REPOPSI: The open repository of psychological instruments in Serbian

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Abstract: The Repository of Psychological Instruments in Serbian (REPOPSI; https://osf.io/5zb8p/), run by the Laboratory for Research of Individual Differences at the University of Belgrade and hosted on the Open Science Framework, is an open-access repository of psychological instruments. REPOPSI is a collection of over 130 instruments (e.g., scales, tests) commonly used in social and behavioral science research. Documented are Serbian, English and multilingual instruments, which can be used free of charge for non-commercial purposes (e.g., academic research or education). We argue that REPOPSI enables scientists to increase the efficiency of their research and the visibility of their output. We analyze REPOPSI's commitment to ensure that its (meta)data is findable, accessible, interoperable, and reusable (the FAIR Data Principles) and its trustworthiness with respect to transparency, responsibility, user focus, sustainability, and technology (the TRUST principles). Finally, we describe how the FAIR and the TRUST principles will support the process of continuous improvement of REPOPSI.

Keywords: digital repository; FAIR principles; TRUST principles; research data; psychological measures.

I. Introduction

To assess individual differences, social and behavioral science researchers either adapt existing instruments or develop new ones. The majority of the standardized instruments have been originally created in English and need to be translated and adapted to other cultural contexts. Although there are notable exceptions where researchers digitally keep a record of all of the translations/adaptations of a specific instrument (e.g., HEXACO-PI-R [1] or IPIP Items [2]), until recently, there was no centralized repository of such translations/adaptations in Serbian. It was not uncommon for several research groups to unknowingly work on the same translations/adaptations either simultaneously or at different points in time. This decreases the efficiency of the research process by causing redundant expenses and overlapping efforts. At the same time, local researchers have developed original instruments for the assessment of novel constructs (e.g., new personality traits, [3]) or for the assessment of constructs underrepresented in the research toolkit (e.g., superstition, [4]). However, the opportunities to ensure the visibility and reusability of such instruments were limited.

The Repository of Psychological Instruments in Serbian (REPOPSI; https://osf.io/5zb8p/) is an open-access digital repository for psychological instruments (e.g., items, scales, questionnaires, tests). Most of the instruments measure characteristics of individuals (e.g., personality, attitudes, beliefs, emotions, values, intentions) and are developed to be used in social and behavioral science research. REPOPSI is designed to document primarily instruments in Serbian as well as instruments translated into Serbian and/or adapted for the Serbian population. Also documented are versions of these instruments in English as well as in other languages. Because of this, not only Serbian but also international, and especially regional, researchers can benefit from REPOPSI, with the Serbian translations often being a useful starting point for further adaptations for the Bosnian-Croatian-Montenegrin-Serbian (BCMS) language. The instruments are used free of charge for non-commercial purposes (e.g., academic research or education). More precisely, all Repository content is under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International license [5].

REPOPSI was established and is maintained by researchers and students at the Laboratory for Research of Individual Differences (LIRA; https://lira.f.bg.ac.rs/en/) at the University of Belgrade Faculty of Philosophy (UBFZF; http://www.f.bg.ac.rs/en2). REPOPSI is hosted on the Open Science Framework (OSF; https://osf.io/) platform. OSF – the flagship product of the nonprofit Center for Open Science (COS; https://www.cos.io/) – is "a free, open source web application that connects and supports the research workflow" [6]. Researchers at LIRA typically use OSF for managing their projects and collaborations and rely on OSF's secure cloud environment for data storage (e.g., [7], [8], [9], [10]).

II. REPOPSI structure, contribution, and maintenance

REPOPSI is a "*project*" on OSF, which is the largest unit of categorization supported. The project is titled "Repository of psychological instruments in Serbian [Repozitorijum psiholoških instrumenata na srpskom jeziku] (REPOPSI)". It has been assigned a unique, persistent URL (https://osf.io/5zb8p/) and a Digital Object Identifier (https://doi.org/10.17605/OSF.IO/5ZB8P). The customized tags in English are automatically indexed by the search for public content on OSF and the project may be displayed in search engine results. The Repository has its own built-in, publicly available analytics (https://osf.io/5zb8p/analytics/) that tracks unique visits

and popular pages over time. The project's Wiki page – available in both English (https://osf.io/5zb8p/wiki/home/) and Serbian (https://osf.io/5zb8p/wiki/srpski/) – provides the following information to users: REPOPSI's scope and purpose, instructions for use and for contributing, terms of use, and a disclaimer.

