RESEARCH ON TAP AI and the Humanities

Wednesday, April 16 | 4-6 pm

bu.edu/research/events



Agenda

Opening Remarks

Presentations

Closing Remarks

Tom Bifano Wesley Wildman

Chris Chao Su Daniel Munro Ayse D. Lokmanoglu Pary Fassihi Christopher McVey Seth Villegas Michaela McSweeney James J. Cummings Juliet Floyd

Margarita Guillory



Platform Governance in the Age of Generative AI: Platform Interdependence in Policy Evolution

Dr. Chris Chao Su

Assistant Professor Emerging Media Studies, COM & CDS



TikTok's Community Guidelines, 10 December 2018 (Source: Wayback Machine) Community Guidelines

TikTok is a place for you creativity and expression. It's also a global community of people looking for a fun, welcoming experience.

The TikTok Community Guidelines, which we update from time to time, are an important code of conduct for a safe and friendly environment Violation of the guidelines may result in your account and/or content being removed. In addition, users must also tollow their local laws. We reserve the right to monitor and report content to authorities, as permitted by applicable law.

Our policies and guidelines exist to foster trust, respect, and a positive environment for everyone in this community. We trust all users to respect the community and keep TikTok fun and welcoming for everyone.

TikTok is simply NOT the place to post, share, or promote any of the following, including:

Harmful or dangerous content

When you use TikTok you are joining a glob encourage them to harm themselves – whe

- Terrorist organizations and any other TikTok to promote and support these
- DO NOT post, share, or send any cont content that encourages other people

Formal, legal-binding policy documents ToS & Privacy Policies – Avoiding potential litigation in the future

Informal, normative policy documents Community Guidelines – More public-facing and writing in deliberately accessible language



Objective:

Map how OpenAl's policies evolve and co-evolve with social media platforms, forming a generative Al governance assemblage.

 Values as the ideals expressed by a particular social entity, which may guide subsequent actions and judgments (Hallinan et al. 2022).

 Articulating the ideals about "how people should express themselves and interact with others" (Scharlach et al., 2023).

 Values as objects and principles (Chan, Su, & Shore, 2023; Su & Shore, 2024)

| Platform | Operational Definition |
|----------------|--|
| Value | |
| Power | rights |
| Privacy | The degree to which users are empowered to manage their personal |
| | information, encompassing permissions for data control, sharing, and customization |
| Safety | The degree to which platform allows or prohibits users from posting to |
| , | preserve the well-being of users, the platform community, and/or organizations |
| Choice | The degree to which users are free to pick options that align with their |
| | interests (e.g., opt-in/opt-out) |
| Community | The degree to which a platform values a certain social group characterized |
| | by shared practices, communication technologies, and intimate relations |
| Engagement | The degree to which a platform allows or prohibits interactivity and |
| 00 | participation through the platform for certain outcomes |
| Protection of | The degree to which a platform establishes rules, guidelines, and |
| Intellectual | mechanisms to safeguard the ownership and rights of creators and |
| Property | organizations over their content, ideas, and digital assets, including |
| | prohibiting unauthorized use, distribution, and reproduction |
| Improvement | The degree to which a platform strives to improve its available features and |
| _ | become central actors of private and public life |
| Care | The degree to which a platform provides information about support for users |
| | and outlines how users can seek help |
| Accountability | The degree to which a platform or users has a mechanism for holding the |
| | platform accountable |
| No value | The sentence does not contain any values |

