

Presentation Matters: How to Communicate Science in the NLP Venues and in the Wild?

Sarvnaz Karimi and Cecile Paris

CSIRO, Data61

Sydney, Australia

Firstname.Lastname@csiro.au

Reza Haffari

Monash University

Melbourne, Australia

Gholamreza.Haffari@monash.edu

1 Description

Each year a large number of early career researchers join the NLP/Computational Linguistics community, with most starting by presenting their research in the *ACL conferences and workshops. While writing a paper that has made it to these venues is one important step, what comes with communicating the outcome is equally important and sets the path to impact of a research outcome. In addition, not all PhD candidates get the chance of being trained for their presentation skills. Research methods courses are not all of the same quality and may not cover scientific communications, and certainly not all are tailored to the NLP community. We are proposing an *introductory* tutorial that covers a range of different communication skills, including writing, oral presentation (posters and demos), and social media presence. This is to fill in the gap for the researchers who may not have access to research methods courses or other mentors who could help them acquire such skills. The interactive nature of such a tutorial would allow attendees to ask questions and clarifications which would not be possible from reading materials alone.

Tutorial material, including slides, will be made available. While the topic of this tutorial is not on the NLP subject matters, it is an important one given the growth in the NLP community and the need to communicate our research findings to make them accessible and discoverable for others.

2 Audience and Venue

The target audience is anyone with a computer science background, active in research where they publish (or intend to publish) and present in the computational linguistics venues. The tutorial is largely tailored to junior NLP researchers, including PhD candidates and postdoctoral fellows as well as early careers.

Our preferred venue is the main ACL confer-

ence (ACL 2024, Bangkok, Thailand), followed by EACL, NAACL-HLT and EMNLP. We estimate an audience of at least 100 attendees for this tutorial.

3 Presenters

Dr Sarvnaz Karimi is the ACL's Publicity Director (2023-2026), where she also served as deputy role (2020-2022). She is a Principal Research Scientist at CSIRO (Australia's National Science Agency) and has been an active researcher in NLP and IR for over a decade. She was the president of the Australasian Language Technology Association (*ALTA*), where she established a mentoring programme for the Australia-New Zealand NLP researchers seeking mentorship. She is currently acting team leader of the language technology team at CSIRO's Data61. As part of her ACL's publicity responsibilities, she looks after the ACL's social media presence and coordination of the publicity chairs across different conferences, including ACL, NAACL, EACL, AACL and EMNLP. She is currently seeking a tutorial at the ACL conference, as one of the opportunities to engage with the audience to better leverage their social media presence to communicate their research outcomes. Sarvnaz co-presented a tutorial at AACL-IJCNLP 2020 (NLP for Healthcare in the Absence of a Healthcare Dataset). She also actively participates in recruitment interviews for PhD and postdoctoral fellows, which provides her with insight into how writing CVs and interviewing skills can be tailored for jobs in industrial research settings.

Dr Cecile Paris is a Chief Research Scientist at Data61, and the Director of the Collaborative Intelligence (CINTEL) FSP, a CSIRO-wide research programme about leveraging the intelligence and capabilities of humans and machines to form the best-performing teams. She received her PhD in Artificial Intelligence (AI) (more specifically in Natural Language Processing and User Modelling) in 1987 from Columbia University (New York). Her

research has focused on Natural Language Processing and User Modelling throughout her career. She joined the Information Sciences Institute (ISI), an AI research laboratory in Marina del Rey (Los Angeles, CA), where she stayed until 1996, working on knowledge-based systems and Explainable AI. She then moved to the UK (ITRI, at the University of Brighton, UK), where she researched multilingual generation systems. She joined CSIRO in late 1996, creating the Natural Language Processing team. She was elected a Fellow of the Australian Academy of Technology & Engineering (ATSE) in 2016 and a Fellow of the Royal Society of NSW in 2019. Cecile was one of the organising co-chairs of ACL-COLING 2006 in Sydney, as well as local sponsorship chair of ACL 2018.

Prof Gholamreza (Reza) Haffari is Professor and ARC Future Fellow at the Department of Data Science & AI, Monash University, Melbourne, Australia. He is currently Director of Vision and Language (AI) Research. He has published numerous papers in the top-tier NLP venues, including the main ACL conference and served as senior area-chair and reviewer of these conferences as well. He teaches different courses in Monash university, including NLP and Machine learning subjects. Reza has co-presented a tutorial at HLT-NAAC 2006 (Inductive Semi-supervised Learning Methods: with Applicability to Natural Language Processing), and a tutorial at Machine Translation Summit XII 2009 (Machine Learning Approaches for Dealing with Limited Bilingual Data in Statistical Machine Translation). He has mentored 70+ postdoctoral fellows and PhD/MSc students throughout his career. This has provided him with an extensive experience about the needs of early career researchers for effective communication of their research.