REPOPSI's OSF project was made publicly available on March 6, 2020. It currently contains 140 instrument records (last updated: August 29, 2020): 101 instruments are open-access and available in the Repository; 3 instruments are open-access but are available elsewhere online; and 36 instruments are available upon request from the contact author. The latter could not be made open because of, for example, ethical constraints or the instrument administration protocol. All records are listed in the Inventory (https://osf.io/mxrc2/), which is available in two file formats (CSV and XLSX). The Inventory is directly searchable by users within the OSF application via a search box. Additional materials for the Repository (e.g., promotional posters) are made available in a public GitHub repository (https://github.com/liralab-bgd/repopsi). Individuals who wish to contribute to REPOPSI are invited to fill in the *contribution form*, which is available upon request at the LIRA email address. Once the filled-in form is sent back to LIRA, it is reviewed as quickly as possible and the instrument is deposited in REPOPSI's OSF project.

The contribution form is available in various file formats, as needed (e.g., CSV, ODS, XLSX, GSHEET). It contains detailed instructions in English for the contributors, along with input formats and example inputs. The form contains both mandatory and optional fields divided into two parts.

The first part of the contribution form provides a brief overview of the instrument as well as the authorship and citation details. The mandatory fields are the title in English and Serbian, title abbreviation, terms of use, keywords in English, languages in which the instrument is to be deposited, followed by the citation, authors, and date of creation for the original and, if applicable, the translated/adapted instrument. The optional fields include specialized tags in English which differentiate between different versions of the instrument (e.g., short-form, self-report, version for service providers), publisher, funding sponsors and contractual arrangements, a maximum 300-word abstract in English, contact person, an external open-access link to the instrument, and additional notes in English (e.g., about the availability of additional translations). Information provided in this part of the contribution form is entered as metadata in the Inventory.

The second part of the contribution form provides information on the instrument itself, that is, on the original instrument and, if applicable, on one or more translations/adaptations of the same version of the instrument. Here, the only mandatory field contains the items of the instrument and, if applicable, their presentation order, while all other fields are optional. They include the introductory sentences and instructions that respondents receive as well as the response scale on which respondents answer the items (e.g., the number of response categories together with their numerical or verbal labels); this is followed by instructions for instrument administrators (which may be provided either in English or in the language of the instrument), including scoring instructions (e.g., whether an item or scale recoding is necessary, how items are combined to form the total score), and additional notes (e.g., about the translation procedure). Together with the form, contributors may also submit the scoring code as a file format of their choosing (e.g., R code file, SPSS syntax file).

REPOPSI's *maintenance team* handles the contributions. The team currently consists of eight members, who are all researchers, PhD students or graduate students at LIRA: the project administrator (admin), four associates, and three supervisors. The admin communicates with the contributors, organizes and coordinates team activities, and trains the associates. The associates have at their disposal a manual for reviewing, cleaning, and depositing the contributions. The manual is continually updated and revised; it details the procedure and provides screenshots as examples. The team collaborates using a private folder on Google Drive (https://www.google.com/intl/en/drive/), which doubles as back-up storage for the Repository contents.

Each instrument is deposited into its own public "*component*", that is, a sub-project in REPOPSI's top-level OSF project. The component holds all of the versions, translations, and adaptations of the same instrument. Each contribution is documented as a separate file, available in two open formats – the Open Document Format for Office Applications (ODT) and the Portable Document Format (PDF). The scoring code file is also added to the component. All files follow file naming conventions: "abbreviation_version_language(s)" and "abbreviation_version_syntax". A built-in version control maintains a record of all previous copies of a file. Each component and each file has a unique, persistent URL so that it can be cited or linked to individually. For example, the URL of the "Disintegration Scale - DELTA9" component is https://osf.io/s9ezy/, while the URL of the "delta9_20_srp_eng_ger.odt" document in this component is https://osf.io/p5shr/. The customized component name and contributor-generated tags in English are automatically indexed by search for public content on OSF and the component may be displayed in search engine results. The download count of files is publicly available in the "Files" page of the project (https://osf.io/5zb8p/files/).

