Using Infographics in Instruction
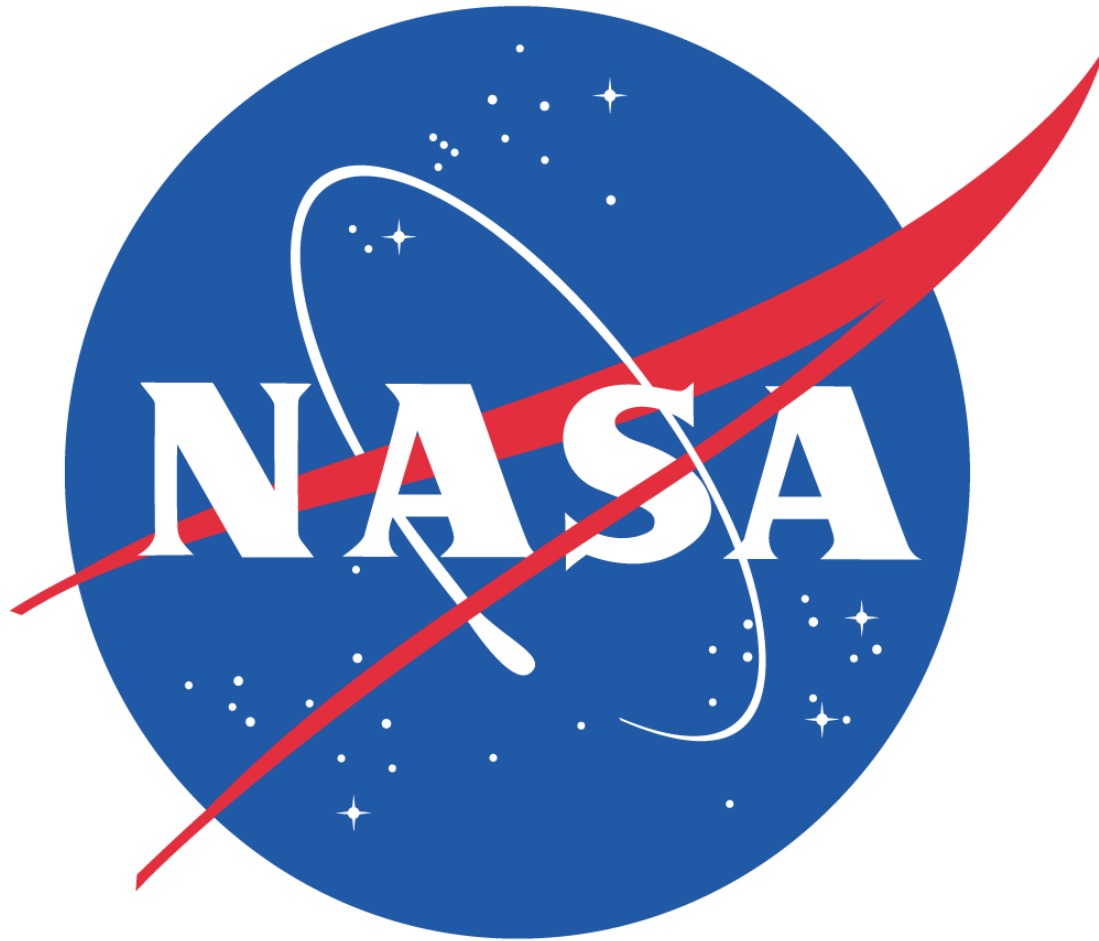
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Who am I?

- An instruction librarian at Gonzaga University.
- 4 years of instruction experience.
- MLS from Indiana University
- I like to play with numbers.

The World is Ending

But for real … the world is ending

Presentation Matters

- **C**redibility comes from many factors beyond whether something is true or not.

- **H**ow is it presented?

- **W**hy do they want you to know?

Establishing Credibility

- We know how to do this with websites, books, and television.

- The primary focus of using infographics is not to teach them how to create, but rather to **interpret** data.

