

# Case Study: National Geographic Images

DS 4002 – Fall 2023 - Tina Lin

Due: Dec 4, for comments; final Dec 11 (\*hard copy does not need to be final version if revision is required)

Submission format: Upload link to Github repository on Canvas

## Individual Assignment

**General Description:** Submit to canvas a link to your Github repository

Preparatory Assignments – Review in-class discussions related to case studies.

**Why am I doing this?** As a researcher, there are times that you won't be researching hypotheses that are formulated by you but rather it will be to check the validity of another researcher's work. Therefore, this assignment is to prepare and teach you how to replicate another study, follow it sequentially, and compare your results to the original researcher's findings and conclusions. Determine whether your analysis supports or argues against the original researcher's analysis.

- Course Learning Objective: Accurately reproduce another researcher's research to determine the validity of their findings.

**What am I going to do?** For this project, you will first begin by reading the one-page hook document, which will outline the topic case study being presented and the research analysis you will conduct. After reading the hook document use the supplementary materials provided to learn more about the topic. The documents are to provide some background information on the topic. The provided data within the supplementary materials are to help you start your project. You have the option of either completing starting your project from scratch, which includes examining and categorizing each cover image, or use an already categorized data and start from there. Analyze the data by applying stepwise regression and probit model to examine the changes in cover image over the years. Interpret the results and compare them to the original researchers findings. Determine if your analysis supports the original researchers findings or against it. Once completed upload your data, code, figures, analysis, readme file, and license file to Github repository. Lastly, create a 6-minute presentation with slides that outlines your project and shows your results.

### Tips for success:

- Focus on your work.
- Follow directions.
- Work with your teammates and communicate if there is a problem.
- Talk to the professor and the TA for clarity.
- Work corporately with your team; don't constantly delegate.

**How will I know I have Succeeded?** You will meet expectations on the Case Study when you follow the criteria in the rubric below.

| Spec Category | Spec Details  |
|---------------|---|
| Formatting    | <ul style="list-style-type: none"> <li>• One Github Repository (submitted via link on collab)</li> <li>• The top level page should contain <ul style="list-style-type: none"> <li>○ A README.md file (which auto displays)</li> <li>○ A LICENSE.md file (use MIT as default)</li> <li>○ A SRC folder</li> <li>○ A DATA folder</li> <li>○ A FIGURES folder</li> </ul> </li> </ul>  |
| README.md     | <ul style="list-style-type: none"> <li>• Goal: This file serves as an orientation to everyone who comes to your repository, it should enable them to get their bearings.</li> <li>• Use markdown headers to divide content</li> <li>• Make an H2 (##) section explaining the contents of the repository</li> <li>• SRC section <ul style="list-style-type: none"> <li>○ Make an H3 section for Installing/Building your code</li> <li>○ Make an H3 section for Usage of your code</li> </ul> </li> <li>• DATA section <ul style="list-style-type: none"> <li>○ (This one is tricky. Your data may (or not) fit in repo)</li> <li>○ Data Dictionary (use markdown table formatting)</li> <li>○ Data Files or Link to data if it doesn't fit on GitHub</li> <li>○ Relevant notes about use of data</li> </ul> </li> <li>• FIGURES section <ul style="list-style-type: none"> <li>○ This will be in progress when MI3 is complete and finished during MI4</li> <li>○ Table of contents describing all figures produced and summarizing their takeaways</li> <li>○ Use markdown table formatting</li> </ul> </li> <li>• REFERENCES section <ul style="list-style-type: none"> <li>○ All references should be listed at the end of the Readme.md file (Use IEEE Documentation style (link))</li> <li>○ Include any acknowledgements</li> <li>○ Include (by link) your MI1 and MI2 assignments</li> </ul> </li> </ul> |
| LICENSE.md    | <ul style="list-style-type: none"> <li>• Goal: This file explains to a visitor the terms under which they may use and cite your repository.</li> <li>• Select an appropriate license from the GitHub options list on repository creation.</li> <li>• Usually, the MIT license is appropriate.</li> </ul>  |

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|----------------|--|
| SRC folder     | <ul style="list-style-type: none"> <li>● Goal: This folder contains all the source code for your project.</li> <li>● Include all code files you produce.</li> <li>● The high-level documentation for this code lives in the main level README.md file.</li> <li>● Include supplemental documentation as necessary, especially if it is too detailed/verbose for the overall readme.</li> </ul> |
| DATA folder    | <ul style="list-style-type: none"> <li>● Goal: This folder contains all of the data for this project</li> <li>● If your data fits in GitHub place all of it here</li> <li>● If your data does not fit in GitHub use a single file explaining the process to obtain the dataset.</li> </ul>   |
| Figures folder | <ul style="list-style-type: none"> <li>● Goal: This folder contains all of the figures generated by your project</li> <li>● This will be in progress when MI3 is complete and finished during MI4</li> <li>● If you are going to use a figure in your presentation place it here</li> <li>● Include with every figure relevant notes about the figure</li> </ul>                               |
| References     | <ul style="list-style-type: none"> <li>● All references should be listed at the end of the document</li> <li>● Use IEEE Documentation style (link)</li> </ul>  |

Acknowledgements: Special thanks to Jess Taggart from UVA CTE for coaching on making this rubric. This structure is pulled direction from [Streifer & Palmer \(2020\)](#).