

Build a Secure Cyberspace 2023 –

“Protect Your Online Identity” Seminar

在分享前刪除元數據的理由及方法  
Why and how to remove meta  
data before sharing?

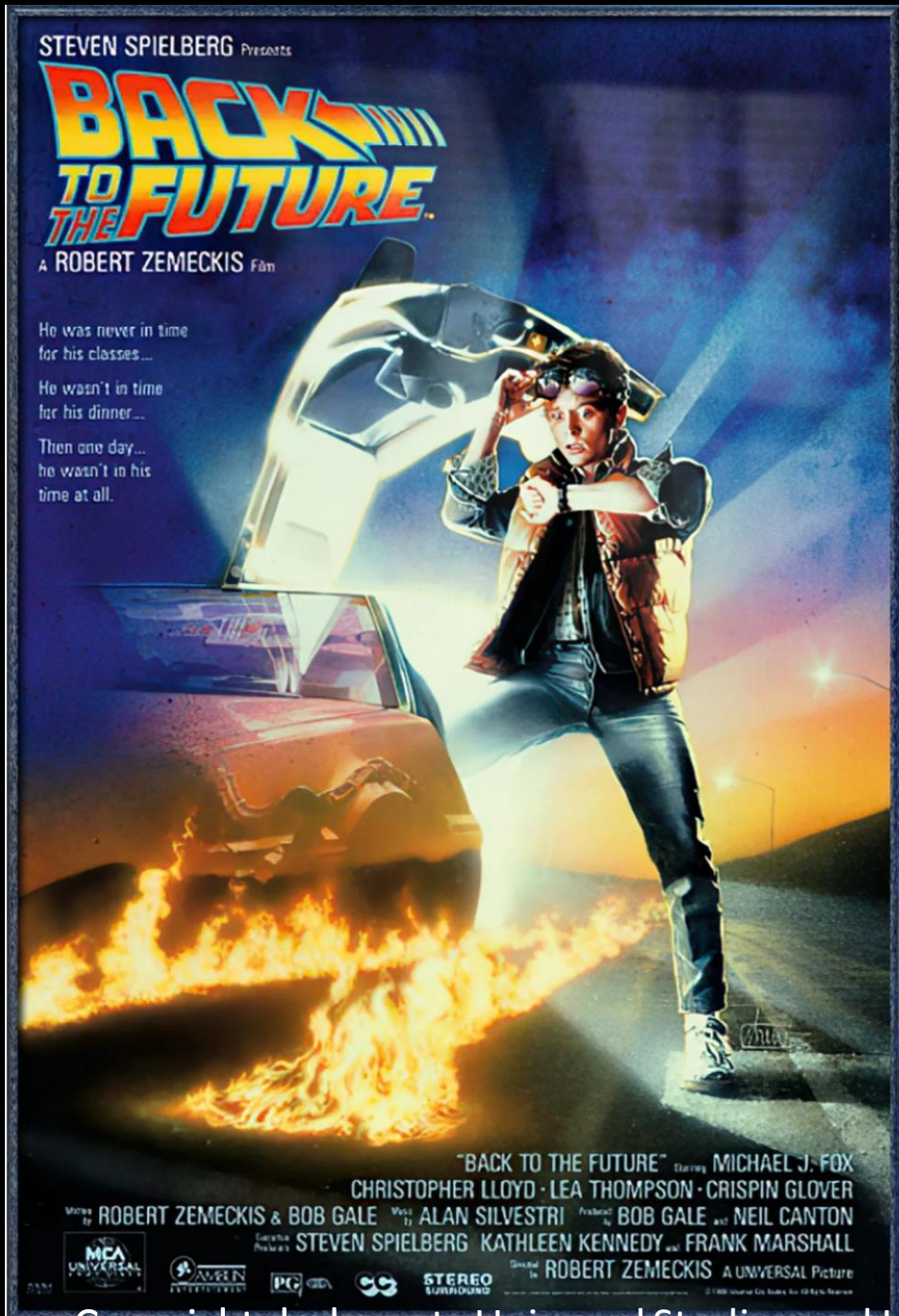


Antony Ma

Exco WTIA, CTO Hoplite Tech

22 Sept 2023





Copyrights belongs to Universal Studios and U-Drive Joint Venture, 嘉禾公司





# missing

## Missing

2023 | 13+ | 1h 50m | Thrillers

When June's mother and her new boyfriend don't return from a trip to Colombia, the tech-savvy teenager undertakes her own online investigation.