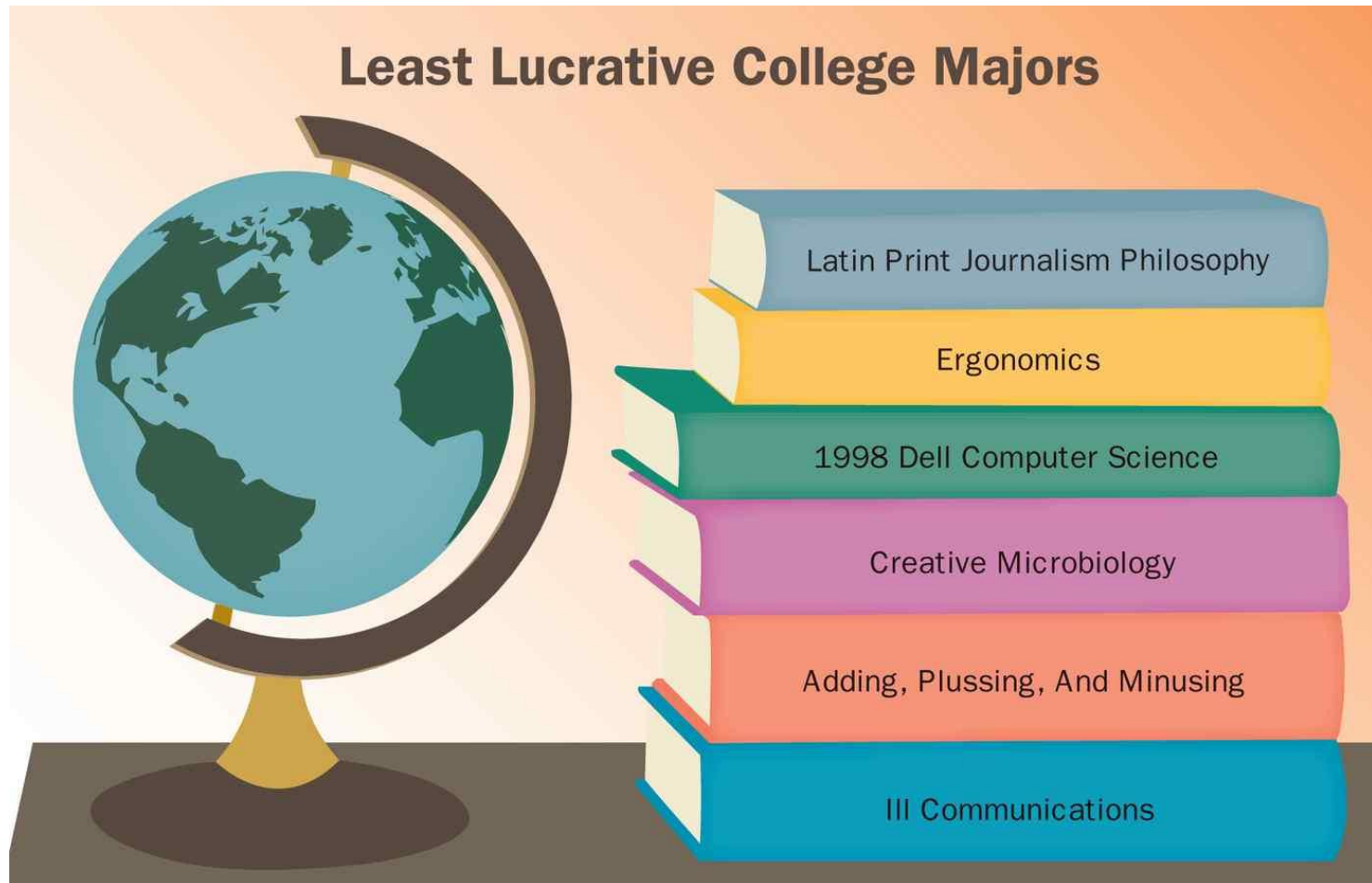- Teach students not to fear numbers, and how to read it.

Using Infographics to Show Credibility

- Facts can be skewed easily with infographics.

- Let's show students how easily.