III. The FAIR and TRUST guiding principles

Many in the Open Access community are familiar with the *FAIR Data Principles* [11], [12], which state that all research objects should be Findable, Accessible, Interoperable, and Reusable (i.e., FAIR) both for people and for machines. However, to make data FAIR and to keep it FAIR over time requires trustworthy digital repositories [13]. Recently, representatives from across the digital repository community have published the collaboratively-developed *TRUST Principles* that offer guidance for maintaining the trustworthiness of digital repositories, especially those responsible for the stewardship of research data [13], [14]. Transparency,

Responsibility, User focus, Sustainability, and Technology are the five TRUST Principles. Together, the TRUST Principles are complementary to the FAIR Data Principles and aim to facilitate discussion around implementing best practices in the area of digital preservation.

To allow for more efficient and effective use of data, REPOPSI has adopted the FAIR Data Principles and has implemented the TRUST Principles. Currently, both sets of principles are adopted/implemented in part rather than completely. In the future, the FAIR and TRUST principles will lead REPOPSI along the continuum towards its optimal state; in other words, we will strive to make the data as FAIR and the Repository as TRUSTworthy as possible.

Here, we will provide a brief self-assessment of the extent to which REPOPSI, in its current state (as described above), has adopted the FAIR Data Principles as well as of the extent to which it has implemented the TRUST Principles. In addition to being measures of performance, these principles serve as REPOPSI's internal objectives, which will also be presented later in the paper.

A. The FAIR Data Principles as a tool for self-assessment

The FAIR Data Principles, along with their identifiers, are available in the Scientific Data comment published in 2016 [13]. To evaluate REPOPSI's (meta)data, we used the 15 FAIRsFAIR (https://www.fairsfair.eu/) data assessment metrics [15]. The brackets contain the FAIR principle identifier.

The data is assigned a globally unique (F1) and a persistent identifier (F1), that is, a URL. Metadata includes some of the descriptive core elements (i.e., author, title, data identifier, publication date, and keywords) for every instrument, as well as the publisher (where applicable) and a summary (for some of the instruments) (F2) to support data findability. Furthermore, the main metadata document (i.e., the Inventory) specifies the identifier of the data (i.e., component URL) such that users can access the data through the metadata (F3). Metadata is registered or indexed in a searchable resource (e.g., the Inventory; OSF tags), that is, it is available in a machine-readable format (F4). Metadata specifies levels of instrument availability as well as its public-domain-equivalent license (A1). Although, loosely speaking, REPOPSI's metadata uses a formal, accessible, shared, and broadly applicable language, it is not represented using a formal knowledge representation language (such as RDF or OWL) (I1), nor does it incorporate additional terms from semantic resources (e.g., from ontologies, thesauri or taxonomies) (I1). Metadata links the instrument to its related resources (when the contributor provides such resources), including publication, an external repository, platform or site; although persistent identifiers are used when possible (e.g., DOI for publication), links between an instrument and its related entities are not expressed through relation types (such as the ones listed in, for example, the DataCite Metadata Schema, https://schema.datacite.org/) (I3). Metadata richly describes the contents of the instruments, using a number of accurate and relevant properties, such as language and instrument version; however, the mandatory and optional fields of the contribution form may influence metadata completeness (R1). Metadata includes license information under which data can be reused. However, a clear and accessible data usage license with the conditions under which data can be reused is provided only in the OSF project's Overview and Wiki pages; other metadata contains only the Creative Commons license code (i.e., CC BY-NC-SA 4.0) (R1.1). Metadata contains some useful information on the instrument provenance, such as instrument source, instrument creation date, maintenance team members involved in depositing data, data publication and versioning information, references to related works (e.g., scientific articles or associated instruments) (R1.2). Metadata follows a standard recommended by the target research community (e.g., the machine-readable Inventory) (R1.3). The instruments are available in file formats widely used by the target research community; for example, the PsychArchives repository [16] also deposits psychological tests as PDF files However, even though some of the files are very human-readable, they are not machine-readable (R1.3).

B. The TRUST Principles as a tool for self-assessment

A short description of each of the TRUST principles is reproduced in Table 1. To evaluate REPOPSI's organizational, managerial, stewardship, and technological capabilities, we used the guidelines provided in the 2020 Scientific Data comment by Lin and colleagues [13] (see also [17]). The brackets contain the TRUST principle identifier (Tr for Transparency, R for Responsibility, U for User focus, S for Sustainability, and Tec for Technology).

