



BLG374E

Technical Communications for Engineers

Short Reports

Lecture Contents:

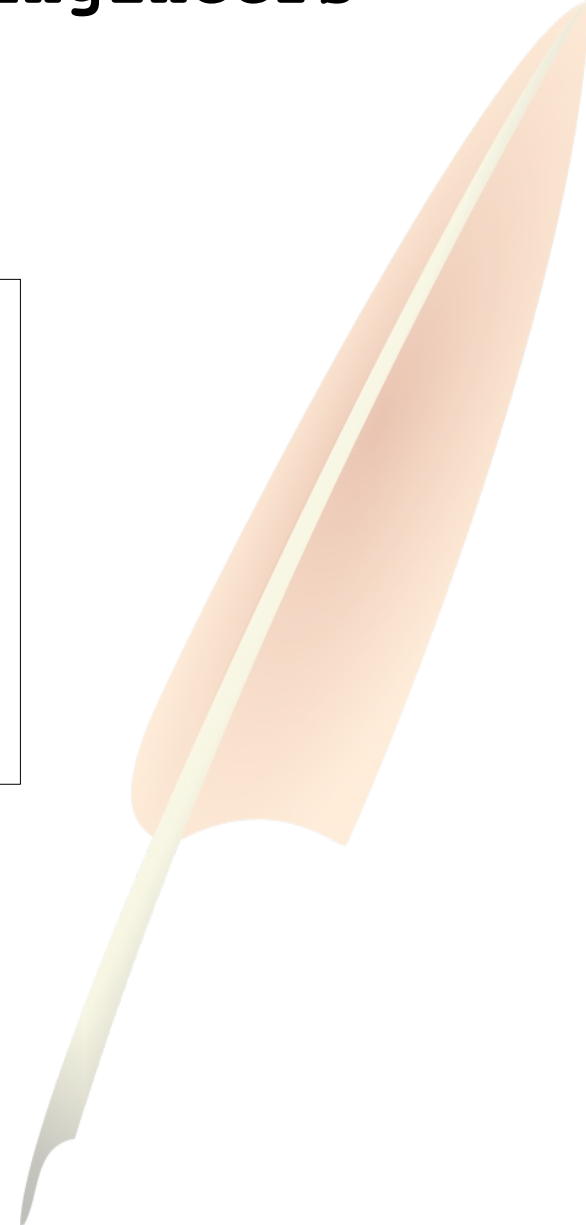
Reports vs. essays

Types of reports

Structure

Sections

Common problems with reports



Reports vs. essays

Report	Essay
Informational	Argumentative
Random access	Sequential access
Visual structure	Rhetorical structure
Graphics-heavy	Text-heavy

Exercise:

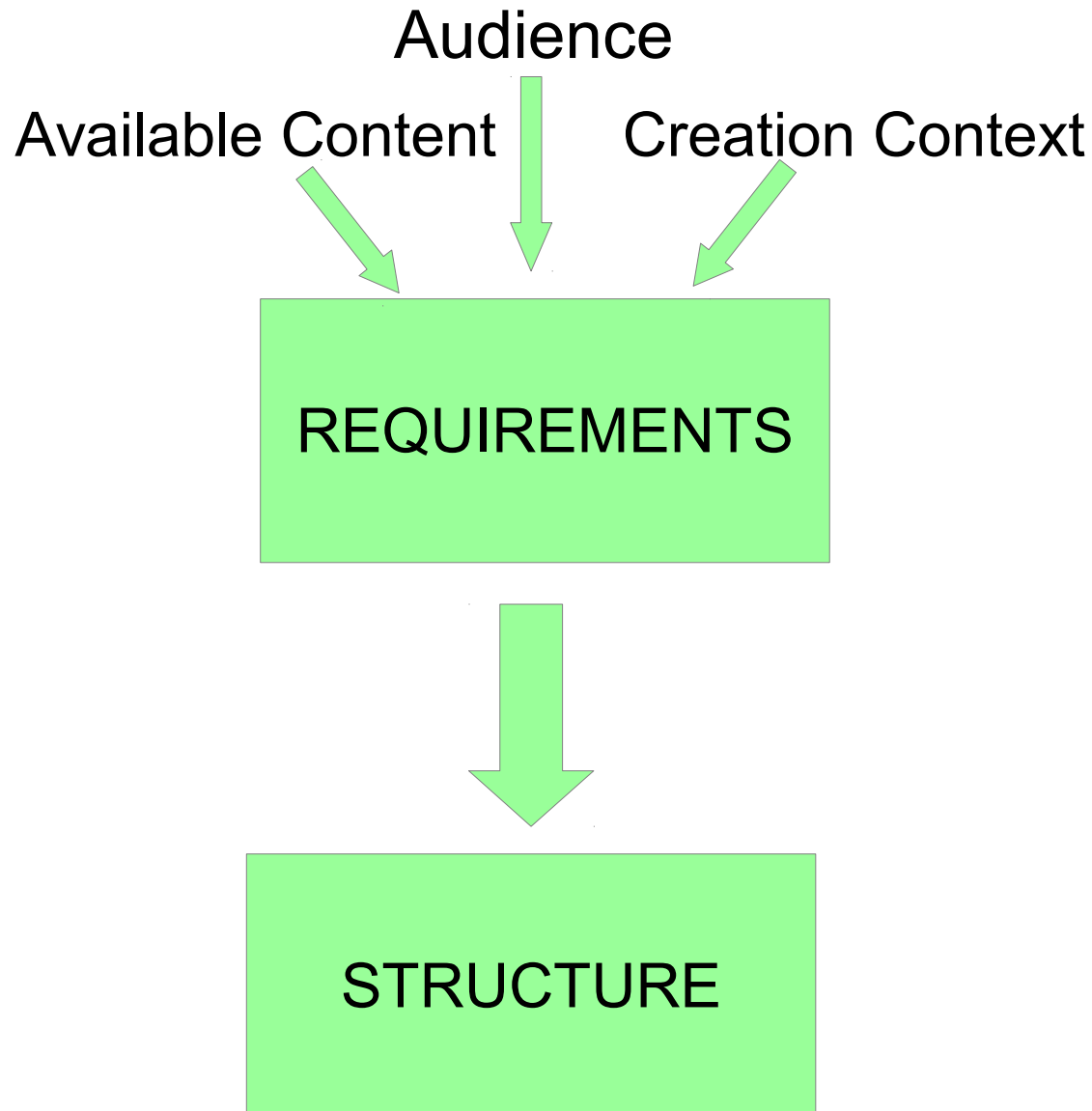
Essay or report?

- "Why communication skills are important for today's graduates."
- "Experimental evaluation methods for technical communications instruction."
- "A survey of arguments for and against explicit communications courses at university."

Structure/format standardisation

- Rapid access.
- Reduce cognitive load.
- Ensure minimum standard.

