchers to actively champion and drive a cost-restrained transition to full open access and open science

This communication Strategy aims to extend the considerable levels of communication activity that take place between the Library and its many stakeholders. The strategy will ensure a deeper understanding of the changing needs of research and scholarship to which the library will respond to maximize its contribution to University success and its support of Open Science and Open Access.

This communication strategy supports:

- [TU Delft Strategic Framework 2018-2024](#)
- [TU Delft Strategic Plan Open Science 2020-2024: Research and Education in the Open Era](#)
- [TU Delft Library Roadmap 2020-2024](#)
- [TU Delft Library Collection Policy](#)

Organisational objectives and communications objectives

Key message

The library's strategic direction for supporting research in the 21st Century.

The library as a partner in the university's aspirations for learning, research, open science and open access.

Key objectives

To ensure the library engages with, gathers regular feedback from, and mobilises its stakeholders as champions and partners.

To launch a new 'The Unseen Library' programme to highlight the academic support services provided by the library and the data stewards, including data management, scholarly communications, bibliometrics, open research and research support roles and collaboration.

To ensure that stakeholders are aware of and understand the following:

The principles of Open Science and Open Access.

That the library supports the cost of subscription journals and funding for open access publishing and open access infrastructure.

The cost of transition through the transformative agreements (listed on the Journal Browser) is high.

TU Delft OPEN Publishing provides new opportunities for open access and innovation in publishing.

The digital collections and other resources provided by the library.

The advice, support and expertise available from the library and the data stewards to help faculty publish open access articles and monographs.

The complexity of negotiations and the new skills required within the Open Science arena.

Encourage and enable faculty to use new channels to reach new audiences:

By developing further face to face and online resources for teaching.

By developing an outreach programme using existing or new staff.

To advocate for increased or centrally funded funding across the University for the support of open access and open science.

Forge international links with other Institutions/bodies via industry conferences (e.g., Charleston, UKSG).

'The Unseen Library' that provides an insight into how the work of the Library benefits faculty and the University (link to concept of '101 library things')

Stakeholder interests, key messages and communication channels

Key stakeholders:

University leadership
Faculty members
Students

Library staff

Data Stewards

Faculty members who are Journal editors or members of editorial boards

Some of the data collected as part of the marketing strategy may be useful for attracting staff/students to want to come and work/study at TU Delft and would therefore be useful at a University level as marketing data, therefore potential staff and students are also stakeholders.

Organisational objectives and communications objectives

Channel	Stakeholder	Purpose
Library dashboard	Senior library staff	Easy access to core statistics for executive advocacy.
	Faculty	
		Transparency and an evidence base about how its budget is invested and the cost of open access support.
	Faculty members who are Journal editors or members of editorial boards	
Biennial surveys	Library staff and Data stewards	To understand emerging trends and research needs.
Podcasts and short videos	Faculty members and particularly ECR.	These OA advocacy tools provide quick support around open access science, open access and copyright.
'Research networking Event'	Library staff and Data Stewards	To understand emerging trends and research needs.
	Faculty members	To gain understanding about: Open Science and Open Access. TU Delft Open provides new opportunities for open access and open research.
	Faculty members who are Journal editors or members of editorial boards	Library and the Data Stewards' support for publishing open

		access articles and monographs and funding for gold open access publishing.
Marketing campaigns via social media and online events taking advantage of relevant external events, for example OA week (3rd October).	Library staff and Data Stewards	To understand emerging trends and research needs.
	Faculty members	To gain understanding about: Open Science and Open Access. TU Delft Open provides new opportunities for open access and open research.
	Faculty members who are Journal editors or members of editorial boards	Library and the Data Stewards' support for publishing open access articles and monographs and funding for gold open access publishing.

Key communications channels

Various media will be used to keep library leadership, faculty and staff informed about the library and its support for open access and science. There will probably be several appropriate communications channels for each stakeholder, including the library's well-established channels such as its blogs, etc. The following lists some new channels that could be developed.

1. Library dashboard

Message: The development of a library dashboard will enable transparency and an evidence base about how its budget is invested and the cost of open access support. The library will implementation robust methods of measuring impact and to demonstrate return on investment and present the data in a way which is visually interesting. Data might include:

Overall budget pie-chart showing how the budget is spent, e.g., percentages on e-resources, books, open access publications, open publishing platform, books, staff, etc.

