Online Survey on Open Journal Systems in Germany and the Network OJS-de.net

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Abstract
At the beginning of 2015 an online survey on the open source software Open Journal Systems (OJS) was launched in Germany to determine how the software is used at German research institutions and what scholars require when working with OJS. The survey was launched by the collaborative project OJS-de.net, a network initiative to support the use of the software in the German publishing landscape. It is a joint effort of the Center for Digital Systems (CeDiS) at the Freie Universität Berlin, Heidelberg University Library, and the Kommunikations-, Informations-, Medienzentrum (KIM) at the University of Konstanz. The following article presents an overview of the survey results and shows how these are implemented by OJS-de.net to improve the software adaption for German speaking researchers.

Keywords
Online publishing; Open Journal Systems; Journal survey; Open source software; Open access

Résumé
Au début de l’année 2015, un sondage en ligne sur le logiciel open source Open Journal System (OJS) a été lancé en Allemagne, afin de savoir comment il est utilisé et mis en œuvre dans les institutions de recherche allemandes, et de déterminer les attentes qu’ont les chercheurs en l’utilisant et ce qui peut au contraire leur manquer. L’enquête a été lancée par le projet collaboratif « OJS-de.net », une nouvelle initiative collective

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Mots clés
Édition en ligne; Open Journal Systems; Enquête journal; Logiciels open source; Open access

Introduction
The number of open access journals in the German publishing landscape has increased significantly over the last few years. More and more scholars have founded their own journals and publish their articles online. In Germany, many libraries and research centres have now taken the opportunity to provide scholars and users with the technical infrastructure and expertise to support them in the publication process. The open source software Open Journal Systems (OJS) has proved itself in this area, as a well-established e-journal publication and management software. In Germany the software is also hosted in many universities and research centres – among them the Heidelberg University Library1 and the Center for Digital Systems (CeDiS) at the Freie Universität Berlin², which form the largest OJS platforms.

Online journal publishing in Germany and the project OJS-de.net
In the past few years, not only academic institutions but also commercial publishers have recognized both the scientific and political relevance of open access. Commercial publishers, such as Elsevier, Springer, Wiley, and Informa have founded open access programs and offer different publication models, often, of course, linked with author as well as subscription fees (see Bruch, Deinzer, Geschuhn, Hätscher, Hillenkötter, Kreß, Pampel, Schäffler, Stanek, Timm, & Wagner, 2015). In Germany the open access movement is still largely promoted and driven by non-commercial, academic institutions. The platform where many of these efforts in Germany, Austria, and Switzerland are fused is the Open Access Informationsplattform, a website provided since 2007 by the Freie Universität Berlin and the universities of Göttingen, Konstanz, and Bielefeld. Although the open access movement has found more followers within the last couple of years and more and more academic institutions are providing free publication possibilities in open access for their scholars, it still faces many obstacles. One difficulty is the recognition within the different disciplines, but the other is the quality and professional calibre not only of the content but also of the publication software. It is through the introduction of the free open source software Open Journal Systems (OJS) that a few individual institutions in Germany have managed to develop a sustainable publication model for e-journals at non-commercial institutions.

The project OJS-de.net – Sustainable Infrastructure for Electronic Publishing of Scholarly Journals (see Figure 1) was founded in order to consolidate the idea of open access, as well as to encourage the foundation and publication of e-journals at German scholarly institutions and to promote and support it. This initiative financed by the
German Research Foundation (DFG) is a joint venture of the Center for Digital Systems (CeDiS) at the Freie Universität Berlin, Heidelberg University Library, as well as the Kommunikations-, Informations-, Medienzentrum (KIM) at the University of Konstanz. The aim of the project is to support scholars and hosting institutions with the implementation and use of the OJS software and to create a supportive network and community among the various OJS users.

Figure 1: Screenshot of the website OJS-de.net

Online survey on Open Journal Systems (OJS) in Germany
The OJS software has been developed by the Canadian Public Knowledge Project (PKP) and is one of the most frequently hosted open source softwares for e-journals. It is a publication and management tool that covers the entire workflow from authors handing in their articles, the organization and coordination of a peer-review process, up to the publication of the e-journal on the internet. An online survey (see Figure 2) was launched in February 2015 by Heidelberg University Library to get a clear and substantiated picture of the use of OJS in German-speaking regions and to promote the services of OJS-de.net within the community. All project partners, under the leadership of the KIM, were involved in gathering

contact details of hosting providers, journal managers, members of advisory boards, as well as reviewers. The basis was a list of OJS users in Germany compiled by CeDiS. Overall, around 800 contacts were identified. In order to live up to the international background of many of the editorial teams, the survey was published both in German and English. The structure and the set up were aimed at four target groups: 1) hosting as well as infrastructure providers that offer OJS to their users and clients, 2) journal editors and managers as well as editorial teams, i.e., scholars that publish an e-journal via OJS, 3) members of advisory boards, reviewers, authors as well as readers, 4) participants who simply want to leave a comment and do not want to complete the entire survey.