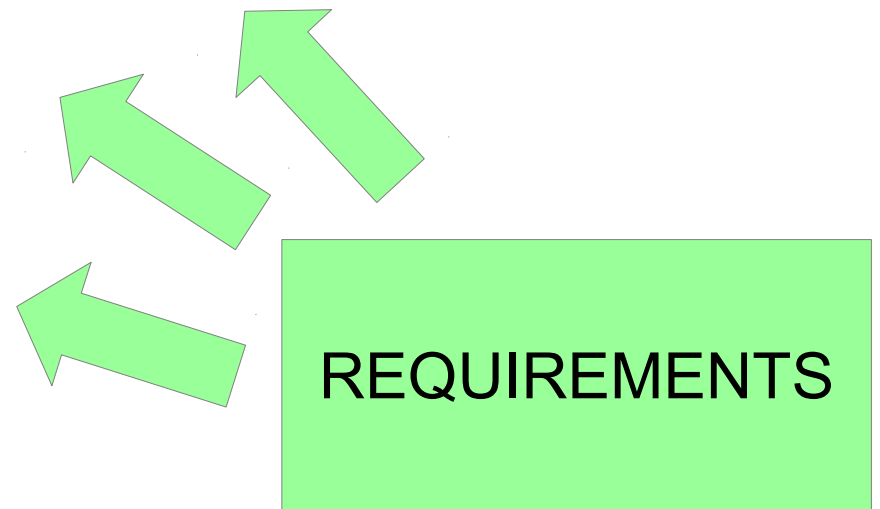
Report types



- Recommendation.
- Progress.
- Incident.
- Inspection.
- Field.
- Laboratory/research.
- Specifications.
- Proposals.
- Results.

Possible report contents

- Letter of transmittal.
- **Title** page.
- Table of contents.
- List of figures.
- Document control/revision history.
- Abbreviations/glossary.
- Executive summary/descriptive abstract.
- **Introduction.**
- **Body.**
- **Conclusion.**
- Recommendations.
- Bibliography.
- Appendices.



Recommendation reports:

Typical additional contents

- Clarify requirements.
- Specify target scope.
- Requirement-target evaluation.
- Overall evaluation.
- Recommendations.

Laboratory reports:

Typical additional contents

- Background:
 - Research question.
 - Theoretical considerations.
- Literature review.
- Method/procedure/equipment.
- Results/data.
- Conclusions.
- Implications.



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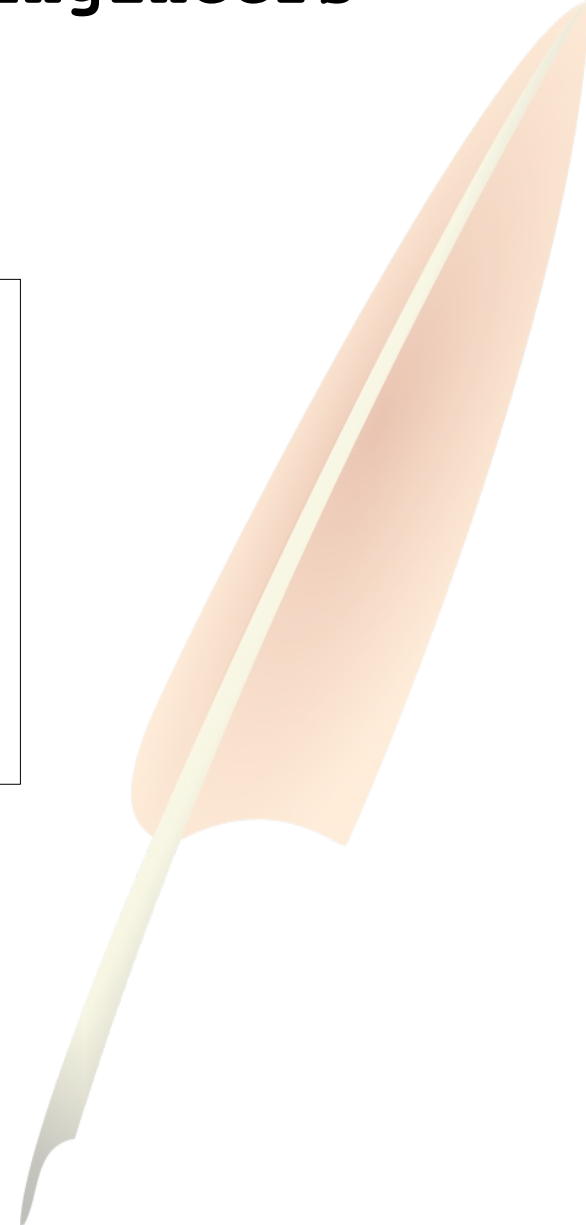
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Engineering report-writing: **Titles**

- To understand topic:
 - Informative.
- For indexing:
 - Appropriate words.
 - Multiple lines: Okay.
 - Multiple paragraphs: Not okay.

