

Date

# Protecting and Defending the Internet

Promoting a secure and trustworthy Internet with encryption



Author's Name

Title

email

# What we'll cover

- History of encryption
- How it works
- Why it is crucial for a secure, trustworthy Internet
- Threats to encryption
- How to protect/promote encryption



# What would you share with a stranger?

Your birthday?

The names of your children?

The school they go to?

The messages you send a loved one?

Your bank account number?

Your medical history?

Encryption protects all of this and more.

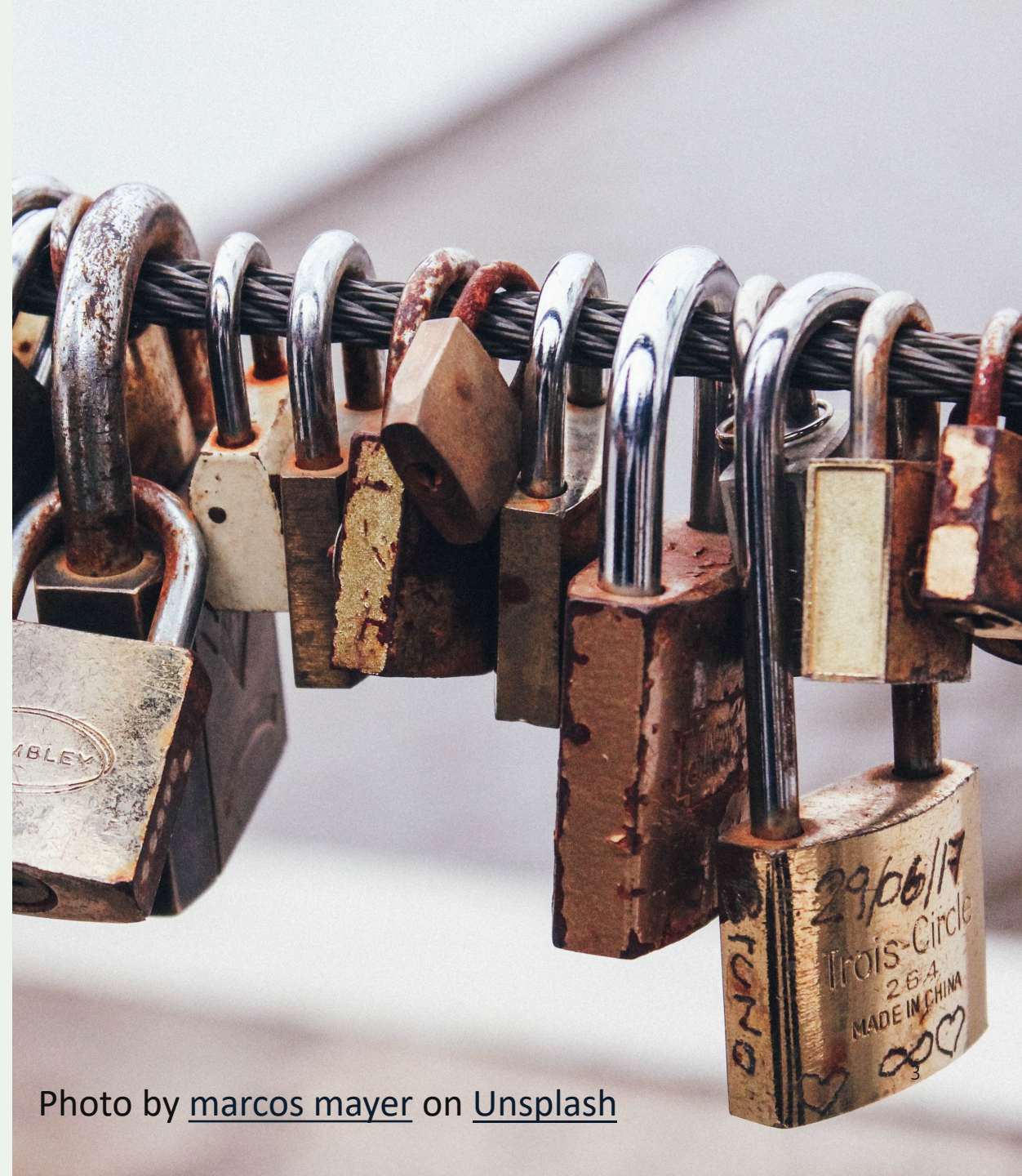


Photo by [marcos mayer](#) on [Unsplash](#)

Everyone has something to hide...  
And that's OK!