Figure 2: Screenshot of the online survey on Open Journal Systems (OJS)

The aim of the online survey was, first of all, to get an overview of the use of OJS at German-speaking universities and research institutions. Second of all, to ascertain the needs of hosting providers and journal managers with regard to the OJS software in
general, and, last of all, to approach OJS users at universities and research institutions in order to establish a network and a self-supporting community within the German-speaking regions. For the compilation of the online survey, the expertise of GESIS – Leibniz-Institut für Sozialwissenschaften was consulted and general questions were coordinated with the Public Knowledge Project (PKP).

**Methodology and participation**

As the survey strove to reach as many OJS users as possible in Germany, Austria, and Switzerland, an invitation to participate was sent out to all gathered contacts in the form of a closed survey. In order to reach further editors and hosts of OJS journals that were not identified, as well as to open it for further interested users, the survey also offered a registration link for these people to participate in the questionnaire. Only a few people used this latter registration function, which was posted and announced on several relevant websites, such as OJS-de.net or heijOURNALS. Although the survey might not have reached all OJS managers, especially individual ones who are not associated with an institution, or who were not publishing in an academic context, it certainly reached the majority. This was verifiable as CeDiS, in particular, had been keeping record of new OJS hosts in Germany for a number of years.

After two reminders and a total of five weeks the survey ended. Altogether 285 people, of the above-mentioned 800 contacted OJS users, took part in the survey (35%) and 196 completed it (24%). Among the participants, there were often members of the same editorial team. Journal managers were the largest participating group with 61 percent; hosting providers made up 18 percent; members of advisory boards, reviewers, authors, and readers made up 17 percent; and 4 percent of the participants only left a comment (see Figure 3).

![Figure 3: Participants of the online survey (complete answers)](image)

In addition to reaching different groups of users – making the survey accessible and interesting for the participants – the survey covered many different technical and user aspects of OJS and included different question formats. It was a quantitative survey
with closed, open, and half-open questions, i.e., there were multiple-choice questions as well as a free text option for more detailed answers and suggestions. The majority of questions were multiple-choice questions with pre-selected answers, to which further points could be added. On the one hand the aim was to get a clear insight into different areas of the OJS software, and on the other hand to get users to guide us toward unknown areas, problems, and new fields for development and improvement.

In total, there were 73 questions with 388 sub-questions. Of these, 46 questions were obligatory; the remaining 27 questions primarily regarded general information about the participants as well as free text options. Different questions were compiled for different target groups. Every group received different questions that partially overlapped. The hosting providers had a total of 47 questions to answer, journal managers 49, members of advisory boards, reviewers, authors, and readers had 19 questions, and participants that only wanted to leave a comment had 4 questions to reply to.

Due to this overall approach, it is clear that not all topics could be touched upon with the same depth and insight as might be desired, and that some responses might have differed if participants had not been guided by our pre-selected answers. With this survey the project partners aimed to get a general first impression of the use and implementation of the OJS software in Germany and to have a basis on which further surveys can build, as well as a guide for further project activities.

**Survey results**

**Overall satisfaction with OJS**

The questions covered a broad range of topics and focused on the overall satisfaction of OJS software users, as well as on technical details, such as the use of plug-ins or publication formats. The general feedback of hosting providers and journal managers to the question “How content are you with the OJS software in general?” was positive: 94 percent of the hosting providers and 85 percent of the journal managers are very content and content with the open source software. The remaining 3 percent of the hosting providers and 9 percent of the journal managers were discontent and very discontent (see Figure 4). Reasons for this, as could be gathered from the comments, lie, for example, in the fact that the software does not have a responsive design and the editorial workflow, i.e., the steps editors need to take within the system, are rather complicated. Both these issues, however, have already been resolved in the new 3.0-version of OJS (see for example Wright, 2015a and 2015b).

The language options of OJS were most highly praised both by hosting providers and journal managers. Here 84 percent of the hosting providers and 75 percent of the
Journal managers replied with very content or content. The provided interface options were particularly praised by hosting providers, of which 74% declared they were very content or content with the offer. Only around half of the hosting providers and journal managers were very content or content with the editorial workflow and less than half of both groups with the provided layout options in OJS. The answers regarding the overall satisfaction of users with the software OJS provided the OJS-de.net project with a concrete and positive impression of how OJS is accepted within the German-speaking community.

