

Editorial

Opening a New Chapter for *Computational Linguistics*

Wei Lu

Singapore University of Technology and Design
luwei@sutd.edu.sg

By the end of 2024, the journal Computational Linguistics has reached a significant milestone: It has published exactly 50 volumes over the past half-century. As we launch the first issue of Volume 51, this is an opportune moment to reflect on the journal's legacy, ongoing evolution, and the exciting changes that lie ahead. Together, we embark on a journey to open a new chapter for this storied publication.

1. Looking Back: A Legacy and Where We Stand

Over the past five decades, *Computational Linguistics* has played a pivotal role in shaping the fields of computational linguistics and natural language processing. Groundbreaking contributions have graced its pages: from one of the earliest word representation learning algorithms (Brown et al. 1992) to pioneering linguistic corpora that became foundational resources for the field (Marcus, Santorini, and Marcinkiewicz 1993; Palmer, Gildea, and Kingsbury 2005; de Marneffe et al. 2021); from one of the first mathematical frameworks for machine translation (Brown et al. 1993) to various influential language processing approaches that exemplified their respective eras (Brill 1995; Collins 2003; Taboada et al. 2011); from seminal works that laid the groundwork for key directions in the field (Grosz and Sidner 1986) to studies that introduced and defined new core tasks (Gildea and Jurafsky 2002); from research works that established foundational principles in the field (Berger, Della Pietra, and Della Pietra 1996; Mohri 1997) to studies detailing the design and implementation of impactful real-world systems (Zhou et al. 2020). The journal continues to stand as a cornerstone of innovation and progress for our field.

Computational Linguistics has distinguished itself by welcoming a diverse spectrum of articles across various categories. It has provided a platform for influential opinion pieces, such as the one that significantly influenced the field's embrace of deep learning technologies (Manning 2015), along with squibs and discussions that critically reviewed

<https://doi.org/10.1162/coli.e.00552>

© 2025 Association for Computational Linguistics
Published under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International
(CC BY-NC-ND 4.0) license

emerging themes (Belinkov 2022), and surveys addressing pressing challenges, including those arising in the era of large language models (LLMs) (Gallegos et al. 2024). The journal's special issues have actively shaped the field's direction and future trajectory. For example, the well-known 1993 issue explored the resurgence of empiricism in language analysis (Church and Mercer 1993), while the most recent 2024 issue examines the connection between how LLMs and humans acquire knowledge about language (Apidianaki, Fourtassi, and Padó 2024). *Computational Linguistics* boasts a long and illustrious legacy of contributions, and the above is by no means an exhaustive list. We would like to take this historic moment to extend our heartfelt gratitude and congratulations to all the authors, reviewers, editors, assistants, publishers, our community, and everyone associated with the journal for their dedication and contributions, which have shaped *Computational Linguistics* into the esteemed publication it is today.

As the field continues to evolve, so does the landscape of academic publishing. Today, researchers benefit from a broader array of venues for disseminating their work. Nonetheless, *Computational Linguistics* remains uniquely positioned as a platform for work with the potential to make a profound and lasting impact. Publishing in *Computational Linguistics* offers unique advantages to the authors. It welcomes both brief and comprehensive articles that exceed typical length constraints, providing ample space for in-depth exploration of significant issues and ideas. While preprint sites may also serve as alternative venues for such work, the rigorous yet rapid peer review process we offer ensures the highest standards of quality and impact. In addition, published articles gain broader recognition through the journal's visibility-enhancing efforts, opportunities to present at conferences sponsored by the Association for Computational Linguistics (ACL), as well as eligibility for the prestigious ACL Test-of-Time Paper Award.

2. At a Crossroads: Redefining *Computational Linguistics*

As we turn the page to Volume 51, *Computational Linguistics* is at an important stage in its development. Recent advances in computational language research present a unique opportunity for us to enhance the journal's role within the broader scientific community. To seize this moment, we are refreshing our vision and implementing strategic changes to strengthen our position as a leading venue for computational language research.