- Not to teach them to distrust infographics, but rather so that they learn how to **read them critically.**
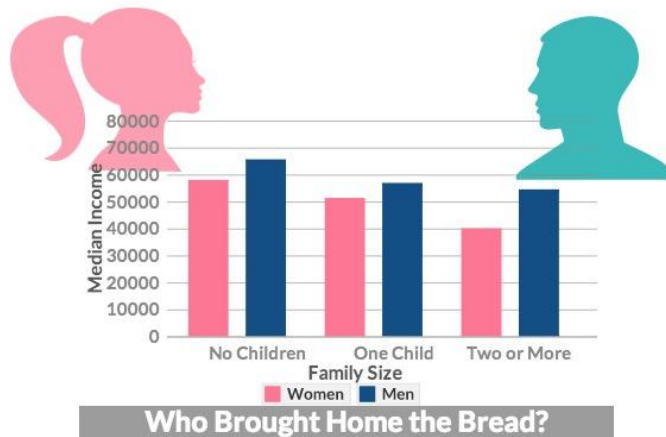
Hold on … What are Infographics?

- Great Question!
- Varying definitions, but generally speaking, they're the merging of art and information on charts to highlight specific bits of information.
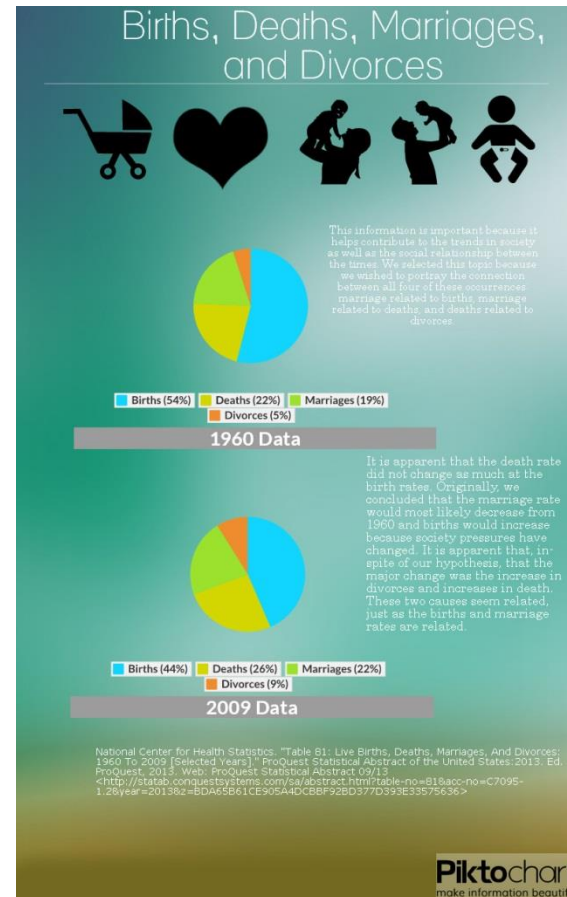- Portmanteau of Information + Graphic

Some Examples

Least Lucrative College Majors

Latin Print Journalism Philosophy

Ergonomics

1998 Dell Computer Science

Creative Microbiology

Adding, Plussing, And Minusing

III Communications

Student Examples

Question #1

- Have you used infographics in class before?
  - 1) Yes
  - 2) No

Umm…. I haven't had math in decades!

- First off, *RELAX*.
- Creating infographics doesn't require deep knowledge of statistics and mathematics.

Skills Needed

- Can you read a spreadsheet?
- Understand that many numbers are represented in units (thousands, millions, etc)
- Ability to ask questions about what the numbers represent.

Yeah, right

Learning Outcomes

- I use the Gilchrist and Zald IL model of learning outcomes.

- Students should be able to create infographics, but how?

  - With image modifier
  - Face to Face works best
  - I will know the student has done this well when they've added to the discussion beyond basics.

"If we have data, let's look at data. If all we have are opinions, let's go with mine."
— Jim Barksdale

Photo: Niklas Morberg, Flickr

Data Sources

- US Census
  - American FactFinder, Statistical Abstracts, Bureau of Labor Statistics, etc.
- Statistical Ready Reference (Data Planet)
- Simmons OneView
- S&P NetAdvantage

"First is the simple power of good visualization tools to help untangle complexity and just encourage you to ask questions you didn't think of before." – **Eric Berlow**

Tools You'll Need

- Data
- Piktochart, Infogr.am, Easel.ly or similar freemium resources
- Excel and Word work in a pinch.

What do you want to achieve?

- With my students, I wanted them to
    1. Learn about statistics resources at the library
    2. Be aware of the ramifications of bad data.

- In addition to all of this, I wanted to market it to the university as a whole.
    1. The "Like Off" was born on the Foley Library Page

Question #2

- How much time do you have to teach your typical class?