Examples are in these movie



# Open-source intelligence (OSINT)

*is the collection and analysis of data gathered from open sources (covert sources and publicly available information) to produce actionable intelligence.*

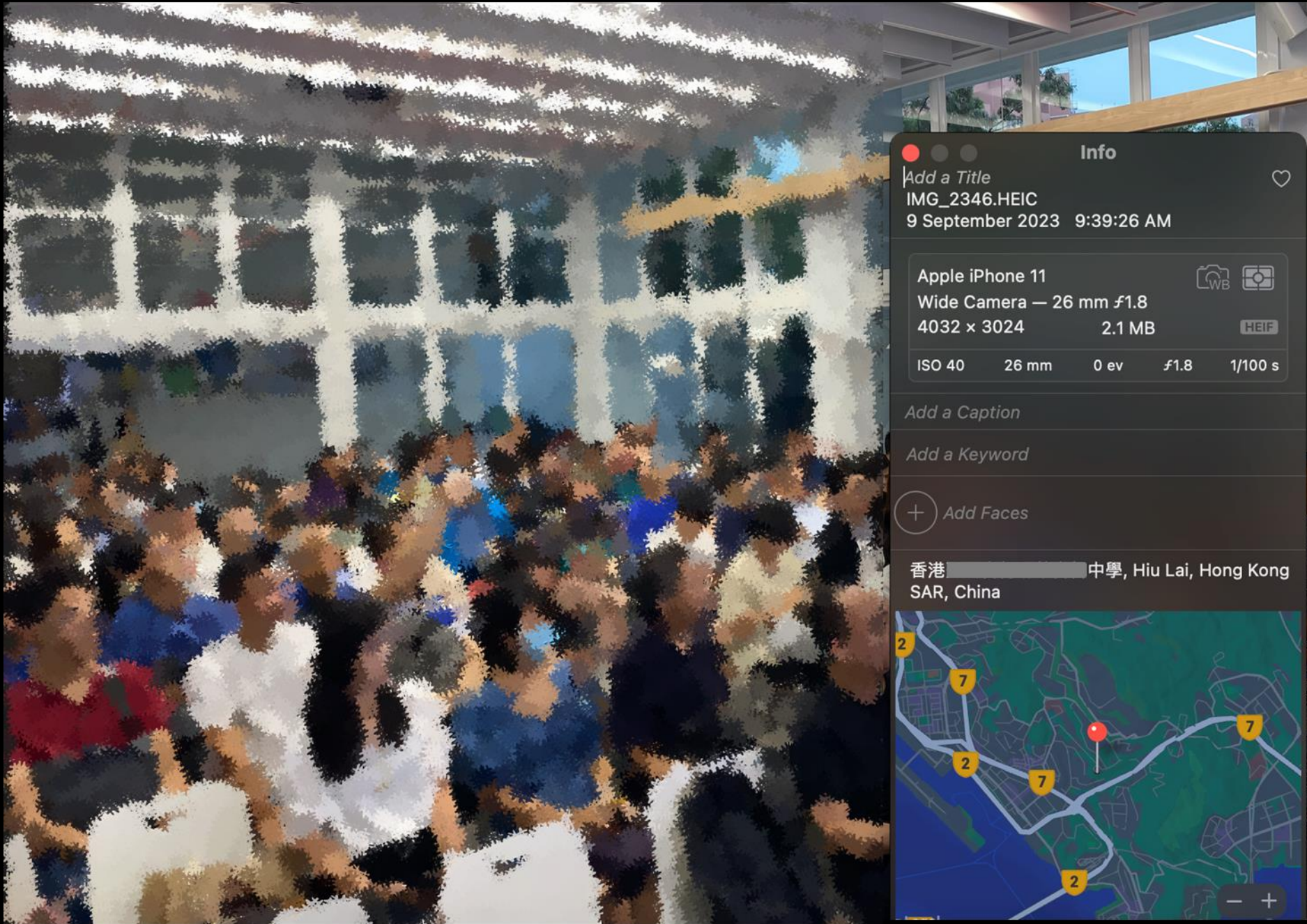
# Why is Metadata created ?