# History of encryption

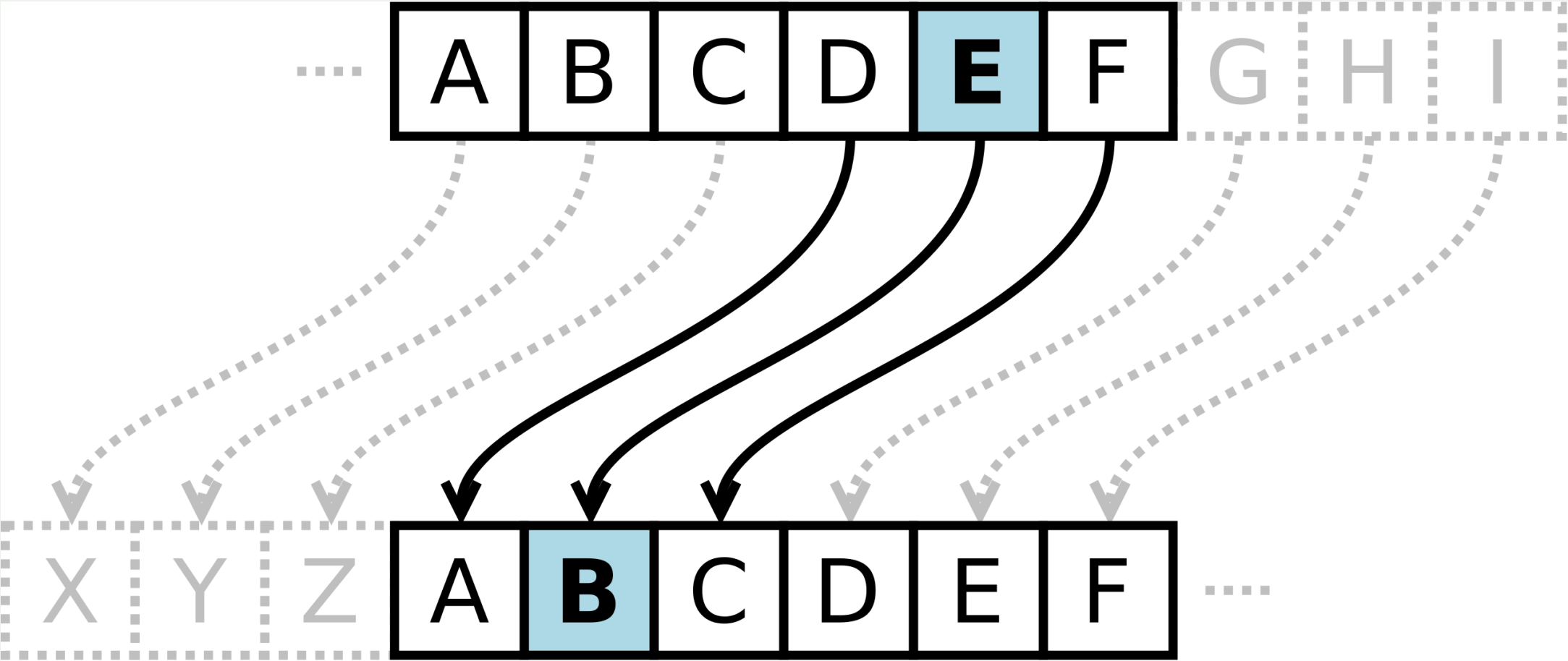
The use of encryption to send coded messages can be traced back to ancient Egypt, Greek and Roman military cultures, and World Wars.

It is said to have been used by Julius Caesar.

Caesar cipher is an ancient form of cryptography that involves transposition of the alphabet, shifting each letter of a plain text message by a certain amount of numbers.



