# Introducing the Upworthy Archive

COMM 4940

Kennedy Hall 213


## J. Nathan Matias

@natematias

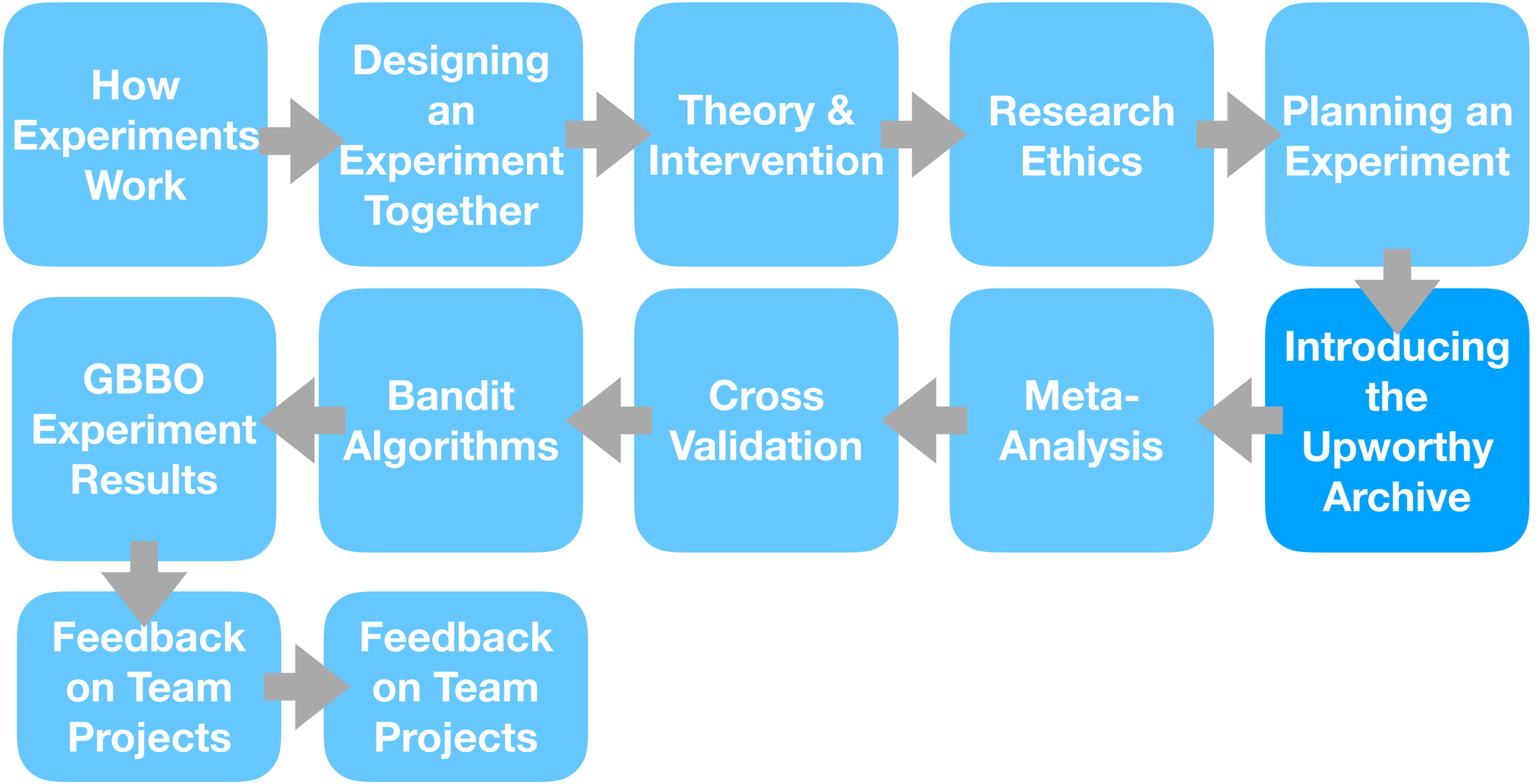
citizensandtech.org

natematias.com


Cornell CALS

College of Agriculture and Life Sciences

Communication


How Experiments Work
Designing an Experiment Together
Theory & Intervention
Research Ethics
Planning an Experiment
Introducing the Upworthy Archive
Meta-Analysis
Cross Validation
Bandit Algorithms
GBBO Experiment Results
Feedback on Team Projects
Feedback on Team Projects

# How to ask questions with the archive

1. Identify a **question / theory to test**
2. Develop **a method to select relevant headlines** & experiments
3. **Meta-analyze** the results

