IDCE 302 – Python Introduction

Excitement, thrills, adventure!

Today's Outline

- Give background on me and how I approach this class.
- Go over course goals & syllabus.
- First Assignment

Shadrock Roberts, PhD

- Assistant Professor of GIScience (please don't use "Dr.")
- What is GIScience?
- I have a lot of expertise to share, but probably more to learn. Think of me who is exploring these topics with you.

Kakuma Refugee Camp: Draft
2006: POPULATION PER BLOCK AS REPORTED BY REFUGEES
> 1000
500 - 1000
< 500
No Data
327 Total population
2003: NUMBER OF DWELLING UNITS IDENTIFIED VIA REMOTE SENSING
HEIGHT: PROPORTIONAL TO THE NUMBER OF UNITS (IN METERS).
DATA ERROR OR UNCERTAINTY
OPACITY: TRANSPARENT POLYGONS INDICATE A HIGH PROBABILITY FOR ERROR.
DATA SOURCE:
CDC UNHCR The UN Refugee Agency
CARTOGRAPHY: SHADROCK ROBERTS
CRMS | UNIVERSITY OF GEORGIA, USA
THIS IS A DRAFT: DO NOT CIRCULATE
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USAID

MOUNTAIN

The Ushahidi Platform

Disconnection among people, technology, policy…

What have I learned?

Considerations for ANY intervention:
technical or otherwise.

What impact do you want?
Who is your user or use case?

Use data collection & design process to build relationships.

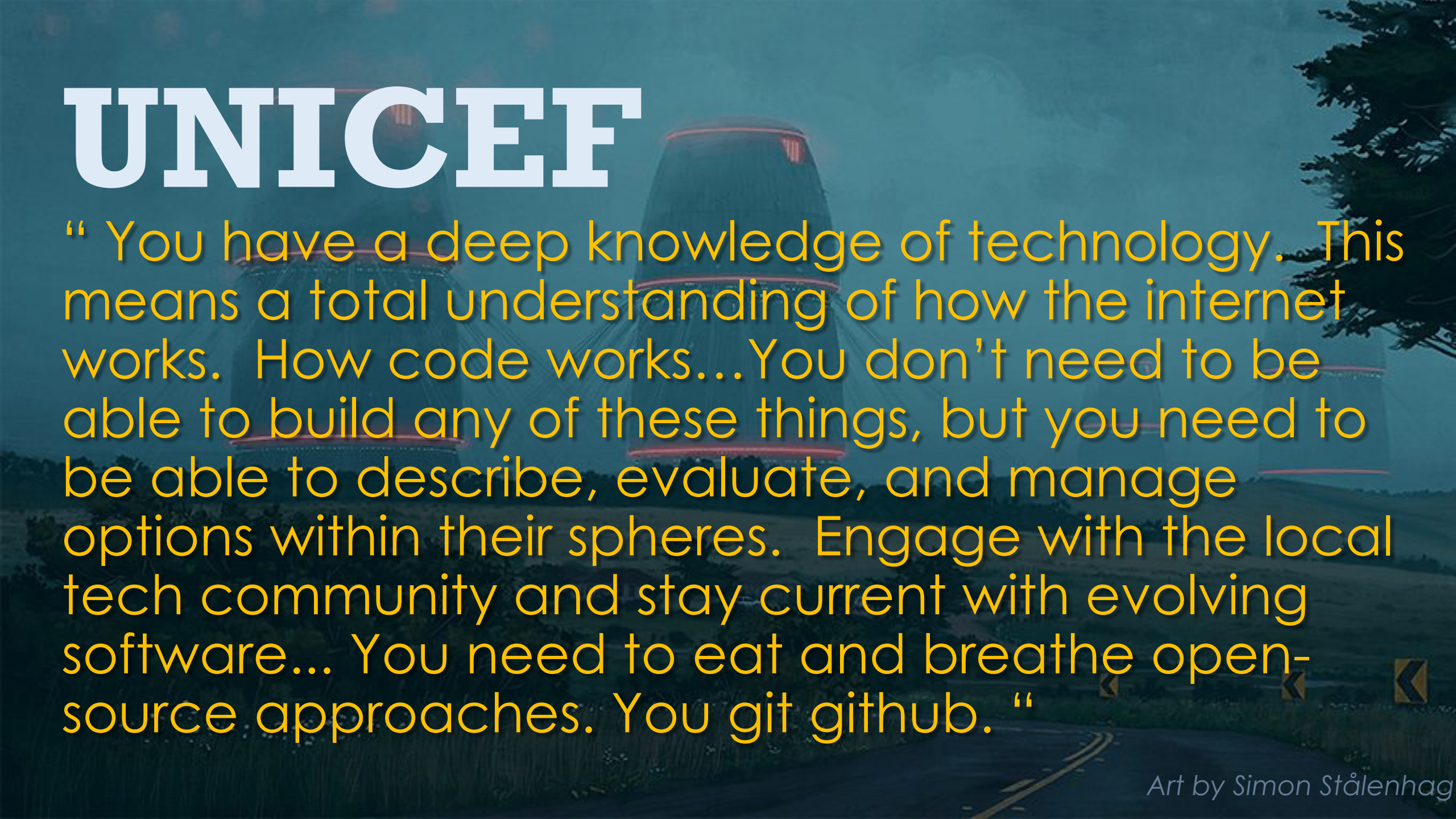
Start small & iterate often.