Shares of publishing houses in number of publications and in total expenditure. For example:
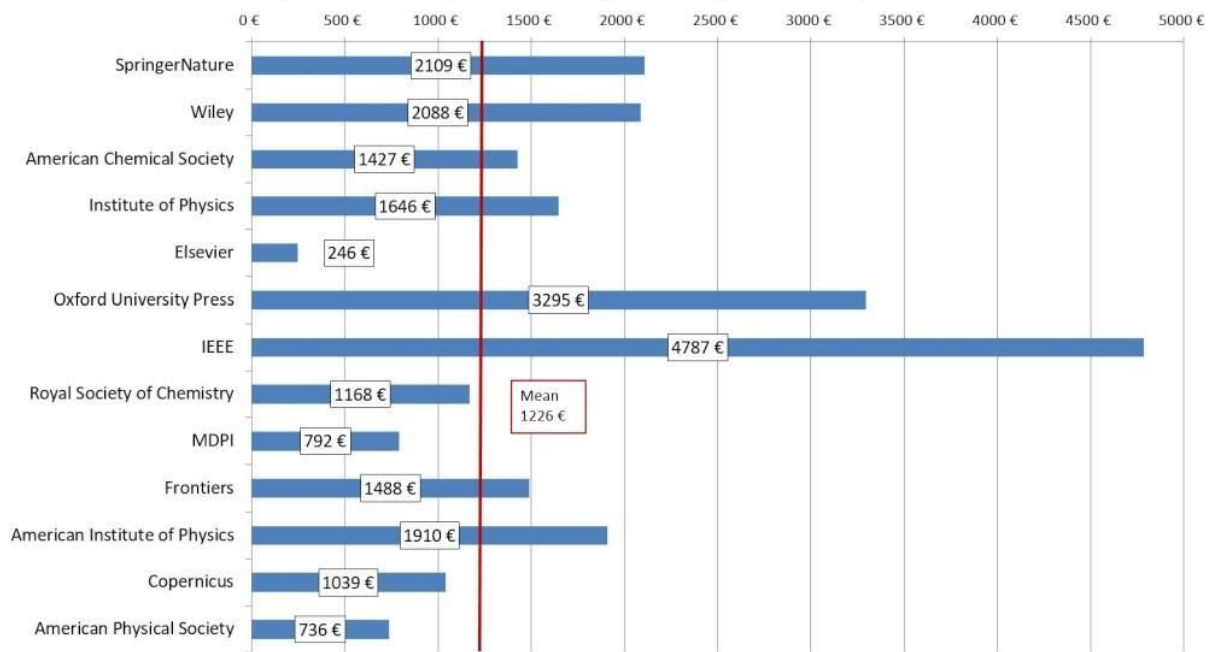
Shares of publishing houses in number of publications and in total expenditure 2019
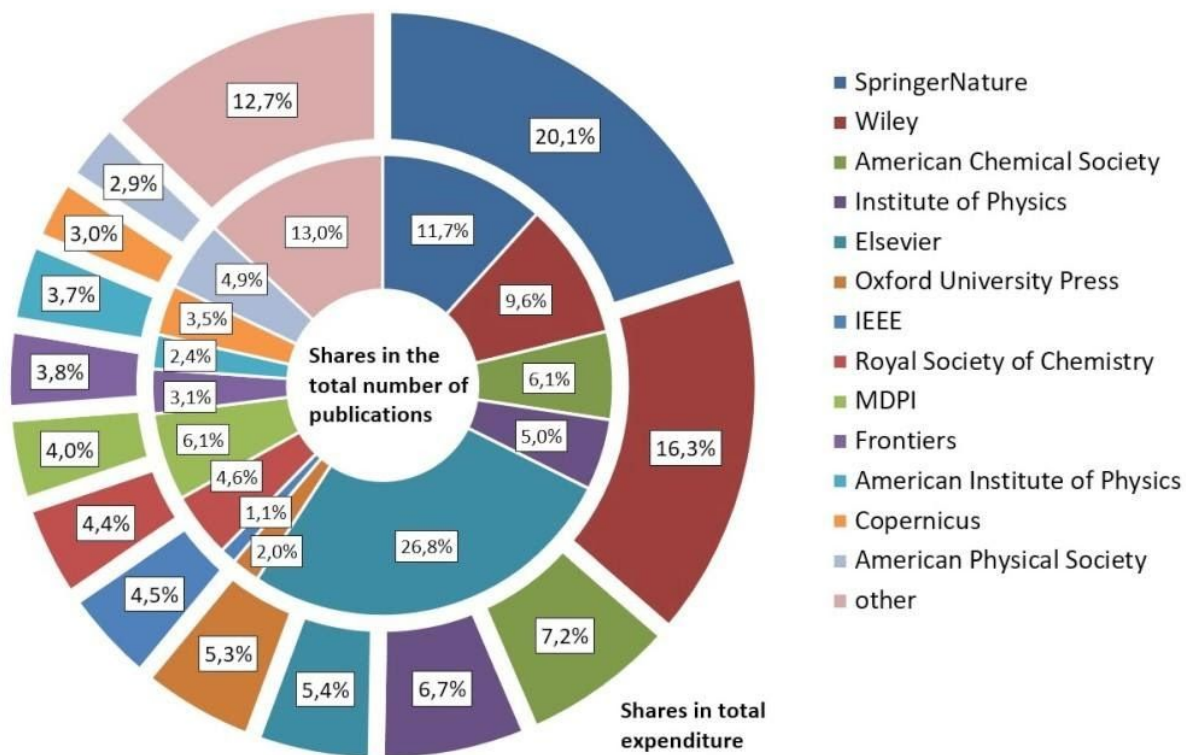
**https://www.kfa-juelich.de/SharedDocs/Bilder/ZB/EN/open_access/oa_barometer_publi
shing_houses_publications_total_expenditure_share_2020_03_11_700x501.jpg;jsessionid
=842A4AB90DE58B9619B49B2674E95F0C?__blob=poster**

