OSINT

Beware. Your data is out there.

0xoposec – 19/01/2023

Aviso Legal & Leis

Aviso Legal
Disclaimer - Boring but necessary

- Toda a informação contida nesta apresentação destina-se exclusivamente para **fins educacionais e de consciencialização**.
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- Esta apresentação não está relacionada com o meu trabalho ou empregador.

Aviso Legal
Disclaimer - Avoid illegal activities

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- Atividades ilegais podem implicar problemas ou mesmo prisão.
- **Verifique sempre o que é legal e as leis aplicáveis.**

Leis
Portuguese Law and Organizations

- Lei
  - Diário República Eletrónico (link)
  - ANACOM (link)
- Organizações
  - CNCS – Centro Nacional de Cibersegurança (link)
    - Incident Notification (link)
    - CERT.PT (link)
  - Unidade Nacional de Combate ao Cibercrime e à Criminalidade Tecnológica (UNC3T) (link)
  - Ministério Público (link)

OSINT Time

OSINT – Open-source intelligence Digital Footprint

- Open-source intelligence (OSINT) consiste na recolha e análise de dados obtidos de fontes disponíveis ao público em geral, como jornais, revistas científicas e comunição social para produzir informação inteligente.

- Colecionar dados de:
  - motores de busca (Google, …)
  - redes sociais (Facebook, …)
  - sites governamentais
  - mapas
  - …
- E depois extrair/relacionar/inferir nova informação com maior valor/potencial.

Who Am I
Let's OSINT me ☺

- Just got a name
  - Pedro António Oliveira Vieira
- Google (link) ➡
- Google "Improved Search" (link) ➡
- Google "Improved Search" (link) ➡
- LinkedIn (link) ➡
  - Public profile was showing way too much

- Certified **Ethical** Hacker (link) ➡

- My github notes (link) ➡

Search Engines
Internet is more than Google

- Motores de busca diferentes → regras/crawlers diferentes → resultados diferentes

- Google (link)
- Bing (link)
- Yahoo (link)
- DuckDuckGo (link)
- Baidu (China) (link)
- Yandex (Russia) (link)

- You may ask to be removed from one search engine, not all ☹ (link)

Search operators
Improve the search

- Google Advanced Search (link) ➡

- **filetype**: search your results based on the file extension
- **cache**: This operator allows you to view cached version of the web page.
- **allinurl**: This operator restricts results to pages containing all the query terms specified in the URL.
- **inurl**: This operator restricts the results to pages containing the word specified in the URL
- **allintitle**: This operator restricts results to pages containing all the query terms specified in the title.
- **link**: This operator searches websites or pages that contain links to the specified website or page.
- **info**: This operator finds information for the specified web page.
- **location**: This operator finds information for a specific location.

- **42 Advanced Operators** (link)

Search
Dork Examples – Curriculum Vitae

- Google Search (link)
- Google Search - List site/directories contents (link)
- “curriculum vitae” filetype:pdf inurl:upload
  - “curriculum vitae” – keywords to look for
  - filetype:pdf - only pdf files
  - inurl:upload
- Available information on **pay slips** “recibo de vencimento” (link)
  - Full name, address, nif, nib, marital status, number of children, …

Search
Dork Examples - Hacked

- Google Search (link) ➡

- “hacked by” **site**:pt
  - “hacked by” - keyword to look for
  - site:pt - only “portuguese” sites (registered portuguese domains)

- About 13.400 results
  - Sites / pages that were “tagged”/”signed”
  - Attack and contents changed to show off skills (mainly kids) – compared to street tagging

Google Dorks
Commonly used searches

- Google Hacking Database (link) ➡
- gbhackers (link)
- google-dork-list (link)
- Google Advanced Operators Guide (link)
- Google Advanced Operators Reference (link)

OSINTing

OSINT yourself
How the internet sees YOU

- Search your name on Google and analyze the results
  - As you saw the search can be improved
- Some results can/will include:
  - Family and Friends
  - Work
  - School grades
  - BI - Identity Card Number (yes)
  - NIF – Tax Identification Number
- That is typically information to **verify your identity** over a phone call.

