

# Truth, Trust and Technology

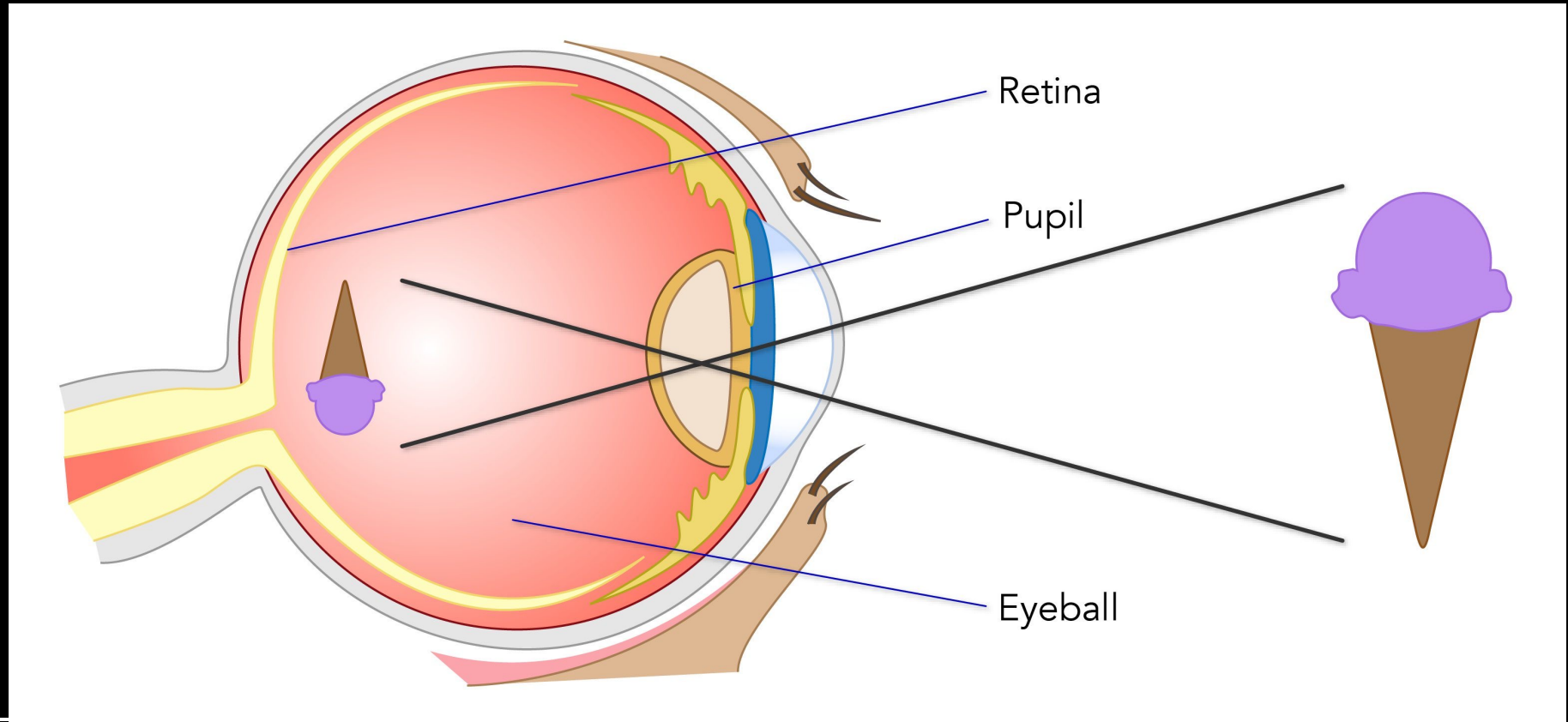
JPEG Fake Media Session  
March 25 , 2021

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Bruce MacCormack  
Sr Advisor – Disinformation Defense Initiatives  
CBC/Radio-Canada