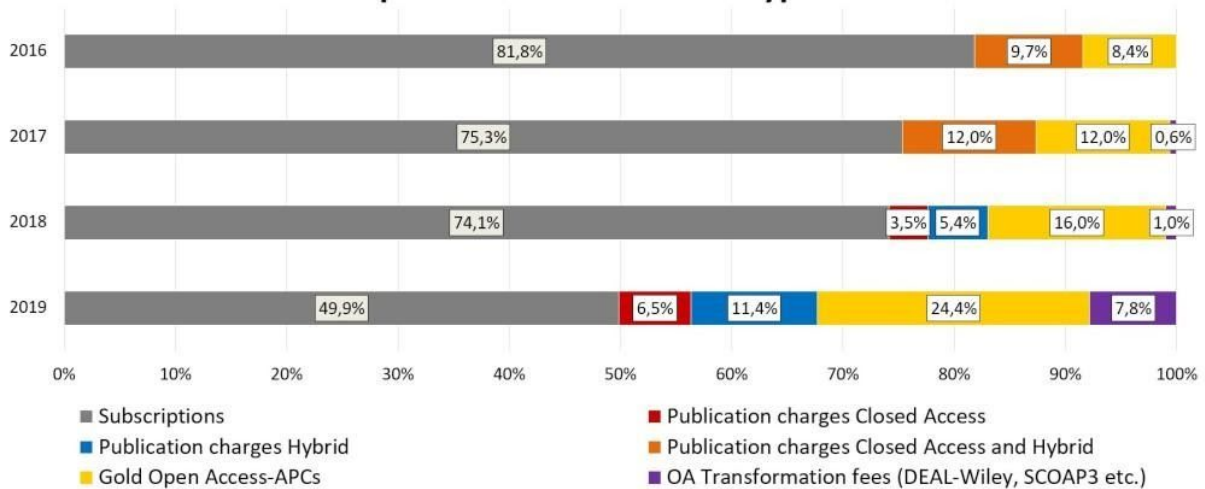Total expenditure per corresponding author publications. For example:

Total expenditure per corresponding-author publication 2019

Total expenditure by cost types: subscriptions, hybrid publication charges, Gold OA APCs, transformative agreement fees. For example:

Total expenditure 2016 – 2019: Types of cost
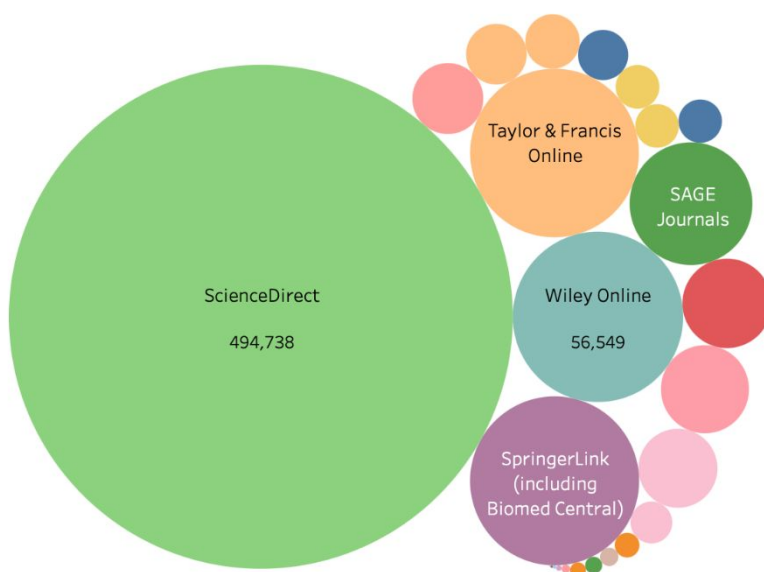
Proportion of costs types by publisher. For example:

