

# POPPIX: A Research News Recommender Infrastructure with Live Users for Algorithm and Interface Experimentation (CCRI: IIS-22-32551)

popprox.ai

## Overview

### POPPIX will be ...

- a news recommender system
- a steady supply of news content
- a user base of consenting readers
- an infrastructure to allow researchers to carry out experiments on the recommendation algorithms and interfaces

### POPPIX will enable researchers ...

- to test new recommender algorithms
- to test new interfaces
- to experiment with AI models
- to test applications of NLP
- to do all of these online with real users, with longitudinal studies, and with standard, validated metrics

### POPPIX makes user research easier

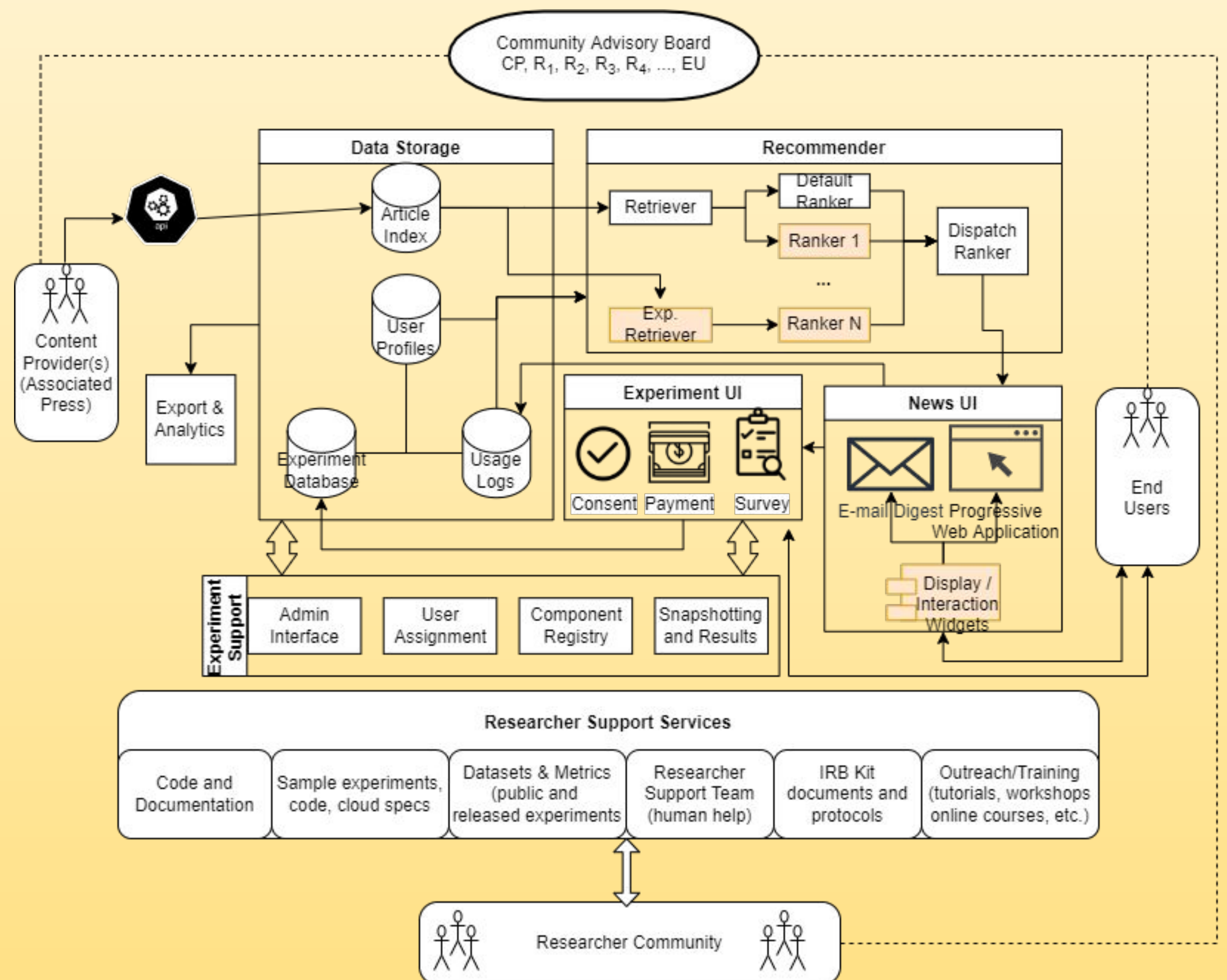
- we recruit the users
- we provide IRB templates
- we administer consent
- we handle surveys/payments
- we maintain the infrastructure
- we obtain the news
- we track user behaviors
- we provide reports and metric
- you just focus on your research!

### UMN Team:

Joseph A. Konstan (PI)  
 Daniel Kluver (co-PI)  
 Ruixuan (Sophia) Sun (PhD Student)  
 Sumukh Nitundila (Research Software Engineer)

### Partners:

Bart Knijnenburg (PI, Clemson)      Robin Burke (PI, Colorado)  
 Michael Ekstrand (PI, Drexel)      Edward Malthouse (PI, Northwestern)



## Why POPPIX

### Recommender systems research has shifted to primarily offline evaluation

years	offline evaluation	one-time user evaluation	ongoing user evaluation	works reviewed
1994 - 2000	4/15	11/15	7/15	[4]–[18]
2001 - 2007	8/15	6/15	1/15	[19]–[33]
2008 - 2013	10/15	6/15	1/15	[34]–[48]
2014 - 2017	10/15	3/15	1/15	[49]–[63]
2018 - 2021	15/15	3/15	1/15	[64]–[78]

### The consequences are severe ...

- excessive emphasis on replicating human behavior vs. augmenting it
- advances that show no improvement in user experience
- academic research lagging behind industry (which runs massive A/B studies)
- hard to study questions of societal rather than commercial importance

## Key Milestones

Project funded: April 15, 2023

Current Status: In Development

Key Partner: Associated Press (content provider)  
 Cloud Platform: AWS  
 Community Advisory Board: Complete

Looking Ahead: Four Phases

Internal Testing & User Recruitment: Spring 2024  
 Phase I Newsletter Experiments: Summer 2024  
 Open to Newsletter Experiment Proposals: Fall 2024  
 Start Design for Interactive News Client Infrastructure: Fall 2024