



# **DESIGNING A PROFESSIONAL POSTER**

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# Overview

- Rationale
- Do's and Don'ts
- Basic Concepts
  1. Accuracy
  2. Selection
  3. Audiences
  4. Information Design
  5. Accessibility
  6. Usability
  7. Identity
- Time Savers
- Follow-up Checklist

# Rationale

- **What:** Create a poster for external nonexperts—that is, not just for your professors and your classmates...and not necessarily for engineers with a similar background in ME.
- **Who:** Most of your audiences will have expertise in something, but not necessarily in areas that make the details of your project comprehensible to them.
- **Why:** Your audiences need to understand your project—its *context*, its *purpose*, its *value*—in easy-to-understand terms. Don't condescend. Don't dumb down. Instead, present your key ideas to smart people whose expertise is in other areas than ME (from bioengineering to computer science, from agronomy to art, from genetics to music, from architecture to business).

# Do's and Don'ts

## ■ YES!

- **Recall.** Refer back to your prior knowledge from ENGL 1101/1102: *WOVENText* (e.g., design principles).
- **Review.** View this PPT again, the second time checking the hidden slides.
- **Double-check.** Include all the basic info (next slide).

## ■ NO!

- Do *not* use a template. Instead, create your own poster.
- Do not cram everything onto your poster; it's part of a package, not the whole package.

# Seven Basics

1. **Accuracy:** What ensures that your information is correct? Verifiable?
2. **Selection:** What key points have you selected for visual and verbal presentation?
3. **Audiences:** How can you adapt information for nonexpert audiences?
4. **Information Design:** What attracts and engages viewers?
5. **Accessibility:** What strategies help make information visible? Legible?
6. **Usability:** What strategies help make information comprehensible to nonexperts?
7. **Identity:** Who are the key researchers/affiliations?

# 1.0 Ensure Accuracy of Information

- **Is all your poster information correct?** Double-check accuracy. Triple-check accuracy. Be able to explain why/how your information is accurate.
- **Is all your poster information verifiable?** Know the sources of your information if queried about them. Be able to provide citations or explanations of your methodology.

## 2.0 Select Information

- **What key points have you selected for your poster?**  
Identify and explain the key points and their importance. Differentiate main and subordinate points for your audiences; nonexperts are likely to need such explanations.
- **Which information should you present in text and which in images?** Balance verbal and visual information—to respect audiences' learning preferences and to match the modes of presentation to the content.

# Use Visuals Functionally

- Choose understand-at-a-glance visuals, placed next to or following the text reference:
  - Animations
  - Blueprints
  - Charts
  - Diagrams
  - Drawings
  - Figures
  - Graphs
  - Maps
  - Photographs
  - Schematics
  - Screen shots
  - Site maps
  - Tables
  - Videos
- Provide (a) labels (e.g., Table 1, Figure 1), (b) informative titles, (c) brief captions written in sentences, and (d) sources.
- Refer to visuals in the accompanying text on the poster (e.g., “see Figure 1,” “as illustrated in Figure 2,” or “Figure 3 shows that...”).



# Design Your Text

Write like a professional. When you draft the information for your poster, use these C's of writing:

- **Clarity.** Forecast what you're going to say with headings and topic sentences. Chose exact words. Write clear sentences. Kill off most modifiers.
- **Concision.** Select key information judiciously. Excise extraneous words and phrases. Write tight.
- **Coherence.** Make sure that your ideas are logical and that your line of reasoning is obvious and easy to follow.
- **Control.** Make navigation intuitive. Use a consistent tone. Influence pacing with lists, sentence length, and paragraph length. Emphasize critical points with both diction and design.
- **Credibility.** Establish your professional persona. Use precise evidence. Include all expected information. Proofread a zillion times.

# 3.0 Adapt to Audiences

- **Who are likely audiences for your poster?** Identify your audiences, focusing on their professional roles, SES, likely education, biases and values, their interest in your project, and their prior knowledge about the area related to your project.
- **What concepts, terms, and processes will at least some of your audiences need defined and explained?** Identify and define object, concepts, and processes unfamiliar to nonexperts.

# 3.0 Adapt to Audiences

- **What might be unfamiliar or unclear to your audiences?**

Anticipate concepts, terms, and processes that might be new or confusing.

