DESIGN 478 – Information Design – Winter 2017 | Tue + Thu 8:30–11:20am
Prof. Karen Cheng | kcheng@uw.edu | Office Hours Tue 4–5pm, Rm 257 Art Building

	TUE	**THU**
wk_1	1.03 Course Intro / **Assign Info Readings** Lecture: Data Graphics 1 **Assign Dataset Research** **Bring 1-2 infographics to next class**	1.05 Groups meet with subject experts In-class infographics critique LATCH exercise (if time permits)
wk_2	1.10 Students Present Info Readings #1 Lecture: Data Graphics 2 **Food/Coffee: Meet with KC to** **show Dataset Options**	1.12 Students Present Info Readings #2 [Data Viz Software Demo] **Immigration/Choco: Meet with KC** **to show Dataset Options**
wk_3	1.17 **Food/Coffee: Diagram Critique 1** [Show 2-3 options/same dataset]	1.19 **Immigration/Choco: Diagram Critique 1** [Show 2-3 options/same dataset]
wk_4	1.24 **Food/Coffee: Diagram Critique 2** [Show 2-3 options/ new dataset] **Assign Week 4 Readings**	1.26 **Immigration/Choco: Diagram Critique 2** [Show 2-3 options/ new dataset]
wk_5	1.31 Food/Coffee progress meeting w/KC Immigration/Choco meets w/experts Slide Lecture as needed	2.02 Immigration/Choco progress meeting w/KC Food/Coffee meets w/ subject experts Slide Lecture as needed
wk_6	2.07 **Poster/Website Critique 1** **Chocolate/Coffee**	2.09 **Poster/Website Critique 1** **Food Inequality/Immigration**
wk_7	2.14 Choco/Coffee progress meeting w/KC Slide Lecture as needed	2.16 Food/Immigration progress meet w/KC Slide Lecture as needed
wk_8	2.21 **Poster/Website Critique 2** **Chocolate/Coffee**	2.23 **Poster/Website Critique 2** **Food Inequality/Immigration**
wk_9	2.28 **Poster/Website Critique 3** **Chocolate/Coffee**	3.02 **Poster/Website Critique 3** **Food Inequality/Immigration**
wk_10	3.07 Workday	3.09 Workday

All work due _at start_ of assigned final exam time: 10:30am-12:20pm Tue Mar 14
No exceptions. Schedule Spring Break travel accordingly.

Name	Subject	Email
Fowler, Margaret Claire	Chocolate	mcf16@uw.edu
Kettler, Rachel Louise	Chocolate	racheket@uw.edu
Niemer, Tessa Rose	Chocolate	niemert@uw.edu
Ordonez Arteaga, Priscila Elizabeth	Chocolate	lizord09@uw.edu
Terasaki, Shawn David	Chocolate	steras@uw.edu
Feigenblatt, Elysse Miriam	Coffee	elyssef@uw.edu
Halim, Emily	Coffee	ehalim21@uw.edu
Heidel, Gina Jay	Coffee	heideg@uw.edu
Huber, Alyssa Lauren	Coffee	alyhub95@uw.edu
Kaye-Jewett, Anne Elise	Coffee	annekj@uw.edu
Choe, Christine Ok	Food Inequality	choe94@uw.edu
Lee, Kathryn Michelle	Food Inequality	kml95@uw.edu
Lynch, Carly Maria	Food Inequality	carl97@uw.edu
Seid, Charity Hui	Food Inequality	chseid@uw.edu
Seeds, Christopher	Food Inequality	cseeds@uw.edu
Huang, Victoria Lin	Immigration in the US	huangv@uw.edu
Kim, Janice Dasom	Immigration in the US	jandk@uw.edu
Nguyen, Minh-Anh Vu	Immigration in the US	nguyenm9@uw.edu
Tan, Peiran	Immigration in the US	gogoltpr@uw.edu
Gamboa Sierra, Luis	Immigration in the US	ljgamboa@uw.edu

Course Goals
The purpose of this class is to help students develop the skills necessary to research, analyze and present both quantitative and qualitative information in ways that promote greater understanding of a subject. Specifically, students will:

1 Research and assemble a comprehensive set of data/information
2 Transform the research into useful data graphics/information visualizations
3 Organize data graphics, information visualizations and text into an appropriate vehicle
4 Discuss, analyze and evaluate effective and ineffective information design

Students will analyze one of four assigned topics: 1) Immigration; 2) Food Inequality; 3) Coffee and 4) Chocolate. Each student must create either 1) a large-format, self-mailing poster or 2) a single-page scrolling website. Students may work in pairs; a student pair must create both a poster and an accompanying website.

