

Creating a new (academic) Poster

Annex: ICSE 2023 Poster Exhibition

What is a Research Poster?

Posters are widely used in the academic community, and most conferences include poster presentations in their program. Research posters summarize information or research concisely and attractively to help publicize it and generate discussion.

The poster is usually a mixture of a brief text mixed with tables, graphs, pictures, and other presentation formats. At a conference, the researcher stands by the poster display while other participants can come and view the presentation and interact with the author.

What Makes a Good Poster attractive and informative?

- Important information should be readable from about 10 feet away
- Title is short and draws interest
- Word count of about 300 to 800 words
- Text is clear and to the point
- Use of bullets, numbering, and headlines make it easy to read
- Effective use of graphics, color and fonts
- Consistent and clean layout
- Includes acknowledgments, your name and institutional affiliation

The format of a (academic) poster is advised to be as follows:

- Statement of Topic: A short title.
- Abstract (Description): The abstract is a short description of your poster.
- Purpose: What was the intent or goal of the study?
What did you want to learn?
- Background: What was the problem and why was it important?
What knowledge are you building on?
- Method: What was the design?
What was the sample?
What instruments were used?
How was data collected and analyzed?
- Results: What were the findings?
- Conclusions: What do the findings mean?

Preparation

1. Consider your presentation and printer **requirements**
 - How much space will you be given to display your poster?
 - Are there requirements regarding font or graphics sizes?
 - Standard size for posters is 91.4cm wide x 121.9cm high, but they can be customized.
2. Know your **audience**
 - Who is your audience going to be?
 - You will have 3 seconds in which to grab your audience's attention, and convince them to stay and explore your poster.
 - If they stop, you have 30 seconds to secure their attention by conveying an overall understanding of your subject matter.

3. Organize your information

- Divide your information into **main sections**.
These sections typically include:
 - Title
 - Authors Group these together in a title banner o Affiliations
 - Introduction
 - Materials & Methods
 - Results
 - Conclusions
 - References
 - Acknowledgements

4. Distill your message

- Eliminate all but the vital elements of your project.
- Reduce your information to concise statements.
- Whenever possible, reinterpret text as charts, graphs or illustrations.
- Use point form for easy reading.
- Less is more. Limit the density of text.
- What is the most important piece of information? Consider making this a focal point.
- Keep your main title concise.

5. Use **graphics** for impact

- We process images faster than words – take advantage.
- Aim to make 30-40% of your poster visual content.
- Do not use images that are less than 300dpi, if possible.
- Avoid the use of internet images, both for visual and legal reasons.
- Crop and enlarge photographs to eliminate unnecessary information and focus attention on significant details.
- Prepare titles and/or captions for your graphics.

Design Principles

1. Layout

1.1. Unity

- All parts of the layout should work together to communicate your message.
- Make the most important elements the largest and position them just left and slightly above the center of the poster.
- Build the poster around the dominant element.
- Group similar pieces of information together.
- Print out your poster on a A4 / 8.5x11" paper.
If all the text is readable at this size, and you are happy with the layout of all the components, there is a good chance that it will look good when printed as a full poster.

1.2. Contrast

- Use a contrasting colour, texture, type, line, box or graphic to highlight the most important element within your poster.
- Consider using boxes to highlight certain elements but don't box every section; this will make it difficult to determine what is most important.
- Contrast directs your audience to what is most important.

1.3. Consistency

- Ensure that your style is consistent in both text and images.
- For example, all subtitles should be the same font, color and size.

1.4. Alignment

- Ensure that text and images are aligned.
- Use a template and gridlines to help align your elements to each other.

1.5. Open Space

- Open space (the space around paragraphs and images) helps create focal points and direct the viewer's eye.
- Leave a reasonable amount of open space between columns and around titles or your reader may become intimidated by the density and quantity of your information.
- If you feel like you have so much content that you don't have room for open space then you probably need to reduce the content or make the font slightly smaller.

2. Color

- Color schemes should always be created using a standard Red-Green-Blue (RGB) system.

2.1. Start with 1 or 2 harmonious colors

- Decide on the feel you want your presentation to have (hot/bold, cool, soothing).
- You may want to choose colors that are associated with your subject matter or are prominent within the graphics of your poster.
- Remember, when choosing colors, keep it simple.

2.2. Keep backgrounds subtle

- Select subtle colors for your poster background.
- A background should never compete with your content for attention.
- For optimum legibility there should be strong contrast between text and background.
- The use of background images (even ones made subtle as "watermarks") are rarely effective and most often distracting.

2.3. Use warm colors in moderation

- Warm colors like red and purple naturally grab our attention but too much of them can be overpowering
- Cool colors like greens and blues tend to recede and are a better choice for large areas

3. Typography

3.1. Make legibility your top priority

- For optimum legibility, keep fonts in these (indicative) ranges:
 - Main Title – 90+ pts
 - Subtitles – 36-48 pts
 - Body – 28-32 pts
 - References – 18-24 pts
- Information should flow from left to right, top to bottom.
- Do not write in all capitals.
- Columns are highly recommended, but do not make them more than 40 words in width and keep them equal to one another.
- Use white space between columns and sections to enhance readability.
- Use hanging indents for bulleted information.

3.2. Use typography to establish information hierarchies

- Use contrasting typefaces, point size, and bold, italic, colour and alignment to enable readers to quickly discern key concepts and information groupings.
- BUT do not use more than two typefaces on one poster
- Stick to common fonts as the machine that prints the poster likely won't have the unusual ones and the font will be replaced with something else.

Checklist for Assessing Your Poster

1. **Attracting Your Target Audience**

- Is the title of the poster concise and in larger font than the rest? Does it stand out?
- Does the title bar include the presenters' names, and the identifier for the school or institution?
- Is the poster's subject matter quickly discernible?
- Is the poster layout visually pleasing? Delivering the Message
- If you stopped to look at this poster, would you read the text on it?
- Is the subject matter presented clearly and concisely?
- Does the information presented flow logically?
- Is the text readable in terms of linguistic difficulty/scientific language?
- Is the text legible in terms of font choice, size, colour and spacing?
- Have you referenced properly and cited images from the internet?

2. **Creating Visual Impact**

- Are the graphics large enough to be seen from a distance of 3m ?
- Are your key points in bullets?
- Are the graphics attractive and relevant?
- Have legends or captions been used to guide the viewer?
- Are sections clearly defined with adequate space around them?
- Have items been aligned?
- Do you have concise summary/conclusions?