- **What issues might the audiences value/prioritize?**

Anticipate details of issues such as these that will affect your audiences' perceptions:

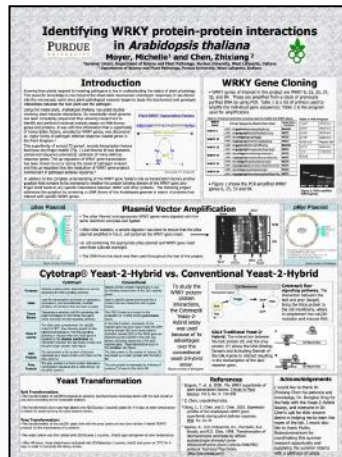
- Ethical issues
- Economic issues
- Market/demographic issues
- Sustainability/environmental issues

# 4.0 Design the Information

**Vertical grid  
(columns)**



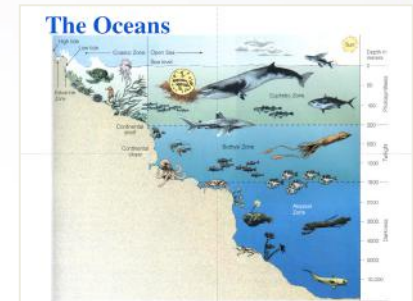
**Horizontal grid  
(rows)**



**Radial grid  
(circles)**



**Angle grid  
(diagonals)**



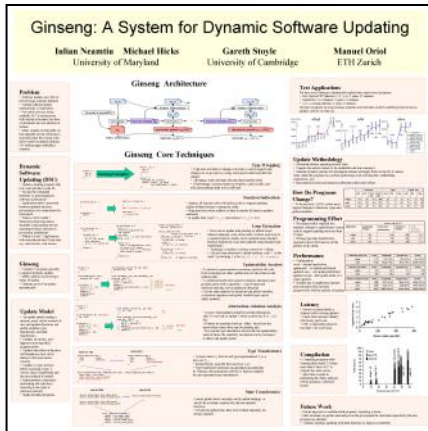
**NB:** See the HIDDEN SLIDE to address questions about DESIGN DETAILS: What color palette and logos have you selected? What fonts have you selected?

# Design the Details

- **What color palette and logos have you selected?** Consider using an Institute-approved colors and logos: <https://licensing.gatech.edu/visual/guidelines>
- **What fonts have you selected?** Pay particular attention to *typeface*, *type style*, and *type size* as well as presentation of the text, including *margins*, *leading*, and *justification*. Consider using an Institute-approved font (or something that looks similar): <https://brand.gatech.edu/brand/typography>

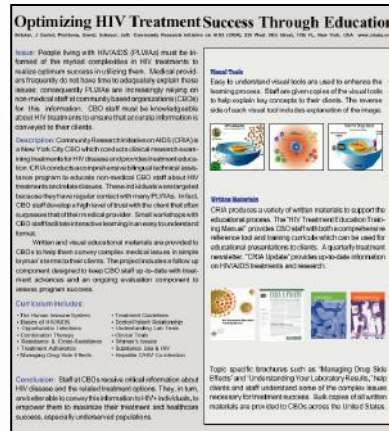
# Avoid Common Design Errors

## Mixed grids



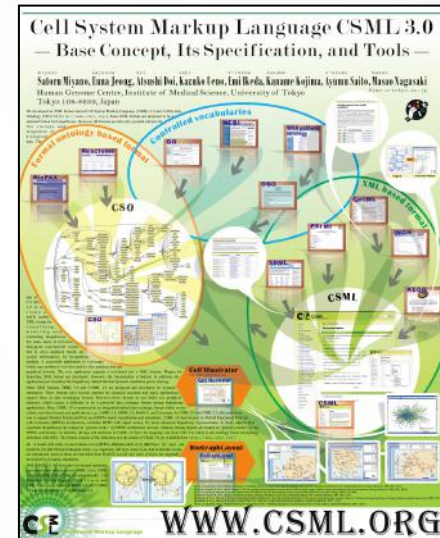
**Avoid mixing grids.** Select a single grid pattern to use.