Hosting OJS Journals in Germany
The hosting providers are distributed as follows in the German publication landscape: 51% of all questioned hosting providers replied that they work at university libraries, 11% at computing centres, and 13% at faculties and institutes. This last group seems to host OJS journals without the support of any university infrastructures.

Regarding the structure of the hosted software, in total 74% of the hosting providers in Germany have one instance for their journals, 60% have one instance with multiple journals, and 21% have several instances. Five percent are still in the process of setting up their journal. German institutions host an average of 6 journals, with a maximum at the time of the survey of 35. German OJS hosts do not seem to have a lot of experience with journal migration, which most probably is related to the manageable number of journals per institutions. Of the hosting providers, 76% declared that they have not migrated a journal or do not know about it. Only 14% have already migrated an existing e-journal, for example, from a single to a multiple instance.

The service provided by institutions covers, besides hosting and updates, introductory sessions to the software, layout adaptations, long-term archiving, as well as cataloguing and indexing e-journals in according databases (40-44%). Software adaptations (31%) and editorial support (23%) were less common. All these services are, in general, provided to journal managers free of charge (68%).

In German-speaking regions OJS is primarily used in the humanities (44%) as well as the economic and social sciences (30%) (see Figure 5). Nature and life sciences play a subordinate role. For the project OJS-de.net this implies that the focus for interfaces and the distribution of journals lies in the fields of humanities and the economic and social sciences, but of course additional values also have to be created for the nature and life sciences.

![Figure 5: What field of studies does your e-journal focus on?](image)
Funding of e-journals

OJS journals in Germany are primarily financed through their own financial means, i.e., from their respective home institution (47%). Journal managers can receive further financial support through third-party funding (24%) or sponsors (8%). The greater portion (40%) stated that they manage their journals on a voluntary basis, i.e., without any additional financial support. Costs for journal managers often arise in the following areas: hosting of an e-journal (29%), layout design (28%), copyediting (23%) and editorial work (in general) (17%), as well as management and advertising material (10% each). In this area, OJS-de.net is planning to provide journal managers and hosting providers with further information, in order to support them with the acquisition of third-party funding or sponsors.

OJS articles are primarily published in PDF format (98%). Only 26 percent of the journal managers declared to publish their articles in HTML format, 7 percent in EPUB, 2 percent in XML format, and a further 2 percent in LaTeX (see Figure 6). In connection with the comments by participants with suggestions on improving the software, it became clear that the reason for the meagre use of formats such as HTML and EPUB are linked to the fact that the OJS software at present does not provide the possibility of converting documents to different formats or to edit the text within the system. Therefore, the effort to generate different article formats remains high. This kind of feedback has been of particular interest and help to OJS-de.net as all survey results are being considered in future plans for the project. IT specialists at Heidelberg University Library, for example, are currently focusing on the development of a text editing tool as well as a function to convert documents to different formats for the upcoming OJS 3.0 version. This new function is initially being developed for the sister software Open Monograph Press (OMP). Since the release of the OJS 3.0 Alpha version, the software OMP and OJS share the same code base (see Smecher, 2013). Thus, many of the software developments both from PKP and IT developers around the world can be adopted for both software systems. IT-developers at CeDiS, who have been employed especially for this project, are also working in parallel on professionalizing and improving the software. At present any software developments are still done for the OJS 2.4.x version, but increasingly new ideas are being developed for only the new version.

Open access and licences

Ninety percent of the journal managers stated that they publish their e-journals in open access, a result that was not surprising, and confirmed the project partner’s expectations. Seven percent declared that they apply a
moving wall to their issues, i.e., that an issue only appears online in open access after a certain time period. In most cases, the quality of e-journals is secured through a simple review process by the editors (60%), meaning that the named editors of a journal usually listed on the website read, revise, approve, or reject the single articles. Forty-nine percent of the journal managers affirmed that they have a double blind peer review and 11 percent involve a scientific advisory board in their review process for quality control. Only 2 percent of all participants replied that they offer an open peer review for their articles, which is not astonishing, as this review form is not yet supported by the software.