OSINT
Portugal – Vehicle Information

- Automóvel On-line (link)
- Certidão Permanente Automóvel (link)
  - License Plate : “89-QS-04” (link)
  - Result
    - Brand: MERCEDES-BENZ
    - VIN: WDD2221631A248762
  - Example (link)
- Vehicle Information (link)
  - Example (link)
  - Information: Brand, Model, Location, Paint, Delivery Date, Extras, …
- Hack across the globe by VIN (link)

OSINT
Portugal –Insurance Information

- ASF – Autoridade de Supervisão de Seguros e Fundos de Pensões (link)
  - Example (link)
    - License Plate : “01-EF-34”
    - Date : “03-07-2022”
  - Example 2 (link)
    - License Plate : “01-EF-34”
    - Date : “03-07-2012”
- Insurance Company
  - Current and Past
  - Length of the contract
  - Insurance policy number
  - Is it possible to get information for all license plates ????

OSINT
Portugal Specific

- DGES - Direção-Geral de Ensino Superior (link) (link)
- DGAE - Direção – Geral da Administração Escolar (link)

- DRE - Diário da República (link)
  - Search DRE (link)

- Ministério da Justiça – Publicações (link)

- Instituto Nacional da Propriedade Industrial (link)

OSINT
Portugal Specific

- Registo Predial Online (link)
- Finanças - Penhorados (link)
  - Example (link)
  - Search Penhorados – (link)
- Ministério da Justiça - Penhorados (link)
- Plataforma Eletrónica de Compras (Administração Pública) (link)
- Leaked information:
  - Full Names, Addresses, NIF, Company, Marital Status, …

OSINT
Portugal – Public contracts

- Base (link)
  - The example (link)
- PDF of contract with PII strikethrough (link)
  - Open with pdf reader and delete the strikethrough boxes
  - Name of employee who edited the document
    - Information on UA, LinkedIn, Facebook, …
  - Metadata: “KONICA MINOLTA bizhub C454”
- Information leaked
  - Full Names, nif, addresses

Deadly Social Media
The Final Hours of Pop Smoke

- Rapper Pop Smoke Murdered in Home Invasion … By 4 Masked Gunmen (link)
- Instagram Posts
  - Location Tag
- Geolocation
  - Reverse Image
- Google Maps
  - Local Recon
- Airbnb/Zillow (Rent/Real-estate)
  - House photos (Outside and Inside)
  - Layout

- YouTube Video: The Cyber Mentor (link)

OSINT
Profiling Awareness

- Mobile (how long have you been using the same number)
  - Sync me (link)
- Usernames (you reuse usernames)
  - NameChk (link)
  - WhatsMyName (link)
  - NameCheckup (link)
- Tinder
  - Username reuse (link)
- New awesome tools are always being created

OSINT
Profiling Awareness

- What's my IP? (link)
- Ip2Location (link)
- Mylocation (link)
- Twitter
  - Twitter Advanced Search (link)
- Facebook
  - StalkFace (link)
  - Sowdust Github (link)
  - IntelligenceX Facebook Search (link)

OSINT
Profiling - Professional

- LinkedIn (link)
- Xing (link)

- Curriculum Vitae
  - Sending CV with too much information – what is too much ☺
    - Home address – Street View

- Company Information
  - Technologies described in job adds (leaking information)

- Professional information phishing
  - Fake job adds (Is this a thing?)

OSINT
(Reverse) Image search

- One image is worth 1000 words, maybe more.
  - What information can be extracted from a photo ?

