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Open Data in Parapsychology: Introducing *Psi Open Data*[1]

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Abstract: Open data in science brings important benefits, most notably the potential to accelerate scientific discovery, and the ability for the community to verify research findings. In addition to exploring these benefits, this paper considers concerns that some researchers may have about the approach. Publishing strategies, copyright and database right considerations, confidentiality, preparation of data for publication, and the citation of datasets are also discussed, as is the importance of journal policy. The second section of the paper presents Psi Open Data (https://open-data.spr.ac.uk), an open repository for parapsychology and psychical research data recently launched by the Society for Psychical Research. The repository is constructed using DKAN, an open source open data platform with a full suite of cataloging, publishing, and visualization features. It allows administrator users to upload research datasets, and any visitor to search for and download datasets. Various aspects of the repository are described: data structures, metadata, data classification, preview, and download facilities. Researchers are encouraged to support the repository by contributing datasets from both current and previous work.

Keywords: open data, psi, parapsychology

Driven by the explosion in use of the internet and world wide web, the open access movement has been gaining momentum since the early 1990s. Initially focusing on removing access restrictions to articles in scholarly journals, the concept of openness has broadened to encompass data and code. Several organizations have set out statements in support of openness in science:

- In 2003 the *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities* was drafted at a congress organized by the Max Planck Society and the European Cultural Heritage Online (ECHO) project, encouraging open access to original scientific research results, raw data and metadata, source materials, digital representations of pictorial and graphical materials, and scholarly multimedia material (Max-Planck-Gesellschaft, 2003).

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- In 2007 the Organisation for Economic Co-operation and Development (OECD) set out their *Principles and Guidelines for Access to Research Data from Public Funding,* seeking to promote a culture of openness and sharing of research data among public research communities (OECD, 2007).

- In 2008 the *Principles for Open Science* were drafted by Science Commons, promoting open access to literature, research tools, and data produced by publicly funded research (Science Commons, 2008).

- In 2010 the Panton Principles for Open Data in Science were published, stating that "science is based on building on, reusing and openly criticising the published body of scientific knowledge" and that "for science to effectively function, and for society to reap the full benefits from scientific endeavours, it is crucial that science data be made open." The principles guided that data related to published science should be explicitly placed in the public domain (Murray-Rust, Neylon, Pollock, & Wilbanks, 2010).

- In the UK, Research Councils UK's *Policy on Open Access* states that the UK Government is committed to ensuring that published publicly-funded research findings should be freely accessible (Research Councils UK, 2013).

The scope of the present paper is restricted to a discussion of open *research data*, which the OECD defines as "factual records (numerical scores, textual records, images and sounds) used as primary sources for scientific research, and that are commonly accepted in the scientific community as necessary to validate research findings." (OECD, 2007) The paper discusses the benefits of open data in science and examines objections that researchers might raise. Copyright and confidentially are discussed, as are best practices for transforming and formatting data. The second section presents *Psi Open Data*, an open repository for parapsychological and psychical research data recently launched by the Society for Psychical Research (SPR).

Open Data in Science

Benefits

Murray-Rust (2008) describes three examples that illustrate the principle that openly sharing data accelerates scientific progress: Mendeleev's construction of the Periodic Table using published data about properties (melting points, colors, densities, etc.) of chemical elements; the accidental discovery of pulsars; and a more recent example where Pang, Yau, and Chou (1995) used ancient Chinese eclipse records to calculate the variation of the Earth's rotation during the postglacial rebound and deduce a value for the lower mantle viscosity of the Earth. Parapsychology has its own examples: Spottiswoode's (1997) fascinating discovery of an unusual pattern when experiment results were plotted by Local Sidereal Time, and Palmer's (1997) discovery, in a re-analysis of the PRL ganzfeld database, that the relationship between ESP scores extraversion was attributable entirely to females. Open data can accelerate the rate of discovery in the following ways:

- Enabling researchers to explore questions not envisioned by the original investigators, and to address old questions in new ways, through re-use of data.