The response by journal managers to the question “Under which license do you publish your e-journals and articles?” was unexpected (see Figure 7). Twenty-four percent of the journal managers replied “don’t know.” Whether this is an indication of general poor publishing practices of some journals or simply indicates that some journal managers are only responsible for the set up and uploading of articles into a journal and are less involved with the content, can only be assumed. The latter case could, for example, apply to journals that use the OJS software for retrodigitized journals (e.g., Büttner, 2015a). Further 21 percent of journal managers stated that they use “no specific licence.” Four percent of the participants declared that they apply copyrights to their articles, meaning that all rights are reserved to one person or institution. Another large section of journal managers (52%) replied that they use Creative Commons (CC) licences; the CC BY licence, which permits users to share and adapt an article if they credit it accordingly, is by far the most frequently used (35%).

![Figure 7: Under which licence do you publish your e-journal and articles (journal managers)?](image)

The fact that many journal managers are unsure of using licences when publishing their articles reveals an area in which the project OJS-de.net can become active by providing introductory material. Colleagues from CeDiS have therefore set up a website with detailed information on CC licences and have also adopted the software accordingly. The website not only provides general information in German about CC licenses, but also offers a detailed description on how to best integrate and present them in OJS.
USE OF PLUG-INS

The OJS 2.4.x version provides users with a broad range of plug-ins. These are software components that have either been developed by PKP or other regional developing teams and offer the OJS users the possibility to activate further features for their journal. The range of plug-ins provided in the OJS 2.4.x version is very broad, ranging from social media plug-ins to harvesting or interface plug-ins. Some of these are only relevant for journal managers while others only for hosting providers. The question, therefore, formed a certain challenge as the probability that a survey participant knows all the plug-ins or can even list the most frequently used plug-ins off by heart is most improbable. As plug-ins are a central feature of OJS, however, questions about plug-ins seemed highly relevant. In order to narrow the questions for survey participants, around a dozen relevant plug-ins were pre-selected for each specific group. Whether the survey was able to document all the most frequently used plug-ins remains questionable and also reveals a shortcoming in the survey. The following results were documented: regarding the survey’s questions on plug-ins the response of 139 journal managers confirmed that 62 of them (45%) do not know which plug-ins they use. Six percent use no plug-ins at all, which indicates that 51 percent, over half of the journal managers, do not work with plug-ins or do not know what plug-ins can be used. However, it would be wrong to conclude from this response that plug-ins are not activated in their journals, as in some cases the hosting provider might cover that service for them. Plug-ins that are most commonly used are the quick-submit plug-in (25%), the reading tools (20%), the static pages plug-in (17%), and the report plug-in (17%). Sixty percent of the hosting providers offer further plug-ins to their journal managers upon request. Of these, 88 percent get their plug-ins directly from PKP or rather the plug-in gallery. Thirteen percent of the hosts that provide further plug-ins also develop their own.

COMMUNICATION AND NETWORK

A further focus of the survey was to determine how the workflow around an OJS journal is managed, and what the key components in the communication between hosting providers, developers and journal managers are. The survey revealed that in Germany hosting providers and journal managers exchange information on multiple levels. Primarily they communicate via email (85%), telephone (61%) or personal meetings (48%). Social media platforms or other communication tools do not, or not yet, seem to be relevant. When hosting providers are confronted with technical questions regarding OJS, the PKP-forum is the central place they go to (74%) (see Figure 8). Forty-one percent

Figure 8: To whom do you refer for technical support (hosting providers)?

of the hosting providers contact other IT-developers and 38 percent other hosting providers.

In order to improve the communication among hosting providers in Germany and to strengthen the network, OJS-de.net organized a two-day workshop at the beginning of December 2015 at CeDiS in Berlin (Riesenweber, 2016). The aim of the workshop was to encourage the exchange of information and experiences among hosting institutions, and to discuss open issues and topics with regard to the OJS software in general, as well as issues relevant only to German-speaking regions. The response to the workshop was positive and requests were made to have annual meetings in the future. One aspect OJS-de.net is hoping to solve in the near future is a German-wide solution for long-term archiving of OJS articles through the German National Library (DNB). This is an area into which CeDiS has already put a lot of effort, but that still needs to be solved. Also, the online survey included a question asking participants whether they required any further technical options for archiving documents. The response was somewhat meagre, as 74 percent of the hosting providers gave no answer at all, 14 percent replied “no,” and only 12 percent answered “yes.” The lack of responses suggests that the majority of users are not aware of the necessity of archiving, nor of the various archiving possibilities provided by the software. This is also an indication of a shortcoming of the software to promote this feature. A further explanation for the scarce answers could also be that the majority of hosting institutions provide their own solutions for archiving. Nonetheless the meagre response is striking and implies that further professional development is required for this functionality of the software, to make this feature more accessible and prominent. There were only three comments regarding the question proposing a feature for different article versions: the above-mentioned solution for long-term archiving through the German National Library, as well as an interface with repositories. Both these replies show that these two topics, article versions as well as a national solution for the long-term archiving of OJS articles, are still to be solved by professional IT developers within the community.