Expectations
Be in class every day, on time, prepared with your work. Chronic lateness or insufficient preparation is seen as a lack of interest and lack of respect for myself and your colleagues. ***Take notes by hand; do not use your laptop or phone during critiques***. Taking notes by hand improves recall and long-term comprehension: www.psychologicalscience.org/news/releases/take-notes-by-hand-for-better-long-term-comprehension.html

You are expected to remain in class for the entire studio session. If you must miss class (or leave early/arrive late), please notify me via e-mail as soon as possible. ***You are responsible for all assignments and information covered in all classes, regardless of your attendance record.***

Grading
Grading is based on:
1 The quality of the final projects—both visual and conceptual;
2 The design process—the extent of exploration and variation completed over the quarter;
3 Class participation—engagement and communication with others during critiques.

3.8–4.0 is given to a student who has exhibited the highest possible performance in all aspects of the course—final projects, the design process and participation are excellent. This student independently seeks out additional information on design and is highly committed/passionate about their work.

3.4–3.7 is given to a student who exhibits superior performance in all aspects of the course—the final projects, design process, and participation are uniformly of high quality. This student has a thorough understanding of all concepts presented, and is motivated to improve and succeed.

2.9–3.3 is given to a student who has good performance in most aspects of the course. This student follows a thorough design process, has good design work, and consistent participation that reflects a clear understanding of almost all concepts being presented.

2.5–2.8 is given to a student who has fair performance in the course. The final work is adequate, with a design process that reflects the minimum effort needed to complete assignments. Participation and motivation are moderate.

0–2.4 is given to a student with poor performance in the course. Projects are incorrectly prepared, incomplete or missing. This student does not understand the majority of concepts presented and rarely participates in class. This student is not prepared for subsequent courses in design.

Point-Level Grading Rubric
TOTAL POSSIBLE PTS: 111 points +3 bonus points
After calculation of all point totals, I will apply a grading curve.

60 pts = Grade for Quality of Final Project Overall
        [10 pts each for editorial content, visual design and uniqueness x 2]

  6 pts = Initial Proposal of 2-3 Datasets
  6 pts = Grade for Diagram Critique #1
  6 pts = Grade for Diagram Critique #2
  6 pts = Grade for Poster/Website Critique #1
  6 pts = Grade for Poster/Website Critique #2
  6 pts = Grade for Poster/Website Critique #3

10pts = Average of your class attendance (each day = one pt, late or early leaving = deduction of .5 pts)
  1 pts = Bringing in required infographics on Thu 1/5
  1 pts = Posting an infographic to the Pinterest board
  3 pts = Required Info Reading Presentation

up to +3 bonus points if you have been actively engaged during critique—
i.e., providing helpful critical feedback to people within and outside your subject group
(this is subjective judgement on my part, you can ask me at any time how you are doing)

up to -3 points if you have been particularly disengaged during critique—
i.e., taking excessively long classroom breaks, whispering with others, on your phone/laptop, etc.
(this is subjective judgement on my part, you can ask me at any time how you are doing)

Plagiarism
Plagiarism is defined as using in your own work the creations, ideas, words, inventions,
or work of someone else without formally acknowledging them through the use of
quotation marks, footnotes, bibliography, or other reference. Please check with me if you have
questions about what constitutes plagiarism. This guide may also be helpful:
https://depts.washington.edu/pswrite/plag.html.

Instances of plagiarism will be referred to the Vice Provost/Special Asst. to the President for
Student Relations and may lead to disciplinary action.

Access and Accommodations
UW Disability Resources for Students (http://depts.washington.edu/uwdrs) offers resources and
coordinates reasonable accommodations for students with disabilities.

If you have already established accommodations with DRS, please communicate your approved
accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through DRS, but have a temporary or permanent
disability that requires accommodations (this can include but is not limited to; mental health,
attention-related, learning, vision, hearing, physical or health impacts), you are welcome
to contact DRS at 206-543-8924 or uwdrs@uw.edu or disability.uw.edu.

When you contact the DRS office, their staff will work to establish reasonable accommodations
for you through an interactive process between myself, you, and their office.