Seeing



Is Believing

# Traditional News Roles:

Journalism

Truth

Fact Checking

Technology

Technical  
Delivery

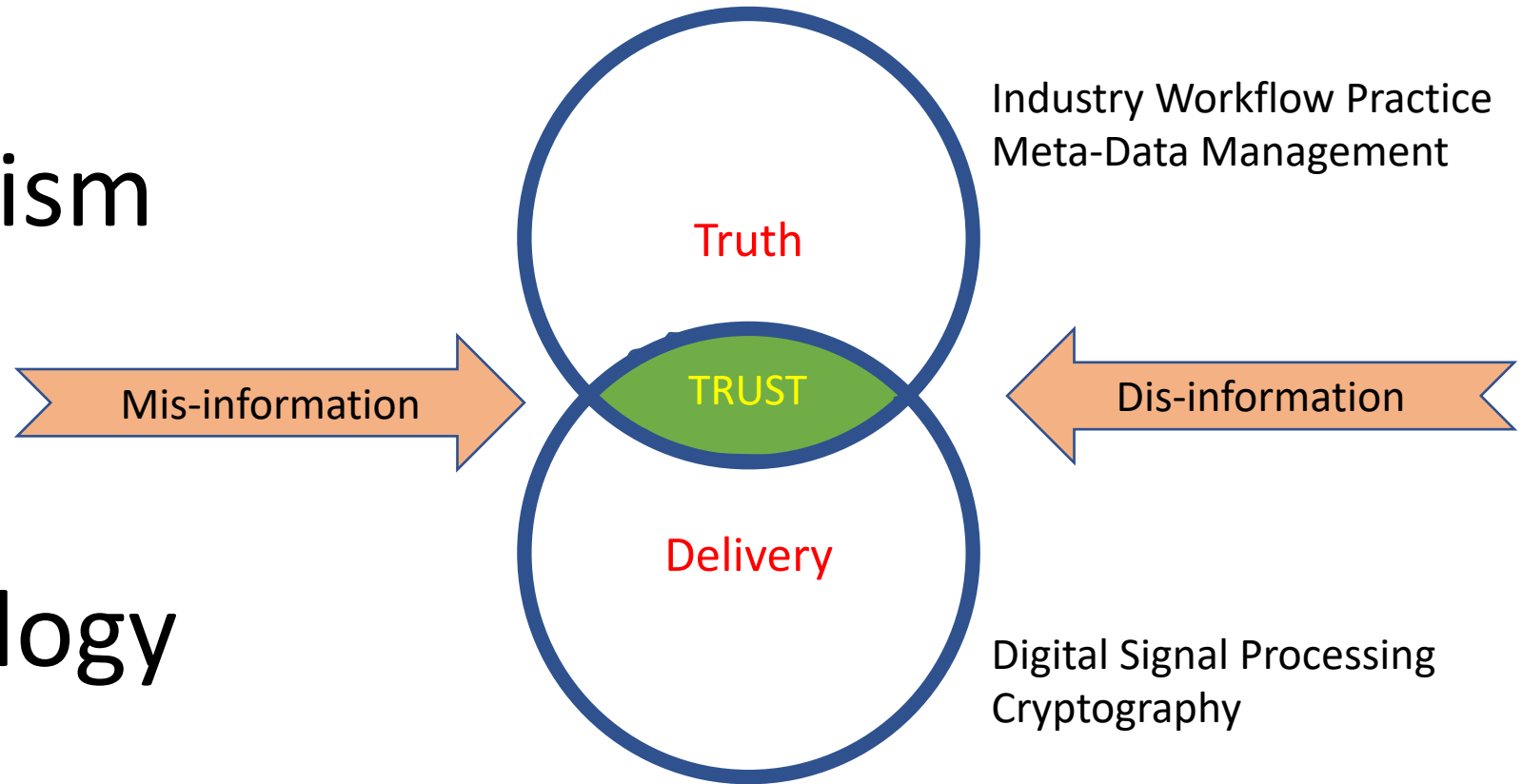
Cost

- Bandwidth Management
- Storage Cost
- Processing Power

# Emerging Reality:

Journalism

Technology





# Simpler Times

Broadcasters had end to end control  
of distribution

The signal guaranteed the source.



# Indirect distribution is becoming the norm

The path to the audience is  
now often out of our control.

# The Issue of Trust



*Journalistic  
Standards*

+



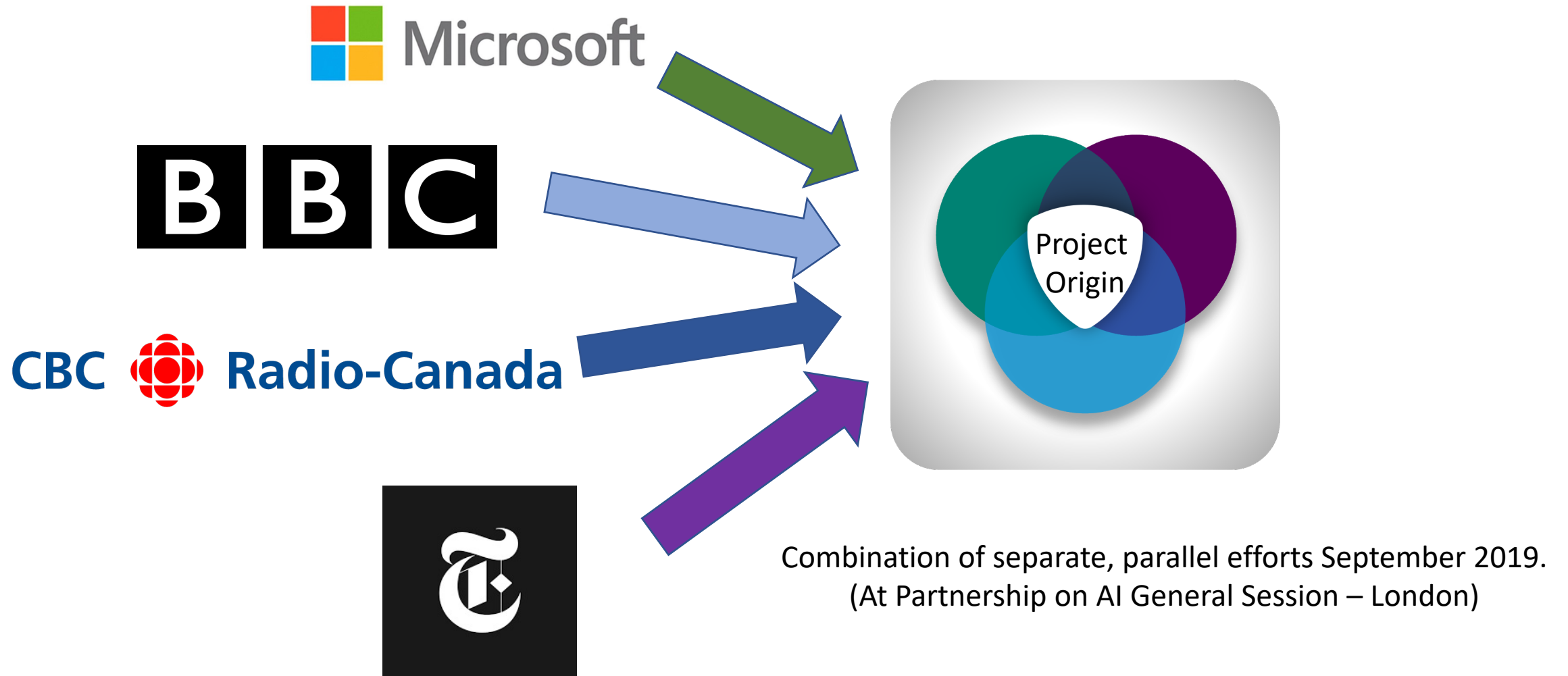
*Distribution  
Technology*

=



*Consumer  
Trust*

# The Project Origin Coalition

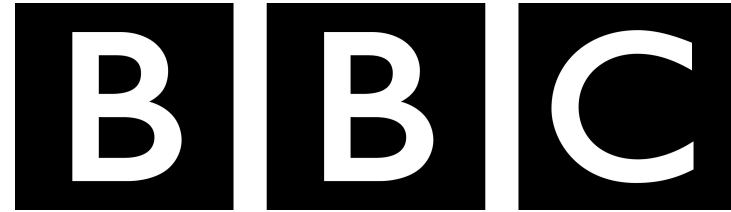


# Synthetic media is not always a problem

- Digital sets are wide use.
- Digitally enhanced “best appearance” can provide a cost savings.
- Synthetic news readers are being tested.

