Introduction

The SOAP (Study of Open Access Publishing) project has run a large-scale survey of the attitudes of researchers on, and the experiences with, open access publishing. In the SOAP Symposium\(^1\) on 13 January 2011 in Berlin, the results of the SOAP Survey were made publicly available. “Highlights from the SOAP project survey. What Scientists Think about Open Access Publishing” article is available in arXiv:1101.5260v2\(^2\) presenting preliminary analysis of the survey responses. To allow a maximal re-use of the information collected by this survey, the data were released\(^3\) under a CC0 waiver, so to allow libraries, publishers, funding agencies and academics to further analyse risks and opportunities, drivers and barriers, in the transition to open access publishing.

SURFfoundation made the first overview of the SOAP survey results, tailored to the situation in the Netherlands\(^4\). Marnix van Berchum and Annemiek van der Kuil selected the questions and the selection should be considered as a first attempt to analyse the SOAP data for the Dutch situation. Further analysis could include different questions, and comparisons with other countries. SURFfoundation also invited others to make use of the SOAP data, to make their own analyses.

We followed the approach of the SURFfoundation and made the first overview of the SOAP survey results, tailored to the situation in 11 EIFL partner countries: Bulgaria, China, Egypt, Nigeria, Poland, Russia, Serbia, Slovenia, South Africa, Thailand and Ukraine. We encourage you to re-use the data collected by the SOAP survey to make your own analysis for your countries and regions. And we are looking forward to your questions and comments about our preliminary overview. The text of this overview is licensed under a Creative Commons Attribution 3.0 Unported License.

Respondents from EIFL partner countries

Out of 43,033 SOAP responses (in which respondents described themselves as researchers) about 10% and a total of 4,303 respondents indicated one of EIFL partner countries as the country where they work (Question #5).
The responses from the countries are represented in the following way:

- **China**: 1,754 responses;
- **Russia**: 606 responses;
- **Poland**: 474 responses;
- **Egypt**: 300 responses;
- **South Africa**: 258 responses;
- **Nigeria**: 206 responses;
- **Ukraine**: 203 responses;
- **Thailand**: 154 responses;
- **Bulgaria**: 129 responses;
- **Serbia**: 117 responses;
- **Slovenia**: 102 responses.

Out of 11 countries above two countries are located in Asia (China and Thailand), three countries – in Africa (Egypt, Nigeria and South Africa) and six countries – in Europe (Bulgaria, Poland, Russia, Serbia, Slovenia and Ukraine).

The SOAP survey also contains responses from 34 other EIFL Partner countries: Albania (34 respondents), Armenia (29 respondents), Azerbaijan (11 respondents), Belarus (35 respondents), Bosnia and Herzegovina (36 respondents), Botswana (9 respondents), Cambodia (4 respondents), Cameroon (17 respondents), Estonia (71 respondents), Ethiopia (47 responses), Georgia (29 respondents), Ghana (35 respondents), Kenya (66 respondents), Kyrgyzstan (2 respondents), Laos (1 respondent), Latvia (42 respondents), Lesotho (2 respondents), Lithuania (69 responses), Macedonia (17 respondents), Malawi (9 responses), Mali (4 respondents), Moldova (7 respondents), Mongolia (1 respondent), Mozambique (12 respondents), Nepal (41 respondents), Senegal (12 respondents), Sudan (31 respondents), Swaziland (1 respondent), Syria (12 respondents), Tajikistan (2 respondents), Tanzania (31 respondents), Uzbekistan (9 respondents), Zambia (14 respondents) and Zimbabwe (21 respondents). But data for the countries with less than 80 answers are aggregated in “Others” and “Others EU” and it is not possible to analyse them for the purpose of our overview.

The selected main research fields of the respondents (Question #2) show a wide spread, with the largest percentage of respondents working in **Biological Sciences** (17%), followed by **Medicine, Dentistry and related subjects** (15%) and **Physics and Related Sciences** (10%).