Suggested Reading

www.edwardtufte.com *Envisioning Information*, Edward Tufte, 1990*
The Visual Display of Quantitative Information, Edward Tufte, 1983*
Visual Explanations, Edward Tufte, 1997

www.wurman.com *Information Architects*, Richard Saul Wurman, 1997
www.understandingusa.com *Information Anxiety 2*, Richard Saul Wurman, 2001* (also *Information Anxiety*, 1989)
www.understandinghealthcare.com *Understanding USA*, Richard Saul Wurman, 1999
Understanding Children, Richard Saul Wurman, 2002
Understanding Healthcare, Richard Saul Wurman, 2004

www.nigelholmes.com *The Designer's Guide to Creating Charts and Diagrams,* Nigel Holmes, 1984

www.gestalten.com *Data Flow* (2008) and *Data Flow 2* (2010), both by Robert Klanten*
Designing News (2013) by Francesco Franchi*
Visual Storytelling (2011) by Robert Klanten*

www.davidmccandless.com *Information is Beautiful*—a.k.a. *The Visual Miscellaneum,* David McCandless, 2009

Information Graphics, Sandra Rendgen, 2012*

Diagrams: Innovative Solutions for Graphic Designers, Carolyn Knight, 2009
Information Design Handbook by Jennifer Visocky O'Grady, 2008*
Information Design Workbook, Kim Baer, 2008
Visual Language for Designers, Connie Malamed, 2009

The Design of Everyday Things, Donald Norman, 2002*

Graphis Diagrams, Graphis Diagram 1
The Best Informational Diagrams (1999, 2005) and *World Diagram Collection* (2006) PIE Books
AIGA Design Archives—see "Information Design" category

"Transparency" sections in *GOOD* magazine*
"Infoporn" and "Play" sections in *Wired* magazine
The New York Times, especially multimedia/info graphics

After-Hours Access to the Art Building
For after-hours access to the Art Building, please bring your Husky Card to the Art Advising Office (RM 104, Open M-F, 8am-4pm). Student cards will be swiped, and you will receive an access sticker for your Husky Card. Access is instant after swiping. Access will be removed at the end of the year.

Violence Awareness/Prevention
—Always call 911 if you or others may be in danger.
—Call 206-685-SAFE (7233) to report non-urgent threats of violence and for referrals to UW counseling (www.washington.edu/counseling) and/or safety resources (http://www.washington.edu/safety).
—Don't walk alone. Campus safety guards can walk with you on campus after dark. Call Husky NightWalk @206-685-WALK (9255) or the shuttle/NightRide program: www.washington.edu/facilities/transportation/uwshuttles/NightRide.
—Stay connected in an emergency with UW Alert by registering your mobile number at www.washington.edu/alert to receive instant notification of campus emergencies via text/voice messaging. For more information, visit the SafeCampus website at www.washington.edu/safecampus.
—Proper student conduct is important for maintaining a healthy environment at UW. Please familiarize yourself with the UW Student Code of Conduct: http://app.leg.wa.gov/WAC/default.aspx?cite=478-120

It can be time consuming to gather and make sense of data. Human experts save time, if you schedule/plan in advance (and can get their attention).

Consider e-mailing or meeting with UW research librarians in your subject area to help you find data.
www.lib.washington.edu/suzzallo/
research/research/#Get%20Help

Your course project is to create a complex, information-rich narrative on one of four assigned topics: Immigration in the US, Food Inequality in the US, Coffee, or Chocolate. Each student must create either 1) a large-format, double-sided, self-mailing poster, or 2) a single-page scrolling website. Students may work in pairs; a student pair must create both a poster *and* an accompanying website. The narrative must contain both illustrations/diagrams and data visualizations. The audience for this narrative is the interested general public (i.e., adult readers of *The New York Times*, viewers of PBS, etc.).

