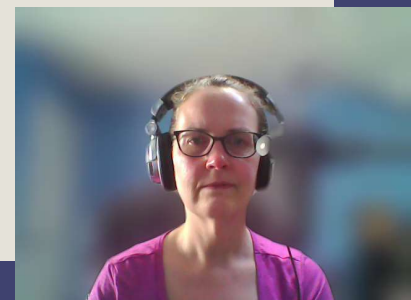




# Digital Forensics in the News

Can You Apply Your Technical Skills?



# Who am I?

Managing Editor @ ForensicFocus.com

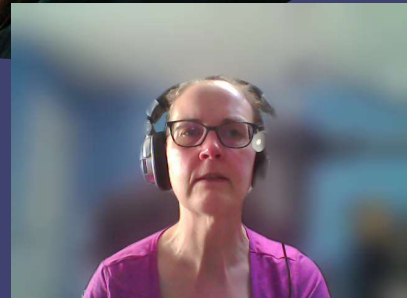
Professional writer since 2001

Freelance trade journalism

Marketing & PR for DFIR vendors

Contributor to Zero Abuse Project

#ActuallyADHD



## 2 Main Ways

Journalism Can Benefit from Digital Forensics  
(and vice versa)



### Investigations

Authentication  
Verification  
Contextualization

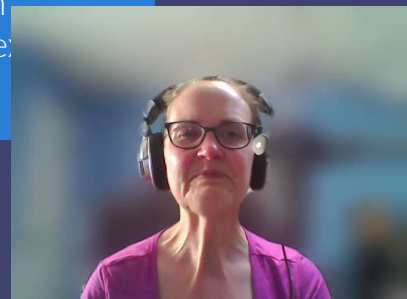


Informing public perceptions, policy /  
legislation, & maybe the future?

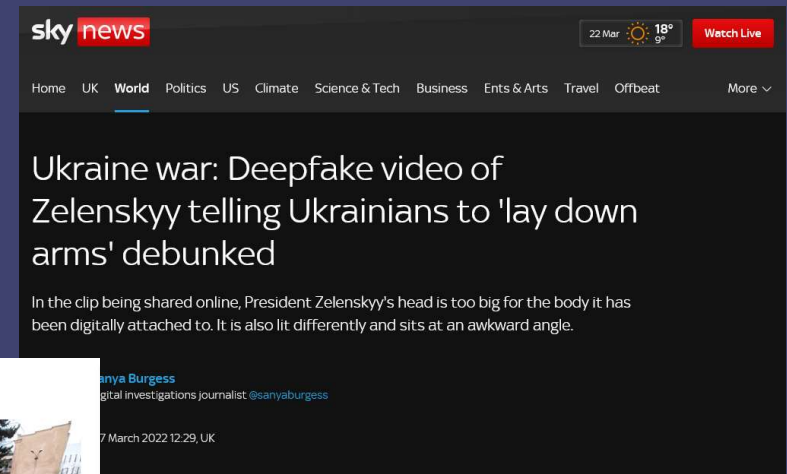
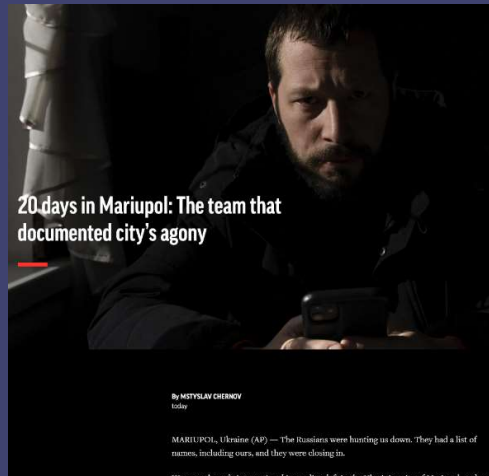