- Machine Processing, automating tasks
  - Classifications
  - Routing
- Debugging
- Statistical
  - Date Time
- Copyright



Does using  
metadata require  
consent?





**Info**

Add a Title ♡  
IMG\_2346.HEIC  
9 September 2023 9:39:26 AM

Apple iPhone 11 WB 📷  
Wide Camera — 26 mm f1.8  
4032 x 3024 2.1 MB HEIF

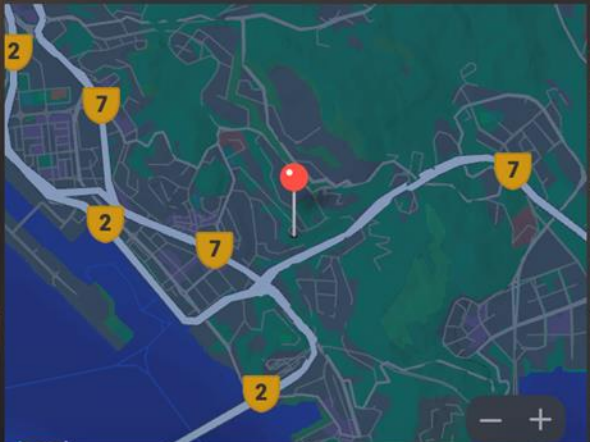
ISO 40 26 mm 0 ev f1.8 1/100 s

Add a Caption

Add a Keyword

+ Add Faces

香港 中學, Hiu Lai, Hong Kong SAR, China





# ExifTool

sudo apt-get install metagoofil

```
Activities Applications Terminal Nov 18 11:30
root@brg-udcp2: ~/metagoofil_ms
MT Preferences 2 : Gap=8 %..LimHeight=25 %..LimDepth=100 %..LimLineSpacing=100 %..NumerHeight=35 %..Denom
Depth=100 %..FractBarOver=8 %..FractBarThick=5 %..SubFractBarThick=2.5 %..FractGap=8 %..FenceOver=8 %..OperSpacing=100 %
..NonOperSpacing=100 %..CharWidth=0 %..MinGap=8 %
MT Preferences 3 : ..VertRadGap=17 %..HorizRadGap=8 %..RadWidth=100 %..EmbellGap=12.5 %..PrimeHeight=45 %
..BoxStrokeThick=5 %..StikeThruThick=5 %..MatrixLineThick=5 %..RadStrokeThick=5 %..HorizFenceGap=10 %...
root@brg-udcp2:~/metagoofil_ms# exiftool poissonrecon.pdf
ExifTool Version Number : 11.76
File Name : poissonrecon.pdf
Directory : .
File Size : 4.4 MB
File Modification Date/Time : 2019:11:18 10:53:57+00:00
File Access Date/Time : 2019:11:18 10:53:43+00:00
File Inode Change Date/Time : 2019:11:18 10:53:57+00:00
File Permissions : rw-r--r--
File Type : PDF
File Type Extension : pdf
MIME Type : application/pdf
PDF Version : 1.4
Linearized : No
Page Count : 10
Page Mode : UseNone
XMP Toolkit : Adobe XMP Core 4.0-c316 44.253921, Sun Oct 01 2006 17:14:39
Producer : Acrobat Distiller 6.0 (Windows)
Create Date : 2006:05:30 09:13:54-07:00
Creator Tool : LaTeX with hyperref package
Modify Date : 2008:10:21 11:30:49-07:00
Metadata Date : 2008:10:21 11:30:49-07:00
Document ID : uuid:b7762b40-8eac-47ab-9c26-eb4362ccea101
Instance ID : uuid:1d8e6b7d-f2f3-4323-9c99-f7577ebe5d6c
Format : application/pdf
Description : Eurographics Symposium on Geometry Processing (2006)
Title : Poisson surface reconstruction
Creator : Michael Kazhdan, Matthew Bolitho, Hugues Hoppe
Subject : Computer Graphics Forum, EUROGRAPHICS
Author : Michael Kazhdan, Matthew Bolitho, Hugues Hoppe
Keywords : "Computer Graphics Forum, EUROGRAPHICS"
Warning : [Minor] Ignored duplicate Info dictionary
root@brg-udcp2:~/metagoofil_ms#
```