4 Outline

We are proposing a three-hour slot for the following outline:

- Writing a paper for an *ACL conference (30-45 minutes)
- Paper presentation in NLP conferences (30 minutes)
- Poster and Demo presentation (20 minutes)
- Social media presence (20 minutes)

- Presentation for a job or internship interview (45 minutes). This may be a panel from some of the other members of the ACL community and industry to discuss any other tips for job interviews and presentations.

The timings are estimates. We are expecting an interactive session, potentially inviting other senior members of the ACL to participate especially for the jobs section where some industry experts could provide some insight into recruitment tips, and have a Q&A session of 10-20 minutes per topic.

Paper Writing Publishing good scientific papers requires two elements: good research and good writing skills. Top-tier venues, such as ACL, are very competitive, which means they expect high-quality research with well-defined research questions, experimental setup, results and well-designed analysis, all of which are communicated well in writing, within the page limits. This is not an easy task, requiring training and experience. Some of these experiences can be shared, especially because those skills can be tailored to the venues. In this section, we cover what makes a paper a good candidate for the NLP venues, and what basics can be followed through to make communicating the research acceptable in high quality venues such as the *ACL conferences.

Paper Presentation Many factors contribute to a presentation which needs to be taken into account when preparing a talk. These factors include time (short or long), audience (technical, specialists, general or a mix), and venue (an NLP conference, a work presentation or a media interview). We focus on mostly technical presentations in venues such as *ACL conferences. This would include practical tips on how to make sure the talk captures the audience, conveying the technical aspects as accessible as possible.

This section will also cover other types of presentation such as presenting the results of shared tasks or hackathons where time is very limited and the presentation might be used for judging a system or research outcomes.

Poster and Demo Presentation Posters provide a good opportunity to meet other researchers in a conference without the formal presentation setup. They therefore provide an excellent opportunity to exchange ideas and even network. To maximise the benefits of this opportunity, however, the poster

itself should be well prepared and the presenter should be ready to communicate their research in a concise and engaging manner.

In this section, we cover the following topics: (1) How to prepare a poster that attracts the audience? For example, a good poster uses visuals well to let the reader grasp the gist of it quickly; and (2) how to engage with the audience in a semi-formal manner. A poster presenter should also be able to adjust their presentation to almost every individual with their unique background and understanding of the subject.

Demonstrations (demos) are similar to posters, with the addition of a working prototype to be presented in addition to a poster. This adds another communication mode that is more interactive and it provides the opportunity for the audience to ask more questions. That also brings the requirement of certain skills that should be learned on how to present demo papers.

Social Media Science communication (*Sci Comm*) on social media is described as a non-stop academic conference, where large scale scientific exchanges happen (Foell, 2021). While different to more traditional methods of scientific communication, use of social media has shown to increase the citations of the published articles (Eysenbach, 2012; Ozkent, 2022) and improve networking and combat academic isolation (Reeve and Partridge, 2017). It is therefore beneficial to invest in some learning on how to best leverage these forums. We cover the following in this tutorial:

- What content (e.g., new paper, software packages, seeking or advertising for jobs) is appropriate for which social media platform (e.g., LinkedIn, ResearchGate, Mastodon, or X/Twitter).
- How to communicate science, and in particular research questions or outcomes in NLP, on social media?
- What types of information can be obtained from the ACL official social media accounts such as @aclmeeting, where to look for them and where to post content.

Job Interviews and Networking Seeking job opportunities, both in academia and industry, is not an easy task. It requires interviewing skills, communication skills (written and speaking), and networking, in addition to a good Curriculum vitae

(CV). We cover the following subjects to help the NLP researchers seeking for internships or post-doctoral positions to in their job seeking journey:

- What are the best practices in oral presentations for a job interview;
- How to answer specific job description questions that relate to your field (NLP);
- What are the etiquettes of approaching senior NLP researchers for potential job opportunities; and,
- How to leverage social media and other networking opportunities to find suitable positions.

While the above content draws from the experiences of the instructors, most content should generalise to the wider NLP community.

5 Reading List

This tutorial has no prerequisites or pre-reading materials. We however recommend the audience the following reference book: “Writing for Computer Science, Springer (Zobel, 2014)”.

6 Ethical Statement

Should we use examples drawn from our experiences in job interviews in the presentation, we ensure that there is no identifying information mentioned.

References

- Gunther Eysenbach. 2012. *Can tweets predict citations? metrics of social impact based on twitter and correlation with traditional metrics of scientific impact.* *Journal of medical Internet research*, 13(4).
- Jens Foell. 2021. *Social media science communication is a nonstop academic conference for all.* *Nature Human Behaviour volume*, 5(812).
- Yasemin Ozkent. 2022. *Social media usage to share information in communication journals: An analysis of social media activity and article citations.* *PLoS ONE*, 17(2).
- M. A. Reeve and M. Partridge. 2017. *The use of social media to combat research-isolation.* *Annals of the Entomological Society of America*, 110(2).
- Justin Zobel. 2014. *Writing for Computer Science.* Springer.