

Indulging in Infographics: Research Presentations for First-Year Students

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NUTRITION INFORMATION

The goal of this recipe is to teach first-year students how to create meaningful research projects using infographics. First-year students who are required to complete research projects with a visual component will benefit from *Indulging in Infographics*.

At the University of Hawai'i at Mānoa, information literacy instruction on infographics is embedded into Oceanography and Global Environmental Science (OCN 100). Library instruction for OCN 100 is served in three courses, evenly staggered over a semester. By the end of the third course, students are satiated from digesting nutritious infographic know-how and powered-up to create deliciously digital research presentations.

NUMBERS SERVED

20–30 students per class

COOKING TIME

Three cooking sessions, each lasting 50–60 minutes

DIETARY GUIDELINES

The larger purpose of this recipe is to give first-year students experience with using technology tools to communicate their

research findings in a non-traditional, visual, and digital format. Since digital forms of communication are used more frequently in academics and in the professional world, students will benefit from understanding how to create infographics and use them to convey ideas. Likewise, as digital communication changes overtime, so will the ways in which information is organized and depicted. Teaching students to use new technology tools in tandem with teaching ways to clearly communicate textual and visual information is essential to keeping current with evolving communication methods.

Utilizing infographics to convey specific messages, tell a story, or relay facts helps teach students that research, revising, and displaying information is a creative process, where the information output or product can take on a variety of formats.

ACRL FRAMEWORK ADDRESSED

- Information Creation as a Process

MAIN INGREDIENTS

- Library subject guide containing information on infographics
- Student handouts
- A variety of sample infographics to use during class discussion

- Instruction classroom or computer lab with enough desktop computers or laptops for each student
- Instructor station with computer and projector
- Internet access
- Access to Piktochart.com

MAIN COOKING TECHNIQUE

Librarian-chefs utilize a combination of cooking techniques to ensure a well-rounded, flavorful experience.

- Active learning: The majority of this cooking experience includes hands-on learning, where students examine infographic examples, explore how to manipulate an infographic creation tool, search for information to use in their own infographic, and populate their infographic with text and imagery.
- Group discussion: Librarian facilitates two group discussions: one discussion on infographic design and another discussion during a peer review process.
- Student reflection: Students reflect on their own infographic design, as well as their peers' work.
- Technology demonstration: Librarian briefly demonstrates an infographic creation tool.

PREPARATION

To make this cooking experience run as smoothly as possible, a LibGuide and student handout can be prepared in advance.

LibGuide: Craft the LibGuide to be as concise or as elaborate as needed to enhance the tastes of this session. The LibGuide should include in the least:

- Links to Piktochart.com and other infographic tools
- A variety of infographic examples
- Links to library resources suited to the topic needs of the class
- Resources to digital information use and ethics

Student handout: Use as a compliment to the LibGuide. Student handout can include:

- Links to the library session LibGuide and infographic tools
- Space for students to jot down notes during the session activities
- A description of infographic project goals and outcomes
- Homework reminders and expectations

COOKING METHOD

First course appetizers: Munching on digital presentation basics

1. Infographic bites. At the beginning of the first course, the librarian defines *infographic* and shows a variety of examples. Next, working in groups, students identify the main topic or theme of each example and list their defining characteristics. Students also critically

examine each infographic's organizational structure. After discussing, groups share their findings with the class. Then, as a class, conclusions on how successful each infographic conveys information are made.

2. Topic sampler platter. During the second portion of the appetizer course, students explore potential topics to use for creating an infographic. Topics should align with themes covered in class (in this case, ocean and environmental science topics). Working individually, but with freedom to discuss ideas with classmates, students search library databases, online media, popular online journals, and digital image resources to gather ideas. At this time, the librarian assists with the search process, addresses student needs, and instructs on how to make wise resource choices.
3. Flavor infused homework. In preparation for the second course, students find sources (including images) related to their topic that they will incorporate into their own infographic.

Second course salad bar: Build-your-own infographic

1. A handful of greens. At the beginning of course two, the librarian briefly demonstrates Piktochart, a free online infographic tool. The demonstration works best when only key features are pointed out.
2. Sprinkle on the toppings. The goal during the second portion of course two

is for students to create an infographic that expresses their personal interest in their chosen topic and communicates related scientific information. Student infographics will show an organized flow of information and will display:

- » Title of research topic or theme
 - » Why the topic is important in global environmental science
 - » Examples of existing research on the topic
3. Working individually, students experiment with Piktochart and begin to design their infographic. Take note that this process may be confusing or challenging to students who are inexperienced with technology or who are not accustomed to abstract, visual thinking. It may be helpful for students to roughly sketch out their ideas on scratch paper and then transfer these ideas to the infographic. While students work, the librarian circulates the room, helps students manipulate Piktochart, and assists with incorporating sources and organizing information.
 4. Flavor infused homework. Students add content to their infographic and prepare to present their work during the third course.

Third course entrée: Infographic evaluation and ethics

1. Feasting on feedback. The entrée course focuses on the completed infographics and evaluation. In small groups, students share their infographics and receive feed-

back from group members. The librarian facilitates the feedback process by encouraging students to make positive objective statements of value. Optional: the librarian can share how to give effective feedback by distributing examples of positive feedback statements to the class before they form groups.

2. Drizzle on the ethics. After small group sharing, the class comes together to discuss information ethics. The librarian builds off earlier discussions and prompts the class to further examine the ethics related to using information in a digital context. This discussion may include a mixture of the following:
 - » Finding and using copyright-free images
 - » Accurate ways to cite text and images in infographics
 - » Intellectual freedom and ownership of digital objects
 - » Social and personal implications of using infographic tools
 - » Social and personal implications of sharing information digitally
3. During the ethics discussion, students are encouraged to reflect on how they might change their infographic to better mirror their values concerning information creation, organization, dissemination, and use.

ALLERGY WARNINGS

- Experience with this recipe has shown students need a lot of time to explore the infographic tool and get used to its

features. Plan for extra time to allow students to explore and work out the kinks that come with learning a new technology tool.

- The exercises in this recipe require students to think in a visual way that is more abstract than what they may be used to. It is helpful to explain to students that learning new technology and thinking in abstract ways are processes that may require extra time.

CHEF'S NOTE

This three-course recipe can be consolidated to fit the one-shot instruction model. For this scenario, it can be helpful to collaborate with the course instructor on incorporating various elements of the library session into class lectures prior to meeting for the workshop. For example, the librarian and instructor can prep students on the nature of infographics (see *Infographic bites* from the first course). This preliminary work could be done in the class lecture or embedded in an online course management system (CMS), where the librarian supplies materials and discussion prompts for the lecture or the CMS.

Another possibility has the course instructor work with students prior to the library session to choose suitable research topics. The librarian can request the instructor email a list of topics to her in advance. Having the topics ahead of time frees up valuable workshop time and allows space for the librarian to prepare potential resources suited to student research topics.

ADDITIONAL RESOURCES

Infographic tools:

- Piktochart <https://piktochart.com/>
- Venngage <https://venngage.com/>
- Infogram <https://infogr.am/>
- Easel.ly <http://www.easel.ly/>

Sample infographics to use for class discussion and critique:

- Daily Infographic <http://www.dailyinfographic.com/>
- Good <https://www.good.is/infographics>

Other resources

- The Slow Journalism Company <http://www.slow-journalism.com/filter/infographics>
- *ACRL Framework for Information Literacy for Higher Education*, <http://www.ala.org/acrl/standards/ilframework>