

Neue Publikationsformate und -strukturen in der Psychologie

Möglichkeiten und Herausforderungen für die
Bereitstellung und Qualitätssicherung von
Forschungsdaten, Metadaten, Skripten & Co.

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Mehr Transparenz!

Mehr Transparenz für die Forschung

Alles hochladen?

Offene Daten, offene Begutachtung, offene Experimente - ein Transparenzvirus geht um. Löst das die Probleme mit Geheimniskrämerei, schlechter Forschung und trägen Publikationen? Wie viel Zeit zum Nachdenken bleibt noch?

Frankfurter Allgemeine
Wissen



*Empirische Forschung soll
transparenter werden!*



Badges for Open Practices developed by COC (Center for Open Science)





Inhalte einer *schönen neuen [sprich: transparenten] Publikationswelt*

- **Forschungsdaten, Forschungsergebnisse***

- Vollständige Primärdaten, abgeleitete Daten, ...

*Auch aus unveröffentlichten Studien, auch nicht-signifikante, auch Replikationen!

- **Metadaten**

- zur Datenerhebung (Sampling, Messinstrumente, Versuchssteuerung, ...)
- zur Datenkodierung (Codebuch)
- zur Datenanalyse (Statistische Verfahren, verwendete Software, ...)

- **Versuchsmaterialien, Skripte und weitere Artefakte**

und natürlich auch: **Zeitschriftenartikel, Bücher u. ä.**

Eine neue Publikationsinfrastruktur?

Empirische Forschung soll transparenter werden!

... aber wie sieht es mit der **Infrastruktur** aus?

“ *There is a broad range of options: repositories housed at the author's institution or personal website, a website serving a group of scientists with a shared interest, or a journal website.*

Asendorpf et al., 2013.

“ *Figshare [...] offers a repository for data and methods or materials for private archiving or public sharing. Further, the Open Science Framework (...) is a Web-based project management framework for documenting and archiving research materials, analysis scripts, or data [...].*

Nosek et al., 2012.

Veröffentlichungswege

“Publish materials, data, and analysis scripts” (Asendorpf et al., 2013)

- Nicht auf Wissenschaftskommunikation spezialisierte Systeme
 - E-Mail Versand
 - Filehosting und Filesharing Systeme („Dropbox“ u. ä.)
 - individuelle, institutionelle oder projektspezifische Webseiten
 - ...
- Auf Wissenschaftskommunikation spezialisierte Systeme
 - „Supplemental Journal Article Materials“
 - Repositorien und Datenzentren
 - ...

Anforderungen

- Nachhaltigkeit – z. B.:
 - Langzeitverfügbarkeit (Langzeitarchivierung)
 - Technische Langzeiterhaltungsmaßnahmen
- Standards – z. B.:
 - Metadatenstandards (Dokumentationsstandards)
 - technische Standards
- Qualitätssicherung – z. B.:
 - Prüfung von Konsistenz, Vollständigkeit
 - Sicherung von Authentizität und Integrität
- Auffindbarkeit

Z. B. Nachhaltigkeit

Beispiel:

Journal of Personality and Social Psychology, Vol 105(5), Nov 2013, S. 876

³ The full template for all 100 CAQ items is available as a supplemental table at <http://psy2.fau.edu/~shermanr/Pubs.html/LifeHistorySupplement.zip>



Not Found

The requested URL [/~shermanr/Pubs.html/LifeHistorySupplement.zip](http://psy2.fau.edu/~shermanr/Pubs.html/LifeHistorySupplement.zip) was not found on this server.

- Anderson et al., 2006: “we were quite surprised to find such a **large percentage of supplemental data (17%) that was not available** only 1 year and a few months past publication.” (Hervorhebung hinzugefügt)

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Z. B. Standards

Beispiel: E

The screenshot shows a Figshare data page. At the top left is the Figshare logo. Below it, the title 'Data for "Power' is visible. There are two file uploads: 'data.tsv' and 'prefs.annotated.c'. A 'Share this:' section includes a Facebook share button. A 'Cite this:' section shows a citation in Ciampaglia et al. (2014) format. A 'Description' section contains the text: 'Data used in G.L. Ciampaglia et al. (2014), forthcoming Ultimatum Game' (PLoS One 2014, forthcoming). At the bottom, there are three red buttons: 'proposals', 'preferences', and 'bargaining'.