## Cut-and-paste from a report



**Avoid cut-and-paste from your full report or article.** Select and succinctly paraphrase the highlights.

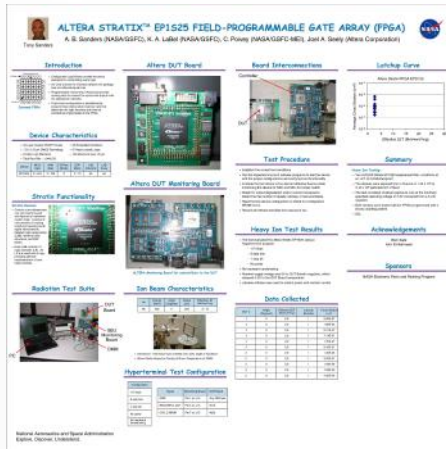
## Unclear navigation



**Avoid unclear navigation.** Make clear the path the readers/viewers should follow.

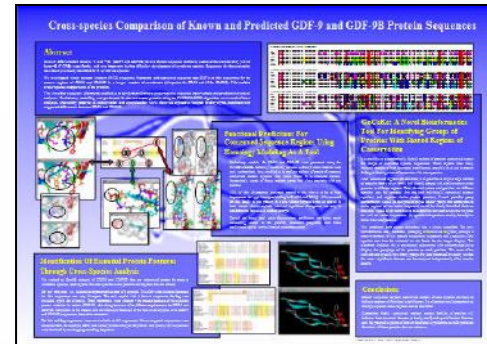
# Avoid Common Design Errors

Unnecessary  
blank spaces



Avoid chunks of  
white space. Use all  
space purposefully.

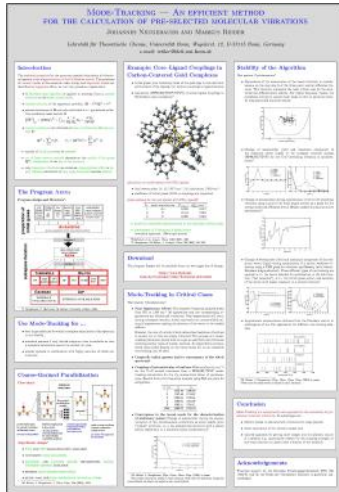
Insufficient figure-  
ground contrast



Avoid impediments to  
legibility. Make sure  
text, images, and  
background work  
together.

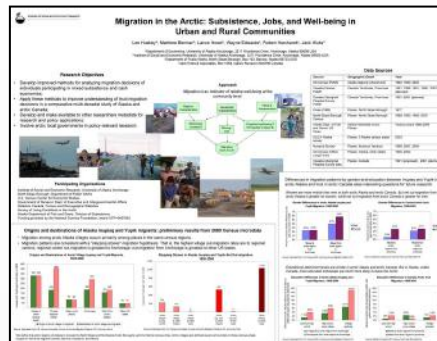
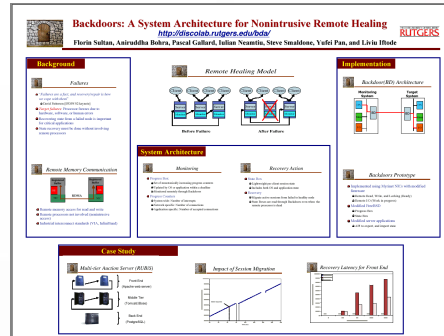
# Avoid Common Design Errors

## Density



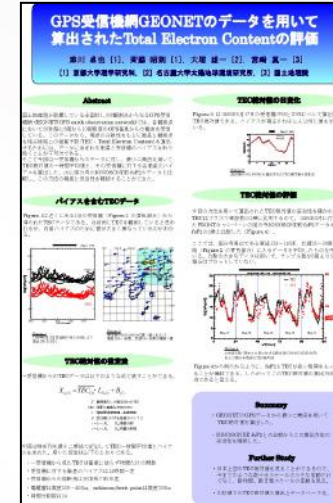
**Avoid excessive information.**  
Focus on a few key points.

## Misalignment



**Avoid uneven alignment.** Align edges vertically and horizontally.

## Tombstoning



**Avoid aligning side-by-side headings.** Offset headings in horizontal columns.

**NB:** See the HIDDEN SLIDES to address questions about LEGIBILITY and QUOTATIONS.



# Consider Legibility

Black font on a white/light background is easiest to read. Notice what happens when you ignore figure-ground contrast.

Black 20 pt. Trebuchet MS on a white background

Black 20 pt. Trebuchet MS on a light gray background

Black 20 pt. Trebuchet MS on a dark blue background

Black 20 pt. Trebuchet MS on a light blue background

White 20 pt. Trebuchet on a white background

White 20 pt. Trebuchet on a light gray background

White 20 pt. Trebuchet on a dark blue background

White 20 pt. Trebuchet on a light blue background

# Limit Quotations

If you quote information on your poster—whether textual, visual, or numeric—make it brief.