[OSINT Metadata Collecting for Reconnaissance | by Miguel Sampaio da Veiga | Hacker Toolbelt | Medium](#)





# PDF File Meta Data

## Document Properties

- Description
- Security
- Fonts
- Initial View
- Custom
- Advanced

### Description

File: AP Lens user guide Win10 n Mac.pdf

Title: AP Lens user guide v2 antony

Author: Hoplite Tech

Subject:

Keywords:

Created: 10/11/22, 6:00:36 PM

Modified: 10/11/22, 6:00:36 PM

Application: PowerPoint

Additional Metadata...

### Advanced

PDF Producer: macOS Version 13.0 (Build 22A380) Quartz PDFContext

PDF Version: 1.4 (Acrobat 5.x)

Location: /Users/anma/Downloads/

File Size: 1.98 MB (2,078,244 Bytes)

Page Size: 11.69 x 8.26 in      Number of Pages: 11

Tagged PDF: No      Fast Web View: No

AP Lens user guide Win10 n Mac.pdf

Description

Advanced

- XMP Core Properties
  - xmp:CreatorTool: PowerPoint
- PDF Properties
  - pdf:Producer: macOS Version 13.0 (Build 22A380) Quartz PDFContext
- Dublin Core Properties
  - dc:creator (seq container)
    - [1]: Hoplite Tech
  - dc:title (alt container)
    - [x-default]: AP Lens user guide v2 antony

Replace... Append... Save... Delete

Cancel OK

Help

Cancel

OK







# Next step, find your answer

**ChatGPT Prompt to ask for next step :**

**for a general phone user, list the steps and tools for removing photo metadata with an objectives on protect data privacy**



