DSC 640 Term Project Overview

You will be working on a term project that has five milestones and one dataset. The project will be similar to the exercises but on a bigger scale because you will need to create multiple mediums to communicate your story. The dataset is also more complex and will take some time to analyze and understand. Just like the exercises, the emphasis will be on creating an explanatory message vs just showing exploratory analysis.

The downloadable dataset is based on the national database of childcare prices: National Database of Childcare Prices

- The data can be found here: National Database of Childcare Prices (U.S. Department of Labor - Women's Bureau, 2024)

- The technical guide for the data can be found here: U.S. Department of Labor, Women's Bureau National Database of Childcare Prices: Final Report October 2020 (U.S. Department of Labor - Women's Bureau, 2020)

You will need to craft a story based on the following parameters and complete each milestone as outlined below:

Audience:

As you craft your story, you need to determine who your audience will be and the level of data understanding they possess.

- Are they familiar with the data, potentially an employee or stakeholder? Or are they someone unfamiliar with the data, like the general public. This distinction is important because it will determine how much detail you provide and what kind of jargon you can use with the audience.

- In addition to the audience's familiarity with the data, consider their level of knowledge. Are they executives, board members, employees, children, etc.? This is an important piece of information to keep in mind as it will tailor the visuals you use and again how you present the information and what your audience might be interested in. Consider the scenario where you are creating a story for a parent vs a child and how different your messaging would be based on those two different audiences.

- What is your role to the audience? Are they your peers? How do you have credibility to present on this information?

- What biases do the audience members already have that might make them support or resistant to the story/message?

Purpose:

- **The story you are presenting must include a call to action.** It cannot simply be an informational presentation.

- What is the intent of your message/story? What do you want to get across?

- What are you hoping your audience walks away knowing and understanding?

- Are you asking for approval, recommending a change, or promoting a new direction?

Medium:

- How will you present the information?

- Will you create a PowerPoint presentation, dashboard, infographic, video, TikTok, Reel, billboard?

- What is the best method to convey the information based on your selected audience?

Ethical Considerations:

- What changes were made to the data?

- Are there any legal or regulatory guidelines for your data?

- What risks could be created based on the transformations or how the visualizations are presented?

- Did you make any assumptions in cleaning/transforming or when presenting the data? Did you filter any data without labeling or clearly identifying that the data was not included?

- How was your data sourced/verified for credibility?

- Was your data acquired in an ethical way?

- How would you mitigate any of the ethical implications you have identified?

FAQs:

- What kind of mediums can I choose from?

  - Blogs

  - Videos

  - TikToks, Reels

  - Infographics

  - Dashboards

  - Presentations

  - If you have an idea – suggest it in Milestone 1!

- Can I use a different dataset?

  - You can, as long as you get approval in Milestone 1 and you present a story with a call to action. This cannot just be an informational presentation. There needs to be some form of influence or persuasion practiced through visualization & storytelling.

- Can I get feedback from my peers about my story?

    - Yes, I would encourage you to discuss the direction you are heading with your peers – it is a great discussion topic. But please remember, this is not a group project. We do check for plagiarism in the program and it is taken very seriously and sharing work between each other could result in an F in the course or worse.

- Can I make up data for the project?

    - You bet, I want you to role play, have fun with it – be controversial!

- Can I use additional datasets?

    - Yes, as long as you use the one I have included.

Milestone 1

Milestone 1 is due during Weeks 1 & 2.

Complete the following:

1. Analyze the dataset you have been provided, review the technical guide and make sure you understand what the different fields mean.

2. Determine what you find interesting about the data and what you believe you want to present and draw attention to.

3. Determine who your target audience will be. Refer to the audience section above for questions you should ask yourself about the audience as it will be important for your medium plan.

4. Identify at least 3 different forms of mediums that you plan to create for communicating your story. You do not need to include visualizations at this point, instead include just one sentence per each medium that indicates what you believe it will include at a high level.

Requirements:

1. The analysis of the data can be performed using any tool, R/Python/PowerBI/Tableau – submit your analysis either as a notebook or PDF

2. Submit a 250-750-word paper with the following information:

    - Summary of Analysis

        - Findings

        - Assumptions

        - Items that still need clarification

    - Direction of Story/Plan of Attack/Message you want to get across

    - Target Audience

    - Mediums you Intend to Include (must have 3 and they must all be different)

Milestone 2

Milestone 2 is due during Weeks 3 & 4.

Now it is time to get more focused on your mediums and your plan for presenting your story.

For each medium, craft a storyboard or mock-up of your plan. If you are creating a presentation, you could create a high-level agenda of each slide. If you are creating a dashboard, you can create a mock-up of the visuals you plan to include. This is your opportunity to receive feedback from your instructor if your mediums will work for the audience you have selected.

Requirements

1. Submit a PDF of your plan that should include visual elements of how you will tackle each of the 3 mediums.

2. Include a short narrative, which can be a paragraph or 250 words, with your intended plan/audience per medium.

3. You can use any tool (R/Python/PowerBI/Tableau/PowerPoint, etc.) for creating these mediums, they also do not have to include real data at this point.

Milestone 3

Milestone 3 is due during Weeks 5 & 6.

Your first draft of the mediums is due, this time with data. For this milestone, you should have most of the data and/or visual elements polished and ready for feedback.

Requirements

1. Submit a PDF or video format of your draft mediums. Make sure to submit via PDF or PowerPoint unless you are submitting a video, so that your instructor is able to grade your work.

2. Include a short narrative, which can be a paragraph or 250 words providing a short explanation about your design decisions such as color, visual choices, sizing, spacing, etc.

3. You are able to use any tool to create your mediums.

Milestone 4

Milestone 4 is due during Weeks 7 & 8.

Instead of submitting your final mediums/story this week, you will finalize your paper. Going back to your initial paper from Milestone 1, you will need to modify and add some additional sections.

Requirements

Submit a 500-1000-word paper with the following information:

1. Summary of Analysis

    - Findings

    - Assumptions

    - Items that still need clarification

2. Direction of Story/Plan of Attack/Message you want to get across

3. Target Audience

4. Mediums you Included & Why

5. Design Decisions

6. Ethical Considerations

    - What changes were made to the data?

    - Are there any legal or regulatory guidelines for your data or project?

    - What risks could be created based on the transformations or how the visualizations are presented?

    - Did you make any assumptions in cleaning/transforming or when presenting the data? Did you filter any data without labeling or clearly identifying that the data was not included?

    - How was your data sourced/verified for credibility?

    - Was your data acquired in an ethical way?

    - How would you mitigate any of the ethical implications you have identified?

7. Lessons Learned

    - What would you do differently next time?

    - What did you enjoy the most?

Milestone 5

Milestone 5 is due during Weeks 11 & 12.

You have spent a considerable amount of time crafting a story using this dataset, getting feedback and adjusting your visuals, mediums and message. Now is the time to finalize your presentation and turn in your final draft.

Requirements

1. Submit your final version of all your mediums (make sure they are in either PDF/PowerPoint or MP4 files)

2. Submit your final paper in PDF/Word format

3. Please do not submit any zip files or links