- **Length.** Edit to avoid lengthy quotations.
- **Complexity.** Select key information judiciously.
- **Source.** Provide abbreviated citation.
- **Handout.** Provide extended quotations and complete citations *only* in an accompanying handout or website.

# 5.0 Ensure Accessibility

- **Can the information on your poster be read comfortably and quickly?** Use a sufficiently large font. Limit yourself to three or four variations related to font. Use left justification (not full justification). Use sufficient leading (line spacing).
- **Are the text and images legible in the context where the poster will be viewed?** In your virtual environment, reduce glare and backlighting.

# 6.0 Ensure Usability

- Can viewers identify your main point(s)? Avoid information density. Check navigation, labels, headings, and coherence.
- Are viewers asked to exceed demands of their short-term memory (STM)? Limit your poster to no more than seven chunks of information.
- How do you establish emphasis? Use design elements such as **boldface**, *italics*, **color**, **boxes**, or **shaded boxes**. Do not use ALL CAPS for extended prose text.

**NB:** See the HIDDEN SLIDES to address questions about EMPHASIS and influencing AUDIENCE ATTENTION.

# Establish Emphasis

- Limit ALL CAPS to headings and single words or short phrases in the text.
- WHEN YOU USE ALL CAPS FOR ENTIRE SECTIONS OF TEXT, READERS ARE NOT ABLE TO RAPIDLY DIFFERENTIATE THE WORDS BECAUSE ALL OF THE LETTERS ARE THE SAME HEIGHT. THUS, READING IS SLOWED. YOUR INTENT TO EMPHASIZE A POINT IS LOST IN THE VISUAL MONOTONY OF CONSISTENT CAPITALIZATION.

# Get Audience Attention

## Where do you look first?

This sentence—because it is not in a box, whether plain or screened—typically draws the least attention because readers usually look at information in a screened box first and then at information in a plain box.

These sentences—within a plain box with a black hairline rule—typically draw readers' attention before the sentence above that has no box. They usually gets less attention than the sentence below in the screened box.

This sentence—because it is within a box that is screened in light green and a hairline rule —typically draws readers' attention before the sentence at the top that has no box and the sentences in the middle that are in a plain box.

# 7.0 Provide Identity/Branding

- **Can viewers determine critical information about the researcher(s)?** Provide ID information in a logical order and appropriate placement.

Name

Affiliation

Contact

Date of presentation

- **Is appropriate institutional/partner branding or visual identity present?** Provide branding information in a logical order and appropriate placement, compliant with institutional/organizational rules.

Logo

Branding: colors, logo, font

# Use Time Savers

- **Design.** Turn on PPT's vertical and horizontal guides to help you precisely align elements.
- **Follow-up Task.** Make an appointment with a Professional Tutor in the Communication Center to review your poster. Check <http://communicationcenter.gatech.edu/> to make an online appointment.
- **Checklist.** Do (a) peer reviews and (b) in-process and final self-reviews with the checklist on the next slide.



# Follow-up Checklist

- **Accuracy:** Is all your information correct? Verifiable?
- **Selection:** Can the audience easily identify your key points in the visuals and in the text?
- **Audiences:** Has both verbal and visual information been adapted for nonexperts?
- **Information Design:** Are design principles used effectively?
- **Accessibility:** Is everything visible? Legible?
- **Usability:** Is everything comprehensible to nonexperts?
- **Identity:** Are the key researchers/affiliations identified?



**For further information,  
contact either of us...**

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# Challenge

- Engage the attention of everyone in the audience.
- Address these basic concepts:
  1. Present context
  2. Adapt to the digital environment
  3. Organize information
  4. Address nonexpert audiences
  5. Select strategies for nonexperts
  6. Use time efficiently

# 1. Provide a Clear Context for the Audience

**Write and then practice sounds bites, ensuring that you'll be able to address issues such as these and others:**

- **Describe the broad context and the specific situation related to your project.** Be prepared to very briefly describe the context/situation prompting your project—without jargon.
- **Explain your project's problem, need, and purpose.** Be prepared to explain the project's basics. Use numbers, not adjectives. Be precise if possible. For example, how many people are affected, how much time is needed, how much does your project cost, what's the environmental impact.
- **Describe the relationships between various part of your project.** Use transitions to signal chronology, spatial order, cause and effect, comparison, contrast, priority.