Intent to deceive is the issue.





Media Brands are Trusted

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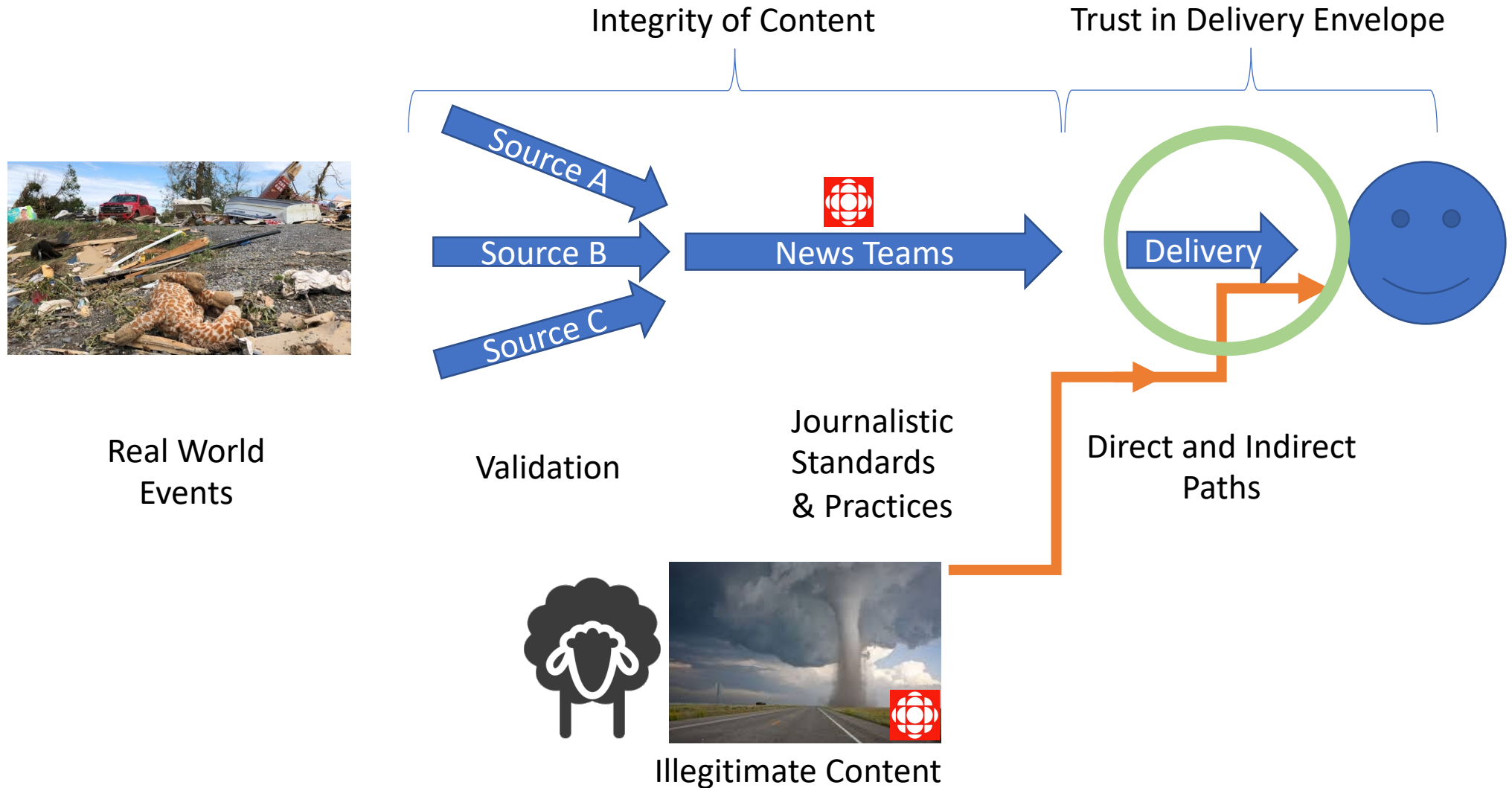
# Brands Can Become Devalued