- Enabling meta-analyses, and the creation of new datasets by combining multiple data sources.
- Making possible the testing of alternative hypotheses, and the use of different methods of analysis; sharing of data encourages diversity of analysis and opinion.

Another key benefit of open data is *transparency*. Open data allows the community to identify errors in the research record through the reproduction of research findings, thereby preventing wasteful allocation of resources exploring research avenues founded upon erroneous conclusions. My personal experience with data from colleagues has been that errors sometimes do occur, and these can be identified and corrected by independent review. Jim Kennedy (personal communication, Winter, 2017) further notes that:

> Open data is a visible sign that researchers have confidence in their data and analyses, and that the data and analyses have likely had scrutiny by others. More generally, it is clear that open data is becoming a methodological standard for good research. Studies that are supported by open data will have much greater credibility with future readers than studies that maintain past, less transparent methodological practices. These are major benefits that should motivate researchers to make the effort to share their data.

Open data brings other benefits. Depositing data in a repository with institutional support protects against loss, and the knowledge that research data will be made public will encourage researchers to undertake good practices such as preparing a data dictionary and tracking file versions. Open data also provides accessible datasets for training students on data analysis.

Concerns

Researchers may argue that open data is unnecessary, as the current practice whereby researchers share their data with colleagues upon request is sufficient. The experience of Wicherts, Borsboom, Kats, and Molenaar (2006) suggests otherwise. They contacted 149 author teams requesting data for articles that had recently appeared in American Psychological Association journals. Even after repeated requests over a six-month period, they succeeded in acquiring data in fewer than one-third of cases. The situation with older datasets is likely to be worse still. Researchers will often struggle to locate old datasets, or they may be poorly documented, or in a format that can no longer be read.

A researcher may object to others producing analyses based on their data; they may have expended considerable time and effort setting up and running original experiments, and it may be galling to see others receive credit for quick, and possibly poor, pieces of work using their data. A response to this objection could be that the researcher should consider a different perspective, and be pleased that their data is being reused, and generating more value to science. Additionally, if the data is released under a license that requires attribution, and the original dataset is cited, the researcher will receive credit for that citation.

There may be concerns about the potential for inappropriate *post hoc* "data fishing." Once a dataset is open, other researchers are free to analyze it in any way they choose, and they may indeed perform multiple exploratory analyses. Clearly, there is value in exploratory analyses, but in a world with

open data, it is important that researchers appreciate the difference between pre-planned and exploratory analyses, and communicate this distinction to outside observers. It is also worth pointing out that studies utilizing open data can be preregistered. Perhaps the issue is not whether datasets are open, or not open, but how analyses are planned and reported.

Researchers may be concerned that data may be misinterpreted or misapplied. For example, unqualified individuals may apply inappropriate transformations or statistical treatments to data, and may have insufficient appreciation of the context in which the data were collected. Worse still, opponents of parapsychology (extreme skeptics) may *deliberately* use data in inappropriate ways to attack the original experiment, requiring researchers to divert time to defend their work. Perhaps it would be better to restrict access to qualified, trustworthy researchers? These are valid concerns, but restricting access would be problematic. Who would decide who is qualified, and trustworthy? The standard practice that has emerged within science is that open data is exactly that: open to everybody. Considering the crucially important advantages of open data, it is suggested here that open data practices should be fundamental, and other practices should be reviewed as necessary to reflect this position. Should researchers conduct their research in private, or should the community embrace openness and transparency, and accept the challenges that this brings?

Journal Policy

Increasingly scientific journals require the publication of supporting data. For example, this is now the case for *Science, Nature,* and *PLOS ONE*. The obvious corollary of data publication is that the data should also be made available to pre-publication reviewers. The *Instructions for Authors* for the *Journal of Parapsychology* strongly recommends data publication, but this is not mandatory. From the perspective of ensuring that research results can be verified by the community, optionality may be problematic, as authors who choose not to publish their data are likely to be those who know they have rushed the preparation of their manuscript, or are not confident in their statistical approach. One could question whether articles without accompanying data, which cannot be verified, have any place in an academic journal.