Policy Data

| | Community Guidelines (CG) | Terms of Service (TOS) | Privacy Policies (PP) |
|--------------------|------------------------------|---------------------------|--------------------------|
| OpenAI | | | |
| Snapshots (total) | 368 | 770 | 160 |
| Snapshots (unique) | 15 | 17 | 15 |
| Sections (total) | 5,825 | 36,242 | 5,510 |
| Sections (unique) | 92 | 234 | 262 |
| Twitter/X | | | |
| Snapshots (total) | 2,098 | 499 | 501 |
| Snapshots (unique) | 13 | 11 | 14 |
| Sections (total) | 32,181 | 41,484 | 39,477 |
| Sections (unique) | 139 | 324 | 486 |
| TikTok | | | |
| Snapshots (total) | 860 | 890 | 210 |
| Snapshots (unique) | 13 | 15 | 13 |
| Sections (total) | 28,075 | 104,699 | 12,190 |
| Sections (unique) | 349 | 355 | 260 |
| Facebook | | | |
| Snapshots (total) | 279 | 937 | 944 |
| Snapshots (unique) | 21 | 48 | 37 |
| Sections (total) | 2,723 | 57,895 | 21,160 |
| Sections (unique) | 92 | 637 | 511 |

Note: Each section consists of a target sentence combined with the preceding and following sentences to provide contextual understanding.

Evolutions of Policies

- Platforms: OpenAl, Twitter/X, TikTok, and Facebook
- Types: Community Guidelines (CG), Terms of Service (TOS), and Privacy Policies (PP)
- Between 1 January 2022 and 31 July 2024
- Wayback Machine
- Total N = 8,516 snapshots

Annotation on Values:

- 10% human coding
- Automatic coding:
 - ChatGPT-4o model
 - fine-tuned models based on GPT-3.5-turbo-0215
- 10% Human validation

 $\text{twitter}_{cg_{t}} = \beta_{0} + \beta_{1} (openai_cg_{t-1}) + \beta_{2} \cdot (openai_pp_{t-1}) + \beta_{3} \cdot (openai_tos_{t-1}) + \beta_{4} \cdot (witter_cg_{t-1}) + \epsilon_{t}$

Temporal Influence Analysis (VAR & Granger Causality)

Summary of **Positive** Significant Granger-Caused Influence



Positively-Aligned Values: Privacy, engagement, & accountability. **Divergent Values:** Improvement, choice, & power. **Floating Values:** Safety, community, intellectual property protection.



Artificial Storytellers

Daniel Munro

Assistant Professor Philosophy, CAS



Experimental Narratives: A Comparison of Human Crowdsourced Storytelling and Al Storytelling

Nina Beguš^{1,*}

Art or Artifice? Large Language Models and the False Promise of Creativity

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Striking Hollywood scribes ponder AI in the writer's room

Can an AI program really write a good movie? Here's a test



Assumption behind such discussions: When you ask LLMs to write stories, texts they produce count as genuine stories.

But: Can LLMs really engage in **genuine storytelling**, or produce genuine stories?





Storytelling as fundamental mode of everyday human communication and conversation.

Storytelling is defined by its central **function** in human interaction: engaging audience emotions.





Current LLMs are trained for certain functions (next word prediction; producing truthful, helpful, & harmless texts).

Not the defining function of storytelling; it's a mistake to refer to and evaluate LLM outputs as stories.





Topic Modeling of Video and Image Data: A Visual Semantic Unsupervised Approach

Ayse D. Lokmanoglu

Assistant Professor Emerging Media Studies, College of Communication



Visual Data and AI

- Visuals are central to public discourse but underexplored computationally.
- Platforms like Instagram, TikTok, YouTube dominate modern communication.
- Traditional humanities methods (manual content analysis, close reading, visual semiotics) are hard to scale.
- Text-based AI methods are everywhere but what about visual data?