"session"	"game"	"participant"	Game, Treatment, Response, Proposal, Prop. Pref, Prop. Ass, Resp. Pref, Prop. Donation, Resp. Donation, Prop. O
15	22	37	99, balanced, Accepted, 6, Multiple, Selfish, Multiple, 1, 0, 0, 1
15	22	38	98, balanced, Accepted, 5, Fair, Fair, Fair, 0.176470588235294, 0, 1, 1
15	23	39	97, weak responder, Rejected, 4, Selfish, Fair, None, 0, 0, 1, 0
15	23	40	96, balanced, Accepted, 6, Multiple, Selfish, Multiple, 0, 1, 1, 0
15	25	43	95, weak proposer, Rejected, 4, None, None, None, 0, 0, 1, 0
15	25	44	94, balanced, Accepted, 6, Multiple, Selfish, Multiple, 0, 0, 1, 1
15	26	45	93, weak proposer, Accepted, 7, None, None, None, 0, 0, 1, 1
15	26	46	92, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 1, 1
15	27	47	91, balanced, Accepted, 5, Fair, Fair, Fair, 0, 0, 1, 0
15	27	48	90, weak proposer, Rejected, 5, Fair, Fair, Selfish, 0, 1, 0, 0
15	28	49	89, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0.411764705882353, 0, 1
15	28	50	88, balanced, Accepted, 6, Multiple, Selfish, Multiple, 0, 0, 1, 1
15	30	53	87, balanced, Accepted, 6, Multiple, Selfish, Multiple, 0, 0, 1, 1
15	30	54	83, weak responder, Accepted, 2, None, None, None, 0, 1, 1, 0
15	31	55	82, weak proposer, Accepted, 7, None, None, None, 1, 0, 0, 1
15	31	56	81, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	32	57	80, weak responder, Rejected, 5, Fair, Multiple, None, 0, 0, 0, 0
15	32	58	78, weak proposer, Accepted, 5, Fair, Fair, Fair, 0.117647058823529, 0, 1, 0
15	33	59	75, weak proposer, Accepted, 3, None, None, None, 0, 0, 0, 0
15	33	60	74, weak responder, Accepted, 5, Fair, Multiple, Multiple, 1, 0, 0, 1
15	35	63	73, weak proposer, Accepted, 4, Fair, Fair, Fair, 0, 0, 1, 1
15	35	64	70, balanced, Accepted, 5, Fair, Fair, Fair, 0, 0.411764705882353, 1, 1
15	36	65	68, balanced, Rejected, 5, Fair, Fair, Selfish, NA, 1, 0, 0
15	36	66	67, balanced, Rejected, 9, None, None, None, 0, 0.117647058823529, 0, 0
15	38	69	65, weak responder, Rejected, 1, Selfish, Selfish, Fair, 0.411764705882353, 0, 0, 1
15	39	71	63, weak responder, Rejected, 5, Fair, Multiple, None, 0.235294117647059, 0.411764705882353, 0, 1
15	39	72	62, balanced, Accepted, 5, Fair, Fair, Fair, 0.0588235294117647, 0.117647058823529, 0, 0
15	41	75	61, balanced, Accepted, 5, Fair, Fair, Fair, 0, 0, 1, 1
15	41	76	60, balanced, Accepted, 5, Fair, Fair, Fair, 0, 0.411764705882353, 1, 0
15	42	77	59, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	42	78	57, balanced, Accepted, 7, None, None, None, 0, 0, 0, 0
15	44	81	55, weak responder, Rejected, 6, None, None, None, 0, 0, 1, 0
15	44	82	54, weak responder, Accepted, 5, Fair, Multiple, Multiple, 0, 0.588235294117647, 0, 0
15	46	85	53, balanced, Accepted, 4, None, None, None, 0, 0, 0, 0
15	46	86	50, weak responder, Rejected, 1, Selfish, Selfish, Fair, 1, 0, 0, 0
15	48	89	49, balanced, Accepted, 6, Multiple, Selfish, Multiple, 1, 0.411764705882353, 0, 0
15	48	90	48, weak proposer, Accepted, 5, Fair, Fair, Fair, 0.117647058823529, 0, 1, 0
15	48	90	46, weak responder, Accepted, 5, Fair, Multiple, Multiple, 0, 0, 0, 0
15	48	90	44, weak responder, Rejected, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	43, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	42, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	41, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	40, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	39, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	38, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	37, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	36, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	35, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	34, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	33, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	32, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	31, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	30, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	29, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	28, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	27, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	26, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	25, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	24, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	23, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	22, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	21, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	20, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	19, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	18, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	17, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	16, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	15, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	14, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	13, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	12, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	11, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	10, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	9, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	8, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	7, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	6, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	5, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	4, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	3, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	2, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0
15	48	90	1, weak proposer, Accepted, 5, Fair, Fair, Fair, 0, 0, 0, 0

URL: <http://dx.doi.org/10.6084/m9.figshare.1021603> (Abruf 18.09.2014)

Ausblick

- **Gegenwart:** Wildwuchs vieler neuer Ansätze, teilweise fraglicher ‚Mehrwert‘, partiell mehr Transparenz – aber auch neue Intransparenzen
- **Zukunft:** Koevolution neuer informationstechnischer Strukturen *und* neuer sozialer Praktiken (Routinen, Best Practices, Standards, Normen etc.) der Wissenschaftskommunikation – die idealerweise zu mehr Transparenz in der Forschung beitragen

Vielen Dank!

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Quellen

- Anderson, N. R., Tarczy-Hornoch, P., & Bumgarner, R. E. (2006). On the persistence of supplementary resources in biomedical publications. *BMC Bioinformatics*, 7, 260. doi: doi:10.1186/1471-2105-7-260
- Asendorpf, J. B., Conner, M., De Fruyt, F., De Houwer, J., Denissen, J. J. A., Fiedler, K., ... Wicherts, J. M. (2013). Recommendations for increasing replicability in psychology. *European Journal of Personality*, 27, 108-119. doi:10.1002/per.1919
- Ciampaglia, G. L. (2014). Data for "Power and Fairness in a Generalized Ultimatum Game". figshare. doi:10.6084/m9.figshare.1021603.
- Müller-Jung, Joachim (22.04.2014). Alles hochladen? Mehr Transparenz für die Forschung. *Frankfurter Allgemeine Zeitung*. Abgerufen von <http://www.faz.net/aktuell/wissen/mehr-transparenz-fuer-die-forschung-alles-hochladen-12896181.html>
- Nosek, B. A., Spies, J. R., & Motyl, M. (2012). Scientific Utopia: II. Restructuring incentives and practices to promote truth over publishability. *Perspectives on Psychological Science*, 7(6), 615–631. doi:10.1177/1745691612459058