Proportion of types of cost in the total expenditure per publishing house 2019

Visualisations may also aid the library staff understand and communicate their data. For example, the JUSP service in the UK, provides this type of visualisation of usage data:

Communicating Plan-S-ready publishing venues available through the University's Read and Publish agreements

Researchers at TU Delft benefit from the Journal Browser to look up which journals to publish in, and the library provides detailed information about OA funding. However, it is not clear that the library is funding

the transformative agreements, and the Journal Browser may not include transformative agreements, and the Journal Browser may not include transformative agreements negotiated by the library, for example IEEE. This is an example from the University of Vienna, displaying the status of each journal with relevant publications assessed against a simplified version of the Plan S criteria: Journals fully open access and listed in the DOAJ and those compliant and those compliant through the University's transformative agreements.
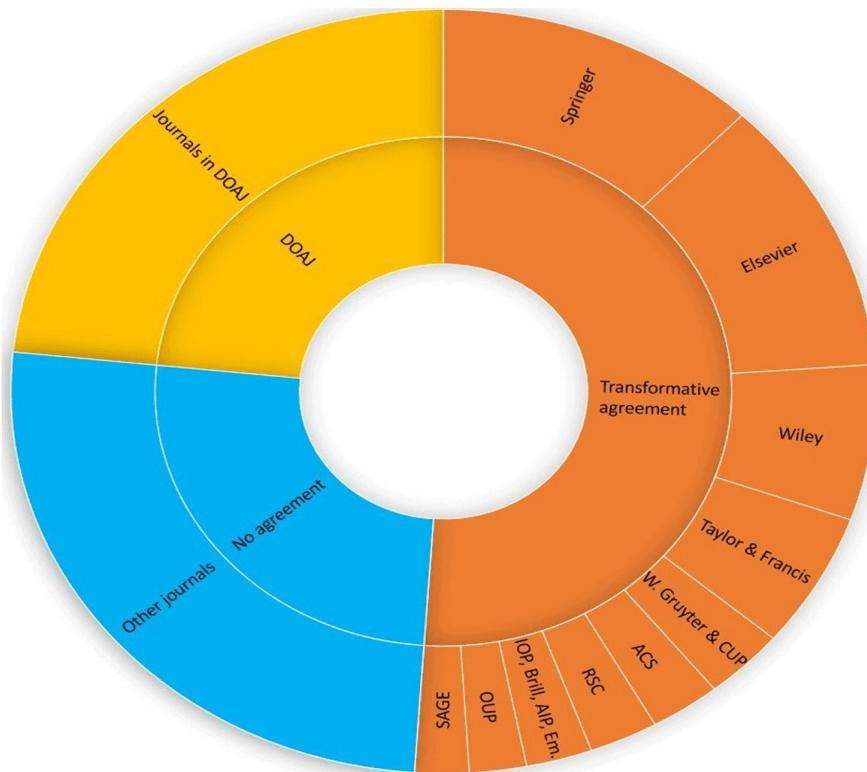
Data visualisations from the dashboard could be included in the library's annual report.

2.   Biennial surveys

These surveys track the changing research, teaching, and publishing practices, and to identify substantial differences by discipline.
The survey will include questions about:

How faculty access materials for research, how they search and whether they find what they need.

How research data is collected, processed and stored.

Research dissemination, the types of publications and the venues for these outputs.

Existing knowledge and experience of open access in general.

Open access incentives and challenges.

Perceptions about the role of the library.

The survey will help the library to regularly evaluate its communication strategy.

Surveys can be followed up with one-to-one interviews or focus groups if issues are highlighted.

3.   Podcasts and short videos

These methods will aim to attract a new audience through short (3-6 minutes maximum) videos or recordings.