The larger part of the respondents (65%) works at a **University or college** (n=2,786), followed by 23% that work in a **Research Institute** (n=982) (Question #3).
More than one third of the researchers who participated in the survey (about 36%) “have been employed in research for fifteen years or longer” (Question #4). Almost 40% of respondents “have been employed in research for five-fourteen years”. And 24% of respondents “have been employed in research for fewer than five years”.

Majority of respondents (62%) “provide peer-review services for one or more journals” (Question #6).

**Question #2 Respondents per discipline (n=4,303)**

<table>
<thead>
<tr>
<th>#</th>
<th>Discipline; number of respondents</th>
<th>%</th>
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<tbody>
<tr>
<td>1</td>
<td>Biological Sciences; 733</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>Medicine, Dentistry and Related Subjects; 658</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Physics and Related Sciences; 425</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Engineering and Technology; 380</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>Chemistry; 361</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>Social Sciences; 360</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>Mathematical and Computer Sciences; 294</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Agriculture and Related Sciences; 181</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>Earth Sciences; 156</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Education; 138</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>Psychology; 137</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>Language and Literature Studies; 118</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>Business and Administrative Studies; 103</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>Historical and Philosophical Studies; 72</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>Astronomy and Space Science; 66</td>
<td>2</td>
</tr>
<tr>
<td>16</td>
<td>Mass Communications and Documentation; 57</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Architecture, Building and Planning; 43</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>Law; 16</td>
<td>0,4</td>
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<tr>
<td>19</td>
<td>Creative Arts and Design; 5</td>
<td>0,1</td>
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**Question #3 Selected institution (n=4,303)**

<table>
<thead>
<tr>
<th>Selected institutions; number of respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>University or college; 2,786</td>
<td>65</td>
</tr>
<tr>
<td>Research Institute; 982</td>
<td>23</td>
</tr>
<tr>
<td>Hospital or medical school; 363</td>
<td>8</td>
</tr>
<tr>
<td>Industrial/commercial; 57</td>
<td>1,3</td>
</tr>
<tr>
<td>Government; 44</td>
<td>1</td>
</tr>
<tr>
<td>Other; 71</td>
<td>1,7</td>
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Ease of access to scientific journals

When asked – *How easily can you gain online access to peer-reviewed journal articles of interest for your research?* (Question #7) – the respondents indicated the following:

- **42%**: With some difficulties; 1,794 respondents;
- **30%**: Quite easily; 1,297 respondents;
- **17%**: Very easily; 710 respondents;
- **10%**: I can rarely access the articles I need; 444 respondents;
- **1%**: I do not know; 58 respondents.

Attitudes towards open access publishing

In Question #8 the respondents were asked – *Do any journals in your research field publish open access articles?* In the original survey this was the first question where open access was mentioned and a following definition was provided: *For the purposes of this survey, an article is open access if its final, peer-reviewed, version is published online by a journal and is free of charge to all users without restrictions on access or use.*

- **96%** of respondents answered *Yes, journals in their research field publish open access articles*; 4,144 respondents;
- **1,7%** of respondents answered *No, journals in their research field do not publish open access articles*; 67 respondents;
- and **2,3%** of the respondents *didn’t know* the answer to this question; 92 respondents.

86% of respondents (3,713 researchers) think that “*their research field benefits, or would benefit from journals that publish open access articles*” (Question #9).

After the answer to the above question, respondents were presented with a text box asking – *Can you briefly explain your opinion?* 1,254 respondents provided explanations tagged around the following:

- **48%** of respondents referred to *Scientific community benefit* (n=599); that includes all concepts where open access is perceived to benefit the scientific community e.g. by seamless/fast sharing results/methods/information as well as fostering social exchange among researchers. The tag also includes concepts of open access seen as a modern/future/better solution for publishing or when the respondent agrees with open access in principle under condition of quality/peer-review/impact factor comparable or better than traditional or established journals.
• **15%** of respondents referred to Public good (n=187): any benefit to people outside the scientific community. It refers often to moral good, the concept of ‘right’ or ‘fair’. Used for example if developing countries or less privileged entities are mentioned. It is also used for matters of ‘principle’ e.g. statements as ‘all knowledge should be free’ or if public funding/tax-payers are mentioned. It also refers to a concept of ‘general good’ with no other specific reason.

