

The background features several concentric circles in the top-left and bottom-right corners, some solid and some dashed. A large red speech bubble with a downward-pointing tail is centered on the page.

# **IDCE 302 – Python Introduction**

Excitement, thrills, adventure!

# Today's Outline

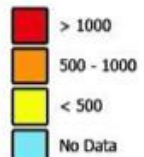
- Give background on me and how I approach this class.
- Go over course goals & syllabus.
- First Assignment

# 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.

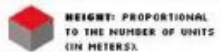
# Kakuma Refugee Camp: Draft

2006: POPULATION PER BLOCK AS REPORTED BY REFUGEES

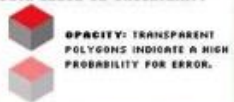


327 Total population

2003: NUMBER OF DWELLING UNITS IDENTIFIED VIA REMOTE SENSING



DATA ERROR OR UNCERTAINTY











राष्ट्रपति के घर लिफा (दुक)  
सुमनदास जलपानी गण्ड  
ये एक बस्ते, दलपत गे  
गोपाल राकेश गण्ड, दलपत गे  
महा सुमनदास गण्ड, दलपत गे  
मरी दलपत गे  
लिफा सुमनदास गे



# The Ushahidi Platform



The background features a collage of images overlaid with vertical stripes in yellow, red, and grey. The images include a group of people in a meeting, a woman in a red shirt, and a large smartphone displaying a website.

**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?**



adain...  
Nomor 56 th 2014. tentang Tata Cara Peran  
Masyarakat Dalam Perencanaan Tata Ruang  
Daerah dan PP no.68 Tahun 2010, Tentang Bentuk  
dan Tata Cara Peran Masyarakat dalam  
Penataan Ruang.

*Apa Rencanamu  
pada Kampungmu?*

BUKALAH..  
**PETASM5.COM**  
LAPORKAN KEJADIAN  
DI SEKITAR ANDA  
KE NOMOR:  
085 574671002

**How are you communicating?**







The background features several concentric circles in light gray, some solid and some dashed, centered around the edges of the frame. A large, solid red speech bubble is positioned in the center, pointing downwards.

# **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.



«J'ai voulu m'exprimer lourdement.  
Mais je n'insinue pas qu'un sursaut de rage  
ou que l'épreuve de la souffrance assurent  
seuls aux récits leur pouvoir de révélation.  
J'en ai parlé ici pour arriver à dire qu'un  
tourment qui me ravageait est seul à l'origine  
de des monstrueuses anomalies du Bleu du  
Ciel. Mais je suis si éloigné de penser que ce  
fondement suffit à la valeur que j'avais re-  
noncé à publier ce livre, écrit en 1935. Au-  
jourd'hui, en 1957, des amis qu'avait émus la  
lecture du manuscrit m'ont incité à sa publi-  
cation. Je m'en suis à la fin remis à leur  
jugement.» G.B.

Texte intégral

10 18

Couverture  
de Pierre Bernard  
Photo: Ed. J. J. Pauvert  
Volume double

# Georges Bataille Le Bleu du Ciel



10 18

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.



The background features a light blue gradient with several concentric circles in white and light gray, some solid and some dashed, creating a ripple effect. A large, solid red speech bubble is centered on the page, pointing downwards.

# **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