### Reporting

Accuracy  
Education  
More Context




# Why does it matter?




### Latest investigations

Civilian Harm Russia


## Hospitals Bombed and Apartments Destroyed: Mapping Incidents of Civilian Harm in Ukraine



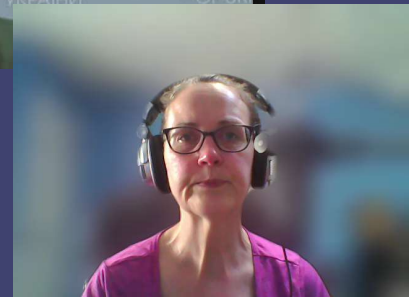
Far-Right Russia  
Male State: The Russian Online Hate Group Backing Putin's War



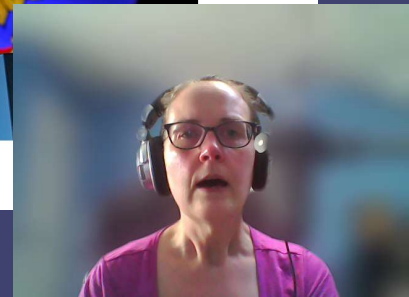
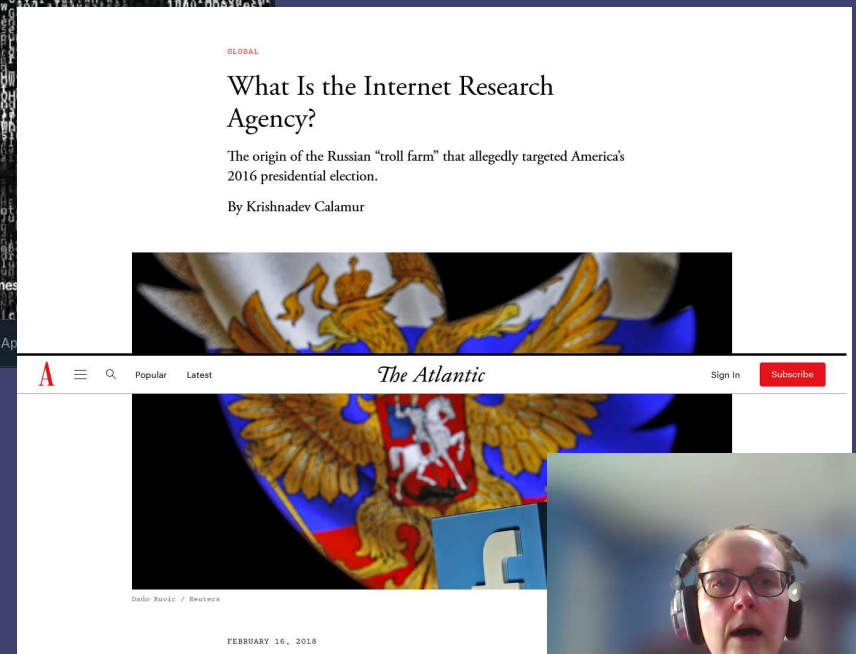
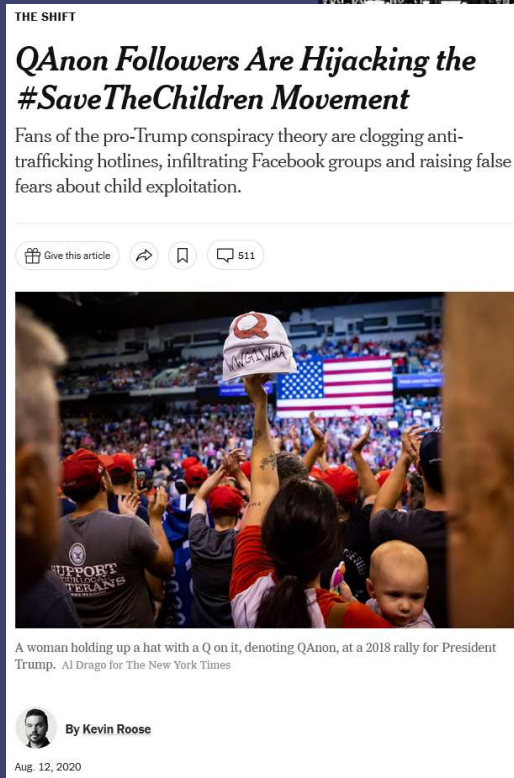
Cluster Munitions Ukraine  
These are the Cluster Munitions Documented by Ukrainian Civilians



Disinformation Donbas  
'Exploiting Cadavers' and 'Faked IEDs': Experts Debunk Staged Pre-War 'Provocation' in the Donbas



# Why does it matter?



Why does  
it  
matter?