PART 1: RESEARCH (A.K.A. FINDING AN INITIAL DATA SET TO GET STARTED)
Begin by researching your assigned topic. You are looking for a large set of data (or several medium-sized sets of data) that you can visualize to reveal compelling insights. Alternatively, you could look for a complex process that you can explain/visualize with a detailed explanatory diagram/information graphic. For example:

Immigration in the US
A diagram/flowchart that explains how immigrants can get a H1B visa/become a US citizen
A bar chart that shows the number and origin of immigrants coming to the US over time
A series of Seattle maps that show where immigrants have lived (during a time period)
A series of charts and diagrams that compares/contrasts the demographics of legal and illegal immigrants entering the US (could be narrowed by place and time)
A visual explanation/storyboard showing how proposed changes to US immigration laws would affect both legal and illegal immigrants coming to the US in the future

Immigration Subject Experts
Professor Jacob Vigdor
evans.uw.edu/profile/vigdor
jvigdor@uw.edu

Research Coordinator Anne Althauser
evans.uw.edu/profile/althauser
aka17@uw.edu

See this Pinterest board for a collection of existing infographics on US immigration:
www.pinterest.com/karencheng5245/immigration_infographics
Please join the board and upload at least one new immigration infographic.

Food Inequality
A diagram that explains how the US School Lunch program works
A diagram or flowchart that shows how the US SNAP (food stamp) program works
A series of charts that show the types of food purchased by SNAP vs. non-SNAP recipients
A series of charts comparing the nutrient content of inexpensive and expensive meals
A visual comparison of policy proposals to address US food/hunger from both the political right and left (as well as bipartisan proposals)

Food Inequality Subject Experts
Professor Adam Drewnowski
depts.washington.edu/epidem/
faculty/drewnowski-adam
adamdrew@uw.edu

PhD candidate James Buszkiewicz
buszkiew@uw.edu

See this Pinterest board for a collection of existing infographics on food inequality:
www.pinterest.com/karencheng5245/food_inequality_infographics
Please join the board and upload at least one new food inequality infographic.

Chocolate
An illustrative timeline that shows the history of chocolate
An illustrative flowchart that shows how chocolate is made ('From Bean to Bar')
A map that show the locations and types of chocolate made by all US craft makers
An illustrative chart/table that compares/contrasts different certifications for chocolate
A series of diagrams (a knowledge map) that explains how chocolate/cacao is sourced
(by a single company, or in general)
A visual taxonomy organizing and explaining the different factors that give different types of chocolate its flavors (i.e., origin/terroir, method of processing, % of ingredients, etc.)

Chocolate Subject Experts
Bellflower Co-Owners
Callie Neylan and Will Dixon
neylano@me.com
williamtdixon@gmail.com

PhD candidate Madeline Weeks
mrweeks@ucdavis.edu

Yellow Seed Founder,
Nancy Zamierowski
nancy@yellow-seed.org

See this Pinterest board for a collection of existing infographics on chocolate:
www.pinterest.com/karencheng5245/chocolate_infographics
Please join the board and upload at least one new chocolate infographic.

Coffee Subject Experts
Lecturer Anne-Marie Gloster
https://depts.washington.edu/epidem/
faculty/gloster-anne-marie
agloster@uw.edu

UW Coffee Manager, Joseph Maurey
josepm2@uw.edu

PhD candidate Madeline Weeks
mrweeks@ucdavis.edu

Coffee
A series of charts that compares the growers of coffee with the consumers of coffee
A series of charts/diagrams showing how coffee crops have been impacted by climate change, and what additional impacts will occur in the future if warming continues
A flowchart that explains how coffee futures are traded as a commodity
A series of charts that explain the economics of running a coffeeshop in Seattle

A researcher/PhD Candidate at UC Davis, Madeline Weeks, has offered to share her coffee data set from Mexico (her master's thesis data) with our class. This data set is from an in-depth study of 40 coffee farmers in three regions, and includes farmers at three different levels of coffee production: those whose coffee had a high enough quality score to be certified by Mexico for "high quality"; those whose coffee was rejected for Mexican certification system; and those who did not attempt the certification process. See: www.repository. cam.ac.uk/handle/1810/256675.

Note: If you select this last project, Madeline is available to work closely with students over Skype and e-mail. She hopes to publish the resulting student infographics in the future (for example, in *Roast Magazine* or *The Seattle Times*).

See this Pinterest board for a collection of existing infographics on coffee:
www.pinterest.com/karencheng5245/coffee_infographics
Please join the board and upload at least one new chocolate infographic.

PART 2: EVALUATING DATA
On Tue/Thu Jan 10-12, prepare to share 2-3 different data sets on your topic that you have found with your fellow group mates and myself. Prepare a handout (you'll need seven copies) that contains the following information:

— A preview of the data/information. For example, an existing illustration of the "bean to brew" process or a map of US immigration—these are assets that you think that you want to revise/re-design for your final project. If the data is a multi-page report, extract the tables you plan to use. If the data is a multi-page spreadsheet, extract a sample that shows all the variables in the table. In the last two cases, indicate the total number of records (i.e., 200 entries, etc.)

