EDITORIAL



Farewell, Neuroinformatics!

Giorgio A. Ascoli¹ • David N. Kennedy² • Erik De Schutter³

Published online: 29 October 2021

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2021

It is with a bittersweet feeling that we pen one last Editorial after almost exactly two decades since founding this journal. The original publisher of Neuroinformatics was Humana Press, a small (for today's standards, at least) and back then independent publishing company best known at that time for its Methods in Molecular Biology book series. Humana's president, Thomas Lanigan Sr., together with his energetic aid Elyse O'Grady, had a distinct knack for predicting the emergence of new fields in biomedical research and ran a professional yet personable, family-style operation (the first marketing director of Neuroinformatics was Lanigan's son, Tom Jr.). We finalized the aims of the journal in the fall of 2001, endeavoring to provide a forum that would emphasize data analysis, integration, engineering, and sharing in all areas of neuroscience research. Submissions began to arrive in April of the following year, and the inaugural issue appeared at the 2002 Society for Neuroscience Meeting. Since then, we action edited over 1500 initial manuscripts and eventually accepted for publication approximately half of them, the vast majority describing original research.

In 2006 Humana was acquired by Springer,² which then merged with Nature Publishing Group in 2015. Meanwhile, the journal pioneered original data³ and software⁴ articles, information sharing mandates,⁵ and data citations,⁶ while witnessing the end of the US Human Brain Project,⁷ the establishment of the International Neuroinformatics Coordination Facility,⁸ the rise of open access,⁹ connectomics,¹⁰ and deep learning,¹¹ as well as a worldwide economic recession¹² and the ongoing global pandemic.¹³ Throughout these dynamic times, we strived to maintain the journal focused of

its core mission to provide a peer-reviewed venue for scholarly excellence in neuroscience informatics.

Nevertheless, we felt that the progressive moves towards bigger corporations, especially in the past two years, brought about mounting insistence from the publisher to increase the number of articles accepted in the journal, according, in our view, to the 'bigger is better' business logic. We steadily resisted this perceived pressure, unwilling to dilute the unique profile of Neuroinformatics into a broader, less clearly defined scope, or to compromise the standard of quality of its content. Alas, in August 2021 a representative of Springer-Nature notified us that our editorial contract would not be renewed at the end of this year. As of this writing, we



 $^{^1}$ Ascoli, GA., De Schutter, E., Kennedy, DN. (2003). An information science infrastructure for neuroscience. *Neuroinformatics*, 1(1), 1-2.

 $^{^2\,}$ Ascoli, GA. (2007). Times of change, times of growth. *Neuroinformatics*, 5(2), 95.

³ De Schutter, E. (2010). Data publishing and scientific journals: the future of the scientific paper in a world of shared data. *Neuroinformatics*, 8(3), 151–3.

⁴ De Schutter, E., Ascoli, GA., Kennedy, DN. (2009). Review of papers describing neuroinformatics software. *Neuroinformatics*, 7(4), 211–2.

⁵ Kennedy, DN. (2017). The Information Sharing Statement Grows Some Teeth. *Neuroinformatics*, *15*(2),113–114.

⁶ Kennedy, DN. (2013). Data citation and the author byline: who's line is it anyway? *Neuroinformatics*, 11(3), 263–6.

⁷ De Schutter, E., Ascoli, GA., Kennedy, DN. (2006). On the future of the human brain project. *Neuroinformatics*, *4*(2), 129–30.

⁸ De Schutter, E. (2009). The International Neuroinformatics Coordinating Facility: evaluating the first years. *Neuroinformatics*, 7(3), 161–3.

⁹ Ascoli, GA. (2005). Looking forward to open access. *Neuroinformatics*, 3(1), 1–4.

¹⁰ Kennedy, DN. (2010). Making connections in the connectome era. Neuroinformatics, 8(2), 61–2.

¹¹ De Schutter, E. (2018). Deep Learning and Computational Neuroscience. *Neuroinformatics*, *16*(1), 1–2.

¹² Kennedy, DN. (2009). Musings of a post-stimulus mind. *Neuroinformatics*, 7(2), 85–7.

