Language Technology: Research and Development

Dissemination of Research Results

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Dissemination of Research Results

▶ Why?
  ▶ Submit results for critical review
  ▶ Inform other researchers, users, society
  ▶ Satisfy requirements from funders or customers
  ▶ Promote research career – publish or perish

▶ To whom?
  ▶ Other researchers
  ▶ Potential users
  ▶ Students
  ▶ The general public
  ▶ Funding bodies
  ▶ Customers
The Receiver

- Expert
- Specific
- Novice
- General

Researchers
Users/Students
General public
Funders
Customers
Research paper
Popular science
Project report
Master's thesis
Master's thesis?
The Receiver

- Expert
- Researchers
- Specific
- General
- Novice
The Receiver

- Expert
- Researchers
- Users/Students
- Novice
- General

Specific
The Receiver

- Expert
- Researchers
- Users/Students
- General
- General public
- Novice
- Specific
The Receiver

- Expert
- Researchers
- General
- Users/Students
- Funders
- Specific
- Novice
- General public

Language Technology: Research and Development
The Receiver

- Expert
- Researchers
- Funders
- Specific
- Users/Students
- Customers
- General
- General public
- Novice
The Receiver

- Expert
- Research paper
- Researchers
- Specific
- Funders
- Novice
- General
- Users/Students
- General public
- Customers

Language Technology: Research and Development
The Receiver

- Expert Research paper
  - Researchers
- Funders
- Specific
- Users/Students
- General
- Customers
- Novice
- Popular science
  - General public
The Receiver

- Novice
- General public
- Researchers
- Customers
- Funders

- Specific
- General
- Research paper
- Project report
- Popular science

Language Technology: Research and Development
The Receiver

- Specific: Familiar users/Students, Master's thesis?
- General: Novice, Expert
- Research paper: Researchers
- Project report: Funders
- Popular science: General public
- Customers:

Language Technology: Research and Development
The Receiver

- Experts
  - Research paper
  - Masters’ thesis
- Researchers
- Users/Students
- Popular science
- General public
- General
  - Customers
  - Funders
- Specific

- Novice
How?

Written:
1. Publications (indexed and archived)
2. Internal reports (public or confidential)
3. Digital archives, web pages, etc.

Oral:
1. Lectures (especially at conferences)
2. Demonstrations, posters, discussions, etc.
3. Internal meetings (seminars, workshops)
Written Genres – Single Topic

Papers (short)
1. Journal article – refereed and approved by editorial board
2. Conference paper – often but not always refereed
3. Technical report – usually not refereed

Monographs (long)
1. Book – standards of refereeing depends on publisher
2. Thesis – refereed in examination, may or may not be published
Written Genres – Other

Collections
1. Conference proceedings – collection of conference papers
2. Edited volume – book with different chapter authors

Meta-genres
1. Survey or handbook article
2. Review in scientific journal
3. Bibliography
4. Abstract
Oral Genres

Lecture
- Presentation by 1 person followed by discussion (large group)
  1. Conference talk (15–30 min)
  2. Invited talk (45–90 min)

Seminar
- Presentation or introduction by 1 or more persons with more or less continuous discussion (small group)

Panel
- Short presentations on a set topic from a selected group of persons with questions and opinions from the audience
Mixed Genres

Poster
- Written presentation displayed on poster board
- Oral interaction with interested audience
- Sometimes combined with short talk (1–5 min)

Demonstration
- System demonstration (or similar)
- Oral interaction with interested audience
- Sometimes combined with poster
Requirements on Scientific Reports

- Ethics:
  - Sensitive information requires permission and anonymization
- Accessibility:
  - Reports should be understandable by target audience
- Novelty and relevance:
  - Results should be novel, original, unpublished
  - Relevance to research area should be made clear
- Quality:
  - Claims clearly stated and possible to challenge (falsifiability)
  - Claims supported by arguments and/or evidence (justification)
  - Claims not misleading (e.g., by withholding information)
Scientific Writing

Writing takes time (to learn)
- Practice makes perfect – write a lot!
- Writing requires rewriting – start early!

