

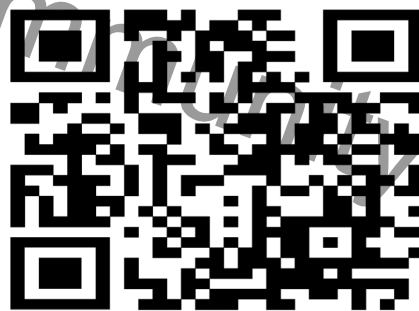


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Innovating K-12 Cyber Education & Outreach Through A Visual Privacy Hands-On Lesson

<https://tinyurl.com/VPLesson>



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Teaching Privacy At The K-12 Level

Symposium



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Privacy Education Resources

- [Teaching Privacy |](#)
- [Resources for Educators – iKeepSafe](#)
- [Cybersecurity | NOVA Labs | PBS](#)
- <https://twitterdatadash.com/>
- [A Day in the Life of the Jos \(Grades 6-8\) | MediaSmarts](#)
- [Project of the Day: Friend Inspector | P2P Foundation](#)
- [Emerging & Future Privacy Issues in K-12 Learning](#)
[Environments | Digital Citizenship+ Resource Platform](#)
[\(harvard.edu\)](http://harvard.edu)
- [Student Privacy and Ed Tech \(K-12\) Research Briefing |](#)
[Berkman Klein Center \(harvard.edu\)](http://Berkman Klein Center)
- [Privacy | K-12 Blueprint \(k12blueprint.com\)](#)
- [Privacy Training Online | Short Courses | TeachPrivacy](#)
- [Home | Protecting Student Privacy \(ed.gov\)](#)
- [The Student Privacy Resource Center](#)
[\(studentprivacycompass.org\)](http://studentprivacycompass.org)
- [Privacy In Education \(iapp.org\)](#)



Core Concepts - Before Lesson

Security:

- Being free from danger or threat *
- Who has access to your information?

Privacy:

- State of being free from being observed or disturbed by others *
- Space away from public attention
- What is public vs private space
- What info do you want to share?
- How much info do you want to share?



∅ **Cybersecurity Concepts:**
Confidentiality
*** Dictionary Data**
From Oxford Languages



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Data Privacy

Data privacy, or information privacy, is a part/branch of data security concerned with the proper handling of data - consent, notice, and regulatory obligations.





Data Collection

-> Where? Examples:

- Targeted Advertising
 - *Geographical, Placement-Based, Time-Based, Device-Based, Demographics*
- Identity Theft
 - *Access to personal accounts + private info*
- Tracking - Phone device, location
- Crime Prevention - Surveillance

-> The Points Of Debate/Cases Of Argument

- Is it bad? The negatives/cons? Why?
Invasion of Privacy, Security Risk, Non-Consent, No Control
- Is it good? The positives/pros? Why?
Shown individual interests, Personalized Service





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VISUAL PRIVACY

**Data
Realm**

**Visual
Realm**

Visual Privacy

- The relationship between collection and dissemination of visual information, the public expectation of privacy, and the issues around them.
 - Visual information includes media with or without sound, such as images/pics, still photos, and video recordings.
 - Example of Visual Data: www.earthcam.com/
- *How to implement Visual Privacy?*

One Way: ***Privacy Through Visual Anonymity (PVA)***



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Privacy In Visual Surveillance

Surveillance is the monitoring of behavior, activities, or other changing information for the purpose of influencing, managing, directing, or protecting people

- *How many times a day do you think that you are recorded on camera?*

So, how is visual privacy possible?

PVA - VPET:

Visual Privacy Enhancing Tech





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The Privacy Versus Security Debate

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**OBSCURACAM: VPET Instance 1
Demo + Hands-On Activity 1**

Symposium

OBSCURACAM

Obscura Cam is a free Android mobile app that helps keep visual media info (like pics) private by selective obscuration of regions of interest within the images (PVA - VPET)