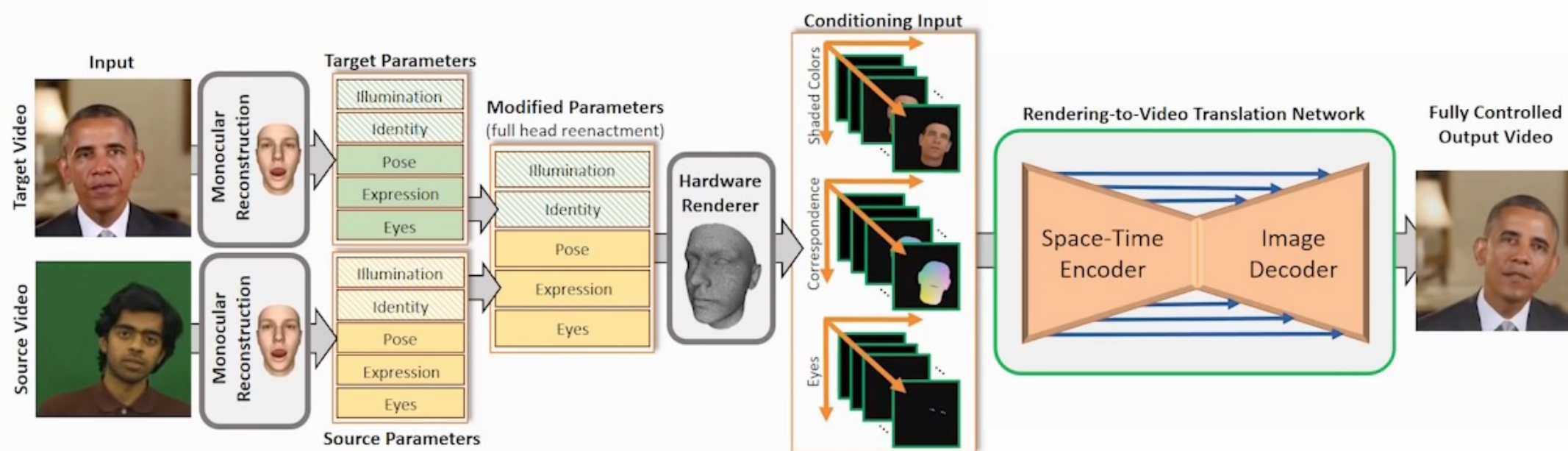
# Brand Appropriation



# What is the issue?



# Deep Fakes – An emerging threat.



*Stationary Camera Headshot  
– Well known technology*

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# Two Key Risks



Indirect Distribution:  
Original Source is unknown

+



Synthetic Media:  
Content may not be as it proports

Combined =  
Erosion of Trust

## Media Education

- Informed audience
- Increases skepticism

## Detection

- Trusted News Initiative cooperative framework, other policies.
- manual / automated solutions
- Misinformation adapts!



## Provenance

Longer Term  
Industry Alignment



Project Origin

# THREE APPROACHES TO SYNTHETIC MISINFORMATION IN MEDIA

# Trust and Truth



A Technical “Tylenol Safety Seal” equivalent is required to ensure that content arrives unchanged and is from the purported sender.

Journalistic Standards and Practices protect the integrity of our content

# No Single Solution

- Provenance plays a big part:
  - Proven identity of publisher
  - Non Alterability of content
  - Secure Meta Data