A middle ground may be for journals to award badges to incentivize authors to make data open, and to signify to readers that this has been done. For example, since 2014, *Psychological Science* awards an Open Data badge if authors provide the location of data in an open-access repository, and sufficient information for an independent researcher to reproduce the reported results. Studying the effect of this policy, Kidwell et al. (2016) report that before the introduction of badges, fewer than 3% of articles reported open data. By the first half of 2015, this had risen to 39%. This may be a good compromise for journals that want to encourage good methodology but are not ready to mandate requirements for publication. It also reinforces the trend for open data becoming standard practice. There are, of course, circumstances in which it is not possible or advisable to share data. For example, where this could violate participant's confidentiality, or where the data cannot be properly understood out of context (as may often be the case with qualitative studies).

Publishing Strategies

Researchers sometimes publish data on their own webpage, but an institutionally supported repository is recommended so that good practices such as cataloguing and regular backups are ad-

dressed, and the longevity of the data storage is assured. Data can be deposited with a general purpose data sharing service, such as the Dryad Digital Repository (http://datadryad.org/), the Open Science Framework (https://osf.io/), or figshare (https://figshare.com), or in a university-related archive, but a domain-specific repository has the advantage of being more visible to the specific research community, and thus will be more likely to be used, both for depositing and accessing data; this is the approach taken with *Psi Open Data*. A further advantage of a domain-specific repository is that it is generally much easier for a researcher to find the data they need. For example, *Psi Open Data* has a tagging and taxonomy system specifically designed for parapsychology and psychical research. It should be noted that, by virtue of the fact that the data are open, a dataset could appear in more than one repository.

Copyright and Database Right Considerations

Copyright is an intellectual property applicable to certain forms of creative work. Facts themselves (i.e., data) cannot be copyrighted, however copyright can protect the intellectual creativity of a database creator in the selection and arrangement of data in a database. The mere gathering of information (for example simply arranging a list of items in alphabetical order) is insufficient for the resultant database to acquire copyright (Pinsent Masons, 2008; U.S. Copyright Office, 1997). It seems that copyright is unlikely to pertain to the type of research databases under consideration here, although the position is not clear-cut. The duration of copyright, if it does apply, varies by jurisdiction, but is typically the life of the creator plus 50 or 70 years.

Database right ("Sui generis database right," 2017) is a property right similar to copyright, but applying to databases. In the EU and UK, database right lasts for 15 years from the creation of the database (in the UK, if the database is made available to the public within this period, then the 15-year protection period starts anew). Any substantial change to the database causes the 15-year period to recommence. As with copyright, if an employee constructs the database, the database right is owned by the employer. Database right does not currently apply in the USA.

In order to remove any doubt regarding the copyright and database right status of an open dataset, it is strongly recommended that an open data license is applied. Open Data Commons (https://opendatacommons.org/) provide three suitable options:

- The *Public Domain Dedication and License* is the most open; essentially all rights to the database are waived.
- The *Open Data Commons Attribution License* is similar, but requires anyone who makes public use of the data, or shares or adapts the data to attribute the original source.
- The *Open Database License* also requires attribution, but adds an additional condition that works produced from the database must also be open.

An open data license cannot be reversed, once the data is in the public domain it cannot be "unshared".

Confidentiality

Care must be taken to ensure that published data files do not contain personal data, for instance data about participants. Any database that contains data about living individuals who can be identified by the data or the data plus other information that users are likely to come into possession of will fall within the scope of data protection legislation.

Preparation of Data for Publication

It is considered best practice by some such as "The Leek group" (n.d.), to archive raw data that has not undergone any cleaning or transformation, to protect against the introduction of errors in cleaning and transformation processes. A cleaned dataset should also be archived, accompanied by a script, or exact instructions, for the transformation of the raw dataset to the cleaned version. A data dictionary or code book (an explanation of the meaning and format of each field) should also be included, as well as a description of the research that created the data, ideally in the form of a reference to an article in a peer-reviewed journal. With regard to the cleaned version, the file formats currently recommended by the UK data archive are set out in Table 1 (Van den Eynden, Corti, Woollard, Bishop & Horton, 2011).