  1. 1 hour or less!

  2. 2-3 Hours

  3. A whole semester

  4. I teach both one shots and semester long classes.

Time & Pre-Work

- Time is your enemy
- A week before each class, I emailed professors and asked them to have their students set up Piktochart accounts.
- Create a "Cheat Sheet"

Photo: Steve Wall, Flickr

"Cheat Sheet"

- Common fixes & problems with the website
  - Like, use Firefox browser, not Internet Explorer
- Style Tips
- Statistical Translations
  - Double check the units, is it 5,000 units or 5,000 units of a million.

Class Flow

- Pre Work
- 15-20 Minutes introducing the subject and showing how to navigate the resources
- 35-40 Minutes to allow students to discover and learn on their own.
- During this time walk around classroom and answer questions.

Using Piktochart

- Makes a great end product…

- … but can be frustrating for new users.

- Freemium resource
  - Currently only gives out specific passcodes per student, no university level access.
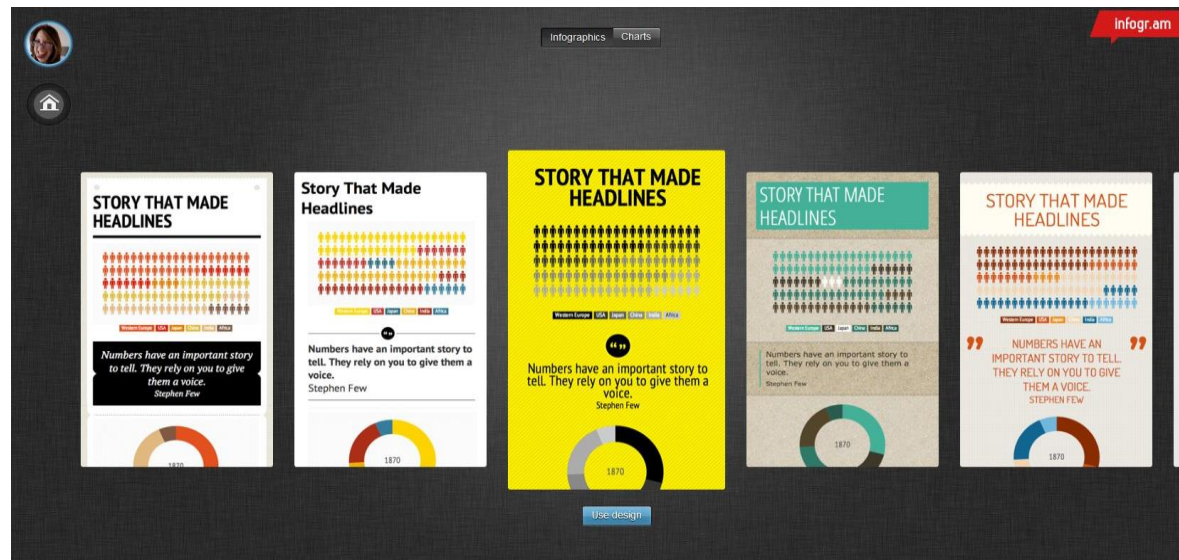
  - Educator pricing available

Piktochart Cont'

