Making Great Posters for Research Applications

September 2013

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Purpose

Purpose of a Poster

• To communicate information and ideas
• To outline a piece of work in a form that is easily assimilated
• To stimulate interest and discussion
A Great Poster Is…

**Readable**

- Easy flow of ideas from one item to the next
- Avoid grammatical errors, complex or passive sentence structure, and misspellings which make a poster "hard to read"
A Great Poster Is…

**Legible**

- If a text is legible, it can be “deciphered”
- Common errors include:
  - Use of fonts that are too small to be read from 4-8 feet away, the typical distance for reading a poster
  - Poor text color selection

<table>
<thead>
<tr>
<th>Size</th>
<th>Arial</th>
<th>Times New Roman</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Font</td>
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<td>Font</td>
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<tr>
<td>7</td>
<td>Font</td>
<td>Font</td>
</tr>
</tbody>
</table>

- green on orange
- red on green
- red on orange
- yellow on orange
- orange on blue
- white on yellow
A Great Poster Is...

Well Organized

- Spatial organization makes the difference between reaching 95% rather than just 5% of your audience
- Time spent hunting for the next idea or piece of data is time taken away from thinking about the science
A Great Poster Is…

and Succinct

• Studies show that you have only 10 seconds to grab and retain your audience's attention
• Make the punchline (title) prominent
• Keep the amount of text used throughout your poster to a minimum
• Do not attempt to include all the details!
Making a Poster – 2 easy steps!

Designing the Poster Elements

• Most posters are made using some kind of computer software
• We recommend using Microsoft PowerPoint

Printing the Poster

• You can print your poster at KSL, we have a large format printer in the Freedman Center
• Library staff will be available to assist you
Time and Money

Time

- It takes time to make a great poster
- Allow yourself 2 - 3 days to design and create your poster
- Last bits of data you rush around to get at the last moment will go completely unnoticed if your poster is messy and disorganized
Time and Money

Costs

- Poster printing costs at the Kelvin Smith Library (KSL) for gloss or semi-gloss poster paper
  - < 42” in length = $25
  - 43-48” in length = $35
  - 49-56” in length = $45
  - 57-68” in length = $60
- You may be charged $70 or more if you print it elsewhere
- Check to see if your department is covering the printing cost
Getting Started
Getting Started

Decide what the Main Message is *(punchline)*

- Keep it short and sweet and make this your title!
- Your poster should cover the key points of your work

- Make your poster as self-explanatory as possible
- **Do not attempt to include all the details!**
Getting Started

Capture your Audience

• Do not overwhelm the reader with text!
• Main points must come through clearly
• If a detailed explanation is required, prepare a handout of this information
• Include less text, and more graphs, charts and images
Getting Started

Lay out your Images Crudely

- Before spending time making the final elements of the poster, take pieces of paper that are about the right size and see if you can actually make it all fit physically.
Getting Started

**ELIMINATE all Extraneous Material**

- The average poster gazer spends less than 10 minutes on your work
- You have 10 seconds to trap the viewer before they move on
- Only show data that adds to your central message
- When in doubt, edit out – crowded cluttered posters are difficult and tiring to read
Getting Started

What you DO Need

• Title
• Principal investigators name
• Other authors if applicable and affiliation of each
• Department and school name, addresses of school and other institutions

Additional Items

• Abstract, introduction, materials & methods, results, discussion, conclusion, future directions, references, acknowledgements, logos
Poster Layout

Arranging Poster Elements and Text

- People approach new information in a known spatial sequence: we track vertically from center to top to bottom, and horizontally from left to right
Poster Layout

Arranging Poster Elements and Text

• Put the most important message in the center top position followed by the top left, and finish in the bottom right corner

• The poster title should be your punchline because, in that position, the title and your name will be seen in the first 11 seconds that a person looks at the poster
Poster Layout

Arranging Poster Elements and Text

- A poster layout in *columns* is most common.
- Arrange the contents into 3, 4, or 5 columns to facilitate the flow of traffic past the poster.
- Organize the material into sections (Introduction, Methods, Data/Results, Conclusions, etc.).
- Use blank space to highlight or offset information.
Poster Layout

**Space is Important**

- Without space, your reader has no visual pauses to think
- Omit all extraneous text or visual distractions, including borders between related data and text, so the reader can assimilate your ideas easily
- Leave at least a 1/2 inch margin around all edges of your poster
Poster Layout

Size is Important

• Size of poster elements or the fonts in each element can serve to emphasize the main points

• Making your subheadings in all capitals and two font sizes larger than the rest of the text on the same panel will draw the reader's eye first, and so be emphasized
Font Choice

Font

- Choose a basic font whose "e's" and "a's" stay open at all sizes and that is supported by your printer
  - Arial, Bookman, Helvetica, and Tahoma are good choices
- Avoid use of multiple fonts which can be distracting
Font Choice

Size

- Font sizes need to be big to be effective
- You should be able to easily read it from 4-6 feet away
- Test this by viewing a portion of your poster on your computer
  - Zoom in to 100%
  - Step back from your monitor to see if you can still read it
Font Choice

Size

• Recommended **Minimum** Font Sizes
  - Title: 60 point bold
  - Researchers and affiliations: 48 point
  - Section headings: color of your choice, 30 point bold
  - Text: black, 24 point
  - Figure, graph and table captions: black, 20 point
  - References and acknowledgements: black, 20 point
  - Photo/image credit: black, 14 point
Formatting