Citation

The Task Group on Data Citation Standards and Practices (2013) studied the evolution of data citation practices and identified the following ten principles for data citation, which they offer as a guide to implementers:

1. *Status of Data:* Data citations should be accorded the same importance in the scholarly record as the citation of other objects.
2. *Attribution:* Citations should facilitate giving scholarly credit and legal attribution to all parties responsible for those data.
3. *Persistence:* Citations should be as durable as the cited objects.
4. *Access:* Citations should facilitate access both to the data themselves and to such associated metadata and documentation as are necessary for both humans and machines to make informed use of the referenced data.
5. *Discovery:* Citations should support the discovery of data and their documentation.
6. *Provenance:* Citations should facilitate the establishment of provenance of data.
7. *Granularity:* Citations should support the finest-grained description necessary to identify the data.
8. *Verifiability:* Citations should contain information sufficient to identify the data unambiguously.
9. *Metadata Standards:* Citations should employ widely accepted metadata standards.
10. *Flexibility:* Citation methods should be sufficiently flexible to accommodate the variant practices among communities but should not differ so much that they compromise interoperability of data across communities.

They observed that there are several types of persistent identifiers, but that the scheme that is gaining the most traction is the Digital Object Identifier (DOI), which was approved as an ISO standard in 2010. Ball and Duke (2015) provide further guidance about citing datasets.

Table 1
File Formats Recommended by the UK Data Archive

Type of Data	Recommended File Formats for Sharing, Re-use and Preservation
Quantitative tabular data with extensive metadata	SPSS portable format (.por)
A dataset with variable labels, code labels, and defined missing values, in addition to the matrix of data	Delimited text and command ('setup') file (SPSS, Stata, SAS, etc.) containing metadata information
	Some structured text or mark-up file containing metadata information, e.g. DDI XML file
Quantitative tabular data with minimal metadata	Comma-separated values (CSV) file (.csv)
	Tab-delimited file (.tab)
A matrix of data with or without column headings or variable names, but no other metadata or labelling	Including delimited text of given character set with SQL data definition statements where appropriate
Geospatial data	ESRI Shapefile (essential: .shp, .shx, .dbf; optional: .prj, .sbx, .sbn)
Vector and raster data	Geo-referenced TIFF (.tif, .tfw)
	CAD data (.dwg)
	Tabular GIS attribute data
Qualitative data	Extensible Mark-up Language (XML) text according to an appropriate Document Type Definition (DTD) or schema (.xml)
Textual	Rich Text Format (.rtf)
	Plain text data, ASCII (.txt)
Digital image data	TIFF version 6 uncompressed (.tif)
Digital audio data	Free Lossless Audio Codec (FLAC) (.flac)
Digital video data	MPEG-4 (.mp4)
	Motion JPEG 2000 (.jp2)
Documentation	Rich Text Format (.rtf)
	PDF/A or PDF (.pdf)
	OpenDocument Text (.odt)

Introducing *Psi Open Data*

Psi Open Data (https://open-data.spr.ac.uk) is a domain-specific open repository for data in the fields of parapsychology and psychical research. The repository was created and is operated by the SPR project, funded by a legacy from Nigel Buckmaster. Psi Open Data is constructed using DKAN, an open source open data platform with a full suite of cataloging, publishing and visualization features. DKAN allows administrator users to upload research datasets, and any visitor to search for and download research datasets.

Data Structures

In DKAN data are arranged in *catalogs*. In Psi Open Data all datasets will be reside in a single catalog. A catalog contains a collection of *datasets*, which are related collections of data, for example, all of the data files pertaining to a particular series of experiments. A dataset has metadata, which provide information about the dataset, for example, identification of the creators of the dataset. A dataset contains one or more *resources*, which are the individual data files, links to data files, or documents.