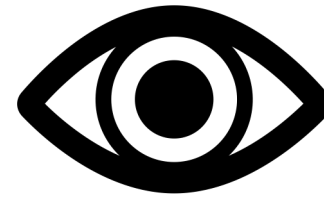


# Seeing it live

Event

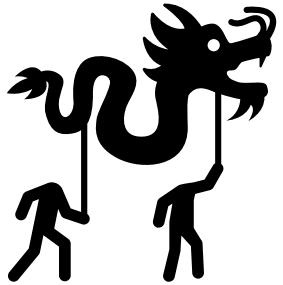


Audience



# The Media Delivery Chain

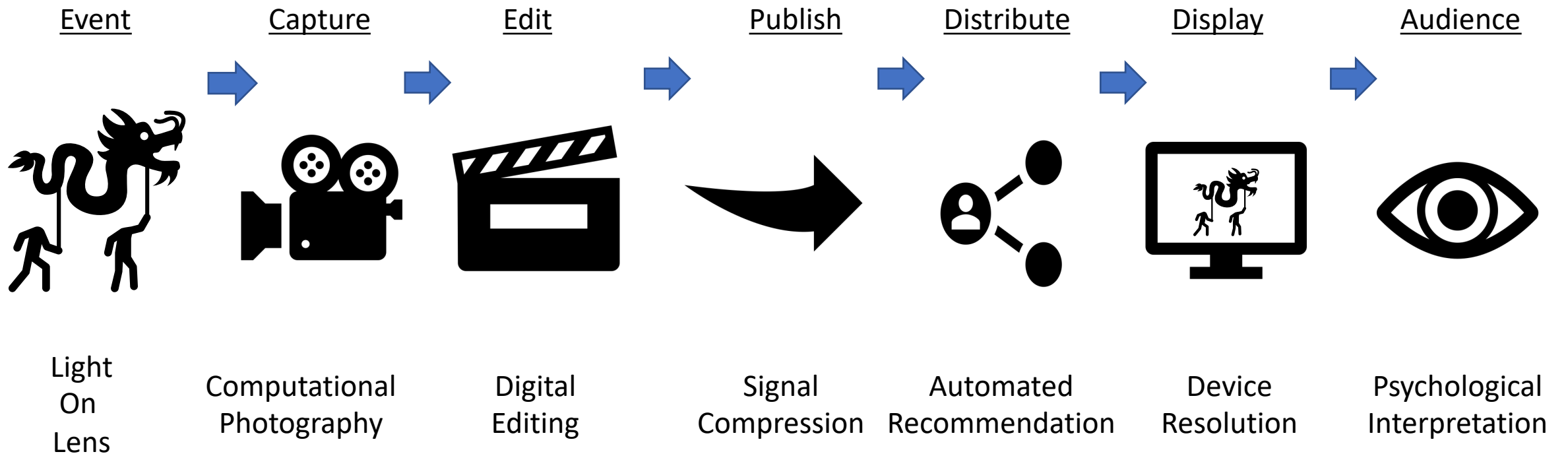
Event



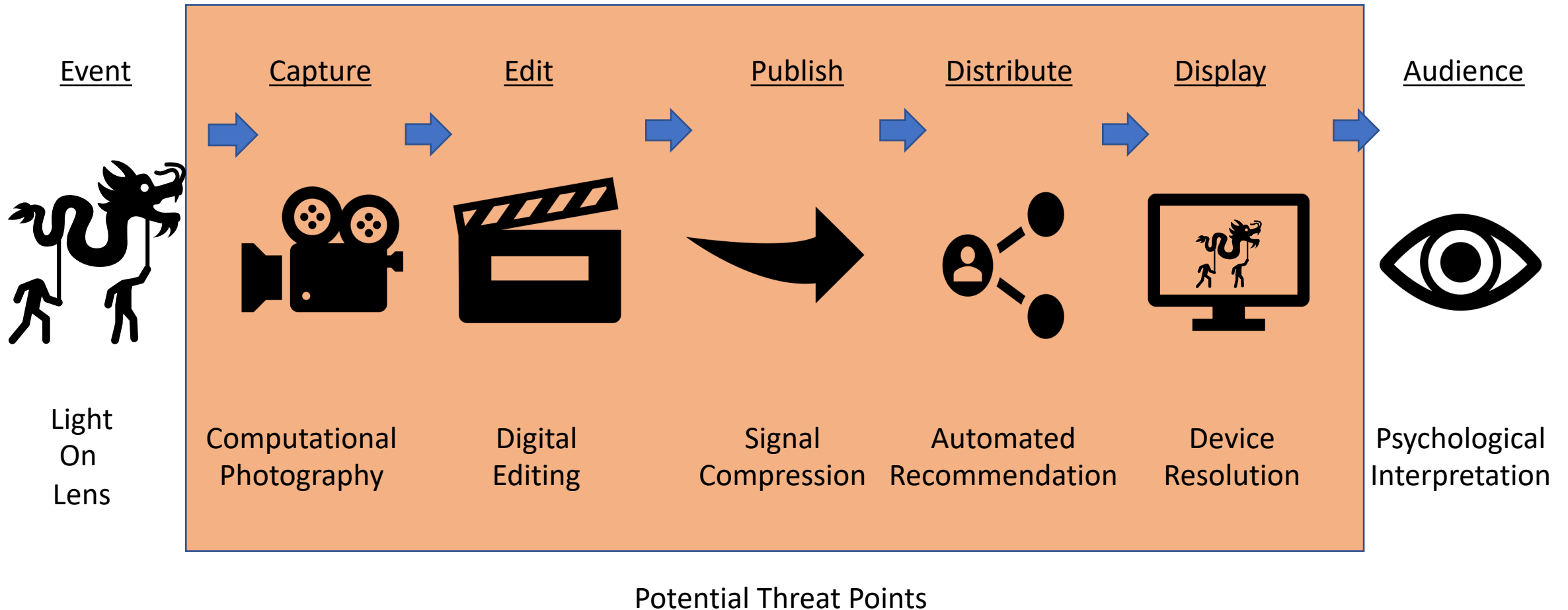
Audience



# The Media Delivery Chain



# The Media Delivery Chain



# Multi-Stakeholder Media Provenance Management to Counter Synthetic Media Risks in News Publishing

Paper Authors:

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[www.OriginProject.Info](http://www.OriginProject.Info)



## MULTI-STAKEHOLDER MEDIA PROVENANCE MANAGEMENT TO COUNTER SYNTHETIC MEDIA RISKS IN NEWS PUBLISHING

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### ABSTRACT

The rise of indirect content distribution via third party social media platforms has introduced a new conduit for synthetic or manipulated content. That content purports to be legitimate news, or to come from legitimate news sources, and can present the consumer with apparent brand integrity markings, which convey authority.

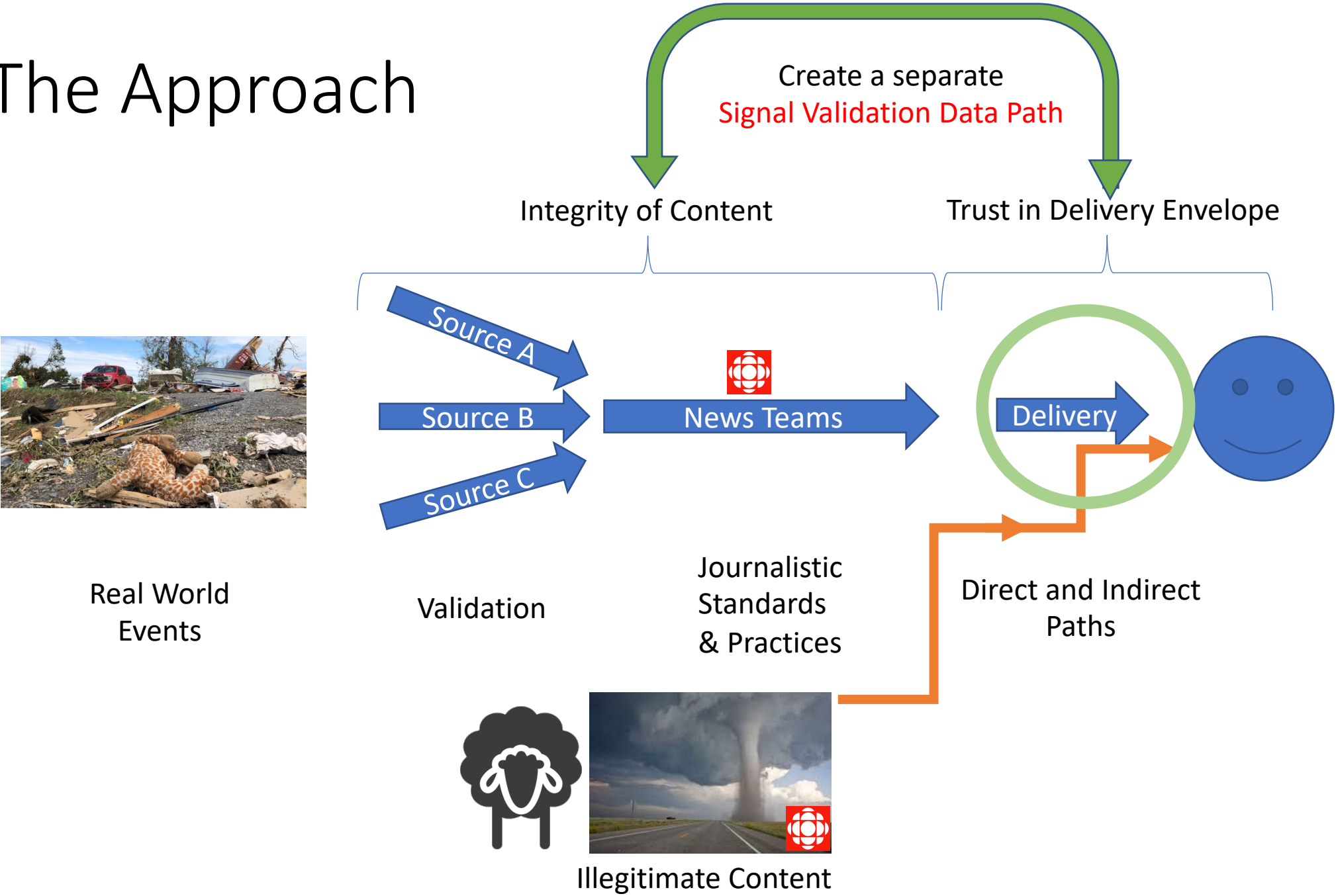
Three major global news organizations and a leading technology provider have come together to demonstrate a mechanism to tackle this problem that can operate at scale. The BBC, The New York Times Company, and CBC/Radio-Canada in cooperation with Microsoft have developed a proposed open standards approach which can be used by large and small news organizations to protect the provenance of news stories in audio/visual/textual media.