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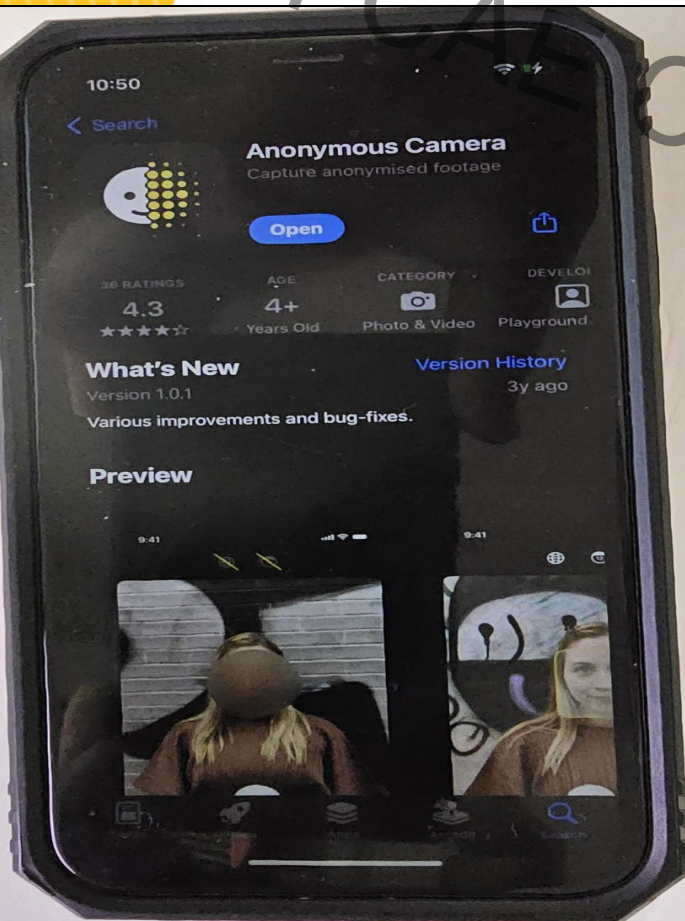
2024 CAE Community Symposium

**Anonymous Camera:
VPET Instance 2
Demo + Hands-On Activity 2**

Symposium

Anonymous Camera

Anonymous Camera is an iOS mobile app that helps keep visual data (like pics) private by info hiding within image regions (PVA - VPET)





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**YOUTUBE FACE BLUR:
VPET Instance 3
Demo + Hands-On Activity 3**

Symposium

YOUTUBE VIDEO FACE BLUR



YOUTUBE FACE BLUR DEMO

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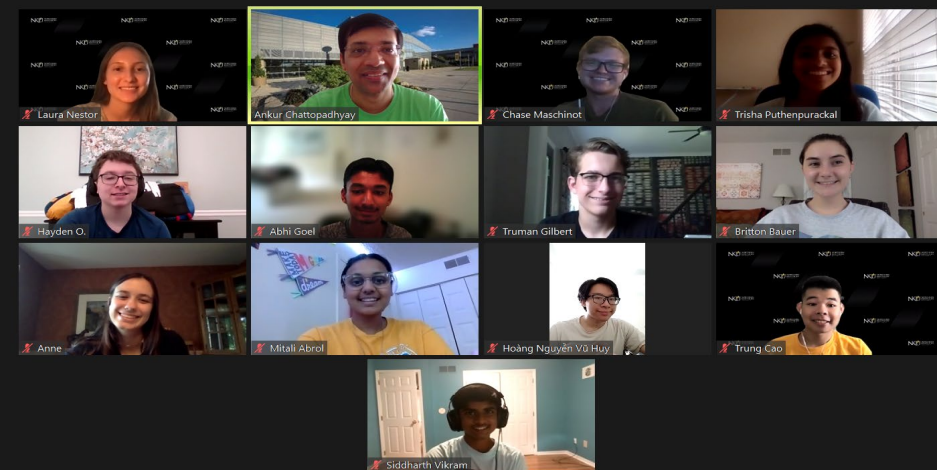


Discussion Following Hands-On Exploration Of Each VPET App

- *What do you think about the VPET example?*
- *How well did it work?*
- *How effective was this as an example of VPET in context of visual privacy?*
- *What problems might there be? Are there scenarios in which the PVA tech won't work?*
- *Is the PVA tech full-proof? Can the de-identification/privacy enhancement be reversed?*



Offered In GenCyber Teacher & Student Summer Camps



References/Sources Cited

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- [PVA \(privacy through visual anonymity\) lab for enhancing CS education and outreach \(abstract only\) | Proceedings of the 45th ACM technical symposium on Computer science education](#)
- [ObscuraCam: The Privacy Camera - Guardian Project](#)
- [ObscuraCam - Apps on Google Play](#)
- [Anonymous Camera on the App Store \(apple.com\)](#)
- [How to Blur Anything You Need to in Your YouTube Video \(vidiq.com\)](#)
- [Teaching Privacy |](#)
- [Resources for Educators – iKeepSafe](#)
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**Thanks for attending this lightning talk
and for listening!**

- **Any Questions and/or Comments?**
<Email: chattopada1@nku.edu>



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Extra Slide: Data Privacy Intro Video

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