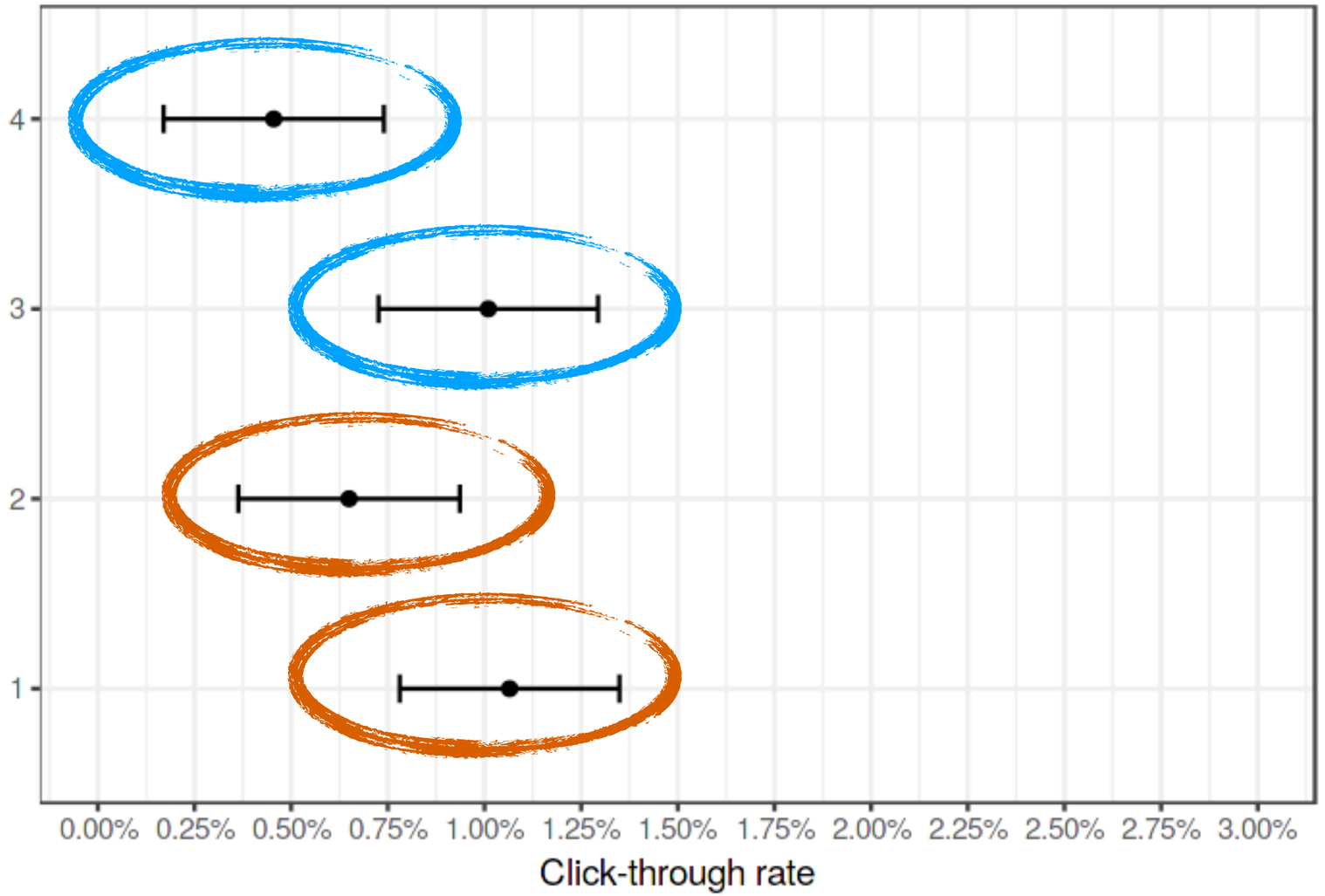
# What is a good question?

1. It contributes to an important **practical** or **scientific** conversation (or both)
2. The archive includes data that can answer the question
3. By the end of the semester, your team will have the skills to ask the question

# Hypothesis example: celebrities

Does **including a famous person's name** in a headline **increase the number of clicks** it receives?

# Create a way to detect headlines




**Headlines without Celebrity Names**

**Headlines with celebrity names**

# Hypothesis extension: gender

Does **including a male name** in a headline **have a larger effect** than **including a female name?**

# Checking if your question is askable

1. Can you detect headlines **in a way that makes sense**? (example: gender is more complicated)
2. Are there **cases in the data**?
3. Do those cases **appear in the same tests**?

# Extension: celebrity popularity

To ask this question, a team would need:

1. Rankings of celebrities (websites) (top 100 lists are not comprehensive
2. Timing - celebrities are different at different times
3. Is there a match between certain issues and celebrities?

Problems

- what about people who are not celebrities?
- Finding a time-specific dataset of celebrities

# Example: Algorithms

**Could Upworthy have gotten more clicks by using bandit algorithms?**

# Example: Predicting Future Results

**Can a machine-learning model predict future test performance?**

# Example: Do Organizations Learn?

**Did Upworthy get better get better at writing headlines because they did A/B testing?**

# Cross-Validating Confirmatory Studies

**Apply & Receive Exploratory Data**
(agree to follow the process & share your code at the end)

**Submit Registered Report**
we are recruiting journals now

**Receive Confirmatory Data**
(upon peer review)

**Publish!**
(and share code)

Cornell CALS
College of Agriculture and Life Sciences
Communication

PennState College of the Liberal Arts