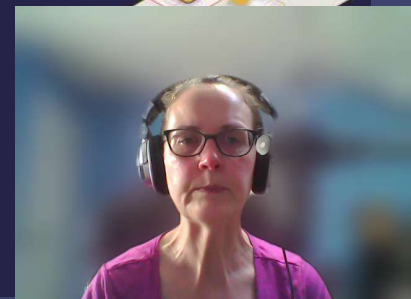
Policing

## Mass Extraction

### The Widespread Power of U.S. Law Enforcement to Search Mobile Phones

Logan Koepke, Emma Weil, Urmila Janardan, Tinuola Dada and Harlan Yu

Report



Why does  
it  
matter?

Forbes

EDITORS' PICK | Jan 8, 2021, 11:10am EST | 12,577 views

## Ransomware Attacks On The Healthcare Sector Are Skyrocketing



**Lee Mathews** Senior Contributor @  
Cybersecurity  
*Observing, pondering, and writing about tech.  
Generally in that order.*

Follow



Listen to article 2 minutes



In the spring of last year a number of criminal hacker crews pledged to leave hospitals, nursing homes and other healthcare entities alone until the Covid-19

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COMPUTING

## Triton is the world's most murderous malware, and it's spreading

The rogue code can disable safety systems designed to prevent catastrophic industrial accidents. It was discovered in the Middle East, but the hackers behind it are now targeting companies in North America and other parts of the world, too.

By Martin Giles

March 5, 2019



**Joseph Cox**  
@josephfcox

New: our piece on the Okta compromise. Company was breached through customer support. This is pretty similar to an earlier LAPSUS\$ breach we revealed: EA