AI as Interpretation Engine

| Topic # | Top Words | Top Captions |
|------------|--|--|
| X14 | flooded; partially; water; trees; submerged; street; area; flooding; emergency; flood | Flooded town with submerged streets and buildings, a bridge crossing over brown, churning water, and trees partially underwater.; Flooded street with rescue workers and residents wading through water, assisting each other; vehicles partially submerged in the background. Text present.; Floodwaters rushing through a forested area, with trees and debris in the water. Text overlay about historic flooding emergency in the Midwest |
| X16 | large; screen; displaying; screens; display; standing; people; setting; images; anchor | Three people talking outside Radio City Music Hall with a television broadcast overlay featuring an eclipse and totality timings.; Three large blue and white screens displaying "DNC 2024" with red stripes, reflecting off a shiny floor. Text below about the nomination battle and DNC timing.; News anchor in a studio with "Hallie Jackson NOW" displayed on the screen. Breaking news banner below about a shooting on the University of Nevada, Las Vegas campus. |

- Use of LLM's for automatic image captioning
 - transforming frames into readable text.
- Each image → base64 encoding → prompt → short, semantically rich description.
- Captions capture scene semantics — not just objects e.g., "Rescue workers assist flood victims" instead of "people, water".
- Enables semantic interpretation at scale for images.

Topic Modeling: Visual – Unsupervised & Semantic Approach



Topic 14: flooded, partially, water, trees, submerged, street, area, flooding, emergency, flood, surrounded, floodwaters, person, cars, houses, threat, florida, car, vehicle, residential, people, midwest, obscured, indicating, flash, house, rescue, floodwater, muddy, navigating

- We (Lokmanoglu & Walter, forthcoming) use Latent Dirichlet Allocation (LDA) on captions to cluster themes across 6,928 images from 452 news videos o n NBC.
- In a way to discover frames in visuals.
- Resulted in 35 topics, including political events, natural disasters, and health crises.
- Visuals are no longer isolated they are part of discursive structures.
- Validated through human coding tasks: intruder image (75% accuracy) and topic matching (85.5%).



VisTopics: A Scalable Tool

- *VisTopics*, an end-to-end Python package for:
 - Frame Extraction (from videos)
 - Deduplication and similarity reduction
 - Al-driven captioning
 - Semantic clustering with LDA or BERTopic
- Bridges computer vision + NLP in a scalable way for humanists.
- Unlike standard computer vision, which tells you there's a 'person' or a 'car' in a frame, VisTopics captions "a police officer is confronting protesters outside a government building".
 - It's not just object recognition
 - it's contextual interpretation. That's what makes it a tool for the humanities
- Al helps scale the research.

Understanding the Rhetorical Purposes of Generative AI Use

Pary Fassihi, Ed.D.

Senior Lecturer CAS Writing Program

Shipley Al-Intensive Writing, Research, & Inquiry Pilot

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What did we explore?

How college writing students make use of Generative AI (GAI) when given both **permission** and **support**.

Pilot & Context

Al-Intensive Writing Pilot WR15x (CAS Writing Program & CGS) Course funded by a Shipley Grant

50 students across 6 sections (26% ELL students)

Students explicitly encouraged to use ChatGPT; permitted up to 50% AI-generated text with clear disclosure



Student Chat Log Analysis

What Can Chat Log Data Tell Us About How Students Use GAI? What Differences, If Any, Exist Between Chat Log Prompting of ELLs and First Speakers of English?

Purpose of Student Chat Log Prompts (color intensity reflects percentage difference)

| | Ove | erall | ELL Students | | Non-ELL Students | |
|------------------------|-----------|------------|--------------|------------|------------------|------------|
| | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| Planning/Brainstorming | 38 | 13.1% | 9 | 14.3% | 22 | 12.5% |
| Sourcing | 31 | 10.7% | 5 | 7.9% | 25 | 14.2% |
| Understanding/ | | | | | | |
| Clarification | 69 | 23.8% | 3 | 4.8% | 60 | 34.1% |
| Feedback | 29 | 10.0% | 8 | 12.7% | 18 | 10.2% |
| Revision | 71 | 24.5% | 17 | 27.0% | 23 | 13.1% |
| Writing | 54 | 18.6% | 16 | 25.4% | 28 | 15.9% |

Student Essay Data Analysis

What Is the Percentage of AI-generated Text That Students Include in Submitted Work, and What Patterns Can We See in How They Employ It? What Differences, If Any, Exist Between the AI-Generated Text Integration of ELLs and First Speakers of English?