# Caesar cipher



Hello my name is Natalie. (plain text)

BECOMES

Khoor pb qdph lv qdwdolh. (cipher text)

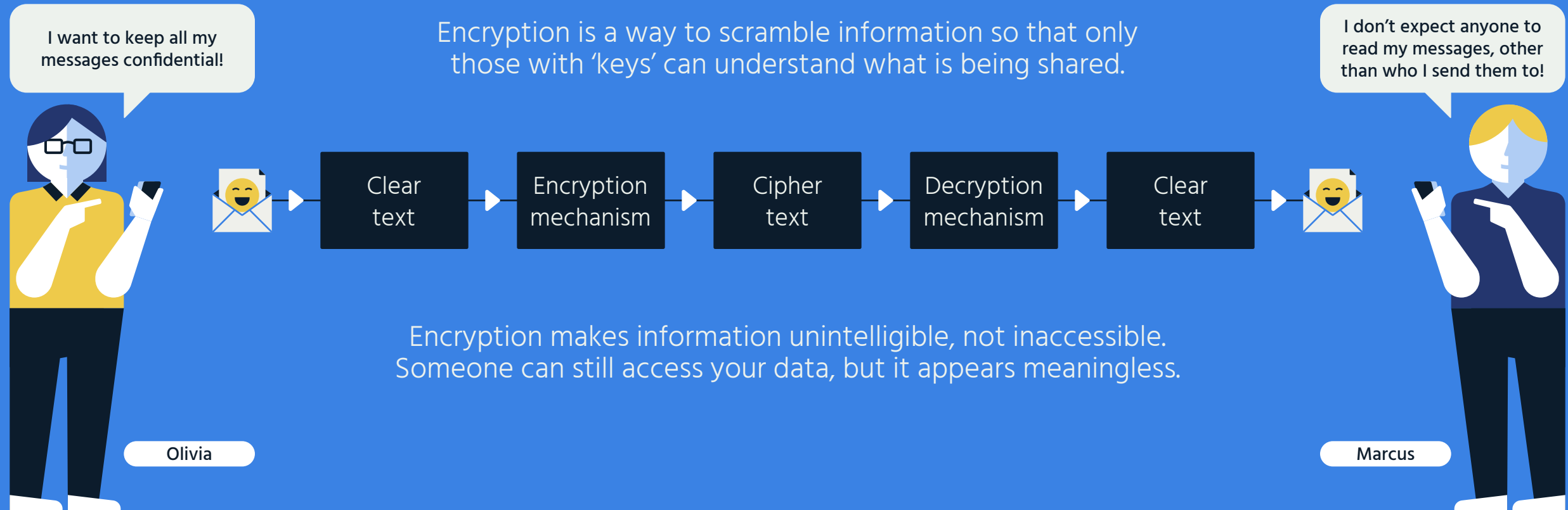


# How it works





# 01 What is encryption?



## The importance of encryption

In our increasingly digital lives, the role of encryption has never been more essential.



Encryption is a crucial feature of a safe Internet. It ensures your private messages stay private.



From video calls to air traffic control and e-voting, encryption is vital for securing all aspects of our lives.



It keeps your identity safe and stops people from impersonating you, or the people that you trust.



It is critical to national security, protecting society from terrorists, criminals, and hostile governments.



Personal security depends on encryption. It keeps your confidential data out of the hands of criminals.

# Promoting security and trustworthiness online



## For governments, it helps secure

- Internal and external communications
- Documents and data, especially personal, sensitive, confidential, classified data
- Official announcements and informative services (government to citizens)
- E-government services
- Citizen complaints and crime reporting (citizens to government)
- Investigations, evidence and judicial proceedings
- Archives, IoT, transportation smart cards ...





## Helping citizens report crimes confidentially and securely

- **Kolkata** Police WhatsApp helpline for cyber and petty crime reporting (India)
- **Bhubaneswar** Police WhatsApp number for crime reporting (India)
- Royal **Malaysian** Police WhatsApp channel regarding commercial crimes for Commercial Crime Investigation Department





# Safe spaces for kids online

Encryption helps keep information about the private lives of children out of the wrong hands.

It can help:

- Protect children from grooming
- Protect children from inappropriate content
- Protect children from AI-generated CSAM



# Survivors of domestic violence

Encryption is crucial to survivor safety

It can help mitigate technology-facilitated abuse, including in:

- Safety planning and relocating
- Protecting the integrity of evidence
- Protection against unauthorized access
- Seeking help
- Ensuring there are safe, private and confidential spaces to interact online.



Why is it under threat?