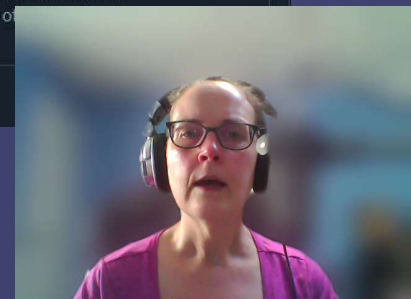
← Tweet



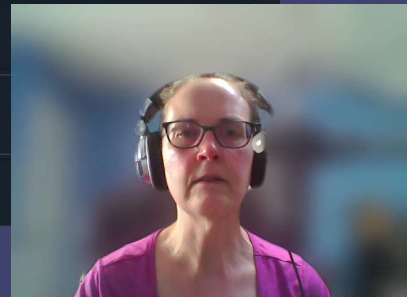
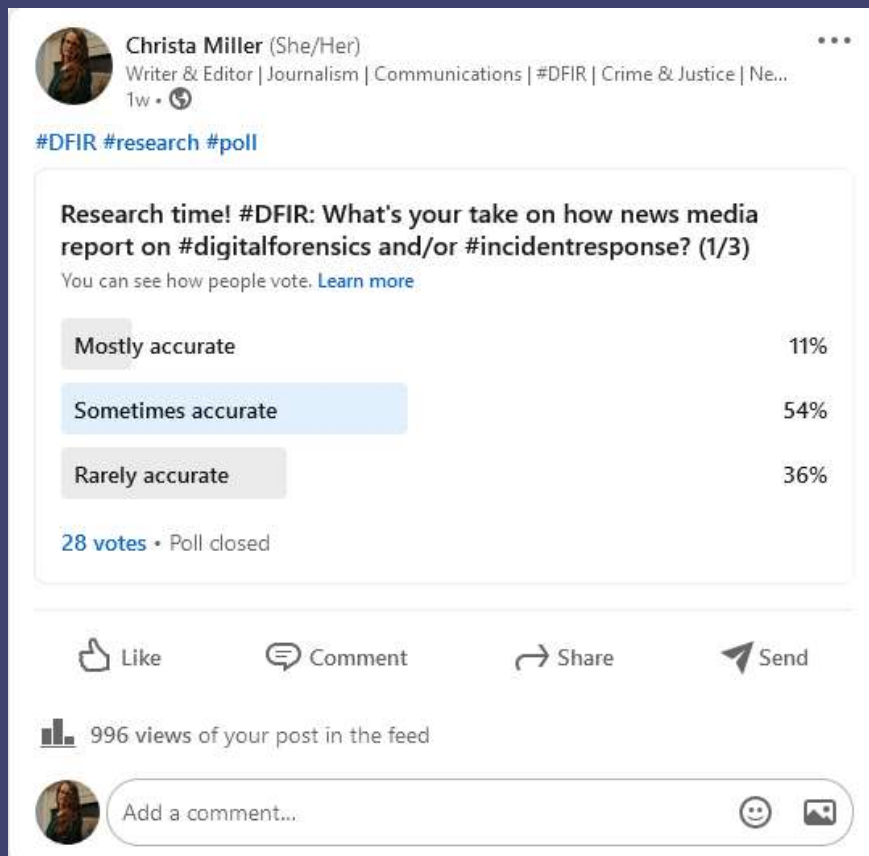
Breached Through Customer Support

often vulnerable side of

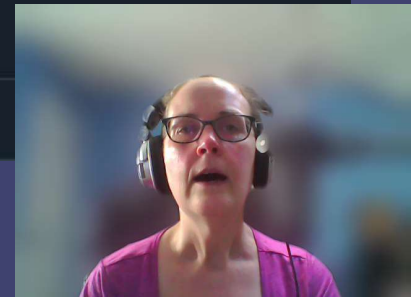
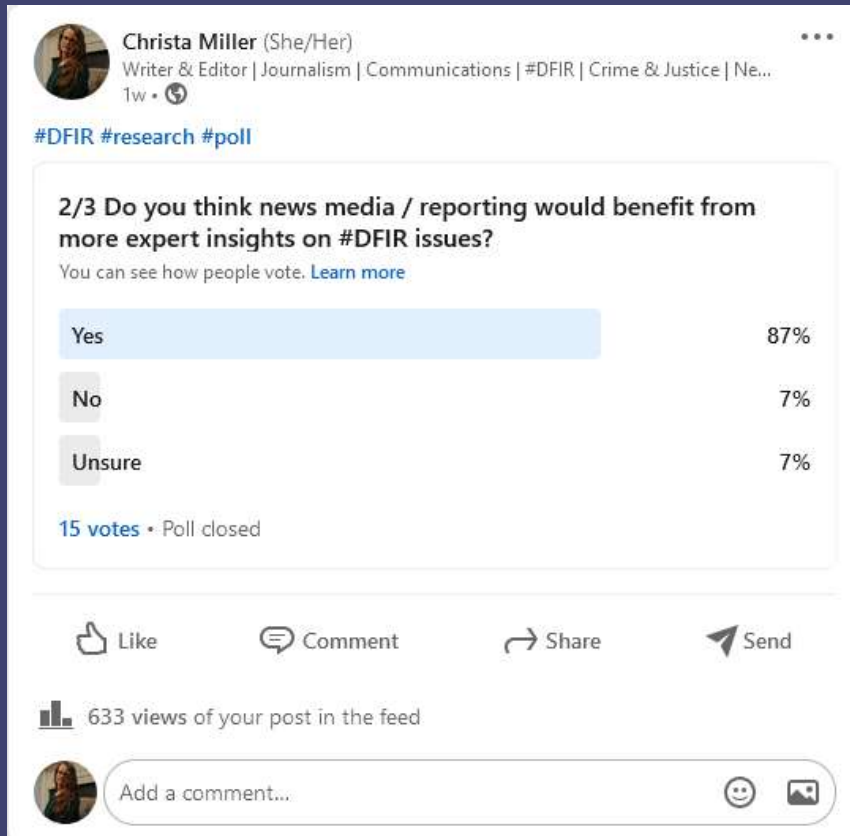
ter Web App