Each dataset belongs to a *group* (called a *publisher* in Psi Open Data), that is an organization or individual who contributes data to the repository. DKAN administrators can be assigned to a group, which confers access to add data within that group. This would allow universities and other research groups to upload their own datasets, although initially all datasets will be uploaded by the SPR data librarian.

Metadata

Each dataset is accompanied by the following metadata:

- Title
- Description
- Author (the creators of the dataset)
- Publisher (the contributing organization)
- Modified date
- Release date
- Unique Identifier
- Geographical coverage
- Temporal coverage
- License details
- Contact name (optional)
- Contact email (optional)

The APA citation for each dataset is also provided, enabling users to cite the datasets in academic publications. At the present time this is URL based, rather than using the DOI scheme, due to the costs of implementing the latter.

Data Classification and Search Facility

To assist users in finding the data they need, each dataset is assigned to a *topic*. The classification

system used, set out in Table 2, is an extension of the system employed in the SPR Abstracts Catalogue, which classifies the complete publishing history of the SPR. The extension was developed by a working group of SPR council members led by David Rousseau; it is an extension in that some categories are divided one more level down. As a further aid to locating datasets, each dataset can be assigned one or more *tags*. The range of tags applied will evolve as datasets are added. A search facility enables users to enter search terms, which are compared against the metadata values of each dataset. The search can be refined by selecting tags, topics and publishers. The description and metadata of each dataset are also indexed by Google, thus the datasets are discoverable via Google searches.

Preview and Download

In addition to allowing any data file to be downloaded, DKAN allows site visitors to preview tabular data. Data can be displayed as spreadsheet-style rows and columns, or in a bar, point or line graph. Data that contain either coordinates or GeoJSON can also be displayed in map view. DKAN also includes a number of APIs to allow direct communication with external applications. These features, however, are not currently enabled, as it is not expected that users will require access to data in this way.

Submitting Data to the Repository

Researchers who support the aims of the initiative are encouraged to contribute datasets. The best time to prepare data for publication is throughout the process of creating it, and while preparing the associated research report for publication, *not* at some later time when a request for the data is received. The effort to prepare data for open data practices is relatively small if the data are collected and managed with data sharing in mind. As well as datasets from current projects, old datasets are valuable and researchers are also encouraged to submit these. Datasets placed in the repository will continue to benefit generations of researchers long into the future.

Researchers wishing to submit a dataset to the repository should send a message to the data librarian via the Contact page within Psi Open Data. The librarian will contact the researcher requesting completion of a data submission form, which comprises sections for the contributor to select an open data license, attest that their dataset does not contain identifiable personal information, and specify values for the metadata fields. Researchers will be encouraged to provide the raw dataset (i.e., the dataset that was used when preparing their paper). A cleaned dataset may also be provided, ideally accompanied by a script or precise instructions describing the transformation from the raw data. Ideally all data fields will be described in a data dictionary, however comprehensive documentation is not mandatory, as it is recognized that in some cases, for example with old datasets, this may not be possible. It is possible to add a dataset to the repository but defer publication. In this case the unpublished content is saved, but is not visible on the website. This option may be suitable if the authors would like to embargo their data until publication of the corresponding article. Psi Open Data does not have the facility to allow restricted access to datasets, for example, to peer reviewers in advance of a paper's publication. Researchers are also encouraged to support the initiative by downloading and analyzing datasets.

Table 2
Topic Classification in Psi Open Data

Anomalous Abilities and Experiences of the Living
Spontaneous Phenomena
Subjective personal phenomena
Objective personal phenomena
Anomalous encounters and events
Anomalous group behaviour
Anomalous animal behavior
Volitional Psi
Anomalous influence
Anomalous knowledge
Experimental Psi
Anomalous influence
Anomalous knowledge
Anomalous Capacities and Altered States of Consciousness
Anomalous mental abilities
Anomalous functional abilities
Altered states of consciousness
Anomalous forms of being
Evidence Suggestive of Survival of Bodily Death
Mental Mediumship and Cross Correspondences
Physical Mediumship
Spontaneous Apparitions and NDEs
Hauntings and Poltergeists
Reincarnation