- Drop & Drag
- Firefox works best
- Usually around 6 free options for students
- Multitude of publishing options
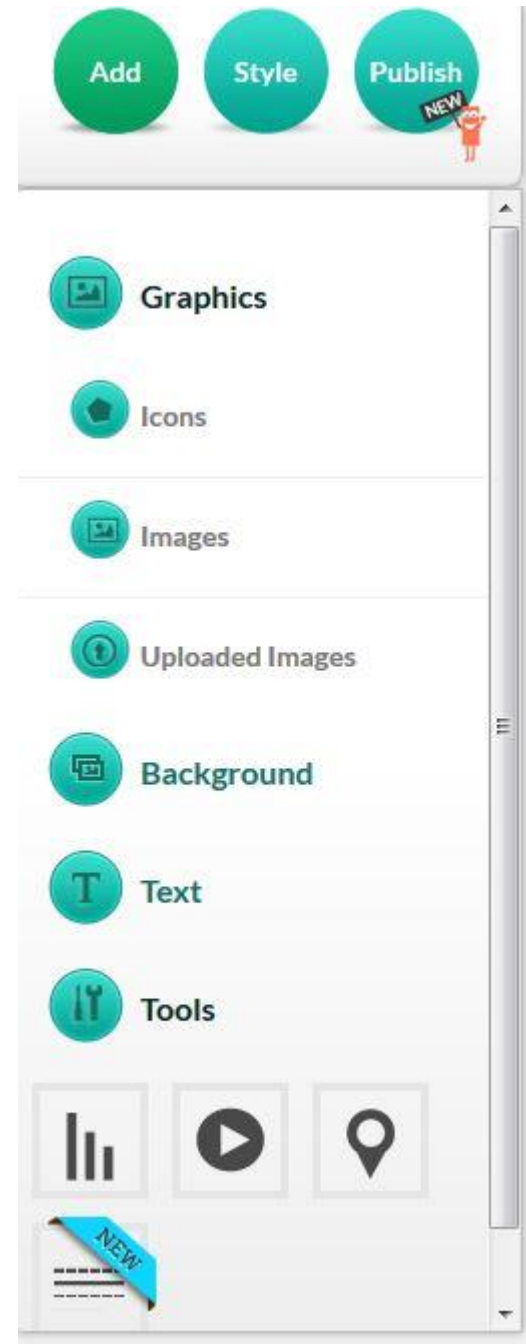
Using Infogr.am

- Very simple interface

- More free options than Piktochart

- Ability to import data from CSV

- Some of the tools not intuitive

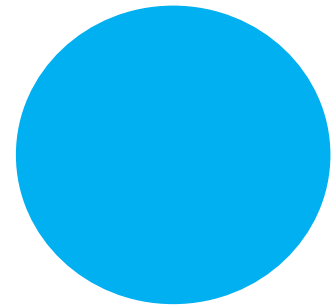- Prompts you to remember copyright

Using Easel.ly

- Does not require account creation, but it's free and allows you to save your work
- Start "Fresh" or templates
- Click each element to change

Graphic Design

- Consult Graphic Design resources
- For non-artistic folks, these can help offer guidelines on how to use color, shapes, and white space to best effect.
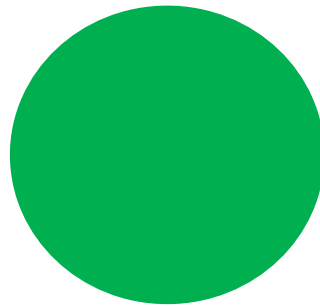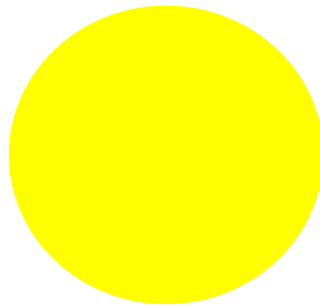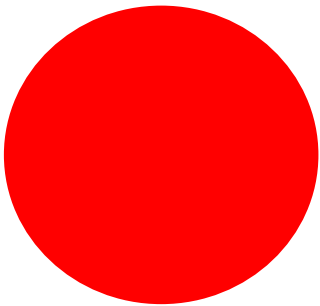
Tell a Story