| | Overall | | ELL Students | | Non-ELL Students | |
|-------------------------------|-----------|------------|--------------|------------|------------------|------------|
| | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| Entire Paragraph | 20 | 6.80% | 8 | 17.80% | 12 | 5.50% |
| Title | 10 | 3.40% | 5 | 11.10% | 4 | 1.80% |
| Citation | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% |
| Background Information | | | | | | |
| | 40 | 13.50% | 8 | 17.80% | 31 | 14.20% |
| Question | 10 | 3.40% | 4 | 8.90% | 5 | 2.30% |
| Thesis | 10 | 3.40% | 2 | 4.40% | 7 | 3.20% |
| Summary | 96 | 32.40% | 1 | 2.20% | 82 | 37.40% |
| Discussion/analysis/synthesis | | | | | | |
| | 148 | 50.00% | 23 | 51.10% | 108 | 49.30% |
| Other | 2 | 0.70% | 2 | 4.40% | 0 | 0.00% |

AI-Generated Text in Writing Samples, by Purpose



Implications & Recommendations

Students use GAI selectively when given frequent engagement opportunities and encouraged to critically reflect on its strengths and weaknesses.

Students employing GAI made complex decisions to integrate Al-generated language with their own writing.

Essays using AI-generated text were predominantly hybrid compositions, retaining significant student authorship.

ELL students prompted GAI less frequently for clarification, incorporated less AI-generated text overall, and used significantly fewer AI-generated summaries compared to non-ELL peers.

Student Perspectives on Generative AI in **First-Year Writing: Lessons from a Pilot GAI** Initiative

Dr. Christopher McVey

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Shipley Al-Intensive Writing, Research, & Inquiry Pilot

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Entrance Survey

How often do you believe college students in general are using generative AI, like ChatGPT, to complete work for a class, whether or not this use has been allowed?

Very often, generally widespread Sometimes, somewhat widespread

On occasion, a limited number of students



Do you believe students should be allowed to use generative AI, like ChatGPT, for their school assignments?





Exit Survey: Understanding Student Practices

What is the primary or most frequent way that you have used the technology for our class?



GAI is useful for writing entire sections of a writing assignment, such as a conclusion.

40

BOSTO



Qualitative Responses

"I would copy and paste my words into AI and ask it to fix my writing in terms of grammar mistakes and also elevate the writing a little bit. I would not copy and paste the AI's response into my work, so instead I would use some of its suggestions to tweak my writing without using its words verbatim."

"In my experience, ChatGPT only sped up my writing and research process. The vast majority of the sentences in my written assignments were written by me. The only time I used GAI was to summarize a concept or define something. ChatGPT is mostly useless when it comes to making an interesting argument. I believe that GAI improved my relationship with writing. I find myself procrastinating less because GAI can help me get the ball rolling, and it makes knocking out a paragraph here and there in my spare time feel less painful."

"Just because you need some help or someone to go back and forth with, does not mean you are cheating."

Implications for Policy and Pedagogy

- Policies should be designed to emphasize transparency regarding AI use. Current citation conventions are inadequate; we need to rethink attribution.
- Policies should foster creative and critical collaboration with GAI tools. We must move beyond a binary mindset.
- Policies must be responsive to *context* at the level of the assignment, the class, and the institution. GAI integration into curriculum should be intentional and purposeful.