Table 1: The TRUST Principles for digital repositories (reproduced from [13], http://creativecommons.org/licenses/by/4.0/)

Principle	Guidance for repositories
Transparency	To be transparent about specific repository services and data holdings that are verifiable by publicly accessible evidence.
Responsibility	To be responsible for ensuring the authenticity and integrity of data holdings and for the reliability and persistence of its service.
User Focus	To ensure that the data management norms and expectations of target user communities are met.
Sustainability	To sustain services and preserve data holdings for the long-term.
Technology	To provide infrastructure and capabilities to support secure, persistent, and reliable services.

REPOPSI's "data preservation", "data persistence", and "data integrity" capabilities are largely dependent on OSF (Tr; R; S). First, OSF stores files with long-term and robust preservation in mind (e.g., multiple locations, multiple services, data integrity checks, and data recovery) [18]. Second, others can access all public content via OSF's open API (documentation is available at https://developer.osf.io/). Third, COS established a

preservation fund to host a static version of OSF in the event that COS ceases to function. This fund is sufficient for 50+ years of read access hosting at present costs [19]. Fourth, OSF provides a high-level of security to ensure data integrity (e.g., two-factor account authentication, multi-regional storage buckets, three types of hashes for files, advanced database backup features) [18].

The mission statement and scope of REPOPSI are clearly stated in the OSF project's Wiki pages (Tr). Terms of use, both for the Repository and for the instruments it holds, are transparently declared (Tr). Evidence of the data documentation and curation services that REPOPSI offers is not entirely publicly accessible (Tr). Specifically, the work that the maintenance team puts into improving users' contributions is not visible until the data is ready to be deposited into the OSF component. REPOPSI adheres to the designated community's metadata and curation standards (R). The extent to which REPOPSI has adopted the FAIR Data Principles so far can assure the potential users that the data is likely to be useful, discoverable, and interoperable. REPOPSI provides various data services (e.g., it provides a searchable inventory with rich metadata); furthermore, users can benefit from different OSF services (such as version history or viewing, downloading, and sharing files) (R). REPOPSI demonstrates some responsibility for the stewardship of the instruments (R). While it provides long-term persistence as well as technical validation and documentation, both quality control and authenticity protection are rather low as they include only informal vetting of the contributors and the instrument translations/adaptations. REPOPSI relies on users to decide under what conditions it is appropriate to open their work and to seek approval from original authors if needed (R). Only the contact information provided in the contribution form is deposited in REPOPSI (R). When flagged by users, REPOPSI will remove instruments from public access, if needed (R). REPOPSI strives to enforce standards and norms for data practices of its target user community (i.e., social and behavioral science researchers and students). By using OSF and adopting FAIR Data Principles, REPOPSI enables its community to find, explore, and understand its contents with regard to potential (re)use (U). REPOPSI encourages its contributors to fully describe the instruments and its users to provide feedback on any issues with the data (U). Relevant data metrics (e.g., the download count) are available to users (U). REPOPSI's plans and practices to ensure long-term data preservation and use are still in the conceptualization phase (S). While no funding is needed at this point, REPOPSI will have to sufficiently plan for risk mitigation, disaster recovery, and succession. REPOPSI relies on OSF to provide the infrastructure necessary to support its secure, persistent, and reliable services (Tec). The mechanisms to mitigate cyber or physical security threats have not yet been considered (Tec).

IV. Applications of REPOPSI

A. Applications in collaborative research projects

The quality of large-scale collaborations or cross-cultural research mainly depends on the quality of the materials used in the studies, as it determines the veracity, reliability and validity of the scientific investigation [20]. Translating and preparing instruments for cross-cultural research is essential and a complex process [21]. The main goal is to achieve conceptual equivalence between translations of the instrument as it heavily influences the quality of the research [22]. When translating and/or adapting instruments to Serbian, researchers typically follow high-quality standards – that is, either the standard forward-backward translation process [23] or recommendations for translation developed by the Psychological Science Accelerator [24] – and this procedure is a requirement if research using the instrument is to be published in a peer-reviewed scientific journal. Therefore, one of the main advantages of REPOPSI is that researchers and students have access to a large number of already prepared questionnaires, scales, and inventories. This facilitates participation in large-scale collaborations (e.g., [24], [25]), especially when a fast response from researchers is required (e.g., in the times of health crises like the COVID-19 pandemic, [8], [9], [26]).