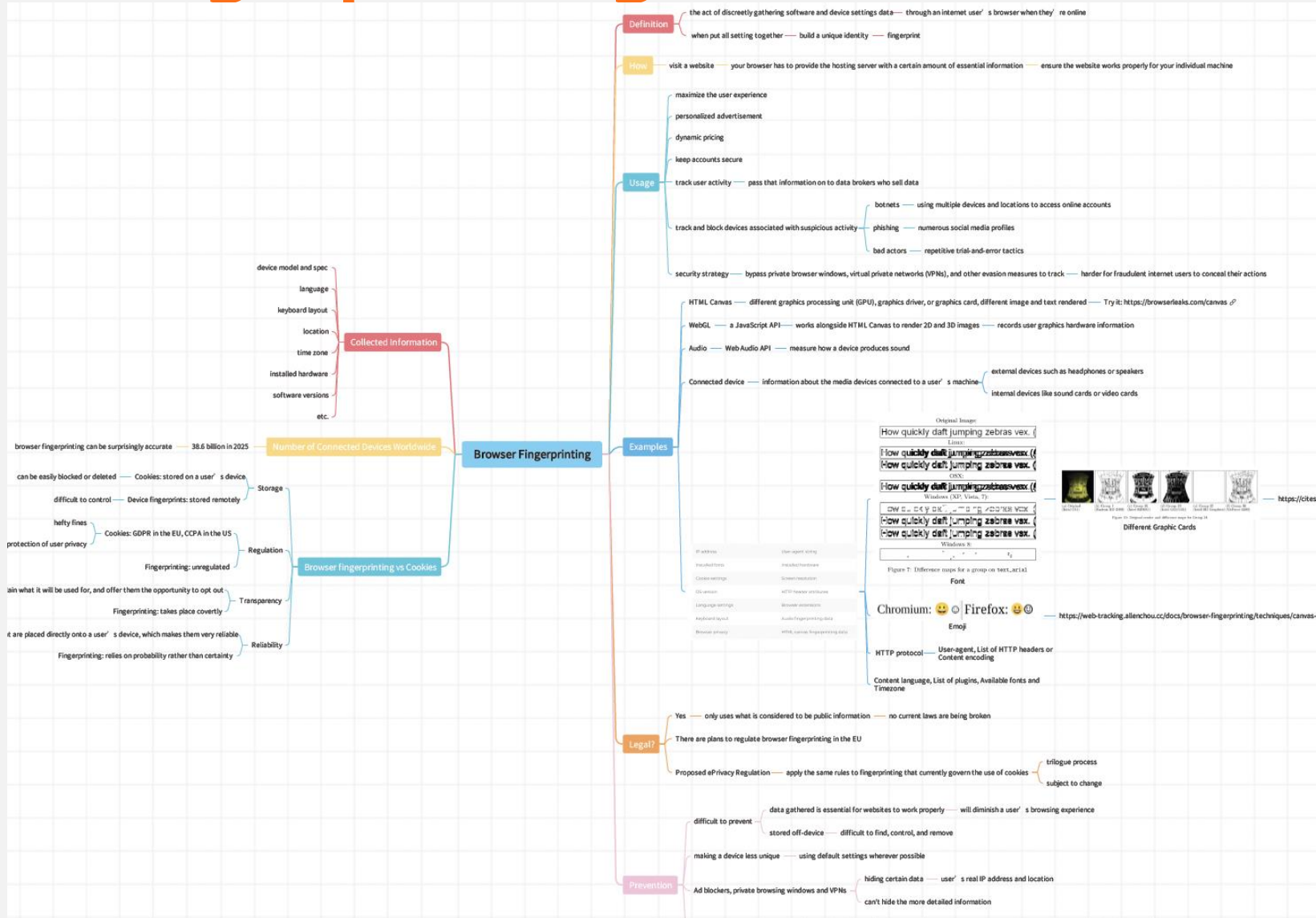


# Behavior (Dynamic) Meta Data

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# Browser Fingerprinting





## Definition

the act of discreetly gathering software and device settings data — through an internet user's browser when they're online

when put all setting together — build a unique identity — fingerprint

## How

visit a website — your browser has to provide the hosting server with a certain amount of essential information — ensure the website works properly