Choose the best title (engineering/research report)

- 1) Application of Genetic Algorithms to the Travelling Salesman Problem.
- 2) Genetic Algorithms.
- 3) Travelling Genes!
- 4) AoGAtTSP.
- 5) A Journey Through Genetic Algorithms.
- 6) ***Write Your own title.***

Engineering report-writing: **Introductions**

- Who should be reading this?
 - Context of report creation (audience, intent).
- Why am I reading this?
 - Brief background.
 - Statement of topic
- What should I expect?
 - Summary of context.

This report was prepared by the Special Commission For Future Technologies for the prime ministry of Turkey to prepare for potential financial impacts of new technologies. The internet of things, advanced biometrics, and big data are just a few of the powerful paradigms now emerging in computer technology. But new paradigms are yet to come. This report aims to identify and evaluate emerging technologies, particularly with respect to the potential financial impacts on the nation of Turkey, and so enable our decision-makers to take steps towards early exploitation of new technologies, prevention of damage from new technologies, and otherwise prepare for the arrival arrival of new and disruptive technologies.

This report begins by discussing well known impactful technologies and reviewing their current and possible future impacts. Then, drawing from expert opinion across universities and business representatives, a set of potentially disruptive new technologies are listed and evaluated. Subsequently, possible future scenarios involving the impact of these technologies are presented. Recommendations for future research or policy strategy are presented.

Engineering report-writing: **Backgrounds**

- Any information necessary to understand the purpose of the report or its contents.
- E.g. :
 - Technical background.
 - History of topic.

Experimental report-writing:

Approach & results

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Tech.
Comm.
Eng.

- Approach/methods:
 - How info was acquired.
- Results/details:
 - Careful presentation of information.
- Don't be afraid to repeat information.

Repeating information

- Methods section:
 - The two algorithms are run on the primary dataset and compared in terms of relative prediction error, calculated as...
- Results section:
 - The results of comparing the two algorithms on the primary dataset can be seen in Figure 3...
- OK?

Engineering Report-writing:

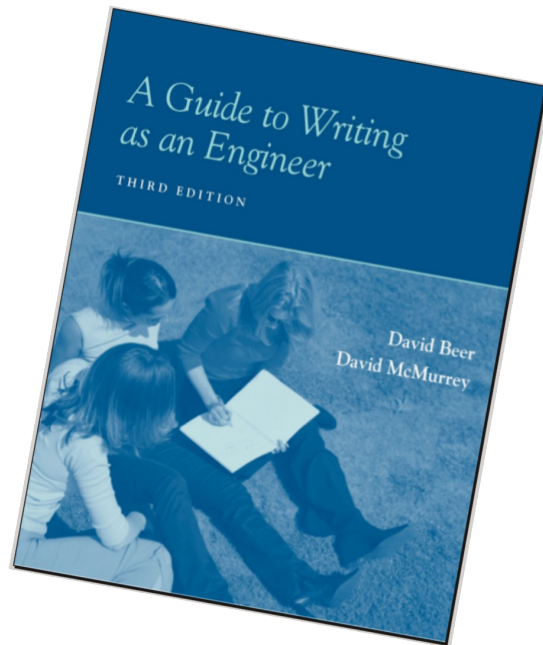
Conclusion

- Summarise information.
 - Random access.
- Interpretations.
 - What does it mean?
- Recommendations:
 - Where to now?

Common problems with reports

- Not following specifications.
- Unnecessary information.
 - What is the purpose?
- Sloppiness:
 - Spelling, whitespace, basic sentence structure.

Reading



Beer & McMurrey Chapter 5.

"Writing Common Engineering Documents"

Getting Started With Report Writing

<http://mycourse.solent.ac.uk/mod/book/tool/print/index.php?id=232731&chapterid=36552>

Short Reports

<http://www.engineering.utoronto.ca/Directory/students/ecp/handbook/documents/short.htm>