2.1 A New Vision

Over the past half-century, *Computational Linguistics* has been dedicated to advancing the linguistic, mathematical, and algorithmic foundations of our field. The rise of groundbreaking developments, such as LLMs, inspires us to broaden our scope and enhance the journal's support for our research community. To remain at the forefront, we must honor our foundational traditions while embracing innovation and adapting to emerging paradigms.

In this new era, we envision *Computational Linguistics* as a premier forum where established theoretical foundations intersect with cutting-edge advancements in the field, exemplified by LLMs, multimodal systems, and other transformative innovations—creating a platform where diverse perspectives converge and build upon each other to drive the field forward.

Under this new vision, *Computational Linguistics* strongly encourages research that engages with emerging paradigms, with a particular emphasis on contemporary language model technologies (e.g., LLMs) and other transformative developments reshaping computational language research. At the same time, the journal remains committed

to insightful contributions rooted in theoretical, mathematical, algorithmic, linguistic, and interdisciplinary perspectives. We particularly welcome studies that bridge these foundational principles with the latest scientific advancements.

We are redefining *Computational Linguistics*, moving beyond traditional boundaries to address the challenges of a rapidly evolving field. In doing so, we aim to foster pioneering ideas, drive impactful contributions, and build meaningful collaborations that advance the field. We warmly invite the global research community to join us in realizing this vision.

2.2 Initiatives and Innovations

To support this vision, we are implementing a series of strategic initiatives:

Strengthened Editorial Leadership. Our editorial board now consists of a carefully selected, dedicated, and diverse group of experts, combining deep expertise with fresh perspectives. We are also pleased to welcome Cynthia-Anne (Cindy) Robinson as our editorial assistant. Her decade of experience with our companion journal *Transactions of the Association for Computational Linguistics* brings valuable expertise to our team.

Enhanced Review Process. While maintaining a rapid review process, we prioritize high standards of review quality. To achieve this, we are strengthening our overall process by refreshing and carefully expanding our vetted pool of standing reviewers, providing comprehensive guidelines, and implementing systematic quality monitoring. Recognizing the vital role of our reviewers, we are also introducing innovative initiatives to acknowledge and celebrate their contributions.

Modernized Submission Tools. Our upgraded submission system and new L^AT_EX style file (v2025) address the evolving needs of our field. Among other updates, one major change in the new style is that it provides more elegant support for multi-author publications, reflecting the growing trend of large-scale research collaborations.

Expanded Article Categories. We embrace both retrospective and forward-looking scholarship. To this end, we have lifted the annual cap on *survey papers*, recognizing their crucial role in synthesizing research developments. Additionally, we are introducing *position papers* as a new category to showcase innovative perspectives that could shape future research directions.

Distinguished Publications Program. Through our new “Highlights and Featured Articles” program, we will spotlight select papers that demonstrate outstanding contributions to the field. Papers selected for this category, guided by editorial board recommendations, will appear under a different section title to recognize their distinguished status.

Strategic Growth Initiatives. We are launching several key initiatives to strengthen our connection with the broader community, particularly early-career researchers, to foster the next generation of scholars and raise awareness about the opportunities and contributions offered by *Computational Linguistics*. Currently, we are collaborating with the ACL Executive Committee to establish the *Computational Linguistics* Dissertation Award, with winning dissertations to be published in the journal. We will actively promote published research through social media engagement. Stay updated

on the latest research highlights and journal news by following us on X and Bluesky (@CompLingJournal).

3. Looking Forward

The success of these initiatives relies on the strong support of our research community. Many of the ideas mentioned above were contributed by our editorial team and community members, which we gratefully acknowledge. We warmly invite you to further contribute to the growth of *Computational Linguistics* through impactful submissions and participation in our new programs. Together, we can shape the future of computational language research and propel the field into its next chapter.

