Pathways to Green Growth

by

Can Yilmaz Altinigne
Cyril van Schreven
Günes Yurdakul

EPFL COM-480 Data Visualization: Term Project

Process Book

ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

December 18, 2018

1   Introduction

This document is prepared for presenting the development process of an EPFL Data Visualization (COM-480) course project: Map of International Environmental Projects. This process book starts with the thought process of the project and continues with revealing the production phase of the project.

Data Visualization course aims to provide insights on presenting complex data with interactive visualizations. Our main purpose during the project is to present the data with an informative and interactive web application. We benefit from what we learned about chart and map visualization as well as the design process and storytelling with data during the lectures.

2   Overview

This project is part of Natural Capital Project of Stanford University. The Natural Capital Project's data and science platform, anchored by the InVEST software suite, has been used in over 180 countries to map, quantify and value ecosystem services in support of a diversity of policy and finance mechanisms. This project can be thought as a spatial table of contents for the to-be-published book about Green Development and International Experience in Ecosystem Services Management.

This project aims to locate about 20 case studies across the world. These example are all about ecosystem management (e.g Carbon market, conservation lands, water-funds etc.).

3   Motivation

As a team, we were already interested in map visualization because of our experience in this subject in the projects of other courses. Also, we had some experience in web application development. Since this project brings these two subjects together, we decided to pick this project.

Moreover, the possibility of use of this application as an online supplement for a to-be-published book was another source of motivation for us, since the readers of this book may benefit from our visualizations to understand the main concepts in the book.

4   Target Audience

Target audience for this project is the readers of Green Development and International Experience in Ecosystem Services Management book. We aimed to provide an interactive visualization which people can benefit as they read the book.

Also, we believe that our visualization project will help the readers understand the main concepts of the book rapidly.

5 Related work and inspiration

6 Project Implementation

6.1 What is visualized in this project ?

The case studies survey a range of policy and finance mechanisms that channel economic resources and other benefits towards securing and enhancing natural capital. These mechanisms typically also aim to increase equity and well-being, both through poverty alleviation and in access to ecosystem goods and services. Illustrative examples have been contributed by a range of experts who come from the natural and social sciences, government, private companies, financial institutions, and civil society organizations. These case studies were compiled by Lisa Mandle, James Salzman and Gretchen C. Daily and illustrated by Charlotte Weil

6.2 Dataset

where does it come from, what are you processing steps?

6.3 Data Analysis

What viz have you used to gain insights on the data?

6.4 Design

What are the different visualizations you considered? Justify the design decisions you made using the perceptual and design principles. Include your sketches, wireframes, etc.

6.5 Peer assessment

Preparation – were they prepared during team meetings?
Contribution – did they contribute productively to the team discussion and work?
Respect for others' ideas – did they encourage others to contribute their ideas?
Flexibility – were they flexible when disagreements occurred?

7 Research approach

Write down the approach you use in your research study, this will help you when writing the "Method" part in the paper. You may reference some papers like [1].

8 Research progress

How much work you have done before this work? Write down your previous work for this project, so people can quickly figure out where you are in your road map now. Yeah, maybe you walked through a long and hard road.

Maybe you have got many data and results, list some necessary here, like Table 1 shows.

name	value
a	0
b	1

Table 1: Your experiment result.

9 Progress in this week

List what you have done in this week in detail.

For example, maybe you performed some experiments this week. The following are the steps you took:

Step 1 Got up to welcome a new day.

Step 2 Opened your computer to start a new day's work.

Step 3 Got stuck with a very hard problem, like $e^{i\pi} + 1 = 0$.

Step 4 You searched online and realized some useful information like Figure 1 shows. You asked other people for help and got the things done luckily.
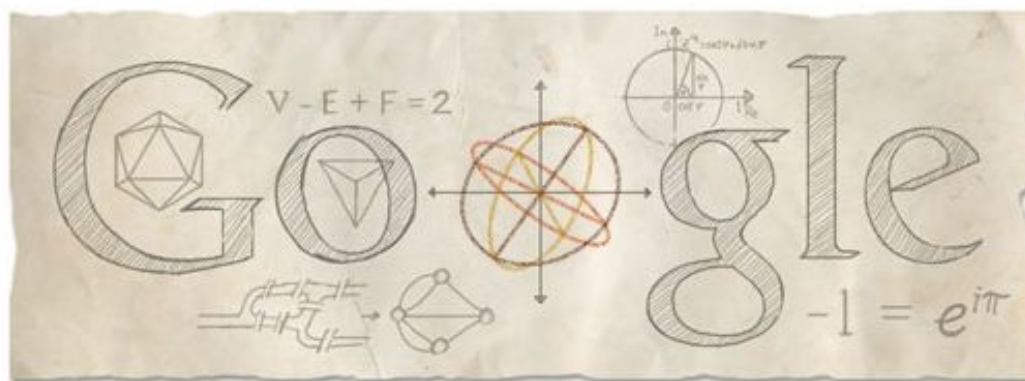

Figure 1: Search online to get some useful information.

But there are still some problems confusing you, then you need to keep calm and carry on.

10 Plan

Objective: XXXX
Deadline: XXXX

2018.05.07—2018.05.14 Do something.

2018.05.15—2018.05.22 Do something else.

2018.05.23—2018.05.31 Do a lot lot lot lot lot lot lot lot lot lot lot lot of things.

References

[1] P. Isola, J.-Y. Zhu, T. Zhou, and A. A. Efros. Image-to-image translation with conditional adversarial networks. In *CVPR*, 2017.