# Encryption under threat

Encryption is crucial to security and safety of our day to day lives online and in real life. But, just like any other service, criminals can also use encryption.

Some governments want to undermine strong encryption in the name of law enforcement or 'exceptional' access.

UK and Australia already have laws providing that mandate, others want the same.

If they succeed, it will severely jeopardize our personal safety and security online and in real life.





# Backdoors are open to anyone

We all want to prevent crime online.

Some law enforcement agencies say encryption leaves them 'blind', and they need ways to get access to private communications.

**There is no way to give third-party access to encrypted data without creating major vulnerability that weakens the security of law-abiding citizens and the Internet.**

A backdoor to encryption is open to anyone that wants access to our confidential communications and data.



Photo by iMattSmart, via Unsplash



# When encryption is under threat... so are we.

## Dozens sue Amazon's Ring after camera hack leads to threats and racial slurs

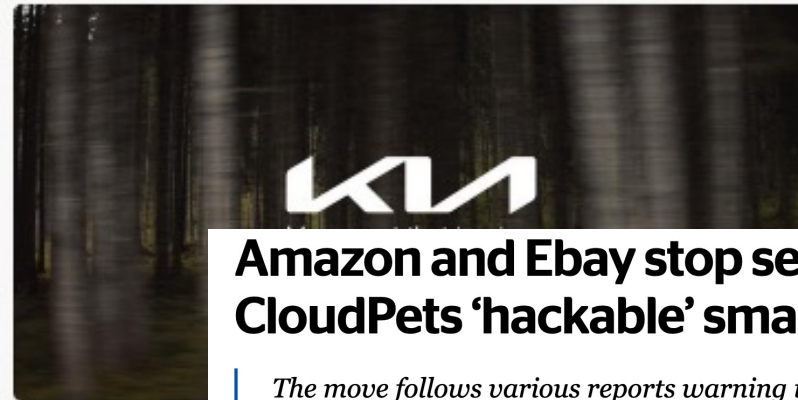
Class action claims weak security allowed hackers to take over the smart cameras used on doorbells and in homes



## BleepingComputer

### Kia Motors America suffers ransomware attack, \$20 million ransom

Kia Motors America has suffered a ransomware attack by the DoppelPaymer gang, demanding \$20 million for a decryptor and not to leak stolen data. (148 kB) ▾



## B Bloomberg.com

### Tesla Suffers Network Outage Disabling Vehicles' Mobile App

Tesla Inc. reportedly suffered a network outage that left owners of unable to connect to their vehicles via the company's mobile app. (



## Amazon and Ebay stop selling CloudPets 'hackable' smart toy

*The move follows various reports warning that the connected toy could be hacked, potentially putting children at risk*



# How ISOC protects and defends encryption

ISOC is a steering committee member of Global Encryption Coalition.

Over 330 members worldwide in more than 80 countries worldwide.

We call on governments and the private sector to reject efforts to undermine encryption and pursue policies that enhance, strengthen and promote use of strong encryption to protect people everywhere.



# Global Encryption Coalition



# Building the Movement to Promote and Defend Encryption

Global Encryption Day – October 21

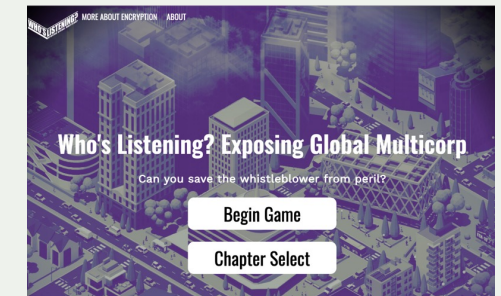
Elevating stories

Reach: 3+ million people

80+ community events worldwide

Company & government testimonials

Public awareness campaign



## Global Encryption Day Statement

**168**

organizations and businesses have signed our statement of support.





# How you can promote, protect and defend encryption

Ask about our free online course 'Encryption for governments'.

To learn more about Internet Society's free online courses, please visit:  
[internetsociety.org/learning/](https://internetsociety.org/learning/)

Internet Society Blog: Encryption Keeps Kids Safe Online:  
[internetsociety.org/blog/2023/05/encryption-keeps-kids-safe-online/](https://internetsociety.org/blog/2023/05/encryption-keeps-kids-safe-online/)



# Thank you.

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