Posters

How to make them.
How to present them.
**Napoleon’s March to Moscow  The War of 1812**

This chart of Charles Joseph Minard (1785-1870), the French engineer, shows the terrible fate of Napoleon’s army in Russia. Described by R.J. Nash as owning “the greatest show in history by its layout and design,” this combination of data map and time-series, drawn in 1869, portrays the devastating losses suffered by Napoleon’s Russian campaign of 1812. Beginning at the left on the Polish-Russian border near the Niemen River, the thick band shows the size of the army (420,000 men) as it moved east in June 1812. The width of the band indicates the size of the army at each place on the map. In September, the army reached Moscow, which was then wired and destroyed, with 100,000 men. The path of Napoleon’s retreat from Moscow is depicted by the darker, lower band, which is linked to a temperature scale and draws at the bottom of the chart. It was a bitterly cold winter, and many froze on the march out of Russia. As the graphic shows, the crossing of the Beresina River was a disaster, and the army finally struggled back into Poland with only 7,000 men remaining. Also shown are the movements of auxiliary troops, as they sought to protect the rear and the flank of the advancing army. Minard’s graphic tells a rich, coherent story with its mathematical data, far more enlightening than just a single number mounting along over time. The variables are plotted: the size of the army, its location on a two-dimensional surface, direction of the army’s movement, and temperature on various dates during the retreat from Moscow. It may well be the best statistical graphic ever drawn.

Charles Joseph Minard

O-ring damage index, each launch

26°-29° range of forecasted temperatures (as of January 27, 1986) for the launch of space shuttle Challenger on January 28.

Temperature (°F) of field joints at time of launch.
How Tsunamis Work: Tsunamigenesis

UPWARD WAVE

FAULT LINE

crust

mantle
To Present Data
When Words are Inefficient:

Surgeon’s End Loop Knot - Text

1. Form a loop at the end of the line.
2. With the loop, tie an overhand knot.
3. Pass the loop through a second time.
4. Adjust the loop size.
5. Lubricate and pull the knot tight.
6. Trim the end.
When Words are Inefficient:
Surgeon’s End Loop Knot - Illustrated

SURGEON’S END LOOP

The Surgeon’s End Loop forms a loop at the end of a line. This provides a means to quickly attach leaders and other tackle. This end loop is very easy to tie and very reliable. It is sometimes tied with three overhand knots.

1. Double end of line and tie a loose overhand knot.
2. Pass end of loop through knot again.
3. Hold standing line and tag ends and pull loop to tighten knot.
The Problem With Big Blocks of Text

- Frequently, the readers of long blocks of text, rather than analyze the entire text box carefully, have a tendency to simply read the first little bit. Sometimes, this syndrome can be alleviated by turning longer blocks of text into shorter lists of individual points. Even simple things like white space between list items can help draw attention to each underlying idea.
The Advantage of Lists

- Often, viewers of long blocks of text just read the first bit.

- Putting the key points in a list can help.

- The empty spaces between the bullet points make the list look even simpler.
First questions to ask yourself:

- What's your content?
  - Create a topic statement – one sentence to describe your point.

- What are you trying to achieve?

- Who will be attending?
Goal:

- Attract visitors.
- Use the poster as a visual aid to illustrate your points.
- Use the poster to generate conversation between you and your visitors.
Props

- Does your subject matter allow for a practical demonstration?
  - Physical hardware – or a mockup/prototype
  - Your software on a laptop
  - Video of your project

- These are less portable, sometimes conflict with space restraints
  - Plan your presentation without the props
Planning your Poster

• **Make your poster Readable.**
  ◦ Do the ideas flow from one item to the next?
  ◦ Does the text have grammar/spelling problems?
  ◦ Avoid:
    • Complex sentence structures.
    • Passive voice.
    • Unnecessary adjectives.
    • Long paragraphs.
• Make your poster legible.
  ◦ Use larger fonts.
  ◦ Major points should be readable from 6-10 feet away.
  ◦ Even minor points should be obvious at a glance.
• **Make your poster organized.**
  - Information should flow logically.
  - Make the starting point clear.
  - Make the visual path obvious.
• **Keep your message succinct.**
  ◦ Keep your language short and to the point.
  ◦ Use the space but don’t cramp.
  ◦ 20% text, 40% graphics, 40% white space.
  ◦ Be concise and selective. Key points are important, not details.
  ◦ Edit ruthlessly.
General Poster Design

- Keep it tasteful and professional.
- Use large pictures.
- Use eye catching titles.
- Use color wisely.
- Be consistent.
Graphics

- Should catch and hold audience attention.
- Should increase understanding of complex subjects.
- Should increase efficiency in sending a message.
- Things to ask:
  - Is it relevant or simply cute/faddish?
  - Does it add to verbal material? Is the redundancy useful?
  - Is it easy to understand?
Image Resolution

• Make sure your graphics will be clear when printed out.
  ◦ When choosing images, consider:
    • The source of the image.
    • The purpose of the image.
    • The output of the printing/display device.

• Beware of Web Graphics
  ◦ Graphics optimized for fast download often don’t print well.
Starting your poster:

- Determine your main message.
- Lay out your elements crudely.
- Eliminate extraneous material.
- Consider looking online for templates.
  - [http://colinpurrington.com/tips/poster-design](http://colinpurrington.com/tips/poster-design)
Presenting your poster

- Style, format, color, readability, attractiveness, and showmanship all count.

- Message should be clear: 3-5 minutes.

- You are on display with your poster.
Things to Do:

- Wear a name tag.
- Greet viewers and offer to answer questions.
- Stand to the side of your poster, give viewers space.
- Speak to the viewers, not the poster.
- Walk viewers through the figures.
- Leave a note if you must leave during your session.
- Thank viewers for visiting.
Recommended reading

Useful resources for poster design:

- [http://guides.library.cornell.edu/poster](http://guides.library.cornell.edu/poster)
- [http://www.swarthmore.edu/NatSci/cpurrin1/posteradvice.htm](http://www.swarthmore.edu/NatSci/cpurrin1/posteradvice.htm)

Good examples of other scientific posters:

- [http://eposters.net](http://eposters.net)
How to Print it:

Poster Guidelines: [http://bels.soe.ucsc.edu/PosterGuidelines](http://bels.soe.ucsc.edu/PosterGuidelines)
- Most critical: 48” x 36” dimensions, don’t use a dark background
- Check out links to poster tutorials from [Swarthmore](http://bels.soe.ucsc.edu/PosterGuidelines) and [Cornell](http://bels.soe.ucsc.edu/PosterGuidelines).

Submit PowerPoint or PDF file to web form at: [http://bels.soe.ucsc.edu/posters](http://bels.soe.ucsc.edu/posters)

- Name your poster with last name, subject, and revision number if you’ve had this poster printed before. Example: Vitale-100TbNetworking-R3.ppt
- 5-day minimum lead-time for lowest-cost printing.
  - Kinkos can do a very quick turnaround for about $25 (black and white only – color will cost $$$)
  - Real Color – Westside Santa Cruz (403 Swift St.) is an inexpensive source of color poster printing.