• **10%** of respondents referred to Financial issues (n=127): includes everything related to money: when open access is seen as a better model or solution because of a reason related to financial issues. E.g. ‘open access is good because it is free’, ‘it is cheaper’, ‘libraries are struggling with current subscription fees’, or if there is an idea that a researcher cannot get the information she wants because of lack of individual or library resources.

• **10%** of respondents listed Individual benefit (n=120): publishing in open access journals is perceived as an asset for an individual researcher to gain more visibility, recognition, readership, citations than the traditional journals. This also includes a saving of time to the individual in the research and publishing process, but does not include the individual benefit a researcher gains when accessing other people’s work, what is included in the “scientific community benefit”.

(In order to allow quantitative analyses of the results, and protect the anonymity of the respondent, the free text answers have been read and aggregated into “tags” described above.)

However about **42%** of respondents answered that “when they were reading a journal article they were generally not aware whether it is open access or not” (Question #10).

Those who “knew that the article they were reading was open access” listed the following sources of awareness (starting from the most frequently mentioned source) (Question #11):

1. **It is clearly indicated on the Web page linking to the article;** 1,712 responses.

2. **I had prior knowledge that the article or journal was Open Access;** 1073 responses.

3. **It is clearly indicated in the article itself;** 609 responses.

Question #13 addressed – The Factors that are important to researcher when selecting a journal to publish in. The following factors were mentioned (starting from the most frequently mentioned as extremely important and important):

1. **Prestige/perceived quality of the journal;** 3,167 respondents.

2. **Journal Impact Factor;** 3,034 respondents.

3. **Speed of publication of the journal;** 2,927 respondents.

4. **Importance of the journal for academic promotion, tenure or assessment;** 2,898 respondents.

5. **Relevance of the journal for my community;** 2,808 respondents.
6. Likelihood of article acceptance in the journal; 2,751 respondents.

7. Positive experience with publisher/editor(s) of the journal; 2,675 respondents.

8. Absence of journal publication fees (e.g. submission charges, page charges, colour charges); 2,562 respondents.

9. Recommendation of the journal by my colleagues; 1,781 respondents.

10. The journal fits the policy of my organisation; 1,668 respondents.

11. The journal is an open access journal; 1,601 respondents.

12. Copyright policy of the journal; 1,411 respondents.

53% of respondents “decide on their own where to submit articles” (Question #14). 31% of respondents “make collective decisions with their fellow authors”. 12% of respondents “are advised where to publish by senior colleagues”. And 4% of respondents “follow the advise of the organisation that finances the research”.

Barriers to open access publishing

Question #16 addressed specific reasons why the researchers have not published articles by open access. The following reasons were tagged (in order of importance), when Question #16 was answered with ‘Yes’. Funding and the quality of the journal were mentioned as the main barriers for not publishing in open access journals. See below.

1. Funding (263 responses): publication fees or lack of funding for it was mentioned.

2. Journal quality (67 responses): open access journals are perceived/assumed not to be of good quality or they do not have an impact factor.

3. Other (41 responses): issues such as, but not limited to, the use of green open access to achieve widespread distribution, the inflation of open access journals, the decision taken by other co-authors and other less frequent concepts.

4. Unawareness (35 responses): the respondent is not been aware of open access or open access journals on their field.

5. Accessibility (21 responses): the author has had a bad experience with an open access journal, their paper has not been accepted or the respondent thinks there are no open access journals on their field.

6. Habits (18 responses): respondents prefer to publish their papers only in certain established/traditional journals.

7. Next time (6 responses): respondents intend to start publishing in open access journals or are already doing so for their next article.
Experience with open access publishing

Out of 3,544 respondents who answered the Question #15 – **Approximately how many open access articles have you published in the last five years?** – 51% of researchers published “between one and five open access articles”; 7% of researchers published “between six and ten open access articles” and almost 5% – “more than ten open access articles”.

Those respondents were asked several questions out of which for this overview we singled the questions related to the concept of paying publication fees:

Question #17 – **What publication fee was charged for the last open access article you published?** A large number of respondents answered that they **did not have to pay any fee for the publication of an open access article** (56%; 1,246 respondents).