Format

• DO NOT use single spacing!
• Indents set text apart and are great for short lists
• Justify text
• Use short sentences, simple words and bullets to illustrate discrete points

Formatting Toolbar

The Formatting Toolbar is a collection of buttons that makes it easy for you to do simple formatting that changes the appearance of your document.
Images

- The same or more space on the poster should be taken up by images or graphs than by text
- A good rule of thumb is 30% text, 40% graphics, 30% empty space

- Use of color in your graphics will enhance your poster
- Don’t forget to include explanatory captions on your poster

Figure 1. Feline DNA
Images, Graphs, and Tables

Images

• Photos and drawings should be of sufficient size to be visible from a distance
• 4" x 5" photos are a good size
• Drawings are best if at least 8" x 10"
• Place related materials (e.g. photo with accompanying text) close together, then offset it by surrounding it with blank space
Images, Graphs, and Tables

**Images**

- Your images should have a resolution of at least 300dpi (dots per inch) at the size they will be ultimately printed on your poster
- Save them as either JPEG (or JPG), or TIF files
- Avoid using BMP & GIF files
- In PowerPoint go to the **Insert**, then **Picture**, then find your image
- You can adjust both the size and position of your image in PowerPoint
- Use borders about 1/2 inches all around each figure
Images, Graphs, and Tables

**Graphs**

- When importing graphs from Excel or other software, copy the graph then go to the **Home** menu, **Paste Special**, as **Picture (Enhanced Metafile)**
- Avoid complex graphs and tables with excessive numbers
- Use colors to distinguish different data groups in graphs
- Avoid using patterns
Images, Graphs, and Tables

Tables

- If you do use a table on your poster, it should be very compact
- Use a table only if it would support your story more efficiently than a graph

<table>
<thead>
<tr>
<th>TOP500 Statistics — Installed $R_{\text{peak}}$ [Gflop/s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA/Canada</td>
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<td>------------</td>
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<td>SGI</td>
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<td>IBM</td>
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<td>Hewlett-Packard</td>
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<td>Fujitsu</td>
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<td>NEC</td>
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<tr>
<td>Hitachi</td>
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<tr>
<td>others</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Mannheim/Tennessee       June 10, 1999
Add Color

Color & Contrast

• Proper color contrast will reduce eye strain and make the poster more legible and interesting visually

• Be careful that the color does not outclass the visual impact of your data
  - Too much contrast is hard on the eyes and can distract the reader from your data

• Use color for highlighting and to make your poster more attractive
Add Color

Color & Contrast

• Do not go overboard with color
• Avoid patterns or motifs
• Dark background colors are ok, but KSL will charge an additional fee
  • $5 42” or shorter
  • $10 over 42” long
Add Color

Reproduction

• Images do not stay the same between one medium and the next and this is especially true for color quality

• The colors you see on your monitor are usually not exactly what comes out on the final, printed poster
Save your Poster

Saving

- Save the poster as a PowerPoint Presentation or .pdf only!
- Other save options (.gif, .jpg) will reduce the quality of your poster
Before You Print

Final Check

• Have some people look over your poster before you print
  ▪ Research advisor
  ▪ Peers
  ▪ Friends & family
• If they are confused, it is far better to fix it now than to lose people at the poster session
• Pay particular attention to things that may not be necessary: eliminate everything that you can!
Before You Print

Test Print

• Print your poster on regular letter paper to proof read it

• Go to the Print option. In the pop-up window, select the Scale to fit paper box, and set the paper size to letter (8.5x11in.) and landscape mode

• Do NOT change any of the other settings!

• After printing, you can tell that the font sizes are right if you can still read the text
Printing

KSL

• If you decide to print your poster at KSL, you can either make an appointment or use the drop-off service (48-hr turnaround)

• Make your appointment early!
  – if you miss or are more than 10 minutes late you will be assessed a $5 charge
  – you can reschedule, space permitting
  – Website:
    http://library.case.edu/ksl/services/librariyservices/poster/
Printing

KSL

• For your printing session/drop-off, bring it with you on a USB drive, or you may retrieve it from your own e-mail

• Bring cash, check, or Case-cash to cover the cost of the print supplies for your poster or a University account number (SpeedType) if your department is paying for it
Printing

• Try to keep your poster file size under 10 MB. If you go over 10 MB you will increase your chances of running into errors printing or it will take a looooon time to print.
• Image size is what will make a poster file too large to print. Too large files often are related to images that were imported at much too high resolution
• It will usually take between 10 and 20 minutes to print out your poster
  ▪ Print time depends on poster dimensions, file size, and amount of elements on your poster
Printing

Student Activities & Leadership

• Plain paper color poster printing can also be done in Student Activities and Leadership.
• They require a one day notice. Information can be found online [http://studentaffairs.case.edu/activities/services/poster.html](http://studentaffairs.case.edu/activities/services/poster.html)
Printing

Campus Printing Services

• High quality poster printing can also be done at Campus Printing Services.
• They require a two day notice. Information can be found online
  http://www.case.edu/finadmin/auxserv/printsrv/poster.html
Brief Presentation

- You may wish to prepare a short presentation of about 3-5 minutes that you can periodically give to those assembled around your poster.
Have Fun!

• Good luck and have fun making your poster and showing it

• Displaying your finished work is a big accomplishment so take time to enjoy it and your interactions at the poster session

• Be on time and enthusiastic about showing your poster – this is your chance to advertise yourself and your work!
Poster Session

Thank You!