References

- Apidianaki, Marianna, Abdellah Fourtassi, and Sebastian Padó. 2024. Language learning, representation, and processing in humans and machines: Introduction to the special issue. *Computational Linguistics*, 50(4):1201–1210. <https://doi.org/10.1162/coli.e.00539>
- Belinkov, Yonatan. 2022. Probing classifiers: Promises, shortcomings, and advances. *Computational Linguistics*, 48(1):207–219. <https://doi.org/10.1162/coli.a.00422>
- Berger, Adam L., Stephen A. Della Pietra, and Vincent J. Della Pietra. 1996. A maximum entropy approach to natural language processing. *Computational Linguistics*, 22(1):39–71.
- Brill, Eric. 1995. Transformation-based error-driven learning and natural language processing: A case study in part-of-speech tagging. *Computational Linguistics*, 21(4):543–565.
- Brown, Peter F., Stephen A. Della Pietra, Vincent J. Della Pietra, and Robert L. Mercer. 1993. The mathematics of statistical machine translation: Parameter estimation. *Computational Linguistics*, 19(2):263–311.
- Brown, Peter F., Vincent J. Della Pietra, Peter V. deSouza, Jenifer C. Lai, and Robert L. Mercer. 1992. Class-based n -gram models of natural language. *Computational Linguistics*, 18(4):467–480.
- Church, Kenneth W. and Robert L. Mercer. 1993. Introduction to the special issue on computational linguistics using large corpora. *Computational Linguistics*, 19(1):1–24.
- Collins, Michael. 2003. Head-driven statistical models for natural language parsing. *Computational Linguistics*, 29(4):589–637. <https://doi.org/10.1162/089120103322753356>
- de Marneffe, Marie Catherine, Christopher D. Manning, Joakim Nivre, and Daniel Zeman. 2021. Universal Dependencies. *Computational Linguistics*, 47(2):255–308. <https://doi.org/10.1162/coli.a.00402>
- Gallegos, Isabel O., Ryan A. Rossi, Joe Barrow, Md Mehrab Tanjim, Sungchul Kim, Franck Dernoncourt, Tong Yu, Ruiyi Zhang, and Nesreen K. Ahmed. 2024. Bias and fairness in large language models: A survey. *Computational Linguistics*, 50(3):1097–1179. <https://doi.org/10.1162/coli.a.00524>
- Gildea, Daniel and Daniel Jurafsky. 2002. Automatic labeling of semantic roles. *Computational Linguistics*, 28(3):245–288. <https://doi.org/10.1162/089120102760275983>
- Grosz, Barbara J. and Candace L. Sidner. 1986. Attention, intentions, and the structure of discourse. *Computational Linguistics*, 12(3):175–204.
- Manning, Christopher D. 2015. Last words: Computational linguistics and deep learning. *Computational Linguistics*, 41(4):701–707. <https://doi.org/10.1162/COLI.a.00239>
- Marcus, Mitchell P., Beatrice Santorini, and Mary Ann Marcinkiewicz. 1993. Building a large annotated corpus of English: The Penn Treebank. *Computational Linguistics*, 19(2):313–330. <https://doi.org/10.21236/ADA273556>
- Mohri, Mehryar. 1997. Finite-state transducers in language and speech processing. *Computational Linguistics*, 23(2):269–311.
- Palmer, Martha, Daniel Gildea, and Paul Kingsbury. 2005. The Proposition Bank: An annotated corpus of semantic roles. *Computational Linguistics*, 31(1):71–106. <https://doi.org/10.1162/0891201053630264>

Taboada, Maite, Julian Brooke, Milan Tofiloski, Kimberly Voll, and Manfred Stede. 2011. Lexicon-based methods for sentiment analysis. *Computational Linguistics*, 37(2):267–307. https://doi.org/10.1162/COLI_a.00049

Zhou, Li, Jianfeng Gao, Di Li, and Heung-Yeung Shum. 2020. The design and implementation of Xiaolce, an empathetic social chatbot. *Computational Linguistics*, 46(1):53–93. https://doi.org/10.1162/coli_a.00368