

PERCEIVED LEGITIMACY MATTERS

Building Public Trust and Acceptance of
AI-Generated News Images Through Strategic AI Disclosure



The image is generated by AI

Why it matters?

In natural disasters and other high-risk contexts (e.g., war and conflicts), newsrooms may struggle to get timely photos. Generative visual AI can fill the gap, but may also trigger audience backlash and reduce public trust in news organizations.

Transparency is necessary when AI is used in news production, but it can backfire.

The key is not just disclosure, but explaining

WHY AI IS USED.

Study Design

4 (disclosure strategy) x 2 (victim count) x 2 (disaster context)
between-subjects experiment

N = 1,171 U.S. participants from Prolific

1 Real Photo

©CBS NEWS



Skier Missing After Massive Avalanche

2 Simple Disclaimer

©CBS NEWS



Skier Missing After Massive Avalanche

3 Internal Attribution

©CBS NEWS



Skier Missing After Massive Avalanche

4 External Attribution

©CBS NEWS



Skier Missing After Massive Avalanche

2 Disaster Contexts

Avalanche / Volcanic Eruption

2 Victim Counts

Single / Multiple Victims

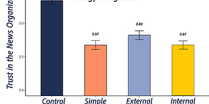
Key Measures

Perceived legitimacy, trust in the news organization, acceptance of AI in journalism

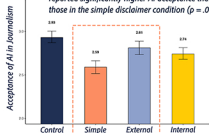
Key Findings

1 AI-generated News Images Trigger Penalties on Trust and AI Acceptance

Compared to real photos, AI-generated news images consistently reduced trust in the news organization, regardless of the disclosure strategy being used.

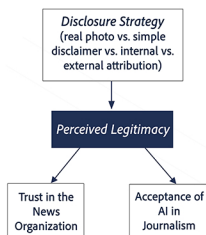


Participants in the external attribution condition reported significantly higher AI acceptance than those in the simple disclaimer condition ($p = .035$).



2 Perceived Legitimacy is the Key Mechanism that Explains Reduced Trust and AI Acceptance

Perceived legitimacy mediates the effects of disclosure strategy on trust in the news organization and acceptance of AI in journalism.



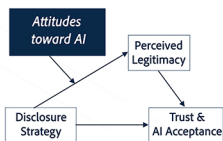
Perceived legitimacy was measured as: "I think the use of the image in the news article is legitimate / justifiable / ... ethical / aligning with professional journalistic norms."

3 Effects of Disclosure Strategies on Legitimacy were Conditional on Attitudes Toward AI



Compared to the real photo, these indirect effects of AI disclosures on trust via reduced legitimacy became weaker among individuals with more positive attitudes toward AI.

Compared to the simple disclaimer, the external attribution produced significantly more positive indirect effects on AI acceptance among participants with neutral or positive attitudes toward AI.



Implications for Newsrooms



AI-generated news images consistently reduced audience trust in news organizations.



Providing an altruistic intent of using AI is at least better than a simple disclaimer.



Perceived legitimacy is the key explanatory mechanism.



Tailor disclosure strategies to diverse publics with different pre-dispositions toward AI.