# Informal Survey: Question 1



# Informal Survey: Question 2



# Informal Survey: Question 3

 **Christa Miller** (She/Her)  
Writer & Editor | Journalism | Communications | #DFIR | Crime & Justice | Ne...  
1w • 🌐



Final of 3 brief questions. To respond to all three please visit my profile!

#DFIR #research #poll




**3/3 Have reporters approached you or anyone in the #DFIR industry you know for your / their expertise?**  
You can see how people vote. [Learn more](#)

Yes	80%
No	20%

10 votes • Poll closed

 Like  Comment  Share  Send

 576 views of your post in the feed

 Add a comment...  

 **Christa M. Miller**  
@christammiller

**3/3 Have reporters approached you or anyone in the #DFIR industry you know for your / their expertise?**

Yes	50%
No	50%

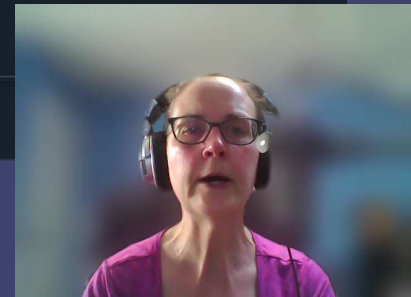
8 votes · Final results

10:06 AM · Mar 14, 2022 · Twitter Web App

 View Tweet activity

1 Retweet 1 Quote Tweet



# What Knowledge Is Needed?

“It’s up to us journalists to hold those in power to account and to do so in a way that is accurate, fact-based, transparent, impartial, and grounded in humanity.”

-- Hannah Storm, Ethical Journalism Network Director



## Technology Itself

Data, storage, & flow  
Digital forensic tools  
Humans + tools = interpretation

.....

## Tech & Its Significance

What’s the latest research?  
What methods are used & why?

.....

## Tech & Its Impact

What are audiences (judges, lawmakers, constituents) struggling to understand?

.....

## Tech & Our Future

Where is it going?  
Are we keeping up?  
What protections a

.....

Source: <https://ethicaljournalismnetwork.org/journalists-must-be-able-to-hold-power-to-account-without-fear-of-attack>



# What Skills Are Needed?

“The ultimate tool is your eye, and it comes down to looking at imagery carefully. A lot of our work is rooted in open source reporting and forensic audio-visual analysis, but it’s wrapped in traditional reporting — it’s hammering the phones and talking to experts.”

-- Malachy Browne, New York Times Visual Investigations senior producer

## Data Journalism

- Metadata
- PRNU analysis
- Geolocation
- Statistics & accounting

## Coding

- Scrapers
- Aggregators
- Pattern matching



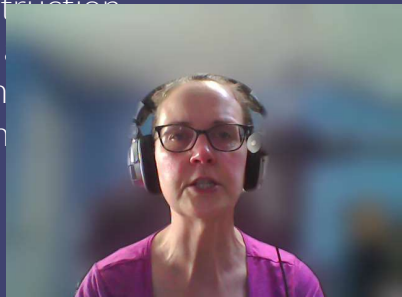
## OSINT

- Satellite imagery
- Ship & aircraft tracking
- Social media
- Collaboration

## Visual Journalism

- Mapping & timelines
- Scene reconstruction
- Frame rate
- Image & audio/video authentication
- Image & audio/video enhancement

Source: <https://gijn.org/2020/06/16/the-forensic-methods-reporters-are-using-to-trace-attacks-by-security-forces/>



# Get Involved: Be a Source

Beat journalists need reliable sources who can:

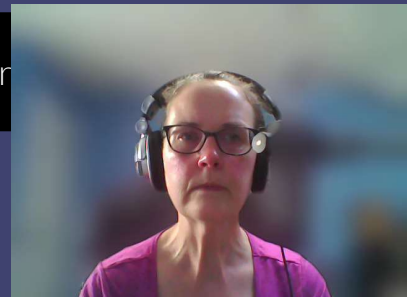


Join media databases as an expert

Tell us about your research

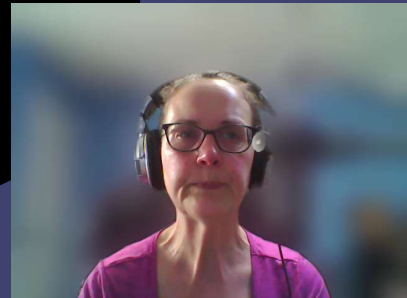
Help us understand  
nuance & significance

Build relationships & collabor



# Get Involved: Reporting

Consider whether your expertise is better shared directly:



# Who's Doing Media Forensics?



1

Bellingcat

2

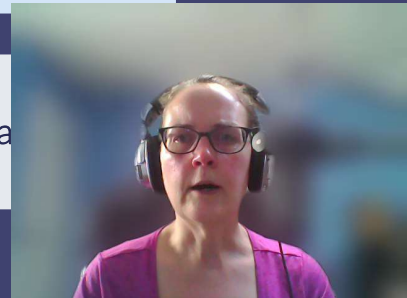
New York Times Visual  
Investigations

3

Sky News Data & Forensics  
Team

4

WITNESS Media



# The 8 Trust Indicators



The Trust Project

[About](#)

[FAQs](#)

[Resources](#)

[Partners](#)

[News](#)

[Pledge](#)

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## Best Practices

- Who funds the site? What is its mission?
- What standards and ethics guide the process of gathering news?
- What happens if a journalist has ties to the topic covered?

## Journalist Expertise

- Who made this?
- Are there details about the journalist, including contact information, areas of knowledge and other stories they've worked on?

## Type of Work

- What is this?
- Do you see story labels with clear definitions to distinguish opinion, analysis and advertiser (or sponsored) content from news reports?

## Citations and References

- What is the source?
- Does the site tell you where it got its information?
- For investigative, controversial or in-depth stories, are you given access to the original materials behind the facts and assertions?

## Methods

- Why was it a priority?
- For investigations, in-depth or controversial stories, why did they pursue the topic?
- How did they go about the

## Locally Sourced

- Do they know the community?
- Was the reporting done on the scene?
- Is there evidence of deep

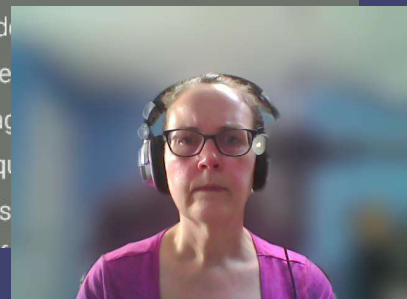
## Diverse Voices

- What are the newsroom's efforts and commitments to bring in diverse perspectives across social and demographic differences?

## Actionable Feedback

- What do you want to see engaged in coverage, good or bad, and the answer to

<https://thetrustproject.org/#indicators>



# Final Thoughts

Journalists work in a complex industry too

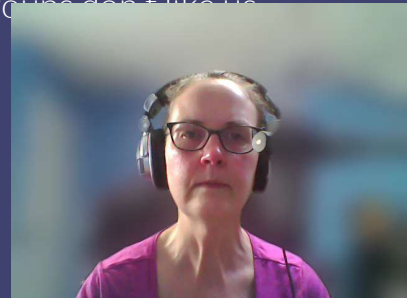


Upped business models

Information firehose

Greater need for accurate context

Some governments & groups don't like us



# Questions?



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## Twitter

@christammiller

## Discord

CMMwriter#4921

## LinkedIn

Linkedin.com/in/chris

