Endeavour Program
MELBOURNE SCHOOL OF ENGINEERING

POSTER DESIGN

ACADEMIC SKILLS
Session aims

To better understand how to design an effective poster in terms of:

✓ Your purpose and audience

✓ Content

✓ Layout

✓ Visuals

✓ Logistics
Your poster should be:

A conversation starter
Details are on your paper, in your head and in your notes

An advertisement
Generate interest in your project so that your audience wants to learn more

A summary
Provide a succinct summary of what your project achieves
**Purpose**

Poster presentations are more flexible than traditional oral presentations

*What are the main differences between oral presentations and poster presentations?*

<table>
<thead>
<tr>
<th>Oral presentation</th>
<th>Poster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited time</td>
<td>Audience selects what to view and how long</td>
</tr>
<tr>
<td>Brief question time to whole audience</td>
<td>Opportunity for extended questions and discussion 1:1</td>
</tr>
<tr>
<td>Contains more detail in all sections</td>
<td>Is reduced to essentials: detail can be provided when you present it</td>
</tr>
</tbody>
</table>
What are your four key audiences most interested in?

- Primary and high school students
- General public
- University staff and students
- Industry professionals

How will you adapt your vocabulary and pitch for each group?
Select your content based on the needs of your audience

Ask yourself:

1. What is the **most useful/essential information** relating to our project?
2. What will my audience **most want to know**?
3. What is the **best medium** to present this information?
   - heading
   - text
   - graphic (chart, graph, image)
4. How can I show a **direct connection** between the text and the graphics?
5. How can I **reduce the amount of text** in order to maximise graphics/white space?
Compare these two posters...

Survey of the Least and Crested Auklet colony near Sugarloaf Head, Semisopochnoi Island, Aleutian Islands, Alaska, during 2004
Ian L. Jones and Jacquie F. Marks. Department of Biology, Memorial University of Newfoundland, St. John’s, Newfoundland, A1B 3X9. ijoones@mun.ca

Enhanced Intermediate Language Design to Preserve AO Modularity in Object Code

For more information see home page of the Nu project at http://www.cs.iastate.edu/~nu/

Broad Problem

Virtual Machine Support for the Nu Intermediate Language

Sub-problem: Fast Dynamic Join Point Matching

Technical Results:
- Optimize individual pattern matching using fast algorithms and data structures
- Index-based modifier matching, classification-tree based type matching, finite-state automation based name matching, and petri-net based composite pattern matching
- Data structures and algorithms for caching already matched patterns
- Avoids unnecessary invalidation of cached results
- Techniques for incremental matching of a join point

Technical Contributions:
- Enhanced intermediate language design to preserve design modularity in object code
- Production level virtual machine to support Nu Intermediate Language
- Improved scalability of development processes
  - e.g. by improving incremental compilation of AO programs
  - Afford improved benefit of separation of concerns enabled by AOSSI to large-scale software systems
- Other potential benefits:
  - Improved post-compilation processes e.g. debugging
  - Lower cost of developing robust tool support
  - More opportunities for optimizations

Future Work:
- Continue improving the efficiency of pattern matching and join point dispatch
- Develop a benchmarking framework to evaluate the efficiency
- Implement support for the Nu intermediate language in the Java VM C1 compiler

Department of Computer Science
Robert Dyer and Hridesh Rajan

Iowa State University
Carefully edit your text to maximise impact

To increase readability for a variety of audiences:

✓ Distill your ideas down to your core message (50 words or less for each section)
✓ Consider using bullet points
✓ Write in plain English

*Read the more complex language out loud.*

*Can you think of a simple alternative?*
Some posters follow a research paper structure:

- Introduction/Aims/Objectives
- Methods
- Results
- Analysis/Discussion/Conclusions

What are the advantages/disadvantages of this?
Compare these two posters...

**How useful are the headings in these posters?**

**How much can you learn in a few moments?**
Use large, informative headings as much as possible

Headings should be large enough to read from 1-2 metres away

Informative headings will help you to:
- minimise text
- highlight key points

A. Methods

vs

B. Measuring Water Flow Around a Pier with Computer Fluid Dynamics
Use layout to help your audience to navigate the information on your poster.
Use layout to help your audience navigate the information on your poster

The layout of your poster should have clearly defined sections with a logical flow.

Eye tracking studies suggest the eye focuses most naturally where the lines intersect.

<table>
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<th>41% of viewers will look here first</th>
<th>20% of viewers will look here first</th>
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Use layout to help your audience navigate the information on your poster.

The layout of your poster should have clearly defined sections with a logical flow.

Audience comprehension is higher when content is laid out in a zig zag pattern.

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Majooni, Masood & Akhavan, 2017
What do you notice about the difference in balance of these two posters?
What are the advantages of a landscape layout and what are the design challenges?

Consider these two graphs...

Which graph is clearer? Why?
Carefully select your font type and size to help your audience.

“No one ever complained that someone’s poster was too easy to read.”

American Society for Cell Biology
<http://www.ascb.org/index.cfm?id=1607&navid=112&tcode=nws3&search=1>
Carefully select your font type and size to help your audience

- Make your title readable from 5 metres away
- Use consistent text sizes for different heading levels
  - 80 - 90 point for titles
  - 30 - 36 point for headings
  - 18 - 24 point for text
- Put the names of all the authors and institutional affiliations just below (or next to) your title but with smaller font
- A serif font is more traditional (and less ambiguous)
- A sans-serif font is more modern (and cleaner)
Carefully select and use a consistent colour and font scheme

Websites to help:

https://coolors.co/
https://color.adobe.com/create/color-wheel/
http://colorschemedesigner.com/csd-3.5/

https://fonts.google.com/
Consider these two posters...

What do you like?

What would you improve?
Let the technology work for you
Prepare your poster with enough lead time to have it printed

Printing size = **A0** (84.1cm x 118.9cm)

Orientation = **Landscape**

Format = **PDF**

Add a **5mm white border** around the edge

Include: all project group members’ names, project title, supervisor’s name, engineering discipline

University printing:

Submit by **5.00pm Friday 28 September**
Consider these elements when designing your poster:

- Your purpose and audience
- Content
- Layout
- Visuals
- Logistics