References

Ball, A., & Duke, M. (2015). *How to cite datasets and link to publications*. Retrieved from http://www.dcc.ac.uk/resources/how-guides/cite-datasets

Kidwell M. C., Lazarević L. B., Baranski E., Hardwicke T. E., Piechowski S., Falkenberg L. S., ... & Errington, T. M. (2016). Badges to acknowledge open practices: A simple, low-cost, effective method for increasing transparency. *PLoS Biology 14*(5). https://doi.org/10.1371/journal.pbio.1002456

Max-Planck-Gesellschaft (2003). *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities*. Retrieved from https://openaccess.mpg.de/Berlin-Declaration

Murray-Rust, P. (2008). Open data in science. *Serials Review, 34*(1), 52-64. https://doi.org/10.1016/j.serrev.2008.01.001

Murray-Rust, P., Neylon, C., Pollock, R, & Wilbanks, J. (2010). *Panton Principles. Principles for open data in science*. Retrieved from https://pantonprinciples.org/

Organisation for Economic Co-operation and Development (2007). *OECD Principles and Guidelines for Access to Research Data from Public Funding*. Retrieved from https://www.oecd.org/sti/scitech/38500813.pdf

Palmer, J. (1997). Correlates of ESP magnitude and direction in the PRL and RRC autoganzfeld databases. *Proceedings of Presented Papers: The Parapsychological Association 40th Annual Convention, 1997* (pp. 283-298).

Pang, K. D., Yau, K., & Chou, H. H. (1995). The Earth's palaeorotation, postglacial rebound and lower mantle viscosity from analysis of ancient Chinese eclipse records. *Pure and Applied Geophysics, 145,* 459-485. https://doi.org/10.1007/bf00879584

Pinsent Masons (2008). *Database rights: The basics*. Retrieved from https://www.out-law.com/page-5698

Research Councils UK. (2013). *RCUK Policy on Open Access and Supporting Guidance*. Retrieved from http://www.rcuk.ac.uk/documents/documents/rcukopenaccesspolicy-pdf/

Science Commons (2008). Principles for open science. Retrieved from http://sciencecommons.org/resources/readingroom/principles-for-open-science/

Spottiswoode, S. J. P. (1997a). Geomagnetic fluctuations and free-response anomalous cognition: A new understanding. *Journal of Parapsychology, 61,* 3-12.

Sui generis database right. (2017, January 30). In *Wikipedia.* Retrieved March 19, 2017, from https://en.wikipedia.org/w/index.php?title=Sui_generis_database_right&oldid=762696965

Task Group on Data Citation Standards and Practices (2013). Out of cite, out of mind: The current state of practice, policy, and technology for the citation of data. *Data Science Journal, 12,* CIDCR1-CIDCR75. https://doi.org/10.2481/dsj.osom13-043

The Leek group guide to data sharing (n.d.) Retrieved from https://github.com/jtleek/datasharing

U.S. Copyright Office (1997). *Report on legal protection for databases*. Retrieved from https://www.copyright.gov/reports/db4.pdf

Van den Eynden, V., Corti, L., Woollard, M., Bishop, L., & Horton, L. (2011). *Managing and sharing data; A best practice guide for researchers.* Retrieved from http://repository.essex.ac.uk/2156/1/managingsharing.pdf

Wicherts, J. M., Borsboom, D., Kats, J., & Molenaar, D. (2006). The poor availability of psychological research data for reanalysis. *American Psychologist, 61*, 726. https://doi.org/10.1037/0003-066x.61.7.726