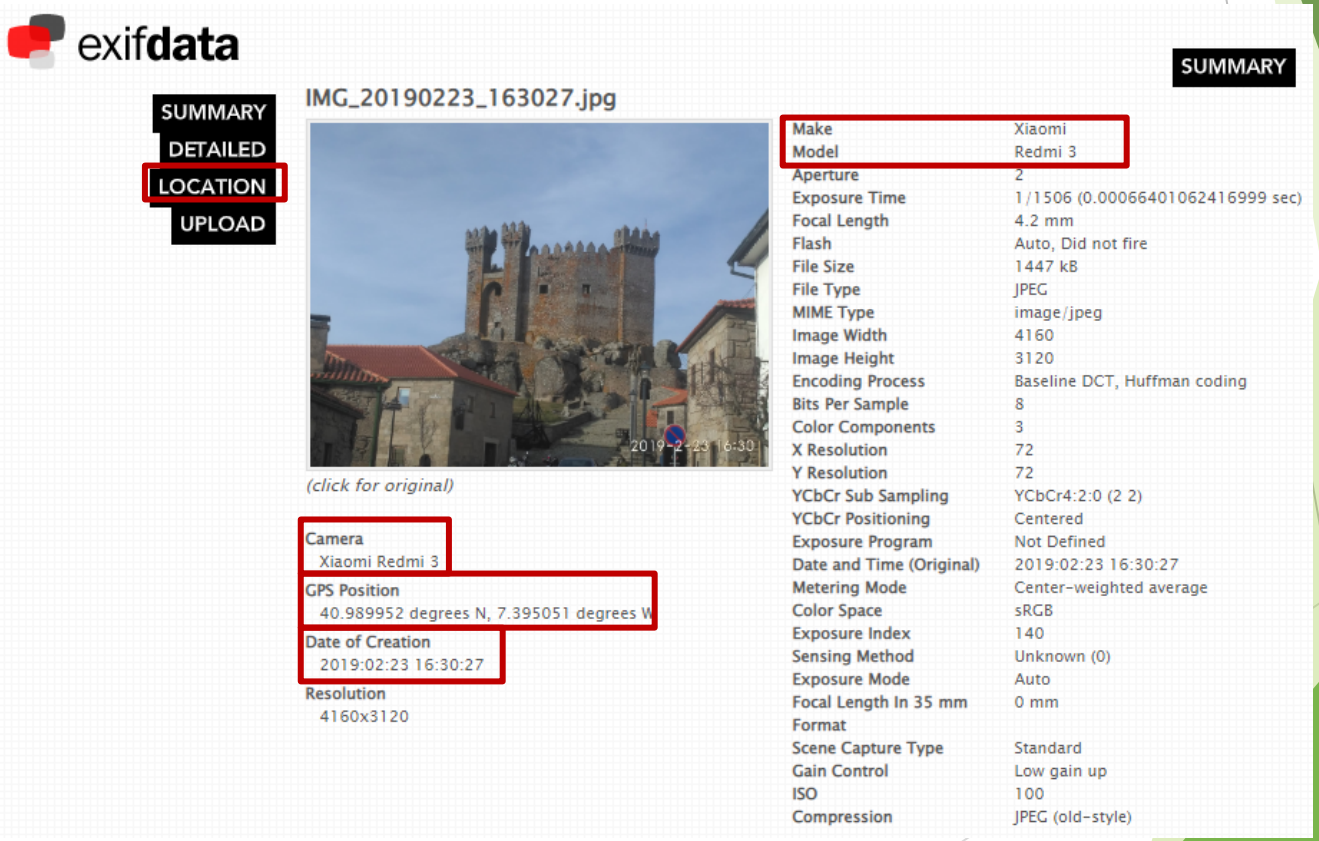
- Google Images (link)
- Bing Images (link)
- Yahoo Images (link)
- Tineye (link)

- Yandex (link)

- The professionals (video explaining) (link)

OSINT - Photos Metadata

- Metadata
- GPS (link)
- Google Maps (link)



