

Building Trust in Scientific Communication

Strategies for Undergraduate Journals

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- 1 Introduction
- 2 Challenges in Scientific Communication
- 3 Strategies for Building Trust
- 4 Case Study: *UNC JOURney*
- 5 Conclusion



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Abstract

In an era marked by misinformation and skepticism towards scientific expertise, establishing trust in scientific communication is more critical than ever. This presentation will explore how undergraduate journals can foster trust and credibility through transparency, rigorous peer review practices, and engaging with the larger community. Drawing on examples from managing UNC JOURney, we'll outline practical methods to build transparency, clearly communicate scientific findings to diverse audiences, and foster stronger community engagement. By session end, attendees will possess actionable strategies to enhance the trustworthiness, clarity, and societal relevance of their student-led journals.



- **Background:** Public trust in scientific communication underpins policy, education, and community well-being.



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- **Goal:** Outline practical strategies undergraduate journals can adopt to build and maintain that trust.



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- Misinformation and disinformation undermine credibility.
- Lack of transparency in review and publication processes.
- Technical jargon alienates non-specialist audiences.
- Perceived conflicts of interest reduce trust.

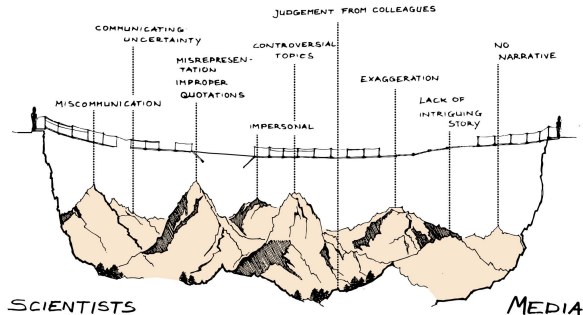


Figure 1: Adapted from Lutz et al. (2018).



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Transparency



Rigorous Peer Review



Engagement



- Share open data, methods, and conflict disclosures.
- Implement and publicize double-blind peer review.
- Require clear, jargon-free abstracts.
- Foster two-way engagement via workshops.





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- Student-run, peer-reviewed undergraduate research journal.
- Publishes transparent review guidelines policies.
- Includes abstracts and open access for all articles.
- Annual symposium to engage undergraduate research community.





Figure 2: UNC JOURney 2025 inaugural symposium for selected authors, contributors, advisors, JOURney staff, and OUR staff.



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- Adopt open-science practices.
- Train student reviewers in fair, rigorous peer review.
- Enforce interpretability by requiring abstracts and accessible visuals.
- Engage audience by hosting workshops and maintaining active social media.
- Be accountable by responding to feedback.



- Building trust requires ongoing transparency and engagement.
- Undergraduate journals can model best practices in Science Communications.
- Strategies implemented at *UNC JOURney* improved credibility and reach immensely over the last year, doubling submissions and increasing staff applications by over 500%.

Thank you for your attention!
Questions?



Lutz, S. R. et al. (2018). “HESS Opinions: Science in today’s media landscape – challenges and lessons from hydrologists and journalists”. In: *Hydrology and Earth System Sciences* 22, pp. 3589–3599. DOI: 10.5194/hess-22-3589-2018. URL: <https://doi.org/10.5194/hess-22-3589-2018>.