Collaborative Research Using Natural Language Processing and Large Language Models

Seth Villegas

Lecturer Faculty of Computing and Data Sciences







Examples of Collaborative Projects

- Reading Department of Defense Contracts
- Interpreting public sentiment on Reddit
- Predicting Archeological Dig Site Locations
- Analyzing Company
 Diversity Statements
- Developing Predictive Models for Homelessness
- Visualizing Emissions Rates in Boston Buildings



Arts & Sciences Center for Innovation in Social Science







Template slide

Generative AI Policy and Advice Landscape Pipeline





GAIPAL Topic Model

Synopsis Theme Hits students 8354 7834 use 7640 5110 teaching 3586 writing Chatgpt 3340 text 1794 1488 academic questions 1452 models 1240 1100 educational specific 972 492 sources





Agency, Grasping, and Al

Michaela McSweeney

Associate Professor Philosophy, CAS

> BOSTON UNIVERSITY

What kinds of understanding states figure into our motivations for action, and can AI have those?

- Elsewhere, I defend a view on which: to *grasp* is to:
- 1) Cognize, think about, entertain, etc. a proposition P
- 2) Have a phenomenal experience, P'
- 3) *Identify* or *match* P to P' in a higher-order phenomenal act.
- (Step 3 is actually, roughly, what I think grasping is.)
- Example:
- My bike is made of aluminum
- Seeing or touching my bike
- In a phenomenal, NOT a cognitive act, "seeing" that my bike is made of aluminum, that is, perhaps by using my thought in step one to structure my own phenomenal experience of my bike. (Note: it's very important that this act is not a mere mapping of propositions to phenomenal experience—it itself is a phenomenal experience of that mapping.)

Why does this matter?

- Two reasons I want to highlight:
- First, though I won't defend this here (but you'll see some connection in second reason): I think that grasping is an extremely important epistemic good, and that the deeper understanding it involves is something we often get from... humanistic inquiry.
- Second, I think that grasping plays an ineliminable role in our *agency*, and specifically can motivate us to act when we already had a thinner kind of knowledge of what we come to grasp.
- Examples: televisation of Vietnam war; Brandy Hellville example from my student.



Why does this matter for thinking about AI?

- Grasping involves a higher-order act of phenomenal consciousness that is much (much) farther out of reach for AI than a thinner notion of knowledge is. I don't think the question of whether AI can possess a thinner kind of knowledge is as interesting, because that thinner knowledge is neither paradigmatic of what it is to be phenomenally conscious, nor nearly as important for our agency, as described above.
- If grasping is a central part of the *objective* of humanistic inquiry—if we are not after thin knowledge but instead are after a kind of understanding that requires that we are phenomenally conscious and capable of higher order acts of phenomenal consciousness—then Al's role in the humanities is severely limited.
- Epistemic goods don't only matter because of their role in our agency but that is a big part of why they matter. Without structured higher-order phenomenal experience, it's unclear how states like knowledge motivate.



Using Large Language Models to Create AI Personas for Replicating, Predicting, and Generalizing Media Effects Research

James J. Cummings

Associate Professor Division of Emerging Media Studies, College of Communication



Challenges in Message Effects Research

Persistent Difficulties in Human-Based Studies

- Sampling barriers (i.e., marginalized or hard-to-reach populations), message stimuli representativeness
- Resource burdens: time, cost, and complexity of data collection and management
- Existential crises of replication (Ioannidis, 2005) and generalizability (Yarkoni, 2022; Cummings & Reeves, 2022).

Growing Interest in AI-Powered Approaches

- LLMs proposed as tools to support or augment social science research (Bail, 2024)
- Early empirical work highlights potential in tasks like literature review (Wang et al., 2023), sentiment analysis (Zhang et al., 2022; Kshetri et al., 2024), and replicating language-based experimental results (Binz et al., 2023)



Can AI Simulate Media Effects Research Participants?

