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Public Perceptions of Drones Used for Weather-Related Purposes

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Public Perceptions of Drones Used for Weather-Related Purposes

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University of Nebraska-Lincoln



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The **CLOUD-MAP Team**







Collaboration Leading Operational UAS Development

for Meteorology and Atmospheric Physics









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Responsible Innovation & Trust

Figure 1: A Trust-Centered Model of Responsivity's Role in Responsible Research and Innovation Processes



Responsivity = Explaining transparency, information sharing

Public Perception Studies to Date

<u>Studies 1 & 2</u>

Involved more than 800 U.S. respondents

In 2 waves of MTurk surveys

Which varied:

- Communication factors (term, framing)
 - Drone factors (autonomy)
- Use factors (purpose and user)

• <u>Study 3</u>

Involved about 150 U.S. respondents

In surveys & focus groups

Which varied:

• Purpose (weather, other)

And Assessed:

- Support
- Trust in UAS, user, regulation
 - Reasons for views

Some Major Findings

- You can call a drone whatever you want without changing people's support
 - UAS, UAV, aerial robot, drone



Support for Drone use

It doesn't matter what they look like...



http://www.marketwatch.com/story/surprising-drone-study-shows-how-people-really-feel-about-drones-2015-11-11

- Purpose matters
 - And interacts with time, political leanings, and actor using the drone...
- Trust matters...
 - People currently are rather "forgiving" and allow "trust brokerage" processes to operate

And More Findings

- **Sensemaking** through pop culture, lack of knowledge, questioning, and purpose.
- **Hopes** for societal benefits such as research technology and improved public safety (reduced risk, better forecasting).
- **Concerns** for privacy, public & airspace safety, and pollution.
- **Recommendations** for collaborative regulation creation for safety and security, as well as privacy.



Next Steps

- Studies 1&2: Wave 3
 - MTurk and representative sample
- Study $3 \rightarrow$ Study 4
 - Representative sample survey experiment
 - Varying: Purpose, actor, rural/urban
 - Examining: Support, trust
 - Moderation by: Knowledge

THANK You! Questions?

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