### INTRODUCTION

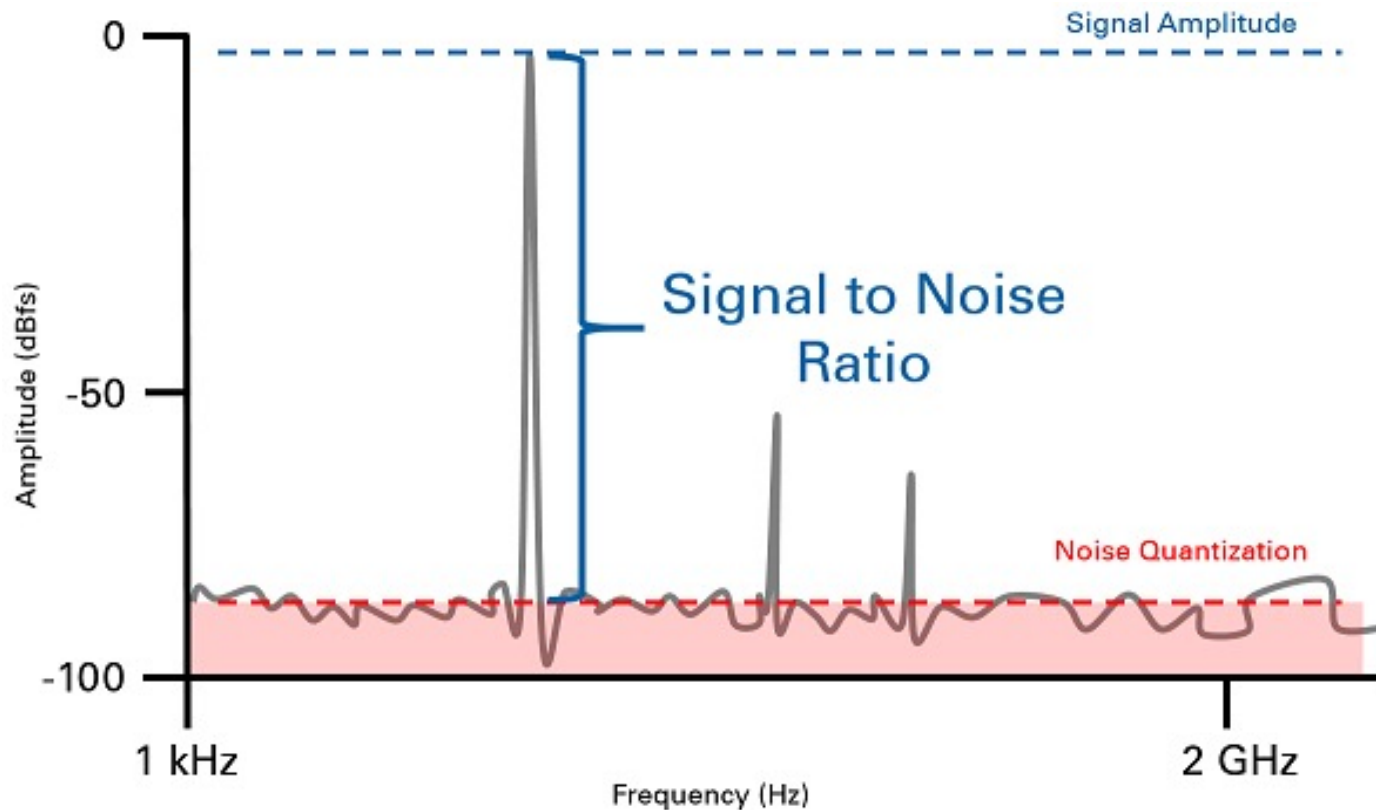
The rise of social media and video hosting platforms has created a significant problem for identifying content provenance on the internet. Re-hosting of media has meant that the origin of media content is increasingly obfuscated, undermining consumer trust and enabling the propagation of dis/misinformation<sup>1</sup> often using established and trusted brand imagery to amplify the deception.