What (or who) defines appropriate technology?

How are you communicating?

Goals for this class

Art by Simon Stålenhag

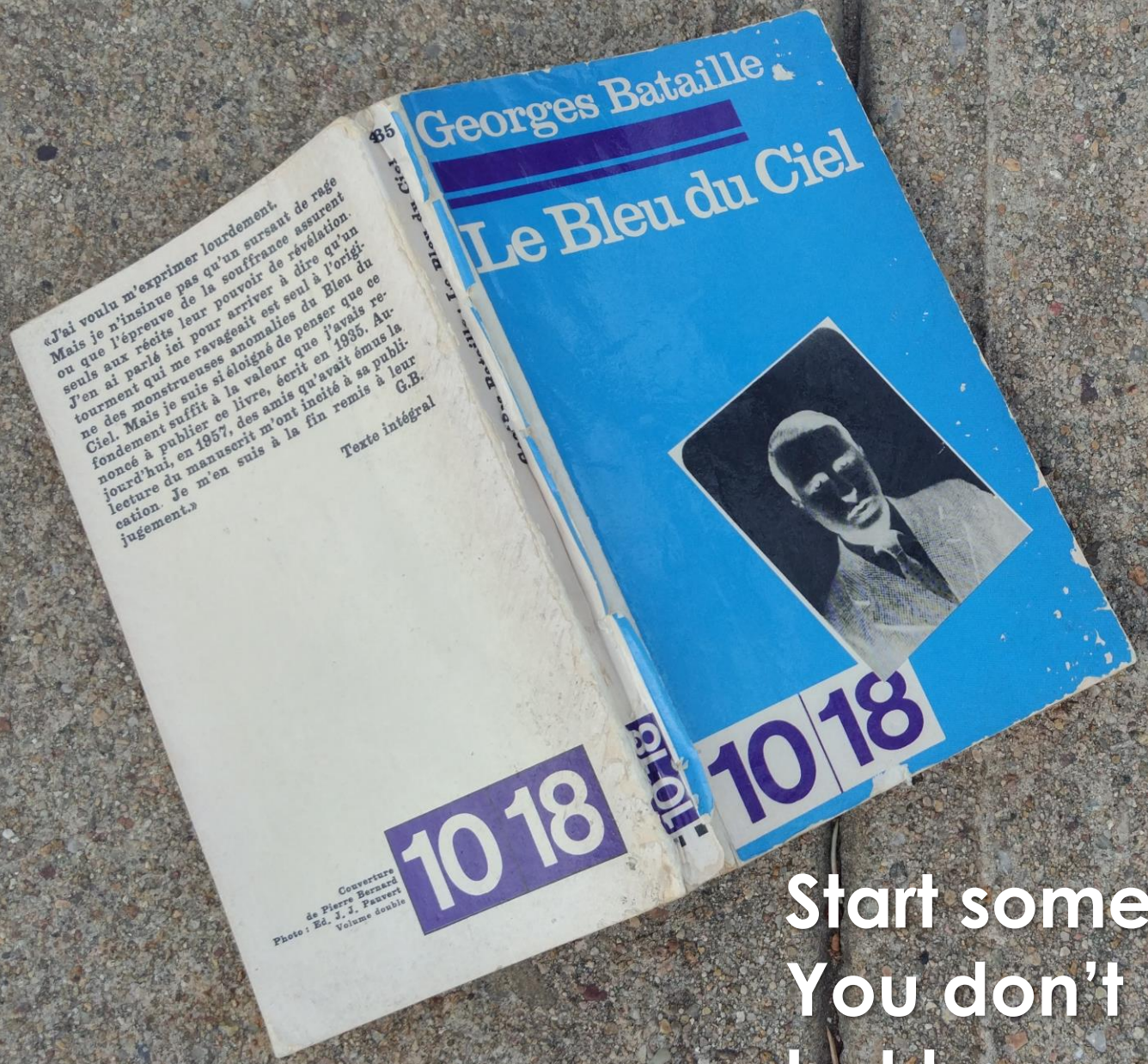

UNICEF
“ You have a deep knowledge of technology. This means a total understanding of how the internet works. How code works…You don’t need to be able to build any of these things, but you need to be able to describe, evaluate, and manage options within their spheres. Engage with the local tech community and stay current with evolving software... You need to eat and breathe open-source approaches. You git github. “
Art by Simon Stålenhag

Clearly Communicate

- Present and write about what you are: trying to do, doing, and did.
- Clarity, honesty, accuracy.
- Give me an example of different audiences you might encounter.

Introduce programming in Python

- Yes, we do want to acquire some technical skills.
- But notice that this is the second goal.



Start somewhere and struggle.
You don't have to know it all,
but know where/how to get help.

Do not be afraid to experiment.
Break things!
Where do you go for help?

Work & workflows

- Prepare for confusion & push on anyways.
- Processes for developing tech that can be applied to anything:
  - debugging and finding errors,
  - knowing where to look for more information,
  - Building pipelines (inputs and outputs), and
  - knowing how long it took for estimating resources, billing, etc.

Course Info.

Syllabus

- https://moodle.clarku.edu

What we will not cover.