¹³ Ascoli, GA. (2020). Neuroinformatics in the Time of Coronavirus. *Neuroinformatics*, *18*(3), 337–338.

[☐] Giorgio A. Ascoli ascoli@gmu.edu

The Krasnow Institute for Advanced Study and Bioengineering Department, George Mason University, Fairfax, VA, USA

University of Massachusetts Medical School, Worcester, MA, USA

³ Computational Neuroscience Unit, Okinawa Institute of Science and Technology, Onna-Son, Okinawa, Japan

are told that the search for new leadership has yet to begin. We appreciate the difference of opinion on the best course of action for Neuroinformatics, and we respect the publisher's prerogative to set the commercial agenda for its journals. Nonetheless, we express concern for the potential lack of continuity and absence of an organized transition.

At the same time, we celebrate the spectacular progress in the field that this journal fostered during these 20 years. Neuroscience was radically transformed by the deep penetration of neuroinformatics in effectively all subfields of brain research. All major institutionally and philanthropically supported neuroscience research programs in these two decades emphasized informatics, including the US BRAIN Initiative, the EU Human Brain Project, the Howard Hughes Janelia research campus, and the Allen Institute for Brain Science. The pages of this journal documented the launch and adoption of seminal projects such as the Neuroscience Information Framework, ¹⁴ the Neuroimaging Informatics Tools and Resources Clearinghouse, 15 NeuroMorpho.Org, 16 the Collaborative Research in Computational Neuroscience data sharing program, ¹⁷ and the National Database for Autism Research, 18 just to mention a few. Meanwhile, the global neuroinformatics movement produced broadly used public resources such as the Allen mouse brain atlas, ¹⁹ Janelia's

FlyEM²⁰ and MouseLight,²¹ and the rapid population of the Neuroscience Multi-omic Archive,²² Brain Cell Data Center,²³ and Brain Image Library,²⁴ among many others.

Researchers entering the foray today have outstanding opportunities, tools, and data that could only be dreamed of when this journal started. We are extremely grateful to our past and present Editorial Board members, selfless reviewers, and patient authors for their expert contributions to shaping the field as we know it today. It is exciting to imagine how human understanding of the nervous system and its operations will evolve in the future. We feel privileged for having shared this journey until now and we wish the best to all our readers and the broader community.

Financial Interest Disclosure. The authors received a modest annual stipend for their efforts as Chief Editors (the amount was not raised or inflation-adjusted since 2007).

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.



¹⁴ Gardner, D., Akil, H., Ascoli, GA., Bowden, DM., Bug, W., Donohue, DE., Goldberg, DH., Grafstein, B., Grethe, JS., Gupta, A., Halavi, M., Kennedy, DN., Marenco, L., Martone, ME., Miller, PL., Müller, HM., Robert, A., Shepherd, GM., Sternberg, PW., Van Essen, DC., Williams, RW. (2008). The neuroscience information framework: a data and knowledge environment for neuroscience. *Neuroinformatics*, *6*(3), 149–60.

¹⁵ Luo, XZ., Kennedy, DN., Cohen, Z. (2009). Neuroimaging informatics tools and resources clearinghouse (NITRC) resource announcement. *Neuroinformatics*, *7*(1), 55–6.

¹⁶ Halavi, M., Polavaram, S., Donohue, DE., Hamilton, G., Hoyt, J., Smith, KP., Ascoli, GA. (2008). NeuroMorpho.Org implementation of digital neuroscience: dense coverage and integration with the NIF. *Neuroinformatics*, 6(3), 241–52.

¹⁷ Teeters, JL., Harris, KD., Millman, KJ., Olshausen, BA., Sommer, FT. (2008). Data sharing for computational neuroscience. *Neuroinformatics*, *6*(1):47–55.

¹⁸ Hall, D., Huerta, MF., McAuliffe, MJ., Farber, GK. (2012). Sharing heterogeneous data: the national database for autism research. *Neuroinformatics*, *10*(4), 331–9.

¹⁹ https://mouse.brain-map.org/

²⁰ https://www.janelia.org/project-team/flyem

²¹ https://www.janelia.org/project-team/mouselight

²² https://nemoarchive.org/

²³ https://biccn.org/

²⁴ https://www.brainimagelibrary.org/