B. Applications in teaching and learning

Starting from the academic year 2019/2020, second-year psychology students at UBFZF are actively encouraged to make use of REPOPSI. Namely, within the Psychology of Individual Differences, Psychometrics 1, and Psychometrics 2 courses, groups of four to five students work together to create, and later validate, a psychological instrument assessing individual differences in personality, ability, attitudes, and so on. To create a novel instrument, students can benefit from an insight into existing instruments measuring the same or similar constructs. Moreover, the process of construct validation typically entails administering – apart from the instrument being validated – an already established instrument assessing the desired construct as well. For both of these purposes, students can search REPOPSI and download the needed instruments, whenever they are available. Apart from being able to look for specific instruments by their name, students can also search the Repository by keywords (tags), and thus potentially discover additional instruments they were previously unaware of. To our knowledge, all student groups searched the Repository at some point during the academic year, and many of them used the instruments downloaded from the Repository in their validation studies. Finally, students can also be contributors to REPOPSI. When an instrument needed for the validation study has not yet been translated into Serbian, students often translate the instrument themselves. When the quality of the translation is assessed as satisfactory by the course teachers, students are invited to fill in the contribution form and help the Repository grow in this way.

V. REPOPSI's plans for improvement and growth

As noted earlier, we will use the FAIR Data Principles and the TRUST principles as guidelines to improve REPOPSI. Here, we present four concrete ways in which we plan to do so.

First, we plan to make the instruments deposited into REPOPSI more machine-readable, which should help increase their *Reusability*. This can be achieved by copying the items, the introductory sentences, the instructions, and the response scale of the instrument into a CSV or an XML file[1].

Second, to increase the *Transparency* of REPOPSI's specific services, we plan to move the work of the maintenance team to a public repository on GitHub and to make the maintenance manual open-access. That way, the enhancements to the initial contributions (such as edits and additions to the metadata) would be more visible.

Third, we plan to make the contribution form open-access and to offer it in an online survey form that is easier for the users to fill in. That way, REPOPSI would demonstrate greater adherence to the principles of *Transparency*, *User Focus*, and *Technology*.

Fourth, we plan to increase *User Focus* by promoting REPOPSI to a wider audience. So far, undergraduate and graduate psychology students at the UBFZF as well as LIRA members have been invited to use REPOPSI and to contribute to it. REPOPSI is also visible on LIRA's webpage dedicated to open science [27] and is promoted on LIRA's Facebook (https://www.facebook.com/LIRAlab.bgd/) and Twitter (https://twitter.com/LIRAlab_bgd) accounts. In the future, we plan to promote REPOPSI on the UBFZF website, to create a Wikipedia (https://www.wikipedia.org/) entry for it, and to promote it on academic social networking sites such as ResearchGate (https://www.researchgate.net/) or LinkedIn (https://www.linkedin.com/). We also plan to spread the word about REPOPSI to international, and especially regional, associations. REPOPSI could be added to a global registry of research data repositories such as re3data (https://www.re3data.org/) as well. Such efforts would likely not only facilitate the discovery of the instruments deposited in the Repository but would also increase the number of contributions to it. We expect that REPOPSI would thus continue to grow over the following years.

VI. Conclusion

The open-access repositories of psychological instruments adapted for non-English speaking countries are few. Notable exceptions include the PsychArchives

[16] and the ZIS [28] repositories, which store English, but also German, as well as multilingual measurement instruments. REPOPSI (https://osf.io/5zb8p/), run by LIRA and hosted on OSF, is the first open-access repository of psychological instruments in Serbian.

A 2017 report by the Organization for Economic Co-operation and Development (OECD) concluded that "Research data repositories are an essential part of the infrastructure for open science. They bring considerable economic, scientific, and social benefits" ([29], p. 58). The benefits of a repository of open original psychological instruments and their translations are manifold – and this applies to REPOPSI as well. It streamlines the research process by making it easier to collect, find, reuse, and preserve the translations. Researchers and students benefit from having open access not only to the instruments but also to their scoring and administration principles. Moreover, the Repository saves them the resources that would otherwise go into the often laborious process of translating and adapting measures. REPOPSI allows local researchers to contribute their own original instruments or translations – predominantly in BCMS but also in other languages. This offers them the opportunity to reach a wider, international audience.