- Don't give a flat graph with just a picture
- Why is this information important to tell?
- And what do you want to say about it?
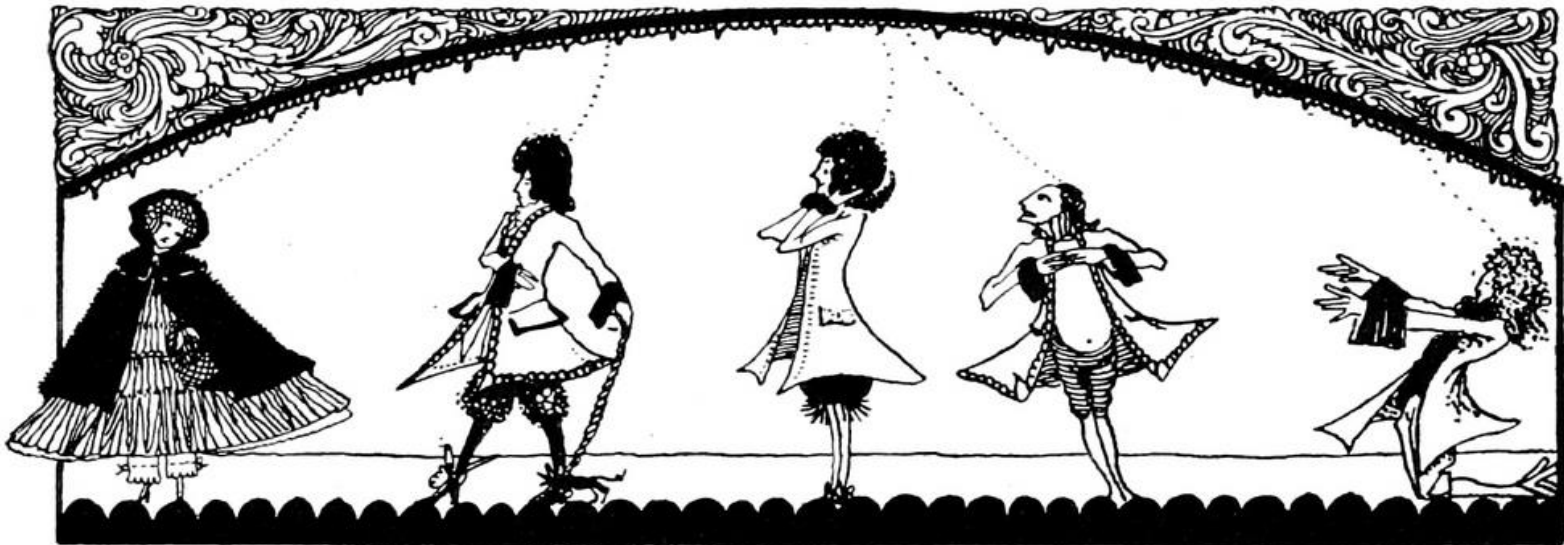
ACRL Info Lit Standards

- **Standard Two** "The information literate student accesses needed information effectively and efficiently"

- **Standard Five** "The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally"

ACRL Association of College & Research Libraries
A Division of the American Library Association

Questions to Ask Yourself

- How was the data collected?

- What's in there to learn?

- How reliable is the information?

- Use these questions as guidelines as you begin building your infographic.

Where to Publish?

- How to display infographics?
- Social Media Sites work great
- Class discussion board on Blackboard
- Ask permission before posting!

Citations

- Most infographics on the web suffer from one of two major problems.
  - They either lack citations and sources entirely.
  - Or if they do give their sources, they are illegible and unclickable.

If you haven't yet taught about citations, now is the **perfect time** to do so!

Insist that students put citations in all of their infographics.

Insist that this be legible

And most importantly, insist that these sources be credible

      - you may have to vet this yourself

Assessment

- I used rubrics in my first classes
- Creativity is tricky to assess, my version of creativity differs from yours.
- Consult Art rubrics
- What are your MUST HAVES?

Rubric

Components	Total Points = 10	5	0
Creativity	Infographic is colorful and visually interesting. Displays understanding of the concept. 4 Points	Infographic displays information, but does not have visual appeal. 2 Points	Infographic displayed no creativity or was not completed. 0 Points
Timeliness	Assignment is turned in before the start of class on due date. 2 Points	Assignment is one week late. 1 point	Assignment is more than one week late or uncompleted. 0 Points
Data Accuracy	Data represented is presented correctly and without error. 2 Points	Data is mostly correctly represented but contains some errors. 1 Points	Data is incorrectly represented and/or not factual. 0 Points
Citation	All data is correctly cited in APA format. 2 Points	Citation contains some errors. 1 point	No citations or citation completely incorrect. 0 Points

Is this just a buzzword?

- Maybe. It depends on how you use it.
- Infographics have been around for ages. Abraham Lincoln ever used them.
- Old concept, new term
- Skills learned will carry on beyond the buzz

Common Objections

- My chair/boss will never go for it
- My students would never do this
- I don't have the time!
- I don't understand how to add this into my curriculum

Responses to Objections

- Give it one shot. No need to implement it forever.

- Students are generally open to anything

The Future of Infographics

- If you have access to a plotter, these are great for presentations

- Interactivty

- Adoption by composition classes

Pros & Cons

- Big Learning Curve
- Great For Visual Learners
- Time consuming
- Great end product

References

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