The library provides very detailed information and support via its webpages Open Publishing (tudelft.nl). Podcasts and videos, focused on the questions frequently asked questions of the Data Stewards, will provide another channel which may appeal to segments of the audience. For example, how to select a journal for publication, navigating OA and copyright policies (e.g. institutional, national, Plan S), how to share data, etc.

The Data Stewards might work with some of the TU Delft academic staff to share their experiences. These good stories will highlight the message.

4.   An annual (or more frequent) 'Research networking Event' which might cover a range of topics and provide a forum for interaction.

Topics which could be a focus of these events are:

TU Delft Open Research Platform

Open Access support

Plan S ready publishing venues available through the University's transformative agreements

Research Data Management

Bibliometrics

The library might leverage the University's internal communications department in organising these events.

5.   Marketing campaigns via social media and online events taking advantage of relevant external events, for example OA week (October).

The OA week campaign could include events with speakers from the university library covering a wide range of scholarly communication topics including the TU Delft Open Research Platform.

The library could also use this as an opportunity to run an OA escape room (either in person or online) for ECRs. The materials to run an OA escape room are available from https://figshare.com/projects/Open_Access_Escape_Room/56915 and for the virtual version https://essex.libwizard.com/f/puzzling-hunt-for-OA.

Communications SWOT

	Strengths	Weaknesses
Opportunities	The library is well placed to support government, funder and institutional policies on open science and open access. It is developing an open access publishing platform. It funds transformative agreements, which make it much easier for faculty members to comply with these policies, and has expert staff, including the Data Stewards to support members of faculty in making OA publication choices.	The services and funding provided are unseen by faculty and the university leadership. The library can overcome this through 'The Unseen Library' communication plan, highlighting the academic support services provided by the library. It can get closer to its faculty stakeholders, both to raise its profile, and to better understand emerging trends and issues.
Threats	There are several economic factors of which the library has little or no control (e.g., publisher price increases, consortium redistribution model, VAT) which makes the cost of supporting open access high, and possibly unsustainable. Reward and recognition models (although changing) mean that publication in prestige journals is usually the first vehicle of choice for research outputs. This is both a threat in terms of sustaining the costs of publication, but also to the library's own open access publishing platform.	The library can gather data and make it transparently available to demonstrate the cost of providing its collections and supporting open access. Through events, highlight options for open access publication in its own open access publishing platform.

Elements of PESTLE to inform Communications Strategy

Factors to Consider	External key drivers, trends and forces in the external environment	Implications for the Library and key stakeholders and what are the opportunities (and threats and risks)
Political	• Support from the EU and NL governments for Open Access • NWO to implement Plan S and has launched an Open Science Programme.	The library has a strong focus on open science and open access and has advice and data stewards in place to support compliance with government and funder requirements. SURFmarket negotiations the publishers means that there are over 11.000 journals (last update November 26th) in which corresponding authors of Dutch universities can publish in open access for free or with a discount. The library has negotiated other deals which provide free OA publishing, for example with IEEE.
Economic	NWO and KNAW have provided some modest funding for the Elsevier OA agreement. AT 9% for publications; but not for APCs which are classed as services. Redistribution of costs for big deals agreed by UKB, the Dutch consortium of university libraries. Publishing contracts on the EASAC website is reported to be encouraging publishers to increase the 'publish' costs in transformative agreements.	The library collections account for 32% of the library budget, and of that 73% is spent on journals. Transformative agreements negotiated by SURF, perpetuate the 'lock-in' elements of the big deals. Reliable figures for the cost of OA are not available, but the indications are the cost of transition to open access is high. There is low awareness amongst faculty about the cost of publication and that the library supports this cost.

Social	• Changing attitudes to assessment and promotion, but currently reward and recognition means that publication in prestige journals is important for all members of faculty.	· Some researchers do not understand Plan S or why hybrid OA is an issue.
Technology	• The Journal Browser is a well-used tool, providing faculty with an overview of agreements with an open access element.	· Faculty members are not aware that the library funds these open access elements. · Faculty members are not aware of the cost differences across journals for open access publishing.
Legal	· Strong copyright laws, including permission to self-archive after 6 months (i.e., the Taverne Amendment) · VAT 9% for publications; not for APCs or databases which are classed as services. SURF negotiated licence agreements - not all of which provide for perpetual rights.	Busy members of faculty can be confused by the national laws on copyright, publisher policies and funder requirements. As OA increases, more will be spent on the higher VAT service element of journal deals. Licence agreements without perpetual rights, lock the library into continuing with big deals. ·