— Short (one-sentence) answers to the classic "5Ws" questions from the field of journalism:
When and where was the data collected?
Who collected this data, and for what purpose?
What does the data tell you—and about whom?
Why is the data/information important or interesting to others?
Who would be most interested in the data, and why?

The purpose of this meeting is to determine which data sets are valid and suitable for visualization in your final infographic narrative.

Please take this step seriously! When students choose data sets in a random, perfunctory way, they typically have to backtrack later. Backtracking is a waste of time! Instead of refining an initial visualization, students have to discard their early (low-quality) work and start over, looking for more and/or better data.

It can be very stressful to fall behind—to know that you are still looking for data while others are finalizing their stories. Please recognize that like many design activities, creating good infographics takes a lot of time. You need time for initial research—and time for the trial and error process of visualization.

PART 3: INFO/DATA GRAPHIC DEVELOPMENT

Visualize the data sets and information that were approved at our group meeting last week. Your goal is to help the viewer understand something—gain insight—by looking at your data/information visualization. Prepare 2-3 different visualizations of the same data set for Tu/Thu 1/17–19.

You can create any kind of info/data graphic that you think is appropriate, including:

Tables	Area Charts / Pie Charts
Scatter Plots	Bar Charts
3-D/Volume Charts	Line Graphs
Isotype Charts	Timelines
Flowcharts	Radial Diagrams
Visual Taxonomies	Maps/ Illustrative Diagrams

Each visualization should be printed in full color on one sheet of 11x17" paper.
Do not use letter size paper—it is too small to see during critique—but tiling is acceptable.
Each visual should include:

— A descriptive working title for the visualization (i.e., "How Fair Trade Certification Works")

— One or two sentences that describe the insight made visible by the data visualization/ infographic. For example, "High-income families eat significantly more fruits and vegetables than low-income families, due to both economic and social factors."

— All axes and data should be directly labelled or identified with a key or legend.

— The visualization should be clear to others with MINIMAL explanation from you.
I will give each student one minute to explain each visualization (2-3 minutes total).
The class will then provide critique—students should comment on what is working well (and why) and offer suggestions and rationale for improvement.

Note: We will have a second critique with new sets of data/information the following week, during 1/24-1/26.

READINGS: SET 1

1_Understanding Numbers _____ **Rachel Kettler** _____

2_Chance _____ **Minh-Anh Nguyen** _____

3_Averages _____ **Janice Kim** _____

4_Sampling_____ **Victoria Lin** _____

5_SocialProof_ConfirmationBias____ **Charity Seid** _____

6_Unknowns_____ **Shawn Terasaki** _____

7_Comparison_____ **Elysee Feigenblatt** _____

8_Causation _____ **Emily Halim** _____

Understanding Risk _____ **Gina Heidel** _____

Note: this article is online at:
http://news.bbc.co.uk/2/hi/uk_news/magazine/7937382.stm

ClevelandTaskModel_____ **Tessa Niemer** _____

MillersMagicNumber _____ **Margaret Fowler** _____

READINGS: SET 2

1_Pop_Out_Effects _____ **Christine Choe** _____

2_Memorability _____ **Anne Kaye Jewett** _____

3_Color + ColorBlindness _____ **Katy Lee** _____

4_Salience_PyschPrinciples_____ **Carly Lynch** _____

5_UsefulChartJunk _____ **Alyssa Huber** _____

6_GettingData _____ **Peiran Tan** _____

7_DebunkingHandbook _____ **Luis Gamboa Sierra** ____

8_CollegeRankings _____ **Liz Ordonez** _____

9_Design+InfoViz _____ **Chris Seeds** _____

What did you learn by reading the article? Summarize the most important points.
Try to make it as interesting as possible —engage the audience by asking questions or giving a demonstration.
DO NOT READ YOUR PRESENTATION, THIS IS INCREDIBLY DULL.
Digital projection is available if you email me a PDF in advance (by 7:00am the morning of the presentation).
Alternatively, make individual handouts (21 copies), or a large classroom poster (that can be seen by 21 students).
Presentation time maximum = 5 minutes for a single student