- We do not cover graphical user interface related features in Python
- We do not cover site packages for Python, such as web, database, internet.
- We only focus on the fundamental elements in Python programming.

Communication

- Emails: put "IDCE 302" in subject line.
  - Lecture related to me
  - Lab/assignment related to CA.
- Online discussion or Q&A (Moodle)
  - I'll try to use this to answer common questions.
  - Are forums helpful?
- Office hours (by appt.)

First Assignment

Reading for next class

- Thursday: Chapter 1 - Way of the Program
- This week: familiarize yourself with the "open source" debate
  - **Watch:** https://www.youtube.com/watch?v=ASNwGNUOiJY
  - **Explore:** http://unicefstories.org/tag/open-source/
  - **Read:** https://www.ictworks.org/how-can-open-source-software-be-sustainable-in-international-development/#.XLVJJpNKiF0
  - **Read:** https://blog.devresults.com/the-revolution-will-not-be-open-source/

What is Github?
Due Friday by 5pm.

- 450 - 500 word paper to explain what you think Github is and whether it could be useful in International Development?
- If you don't know what Github is, do basic desktop research to find out and do your best. Provide footnotes with links or resources that helped you answer these questions.
- If you already use Github, briefly explain how you've used it and what has been helpful or difficult about learning to use it.

Any Questions?

- My background and how I approach this class.
- Course goals & Syllabus.
- First Assignment