

## Why science needs an Alysa Liu moment

Margarita Segou 

Editor-in-Chief, Geophysical Journal International; *British Geological Survey, Research Avenue South, EH14 4AP, Edinburgh. E-mail: msegou@bgs.ac.uk*

A month ago, the world was captivated by the extraordinary presence of Alysa Liu on the ice at the Milano-Cortina Winter Olympics. What was most stunning was not merely her technical precision, but her motivation: an undisputed, radiant love for the game. To anyone watching, it was evident that Liu was no longer just competing; she was celebrating the journey that brought her to that moment.

Before stepping onto the Olympic ice, Liu shared the unorthodox path that led to her glory. At age 16, she had walked away from figure skating, feeling that rigid rules and high-pressure environments were stifling her creativity and life choices. By breaking free from the constraints of ‘the grind,’ she rediscovered joy, and soon returned to what she loved most: being on the ice.

Science, much like elite figure skating, has become an environment of staggering pressure. The path to success is often strictly defined and increasingly constrained by the transformative (and sometimes restrictive) choices of universities and global funders. Securing a doctoral position, finding a viable fellowship and navigating the precarious climb towards tenure while maintaining a personal life has perhaps never been more difficult than in recent years.

The traditionalism of academia is currently embodied by the ‘Publish or Perish’ culture of hyperproductivity. Early-career researchers are pressured to inflate metrics, such as their h-index, often at the expense of depth. Inevitably, this environment incentivizes incremental works over transformative results. Similar rigid metrics now influence academic publishing, which faces the added complication of generative AI. This adherence to outdated norms has contributed to higher dropout rates, particularly among female scientists. Despite efforts to increase diversity and inclusion, systemic change remains elusive.

We must ask ourselves: **Do we need to redefine excellence and originality?** And if so, how can we **recognize and reward sustainable curiosity?**

The burden of evaluating this excellence falls upon editors and reviewers. At **GJI**, the majority of desk-rejected submissions fail not because of technical errors, but because they lack the originality to warrant publication or possess a scope too narrow for our readership. While **GJI** has always sought transformative works, the challenge remains: how do we recognize ingenious research at the submission stage?

During our last editorial board meeting, we addressed this head-on. In the next few months, we will revisit our scope and focus on changes that will strengthen the collaboration between Authors, Editors and Reviewers. We will encourage authors to articulate with total clarity how their work shifts the state-of-the-art in their Introduction. When we examine **GJI**'s most highly cited articles—such as *DeMets et al. (1990)* and *Zhu and Beroza (2019)*—we see that while citation patterns evolve, transformative research remains the ultimate currency.

Moving forward, **GJI** will explicitly value the ‘long-term reflection’ of scientists who have dedicated consistent work over five or more years towards solving a persistent, unique problem. We actively invite these authors to submit a **Viewpoint**—in the form of a multi-year retrospective detailing the evolution of their methodology. Beginning this year, **GJI** will actively reward sustainable excellence and creativity.

We seek to identify merit not just in novelty, but in **methodological innovation**. To achieve this, our peer-review culture must also evolve. Reviews should be bold, but they must go beyond constructive criticism.

We are issuing a new mandate to our reviewers: move from ‘finding reasons to reject’ to **‘identifying what must be done for this to become a seminal work’**. Our reviewers should see themselves as coaches, respecting methodological choices that invite a pluralism of approaches. We will ask reviewers to weigh methodological ingenuity higher than the novelty of results, ensuring that promising contributions are given the space to mature within our community.

Ultimately, an editor’s role is to advocate for the science and serve as a reminder of our collective ‘love of the game’. Supporting emerging ideas that withstand scientific criticism while defying established norms remains difficult, but it is essential. Our editorial board recruitment will continue to reflect these principles of ethics and excellence.

**GJI** is committing to a human-centric research culture as the cornerstone of our strategic plan. The reason for this shift is simple: it is a reminder of why we do science in the first place. Like Alysa Liu, we return to the ice—not for the metrics, but for the love of the game.