<sup>1</sup> We use the term disinformation to cover the broadest definition of information disorder – disinformation, misinformation and malinformation

# The Approach



# Separating the Signal from the Noise

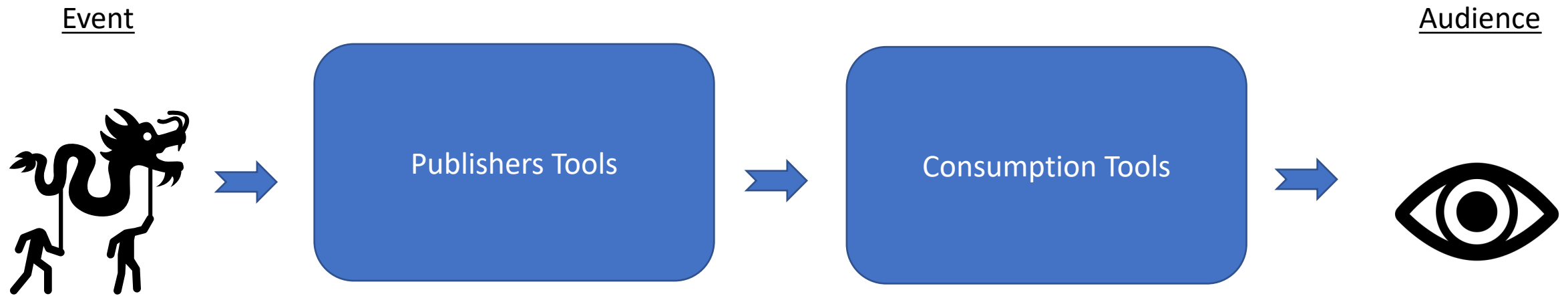


Focus on amplifying  
the truth to make  
the fakes stand out.