<table>
<thead>
<tr>
<th>Publication fee for last OA article (n=2,232)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No charge; 1,246</td>
<td>56</td>
</tr>
<tr>
<td>Up to €250 ($350); 259</td>
<td>12</td>
</tr>
<tr>
<td>€501-€1000 ($700-$1350); 230</td>
<td>10</td>
</tr>
<tr>
<td>I do not know; 222</td>
<td>10</td>
</tr>
<tr>
<td>€251-€500 ($350-$700); 159</td>
<td>7</td>
</tr>
<tr>
<td>€1001-€3000 ($1350-$4100); 114</td>
<td>4,91</td>
</tr>
<tr>
<td>More than €3000 ($4100); 2</td>
<td>0,09</td>
</tr>
</tbody>
</table>

In Question #18 – **How was this publication fee covered?** – the respondents provided the following answers (multiple answers were possible):

- **My research funding includes money for paying such fees;** 318 respondents.
- **I used part of my research funding not specifically intended for paying such fees;** 203 respondents.
- **My institution paid the fees;** 186 respondents.
- **I paid the costs myself;** 177 respondents.
- 28 respondents answered Other to this question.

Question #19 – **How easy is it to obtain funding if needed for open access publishing from your institution or the organisation mainly responsible for financing your research?** – addressed the degree to which it is easy to obtain funding. 59% of the respondents answered that obtaining funding is difficult; 27% of respondents said they found it easy; and 14% of respondents have not used these sources.
Statements concerning open access publishing

The researchers were given a series of statements, both positive and negative, concerning open access publishing (Question #23). The answers are below:

- **90%** of researchers “strongly agree” and “agree” that *Publicly-funded research should be made available to be read and used without access barriers.*

- **77%** of researchers “strongly agree” and “agree” that *Open access articles are likely to be read and cited more often than those not open access.*

- **77%** of researchers “strongly agree” and “agree” that *Researchers should retain the rights to their published work and allow it to be used by others.*

- **61%** of researchers “strongly agree” and “agree” that *Open access publishing is more cost-effective than subscription-based publishing and so will benefit public investment in research.*

- **60%** of researchers “strongly disagree” and “disagree” that *It is not beneficial for the general public to have access to published scientific and medical articles.*

- However at the same time about **58%** of researchers “strongly agree” and “agree” that *If authors pay publication fees to make their articles open access, there will be less money available for research*; and only **18%** of researchers “strongly disagree” and “disagree” with this statement.

- **44%** of researchers “strongly disagree” and “disagree” that *Open access publishing leads to an increase in the publication of poor quality research.*

- **43%** of researchers “strongly disagree” and “disagree” that *Open access publishing undermines the system of peer review.*

- **36%** of researchers “strongly agree” and “agree” that *Open access unfairly penalises research-intensive institutions with large publication output by making them pay high costs for publication*; and **20%** of researchers “strongly disagree” and “disagree” with this statement.

Preliminary conclusions

“The SOAP survey, the largest to touch issues in open access publishing, has collected a large amount of answer across disciplines and around the world. While the data sample cannot be held to represent the opinions of all scholars active in all countries and in all disciplines, it does present a cross-section of attitudes on open access publishing which were previously not analysed.”

Based on the results described in our overview, we can make the following preliminary conclusions

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about the situation in 11 EIFL partner countries:

• About **86%** of researchers are convinced that **open access publishing is beneficial to their research field directly improving the way scientific community work and providing the benefits outside the scientific community – public good benefits.**

• About **63%** of researchers **published open access articles.** 51% of researchers published “between one and five open access articles”; about 7% of researchers published “between six and ten open access articles” and almost **5% – “more than ten open access articles”**.

• The respondents listed top five factors when making choices about publishing in a journal: **prestige** (prestige/perceived quality of the journal), **journal impact factor**, **speed of publication of the journal**, **importance for career** (importance of the journal for academic promotion, tenure or assessment), and **relevance of the journal for the community.**