Based on the presented self-assessment of the extent to which REPOPSI has adopted the FAIR Data Principles, we can safely conclude that the Repository's (meta)data fulfills at least the minimal criteria for FAIRness [30]: a) data is assigned a globally unique and a persistent identifier; b) there is sufficient amount of metadata to make the instruments findable but also understandable and reusable by users; and c) (meta)data has clear license information. Furthermore, based on the self-assessment of the extent to which REPOPSI has implemented the TRUST Principles, we believe that the Repository, in its current state, demonstrates satisfactory TRUSTworthiness, that is, adherence to the principles of Transparency, Responsibility, User focus, Sustainability, and Technology. Finally, we have concrete plans to improve the FAIRness of REPOPSI's data as well as its overall TRUSTworthiness. REPOPSI will monitor and identify its target community's changing needs so that it can continue to provide a reliable, responsive, and consistent service.

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[1] Some online survey software tools most commonly used for social science research that allow the user to import entire question packages (such as Qualtrics, https://www.qualtrics.com/core-xm/survey-software/ or SoSci Survey, https://www.soscisurvey.de/) rely on different file formats to achieve that (e.g., TXT or XML). On the other hand, most of the survey software tools allow the user to paste several items at once (even from a non-machine-readable format) into a question editor. This lack of uniformity will make it challenging to choose the machine-readable file format which is the most appropriate for REPOPSI's target community.

References

[1] "HEXACO-PI-R Materials for Researchers," http://hexaco.org/hexaco-inventory [Accessed Sept. 20, 2020].

[2] "Translating IPIP Items into Other Languages," https://ipip.ori.org/newItemTranslations.htm [Accessed Sept. 20, 2020].

[3] G. Knezevic, D. Savic, V. Kutlesic, and G. Opacic, "Disintegration: A reconceptualization of psychosis proneness as a

personality trait separate from the Big Five," *Journal of Research in Personality*, vol. 70, pp. 187–201, Oct. 2017, https://doi.org/10.1016/j.jrp.2017.06.001.

[4] I. Zezelj, M. Pavlovic, M. Vladisavljevic, and B. Radivojevic, "Construction and behavioral validation of superstition scale," *Psihologija*, vol. 42, no. 2, pp. 141–158, 2009, https://doi.org/10.2298/PSI0902141Z.

[5] "Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)," Creative Commons, https://creativecommons.org/licenses/by-nc-sa/4.0/ [Accessed Sept. 20, 2020].

[6] S. Bowman *et al.*, "OSF," OSF, https://osf.io/4znzp/ [Accessed Sept. 1, 2020].

[7] G. Knežević, L. B. Lazarević, C. Montag, and K. Davis, "Relations between lexical and biological perspectives on personality: New evidence based on HEXACO and Affective Neuroscience Theory," *Journal of Personality Assessment*, vol. 102, no. 3, pp. 325–336, Apr. 2019, https://doi.org/10.1080/00223891.2018.1553782.

[8] P. Teovanovic, P. Lukic, Z. Zupan, A. Lazić, M. Ninković, and I. Zezelj, "Irrational beliefs differentially predict adherence to guidelines and pseudoscientific practices during the COVID-19 pandemic," PsyArXiv, May 20, 2020, https://doi.org/10.31234/osf.io/gefhn.

[9] L. B. Lazarevic, D. Purić, P. Teovanovic, G. Knezevic, P. Lukic, and Z. Zupan, "What drives us to be (ir)responsible for our health during the COVID-19 pandemic? The role of personality, thinking styles and conspiracy mentality," PsyArXiv, Jun. 22, 2020, https://doi.org/10.31234/osf.io/cgeuv.

[10] L. B. Lazarevic *et al.*, "Many Labs 5: Registered replication of LoBue and DeLoache (2008)," *Advances in Methods and Practices in Psychological Science*, 2020, https://doi.org/10.1177/2515245920953350.

[11] "Guiding principles for findable, accessible, interoperable and re-usable data publishing version b1.0," FORCE11, https://www.force11.org/fairprinciples.