Open data en Parapsychologie: Pour Introduire *Psi Open Data*

L'*open data* en science fournit des bénéfices importants, en particulier le potentiel d'accélérer les découvertes scientifiques, et la capacité pour la communauté de vérifier les résultats de recherche. En plus de ces bénéfices, cet article prend en considération les inquiétudes que certains chercheurs pourraient avoir par rapport à cette approche. Des considérations sur les stratégies de publication, de copyright et de base de données, sur la confidentialité, la préparation des données pour la publication, et la citation des bases de données sont également discutées, de même que l'importance de la politique des revues. La seconde section de l'article présente le *Psi Open Data* (https://open-data.spr.ac.uk), un référentiel ouvert pour les données de la parapsychologie et de la recherche psychique lancé par la Société de recherche psychique. Ce référentiel est construit en utilisant DKAN, une plateforme d'open data qui est open source, avec un ensemble complet de fonctions de cataloguage, publication et visualisation. Il permet aux administrateurs de télécharger des bases de données de recherche, et aux visiteurs de parcourir et télécharger ces bases de données. Différents aspects de ce référentiel sont décrits : les structures des données, les méta-données, la classification des données, la prévision et les possibilités de téléchargement. Les chercheurs sont encouragés à soutenir ce référentiel en contribuant aux bases de données avec des travaux actuels ou antérieurs.

Open Data in der Parapsychologie: Vorstellung von *Psi Open Data*

Open Data in der Wissenschaft bieten wichtige Vorteile, am auffälligsten das Potential, wissenschaftliche Entdeckungen zu beschleunigen, und die Fähigkeit der Community, Forschungsergebnisse zu verifizieren. Zusätzlich zur Erläuterung dieser Vorteile behandelt dieser Beitrag die Vorbehalte, die einige Forscher in Bezug auf diesen Zugang haben könnten. Diskutiert werden auch Publikationsstrategien, Fragen von Copyright und Rechte an Datenbanken, Vertraulichkeit, Aufbereitung von Daten für die Veröffentlichung und das Zitieren von Datensätzen wie auch die Bedeutung für die Publikationspolitik von Zeitschriften. Im zweiten Teil des Beitrages werden die *Psi Open Data* (https://open-data.spr.ac.uk) vorgestellt, ein offenes Repositorium für Parapsychologie und Psychische Forschung, das kürzlich von der Society for Psychical Research ins Leben gerufen wurde. Das Repositorium verwendet DKAN, eine quelloffene Datenplattform mit einer vollen Abfolge an Funktionen zur Katalogisierung, Veröffentlichung und Visualisierung. Es gestattet Admininstratoren, Forschungsdatensätze hochzuladen, und jedem Besucher, Datensätze zu durchsuchen und herunterzuladen. Verschiedene Aspekte des Repositoriums werden beschrieben: Datenstrukturen, Metadaten, Datenklassifikation, Vorausschau und Möglichkeiten zum Download. Forscher werden aufgefordert, das Repositorium zu unterstützen und Datensätze laufender und früherer Forschungsarbeiten zur Verfügung zu stellen.

Acceso Abierto a Datos: Presentando *Psi Open Data*

El acceso abierto a datos en la ciencia conlleva importantes beneficios, sobre todo el potencial para acelerar el descubrimiento científico y dar a la comunidad la capacidad de verificar los resultados de la investigación. Además de explorar estos beneficios, este trabajo considera las preocupaciones que algunos investigadores pueden tener sobre este enfoque. También se discuten las estrategias de publicación, las consideraciones de derecho de autor y de base de datos, la confidencialidad, la preparación de datos para su publicación, y la cita de conjuntos de datos, así como la importancia de las pràcticas de la revista. La segunda sección del documento presenta Psi Open Data (https://open-data.spr.ac.uk), un repositorio abierto de datos de parapsicología e investigación psíquica recientemente lanzado por la Society for Psychical Research. El repositorio se construye utilizando DKAN, una plataforma de datos abiertos de código abierto con un conjunto completo de funciones de catalogación, publicación, y visualización. Permite a los usuarios administradores cargar conjuntos de datos de investigación, y cualquier visitante puede buscar y descargar conjuntos de datos. Se describen diversos aspectos del repositorio: estructuras de datos, metadatos, clasificación de datos, vista previa, e instalaciones de descarga. Se alienta a los investigadores a respaldar el repositorio contribuyendo conjuntos de datos de trabajos actuales y previos.