The importance of a German OJS network is growing, as more and more OJS journals in Germany are being launched. The online survey revealed that the number of journal managers and hosting providers is constantly increasing. In particular during the last year there was a large increase of hosting providers. Over 50 percent of all hosting providers that participated in the survey started working with the software within the last three years. The necessity to support OJS users, as well as to encourage the use of an open source software for e-journals at German universities and research institutions, has also been recognized by the German Research Foundation (DFG), which is generously supporting the efforts of OJS-de.net. In the last two years, it also funded further efforts related to OJS in Germany, among them the set up of the e-journal Digital Classics Online as well as the foundation of a platform for mathematical e-journals, Electronic Library of Mathematics, by the FIZ Karlsruhe – Leibniz-Institut für Informationsinfrastruktur, which will be launched in the near future. Both projects include IT developers in their team, who will be contributing to the improvement of the software. OJS-de.net aims not only at intensifying the collaboration with the PKP developers but also at getting OJS users in Germany to cooperate among themselves.
Outlook and perspective

Besides multiple-choice questions, the survey also asked participants which software improvements they required in the future. At the top of the list were responsive design and a document converter and editor for HTML, EPUB, and XML documents. These were closely followed by requests to improve and simplify the review process within the software. Additionally, the communication within OJS was mentioned, followed by suggestions to introduce a forum for the editorial team of a journal or automatic reminders for editors. Regarding persistent identifiers, ORCID and the introduction of standardized vocabulary, such as the German GND (Gemeinsame Norm Datei) were requested. Some of these ideas are already partly being developed for OJS, such as the document editor and converter – as previously mentioned. In particular with the introduction of the new OJS version 3.0, which is meant to be launched by PKP within the next couple of months, OJS-de.net’s focus lies increasingly on improving the new version for the German publication landscape with many of the ideas and suggestions gathered from the online survey to be incorporated into future activities.

Conclusion

The survey was evaluated question by question. All results are documented in a detailed online publication with diagrams for every question (Gehrlein, Büttner, & Clormann, 2015a). As the majority of responses were German, the entire documentation has been published in German. However, an overview of all questions in English (and German) with a link to the relevant diagrams has been added at the end of that document. Furthermore, the publication documents the design of the online survey with screenshots. A brief summary of the evaluation has also been published in the German OJS journal by Heidelberg University Library, Theke aktuell (Büttner, 2015b), and a detailed German evaluation has appeared in the German Journal b.i.t.-online (Gehrlein, Büttner, & Clormann, 2015b).

The results of the online survey launched by the project OJS-de.net in 2015 provide both an insight into the current state and use of OJS software in the German publishing landscape, as well as the demands scholars have for improving the open source software for their needs. The replies to several questions also reveal that users have a lack of awareness of some OJS features, or are not sufficiently informed about functions, which became apparent in, for example, the questions regarding article licences or archiving functions. A best practice document or checklist for users would be a first step toward closing this gap. It should guide users toward publishing HTML documents in addition to uploading simple PDF files, as HTML files in general appear to be accessed more frequently. Partly because no other reading tool is required for the software to open an HTML document for reading, it offers readers the possibility of taking a quick glance at the content of an article. There could be clear guidelines regarding article licences and functions to share article metadata via certain interface plug-ins. A further possibility to guide users through OJS could be an integrated reminder system to support users toward the most effective and professional use of the software. Online courses and tutorials would also help editors, journal managers, and hosting providers publish their e-journal according to best practice guidelines. These elements are required both in the international and the German community.

OJS-de.net’s first online seminar (or “webinar”) for editors was held at the beginning of
The fact that the seminar was quickly booked completely is a clear indication that more efforts of this kind are required within the community.

Notes

1. Further information on the hosting services provided by Heidelberg University Library can be found on the website heiJOURNALS or in articles by Sabine Gehrlein (2014) and Maria Effinger and Alexandra Büttner (2015). Büttner (2015a) also wrote an English article on the services.

2. The services provided by CeDiS are listed on its website (CeDiS – E-Learning, E-Research, Multimedia).

Websites


Digital Classics Online, https://journals.ub.uni-heidelberg.de/index.php/dco


OJS-de.net, CC licences, http://www.ojs-de.net/services/cc-lizenzen/index.html

OJS-de.net, Webinar, http://www.ojs-de.net/aktuelles/16-01-17_webinar.html

OJS Usage, https://pkp.sfu.ca/ojs/ojs-usage/


References