OSINT - Photos
No Metadata but still lots of Information

- Where was this image taken?
  - Have you been there?
- When?
  - Date stamp on photo
  - Filename with date
  - Metadata
- What else?
- Image search
  - Identify the castle? ➡

- CleanUp (link) ➡
- AperiSolve (link) ➡

OSINT
Street View

- Google Street View (link)
  - Identify house by address
  - Assess security (cameras, fences, …)
  - Parked cars (timeline, …)
  - People's habits/routines, timetables, …
- View the past – timeline (link)
- Instant Street View (link)

OSINT Maps

- Google Maps (link)
- Bing Maps (link)
- Wikimapia (link)

- DualMaps (link) ⇨

- Tips, Tricks and Techniques (link)

Search
Satellite View

- Zoom Earth (link)
- Satellites Pro (link)
- World Imagery (link)
  - Wayback (link)
  - Wayback example (link) ➡

- View the past - timeline

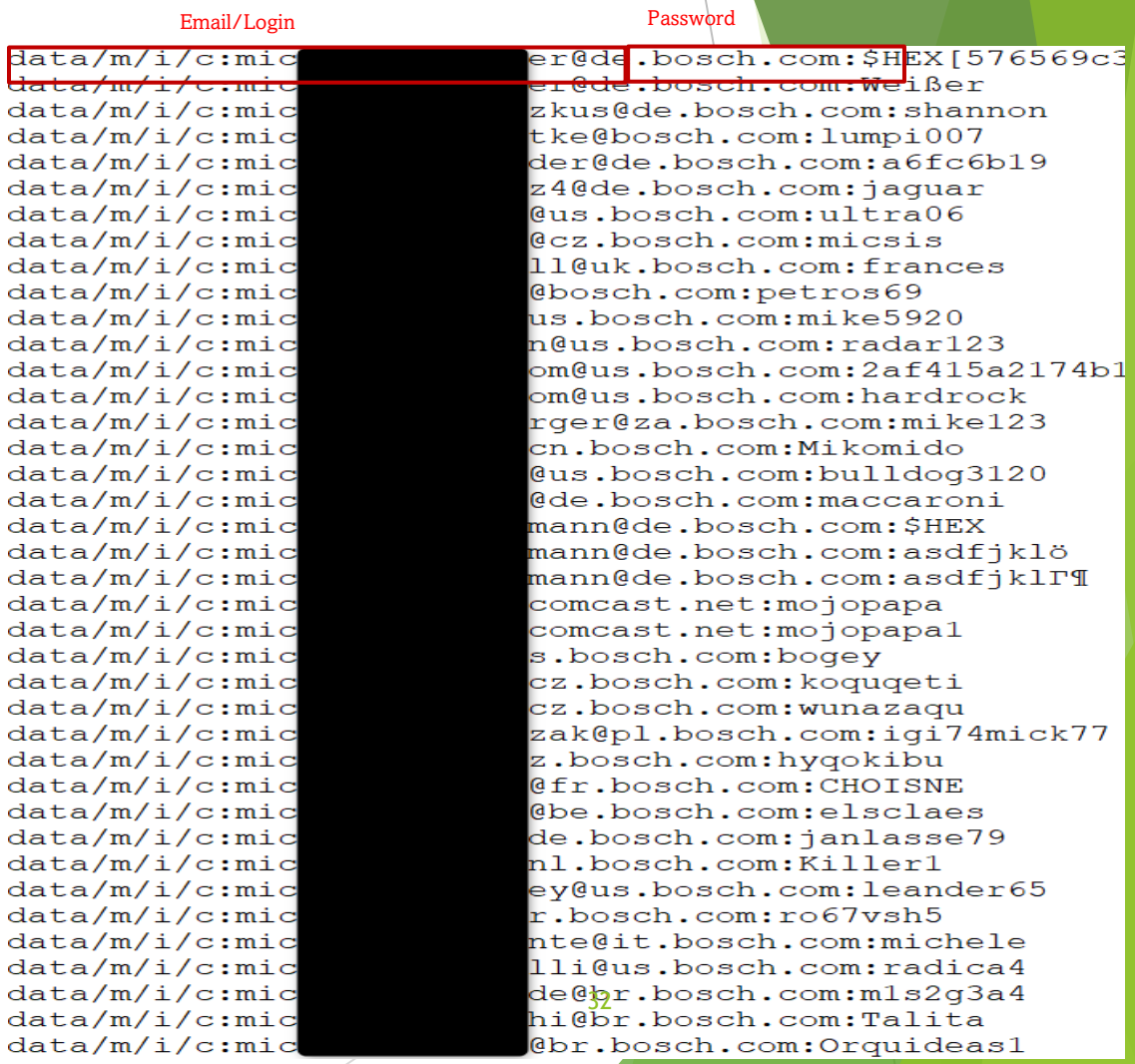
OSINT MEMORY
Internet in the past

- Wayback Machine (link)
  - Example (link) 
- Archive.is (link)
- Cached Pages (link)
- Cached View (link)
- OldWeb.Today (link)
- Time Travel (link)

- Github commits ☺

Databreach
Company credentials ?

- Source
  - Publicly available list of credentials
  - More than 10k credentials just for Bosch
- Information gathered
  - Rule of email/login
    - (FirstName.LastName)@(Country).(company).com
  - Rule of password complexity
  - List of users
    - Phishing campaigns
    - Brute force
    - Look for those users on Social Media
- HaveIBeenPwned (link)



OSINT IOT
Internet of Things

- Does it have radio?
  - Wireless, Bluetooth, ZigBee, …
- Federal Communications Commission (link)
  - FCCID.IO (link)
  - ZDER3 (internal)
- Datasheets
  - Datasheets (link)
  - AllDatasheet (link)