Scientific writing is a standardized genre
- Collect good examples – and study them!
- Copy structure and formulations – but not content!
The Structure of Scientific Publications
The Structure of Scientific Publications

**Pre-matter:** Title page (abstract, preface, contents)

**Post-matter:** References (appendices, indexes)
The Structure of Scientific Publications

**Pre-matter:** Title page (abstract, preface, contents)

**Introduction:**
- What is the problem/question?
- Why is it relevant/interesting?

**Conclusion:**
- What is the solution/answer?
- Where do we go from here?

**Post-matter:** References (appendices, indexes)
The Structure of Scientific Publications

Pre-matter: Title page (abstract, preface, contents)

Introduction: What is the problem/question? Why is it relevant/interesting?

Body: What has been done before? How is the problem tackled? What are the results?

Conclusion: What is the solution/answer? Where do we go from here?

Post-matter: References (appendices, indexes)
The Main Theme

The research question
- is stated in the introduction
- is related to previous research
- motivates the approach taken
- determines the selection of results
- is revisited in the conclusion
The Anatomy of a TACL Style Article

Title page: title, authors, affiliations

Abstract: self-contained summary

Main text in numbered sections

Token and Type Constraints for Cross-Linguistic Part-of-Speech Tagging

Title page: title, authors, affiliations

Abstract: self-contained summary

Main text in numbered sections
The Anatomy of a TACL Style Article

Main text in numbered sections

Acknowledgments (optional)

References (alphabetical by last name)
The Anatomy of a TACL Style Article

Introduction
▶ State the research problem and relate it to previous research
▶ Give a synopsis of the rest of the article

Related work
▶ Model 1: After introduction, before contributions
▶ Model 2: After contributions, before conclusion

Contributions
▶ Theory → Method → Results → Discussion

Conclusion
▶ Evaluate contributions, point to new research directions
References

- Language technology mostly uses the Harvard system
  - Author-year citations in text
  - Alphabetical list of references at the end (no footnotes)
- Citations in the text:
  - Parenthetical: Parsing is hard (Anderson, 2010).
  - Syntactic: Anderson (2010) claims that parsing is hard.
  - Special rules for works with more than two authors
- Reference list including all (and only) works cited in the text:
  - Journal article: author, year, title, journal, volume, pages
  - Conference paper: author, year, title, proceedings, pages
  - Book chapter: author, year, title, book, publisher, pages
  - Book: author, year, title, publisher
  - Technical report: author, year, title, organization
  - Thesis: author, year, title, school
Giving Oral Presentations

Preparation is the key

▶ Think through what you want to say
▶ Formulate key passages in concrete sentences
▶ Prepare audiovisual aids (if relevant)

Practice makes perfect

▶ Rehearse the presentation (many times)
▶ Time the presentation and note any disfluencies
▶ Modify and rehearse until fluent
The Structure of Oral Presentations

Oral presentations are basically structured as written reports but
- typically contain less material due to time constraints (especially the background part)
- are often less formal and detailed due to real-time processing (the big picture instead of the formal details)
- can be more repetitive due to memory limitations (get the take-home message across)

The discussion part:
- Listen to the question
- Answer the question – if you can
Audiovisual Aids

Slides provide support for the presentation

- Key points and important concepts
- Graphical illustrations (and sound if relevant)
- Material that is hard to present orally (equations, examples)

But remember

- Not too much information (or too small fontsize) on one slide
- Not running text (to be read aloud)
- Slides should support presentation, not vice versa
Geoff Pullum’s Golden Rules

▶ Don’t ever begin with an apology
▶ Don’t ever underestimate the audience’s intelligence
▶ Respect the time limits
▶ Don’t survey the whole damn field
▶ Remember that you’re an advocate, not the defendant
▶ Expect questions that will floor you