# 2. Adapt to the Digital Environment

**Goal.** Make the audience as comfortable and as informed as if they were meeting with you in a face-to-face room. Of course, you need to use the affordances of the media.

- **Reserve 1 minute to settle in.** Give people time to get in your “room.”
- **Plan a 3-4 minute pitch.** Include these (or similar) components: (a) Purpose/value of your project. (b) Problems addressed...and ones that still to be addressed. (c) Basic explanation of your project using one of the common organizational strategies (next slide). Decide whether to display selected, enlarged images from your poster and/or a 1-minute video clip. (d) Ways for the audience to get involved.
- **Plan 10 minutes for Q&A.** Anticipate audience questions: (a) Know who on your team is doing what. (b) Prepare and practice short, direct responses.
- **Anticipate the unexpected.** What’s your plan when technology fails?

# 3. Organize Information

Explain what's most important about your project. Here are standards organizational strategies you might use for the explanation; pick one. Prepare comments for your pitch:

- If **time or sequence** is important, use chronological transitions (e.g., first, five minutes later, after) and visuals (e.g., flow charts, line graphs, time lines, story board).
- If **location or position** is important, use spatial transitions (e.g., below, 5 cm. above, next to) and visuals (e.g., maps, charts, wiring diagram, exploded views).
- If **priority** (most to least or least to most) is important, use priority transitions (e.g., occasional, more durable, simpler to operate) and visuals (e.g., numbered lists, Pareto diagrams, percent graph).
- If **similarities or differences** are important, use comparison/ contrast transitions (e.g., more like, less like) and visuals (e.g., paired bar graphs, paired photos, table, dichotomous key).
- If **causality** is important, use cause-and-effect transitions (e.g., resulting from, caused by, because of) and visuals (e.g., weather map, cause-and-effect diagram).

# 4. Address Nonexpert Audiences

- **Have you adjusted the complexity of concepts?** Use metaphors and analogies. Use explicit, simple examples.
- **Have you adjusted the vocabulary?** Avoid jargon. Use terms for nonexperts.
- **Have you made the process of the project clear?** Prepare a flowchart describing your project's development. Label the time sequences.
- **Have you respected the limits of each reader's/viewer's STM (short term memory)?** Do not exceed people's maximum STM: 4-7 chunks of information.



# 5. Select Strategies for Nonexperts

- **Have you incorporated necessary definitions?** Consider ways to define the unfamiliar:
  - Use synonyms.
  - Use antonyms.
  - Use examples.
  - Use brief anecdotes.
  - Use simple, labeled visuals—for example, diagrams, photos, exploded views, flow charts
- **Have you selected or created a narrative that explains your concept and purpose?** Use a short, focused narrative—one of the most powerful and effective ways to convey technical information.

## 6. Use Time Efficiently for the Audience

- **Have you assigned roles for team members?** Moderator. Project historian/reporter. CHAT monitor. Tech support. Demo/display manager. Q&A respondents.
- **What's your technique for getting the audience to ask questions?** Ask people to post their question(s) in the CHAT...then skim the questions and select ones to answer.
- **Have you developed a way to give everyone a chance to talk?** The moderator can keep the conversation on track, saying things like, "That's an interesting point. We'll get back to you to discuss it later in more detail." Then move to another person.
- **Have you collected contact information for the audience?** Add a link for contact in the CHAT. Ask interested parties to leave their email contact info in the CHAT.



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**Courtney Hoffman, PhD**  
[courtney.hoffman@lmc.gatch.edu](mailto:courtney.hoffman@lmc.gatch.edu)

# Basic Resources to Check

- Creative Blog Staff. (2015). 4 rules of visual hierarchy in poster design. *Creative Blog*. <https://www.creativebloq.com/posters/4-rules-visual-hierarchy-poster-design-91516904>
- Plainlanguage.gov. <https://www.plainlanguage.gov/>
- Weinberger, C.J., Evans, J.A., & Allesina, S. (2015). Ten simple (empirical) rules for writing science. *PLOS Computational Biology*. <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1004205>
- Welhausen, C. (2020). Creating scientific posters. *Writing Commons*. <https://writingcommons.org/article/creating-scientific-posters/>