Before you start OSINTing

Don’t get under the spotlight.

OSINT Notes
My notes and some links

- My OSINT notes (link) ⇨
  - OSINT (Presentation)
  - Awareness (Presentation)
- Sofia Santos - How to do a small OSINT investigation (blog) (video)
- Michael Bazzel – IntelTechniques (link) (book) (magazine)
- OSINT Combine (link) (bookmarks)
- OSINT Dojo (link)
- OSINTCurio.us (link)
- OSINT Techniques (link)
- Start.me pages (link) (example) ⇨
- Technisette (link)
- Open Source Intelligence Tools and Resources Handbook 2020 (link)

CTF
Capture The Flag & Challenges

- TraceLabs CTF (link) (notes)
- Hacktoria (link) (notes)
- Cyber Detective CTF (link)
- Cyber Investigator CTF (link)
- TryHackMe (link)
  - Search for OSINT (link) (notes)
- Blue Team Labs Online - Cyber Range (link)

OSINT
Sock Puppets

- Name Generator (link) 
- Photo - thispersondoesnotexist (link)
- Sim Card - Local / Country / Electronic
- Credit Card - Privacy.com (link)
- VPN - usefull to be some where else
- Email account
- Social Media accounts
- Sock Puppets Tutorials
  - The Art Of The Sock (link)
  - My Process for Setting up Anonymous Sock Puppet Accounts (link)

OSINT
Tools & more tools

- OSINT FRAMEWORK (link)
  - Yups, only one link is all it takes. But others worth mentioning.

- OSINT4ALL (link)
- Intel Techniques (link)
- OSINT Techniques (link)
- Technisette (link)
- Cyber Detective (link)
- OSINT Link (link)
- Aware Online (link)

OSINT
Virtual Machines

- Trace Labs VM (link)
- Mandiant – Threat Pursiut VM (link)
- CSI Linux (link)

- Tails (link)
- Kali (link)
- Parrot (link)
- Windows (link)

Free to Share

License

- Feel free to use/modify/share
- Teach someone
- Improve awareness