Study Overview

- 45 experiments from 2023–2024 *Journal of Marketing* papers, totaling 133 statistical tests
- Stimuli included product packaging, donation appeals, service responses
- Measured outcomes like purchase intent, donation likelihood, tipping behavior

Method: Simulation via Viewpoints AI

- Custom tool for generating samples of AI "personas" capable of processing multimodal stimuli
- Each persona a unique LLM instantiation receives contextual instructions + assigned stimulus, then completes assigned questionnaire measures
- Allows for replication with precise experimental parameters



Replication Success

- Main effects replicated in 76% of cases (84/111), including direction and significance
 - 88% for studies with medium-large effect sizes



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Broader Impact and Future Directions

Research Implications

- LLMs can efficiently test a wide range of messages and audience combinations
- Enables faster pretesting, iteration, and hypothesis exploration
- Augments traditional methods, helping address validity issues
- Supports both inductive and deductive research modes, including A/B testing and theory-building

Next Steps: Extending Al's Role in Media Effects Research

- Ground truth evaluation: Use open LLMs to explore how responses are formed and why replication may fail
- Predictive validation: Compare AI forecasts to human study outcomes with human audiences (e.g., academic research, marketing, UX)



The Cultural Search

Juliet Floyd

Borden Parker Bowne Professor of Philosophy Director, BU Center for the Humanities Philosophy/CAS



Juliet Floyd I – Areas of Primary Research

- History and Philosophy of Logic, Mathematics, Computing
 - Logic and Algebra (Kant, Dedekind, Royce, Peirce...)
 - Frege, Russell, Wittgenstein: Early Analytic Philosophy
 - Logic in the 1920s (Hilbert, Post, Sheffer, C.I. Lewis, Brouwer...)
 - Incompleteness & limitative results (Church, Gödel, Post, Turing)
 - Vienna Circle and Its Historical Evolution in the United States (Langer, Reichenbach, Carnap, Quine, History of Philosophy of Science, Impact of the Emigration of Philosophers from Europe)
 - 1970s-1990s: Philosophy of Language/Mind (Later Wittgenstein, Turing, Putnam)



Juliet Floyd II – Areas of Primary Research

- Aesthetics, Philosophy and Literature, History of Western Philosophy
 - Kant
 - Pragmatism/American Philosophical Tradition (Emerson, Thoreau, Henry James, William James)
 - Philosophy of Popular Culture (Film, TV, Cavell)
 - AI and Philosophy (Turing and Philosophy; Philosophy of Emerging Media and Symbolic Forms; Evolution of Phraseology and Types; Ethical Aspects of AI)
 - Mathematics and Contemporary Art: Philosophical Aspects



Grants/Collaborative Research

- 2016-2019 Mellon Sawyer Seminar, "Humanity and Technology at the Crossroads: Where Do We Go From Here?" (with James E. Katz, COM, Division of Emerging Media <u>https://mellonphilemerge.wixsite.com/mellonphilemerge</u>
 - Fake News and Disinformation
 - Philosophy of Emerging Media
 - Ethics, AI and Consciousness
 - Human Plasticity and Human-Machine Interface
 - Facial Recognition Technologies and policing
 - Accountability, Ethics and Algorithms
 - Archiving Human Rights/Activist Records
 - Philosophical Platforms (Nietzsche, Wittgenstein, Arendt)



BU Center for the Humanities

- Fora (Cross-School, International Intedisiciplinary Research Conferences)
 - "Mathematics With a Human Face" (Spring 2024, w/ CS)
 - "Ethical Implications of AI for Entertainment and Education Communication and Humanities Perspectives" (4/10-11-25; w/ COM, CDS)
 - "Pedestrian Space" (spring 2026) (Mathematics, Art, Politics, Art History, Archives) ("Arts Everywhere" program of President Gilliam)
- Summer School Program, "BeHuman" (Gotlieb Center)
 - Tuition-Free Residential Summer program, Students use archives to pursue history of BU's activism and history.
- Mellon Grant, "Transforming Narratives for Environmental Justice" (Center for Innovation in Media, Eric Gordon, COM) (2024-2027)
- Current Application: Schmidt Foundation Humanities and Al large grant; constructing layered knowledge grants for Favorite Poem Project, African Art, Poetry and Textiles, Popular Culture (TV series) with CDS, Princeton Africa World Initiative, COM, CNRS/University of Paris 1.



Closing Remarks

Thank you!



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