[12] M. D. Wilkinson *et al.*, "The FAIR Guiding Principles for scientific data management and stewardship," *Scientific Data*, vol. 3, no. 1, Mar. 2016, https://doi.org/10.1038/sdata.2016.18.

[13] D. Lin *et al.*, "The TRUST Principles for digital repositories," *Scientific Data*, vol. 7, no. 1, May 2020, https://doi.org/10.1038/s41597-020-0486-7.

[14] "The TRUST principles: An RDA community effort," RDA, https://www.rd-alliance.org/rda-community-effort-trust-principles-digital-repositories [Accessed Sept. 1, 2020].

[15] A. Devaraju *et al.*, "FAIRSFAIR data object assessment metrics," Zenodo, Jul. 10, 2020, https://doi.org/10.5281/zenodo.3934401.

[16] PsychArchives, https://www.psycharchives.org/ [Accessed Sept. 20, 2020].

[17] "The TRUST principles for trustworthy data repositories – An update," RDA, https://www.rd-alliance.org/trust-principles-trustworthy-data-repositories-%E2%80%93-update [Accessed Sept. 1, 2020].

[18] B. A. Nosek *et al.*, "NSF 19-501 AccelNet proposal: Community of Open Scholarship Grassroots Networks (COSGN)", MetaArXiv, Jan. 30, 2020, https://doi.org/10.31222/osf.io/d7mwk.

[19] S. Bowman, "FAQs," OSF Guides, https://help.osf.io/hc/en-us/articles/360019737894-FAQs [Accessed Sept. 1, 2020].

[20] H. Moshontz *et al.*, "The Psychological Science Accelerator: Advancing psychology through a distributed collaborative network," *Advances in Methods and Practices in Psychological Science*, vol. 1, no. 4, pp. 501–515, Oct. 2018, https://doi.org/10.1177/2515245918797607.

[21] P. S. Jones, J. W. Lee, L. R. Phillips, X. E. Zhang, and K. B. Jaceldo, "An adaptation of Brislin's translation model for cross-cultural research," *Nursing Research*, vol. 50, no. 5, pp. 300–304, Sep. 2001, https://doi.org/10.1097/00006199-200109000-00008.

[22] J. Choi, K. E. Kushner, J. Mill, and D. W. L. Lai, "Understanding the language, the culture, and the experience: Translation in cross-cultural research," *International Journal of Qualitative Methods*, vol. 11, no. 5, pp. 652–665, Dec. 2012, https://doi.org/10.1177/160940691201100508.

[23] R. W. Brislin, "Back-translation for cross-cultural research," *Journal of Cross-Cultural Psychology*, vol. 1, no. 3, pp. 185–216, Sep. 1970, https://doi.org/10.1177/135910457000100301.

[24] C.-P. Hu *et al.*, "Data from the Human Penguin Project, a cross-national dataset testing social thermoregulation principles," *Scientific Data*, vol. 6, no. 1, Apr. 2019, https://doi.org/10.1038/s41597-019-0029-2.

[25] J. H. Zickfeld *et al.*, "Kama muta: Conceptualizing and measuring the experience often labelled being moved across 19 nations and 15 languages.," *Emotion*, vol. 19, no. 3, pp. 402–424, Apr. 2019, https://doi.org/10.1037/emo0000450.

[26] I. M. Veer *et al.*, "Psycho-social factors associated with mental resilience in the Corona lockdown," PsyArXiv, Apr. 22, 2020, https://doi.org/10.31234/osf.io/4z62t.

[27] "Open science and cross-cultural studies," Laboratory for research of individual differences, https://lira.f.bg.ac.rs/en/open-science-and-cross-cultural-studies/ [Accessed Sept. 20, 2020].

[28] "Open Access Repository for Measurement Instruments," GESIS – Leibniz Institute for the Social Sciences, https://zis.gesis.org/en [Accessed Sept. 20, 2020].

[29] OECD, "Business models for sustainable research data repositories," OECD Science, Technology and Industry Policy Papers, Dec. 2017, https://doi.org/10.1787/302b12bb-en.

[30] CESSDA Training Team, "CESSDA Data Management Expert Guide," CESSDA ERIC, Bergen, Norway, Jan. 2020, https://doi.org/10.5281/zenodo.3820473.