UNDER REVIEW

RESCIENCE C

Editorial

ReScience (R)evolution

Konrad Hinsen[1,2] and Nicolas P. Rougier[3,4,5]

[1]Centre de Biophysique Moléculaire, CNRS UPR4301, Orléans, France – [2]Synchrotron SOLEIL, Division Expériences, Gif sur Yvette, France – [3]INRIA Bordeaux Sud-Ouest, Bordeaux, France – [4]LaBRI, Université de Bordeaux, Institut Polytechnique de Bordeaux, Centre National de la Recherche Scientifique, UMR 5800, Talence, France – [5]Institut des Maladies Neurodégénératives, Université de Bordeaux, Centre National de la Recherche Scientifique, UMR 5293, Bordeaux, France

Edited by
(Editor)

Reviewed by
(Reviewer 1)
(Reviewer 2)

Received
01 November 2018

Published
–

DOI
–

Three years have passed since ReScience published its first article[1] and since September 2015, things have been going steadily. We're still alive, independent and without a budget. In the meantime, we have published around 24 articles (mostly in computational neuroscience & computational ecology) and the initial editorial board has grown from around 10 to roughly 100 members (editors and reviewers), we have advertised ReScience at several conferences worldwide, gave some interviews[2] and we published an article introducing ReScience in PeerJ[3]. Based on our experience[4] at managing the journal during these three years, we think the time is ripe for proposing some changes.

ReScience C & ReScience X — The biggest and most visible change we would like to propose is to change the name of the journal "ReScience" in favor of "ReScience C" where the C stands for (c)omputational. This change would be necessary to have consistent naming with the upcoming creation of the "ReScience X" journal that will be dedicated to e(x)perimental replications and co-directed by E.Roesch (University of Reading) and N.Rougier (University of Bordeaux). The name "ReScience" would then be used for the name of a non-profit organization (that is yet to be created) for the two journals as well as future journals (such as the utopian CoScience[3] or a future and tentative "ReScience T" for theoretical science).

A new submission process — The current submission process requires authors to fork, clone and branch the submission repository in order to write their article and to place code and data at the relevant places in the forked repository. Once done, authors have to push their changes and to make a pull request that is considered as a submission. This process is quite cumbersome for authors and has induced many troubles for editors as well once it is accepted and needs to be published, mostly because of the complexity of the editing procedure. In order to make life easier for everyone, the submission process has been greatly simplified and authors are now responsible for getting a DOI for their code & data and have only to submit a PDF (as a new issue instead of making a pull request) and metadata. The subsequent editing process has been largely automatize using a set of dedicated Python scripts that should greatly simplify the publication. We will still archive the submission on Zenodo but this archive will be made for final PDF only. However, both the PDF and the Zenodo entry will contain all associated DOI (data and code).

A simplified publishing process — We have have been using a combination of markdown and pandoc for producing both the draft and the final version of all the published articles. This has worked reasonably well until it starts to cause all kind of problems for both

Correspondence should be addressed to Nicolas P. Rougier (Nicolas.Rougier@inria.fr)
The authors have declared that no competing interests exists.
Code is available at https://github.com/rescience-c/template.

authors and editors, especially with the reference and citation plugins. Consequently, articles will be now submitted directly in PDF with accompanying metadata in a separate file using the YAML format (they were previously embedded in the markdown file). Once an article has been accepted, authors will be responsible for updating the metadata and to rebuild the PDF if necessary. We could also consider to use the Whedon API that helps automazing most of the editorial tasks for JOSS and JOSE. This will most probably require some tweaking because our publishing pipeline is a bit different.

A new design — The combination of markdown and pandoc has also severely limited the layout and style possibilities for the article template and since we're switching to LaTeX, this is the opportunity to propose a new design based on a more elegant style, using a new font stack[5,6,7] (you're currently readint it). The goal is to have a subtle but strong identity with enhanced readability. Considering that articles will be mostly read on screen (as opposed to printed), we can benefit from a more ethereal style. Once this design will have stabilized, an overleaf template will be made available for those without a TeX installation. If a TeX expert is ready to help reviewing the template (and possibly rewrite it as a class), his/her help would be much welcome and appreciated. Same holds true for Open Office, Word or Pages, any template is welcome, just contact us beforehand such that we can coordinate efforts.

Editorials, letters and special issues — ReScience C remains dedicated to the publication of computational replications but we (a.k.a. the editorial team) would like to have the opportunity to publish *editorials* when deemed necessary and to give anyone the opportunity to write *letters* to the community on a specific topic related to reproducibility. Both editorials and letters are expected to be 1 or 2 pages long (but no hard limit will be enforced), will be (fast) peer reviewed and will be assigned a DOI. Furthermore, with the advent of reproducibility hackatons worldwide, we intend to offer the possibility of hosting *special issues* with guest editors (such as, for example, the organizers of a hackaton) in order to publish the results and enhanced their discoverability. Each entry will have to go through the regular open peer-reviewed pipeline.

We hope that most readers will agree on the proposed changes such that we can commit them by in the next few weeks. The review for this editorial is open (as usual) and anyone can comment and/or oppose any of the proposed changes. New ideas are also welcome.

References

1. M. Topalidou and N. P. Rougier. "[Re] Interaction between cognitive and motor cortico-basal ganglia loops during decision making: a computational study." In: **ReScience** 1.1 (2015).
2. M. Hutson. "Artificial intelligence faces a replication crisis." In: **Science** 359.6377 (Feb. 2018).
3. N. P. Rougier et al. "Sustainable computational science: the ReScience initiative." In: **PeerJ Computer Science** 3 (Dec. 2017), e142.
4. N. P. Rougier and K. Hinsen. "Code reviewing puts extra demands on referees." In: **Nature** 556.7701 (Apr. 2018), pp. 309–309.
5. F. Grießhammer. **Source Serif Pro (Adobe Systems)**. SIL Open Font License, version 1.1. 2014.
6. C. Robertson. **The Roboto family of fonts (Google)**. Apache License, verison 2.0. 2011.
7. P. D. Hunt. **Source Code Pro (Adobe Systems)**. SIL Open Font License, version 1.1. 2012.