Ensuring the  
truth stands  
out in a  
crowd



# The Media Delivery Chain



# Publishers Tools



Confirming  
Identity




Embedding Meta-  
Data



Fingerprinting  
Media



Binding Media  
and Data

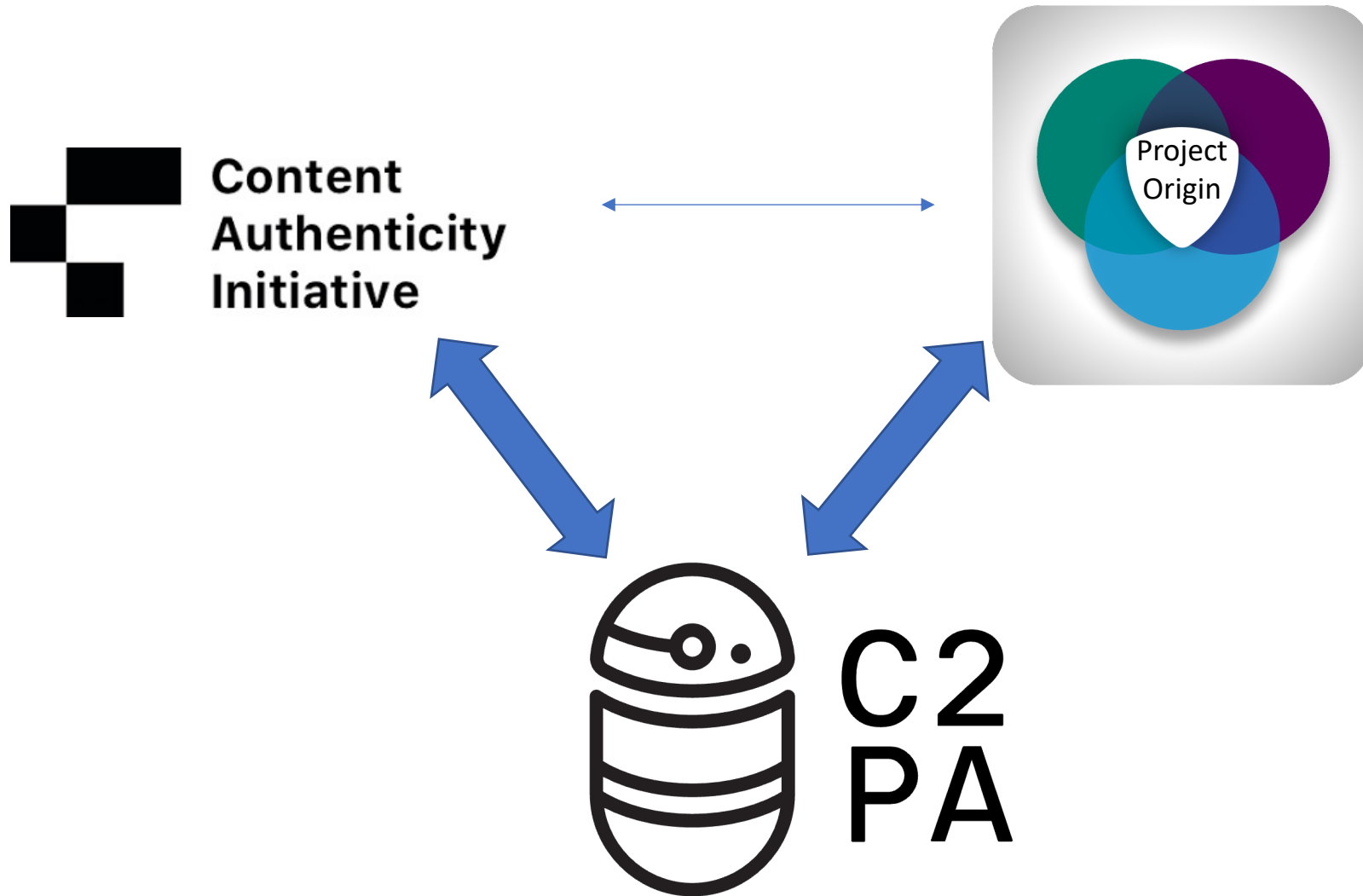


# Three Levels of Consumption

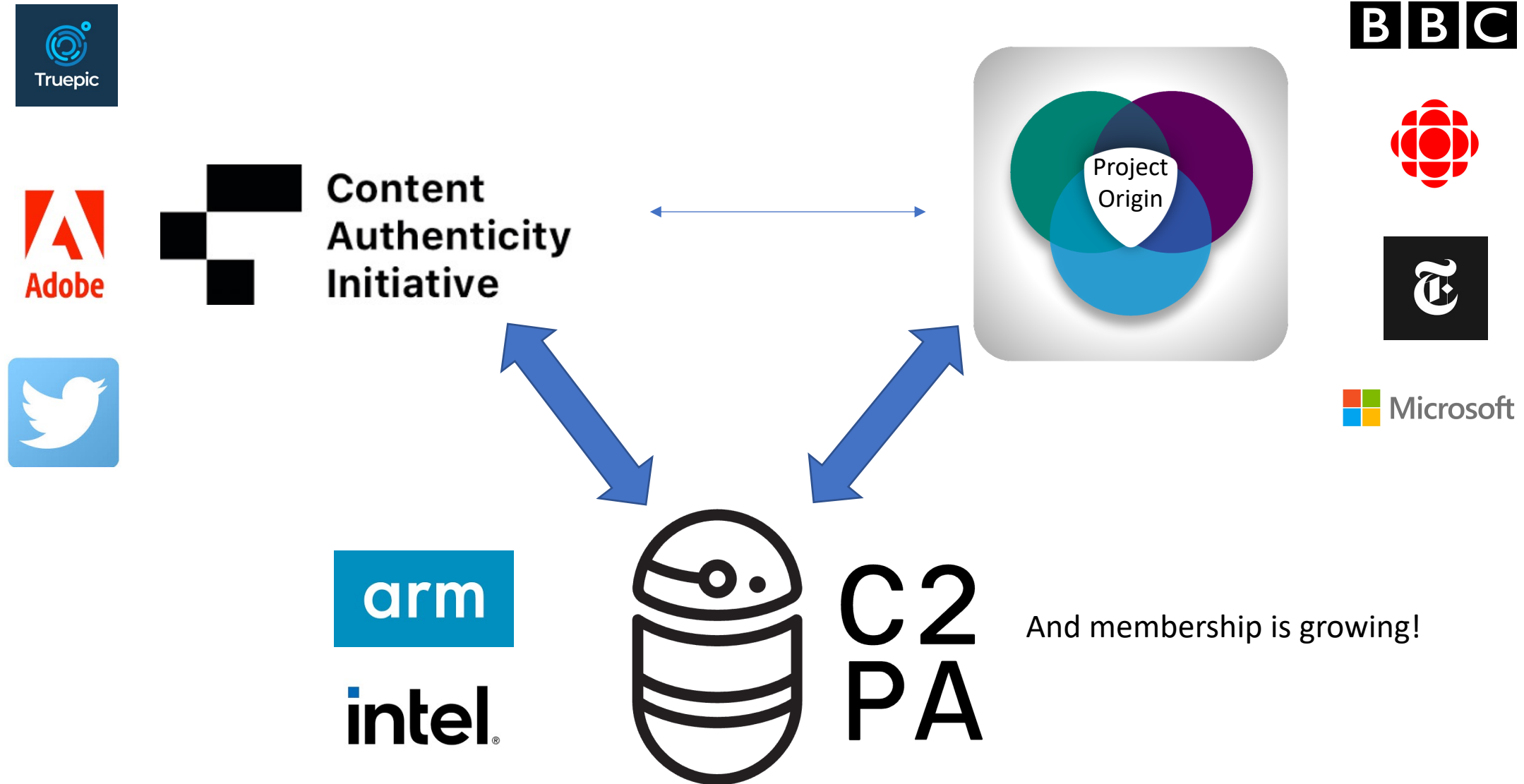
- Observational
- Interrogational
- Forensic

Media Labeling has editorial implications.

# Expanding the Coalition



# Expanding the Coalition

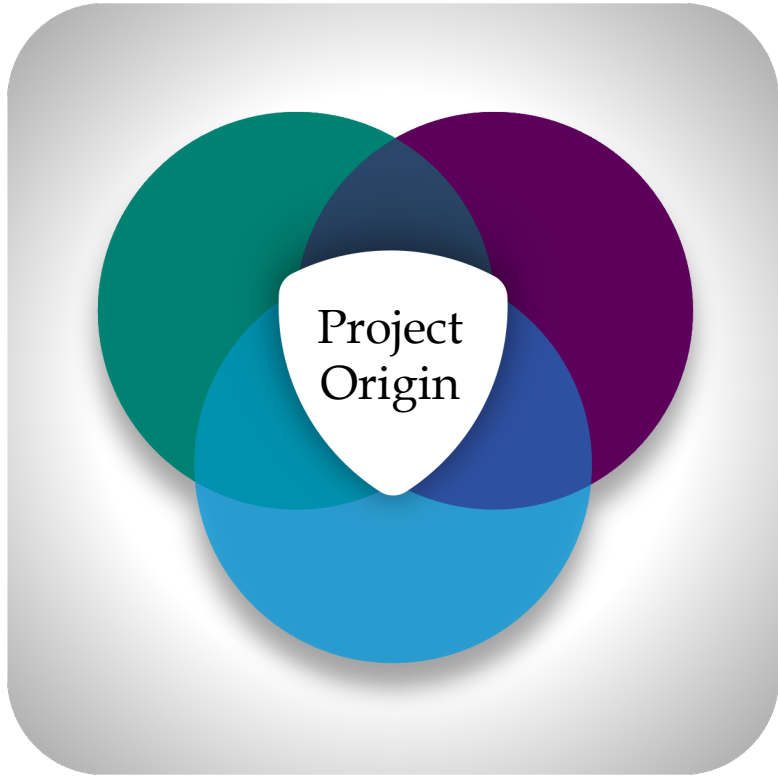


# What's next?

- Develop Open Standards via Coalition for Content Authenticity and Provenance (C2PA)
  - Work with tool manufacturers to imbed functionality.
- Establish Origin Newsroom practices to validate, preserve and certify news provenance
  - Join our expanded working group!

Development continues in 2021:





# Thank you

[WWW.OriginProject.Info](http://WWW.OriginProject.Info)



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