## Usage

maximize the user experience

personalized advertisement

dynamic pricing

keep accounts secure

track user activity — pass that information on to data brokers who sell data

track and block devices associated with suspicious activity

botnets — using multiple devices and locations to access online accounts

phishing — numerous social media profiles

bad actors — repetitive trial-and-error tactics

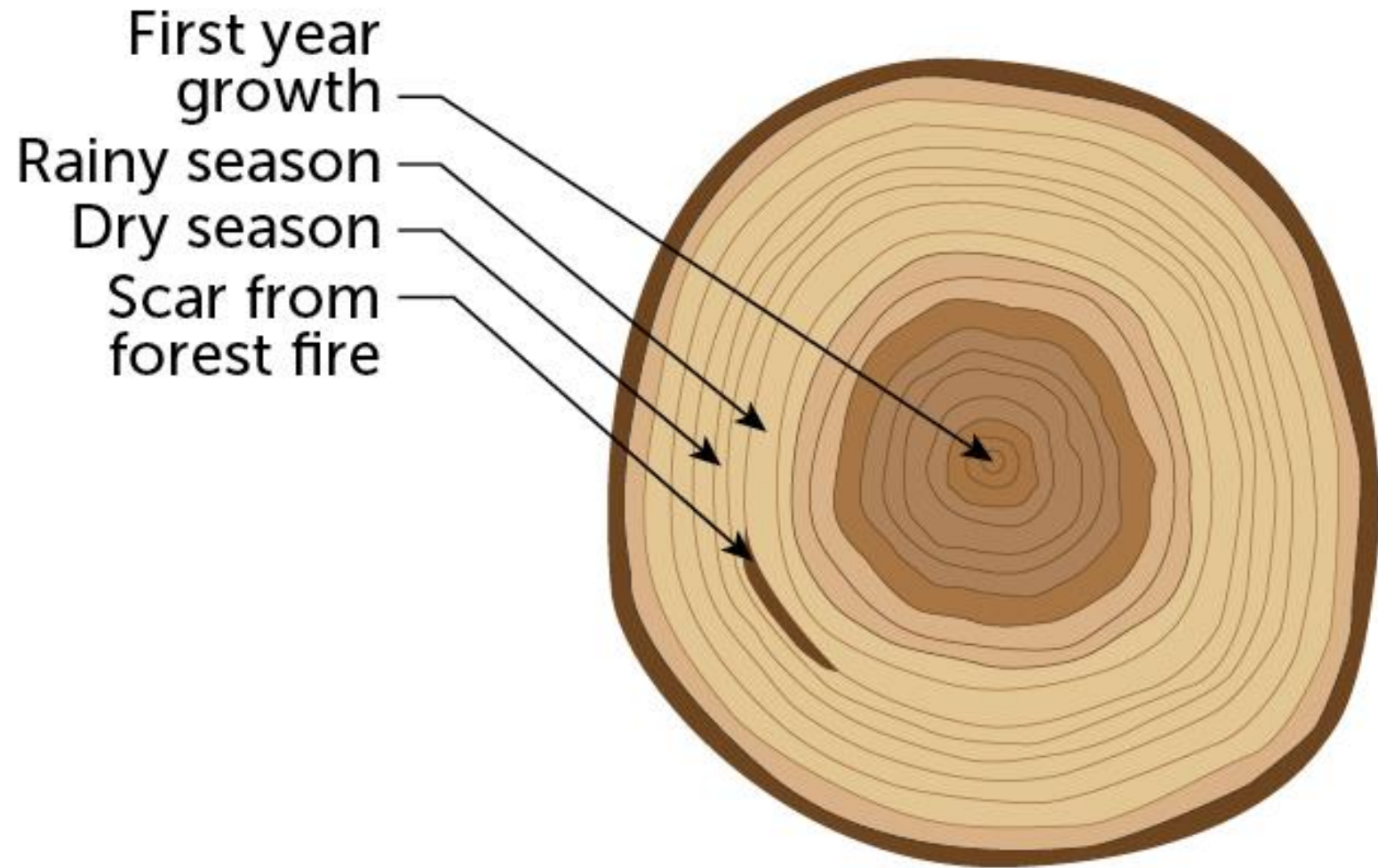
# Next step, find your answer

ChatGPT Prompt to ask for next step :

*Explain Browser Fingerprinting to a primary school student with basic knowledge of internet. Focus on data privacy protection and its implications. Provide some examples with storytelling*



# Privacy risk are accumulated



# Keep Updated

Linkedin Profile

Cybersecurity Hub

AI and Text Search Blog

<https://www.linkedin.com/in/antonyma/>

<https://www.cybersechub.hk/>

<https://aipedals.substack.com>

The image shows a screenshot of a LinkedIn profile banner for Antony Ma. The banner features a circular profile picture of Antony Ma on the left. To the right of the profile picture, the text reads "AP Lens Remote Browser" with a robot icon, "The World 1st" with a shield icon containing a checkmark, and "Whitelist Protection SaaS". Below the banner, the profile name "Antony Ma, LLM, CCSP" is displayed, followed by the bio: "Cloud Computing Architect, Cybersecurity Blue Team Leader, Experienced Compliance & Audit Professional, Tech Blogger". The bio also includes a list of hashtags: "#llms, #chatgpt, #generativeai, #cybersecurity, and #cyberinsurance". Below the bio, the location "Hong Kong, Hong Kong SAR" and a "Contact info" link are shown. At the bottom, the profile statistics "1,440 followers · 500+ connections" are displayed. On the right side of the profile, there are icons for LinkedIn and a pencil icon, and logos for "Hoplite Technology Ltd" and "The University of Hong Kong".

**Antony Ma, LLM, CCSP**  
Cloud Computing Architect, Cybersecurity Blue Team Leader,  
Experienced Compliance & Audit Professional, Tech Blogger

Talks about #llms, #chatgpt, #generativeai, #cybersecurity, and #cyberinsurance

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**1,440 followers** · **500+ connections**

**Hoplite Technology Ltd**

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# Thank you

