Final Year Dissertation

Comparing Internet Censorship in Ireland vs Israel

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01 Internet Censorship Introduction

`<p>` The practice of restricting the publication or access of information online `</p>`

Research **Motivation**

User Perspective

- Awareness

- Digital Rights

- Corporate trends

- Governmental trust

Government Perspective

- Rising censorship

- New frontier

- Legislation

- Digital Diplomacy

The Internet Misconceptions

"The Internet is not a public sphere. It is a private sphere that tolerates public speech." ~ Clay Shirky

Operation

- Transparent

- Decentralised

- Meritocracy

Content

- Unmanipulated

- Permanent

- Unbiased

02 Internet Censorship Mechanisms

`<p>` How is internet censorship conducted? `</p>`

Internet Censorship Mechanisms

1. Application Layer (5)

DNS Filtering
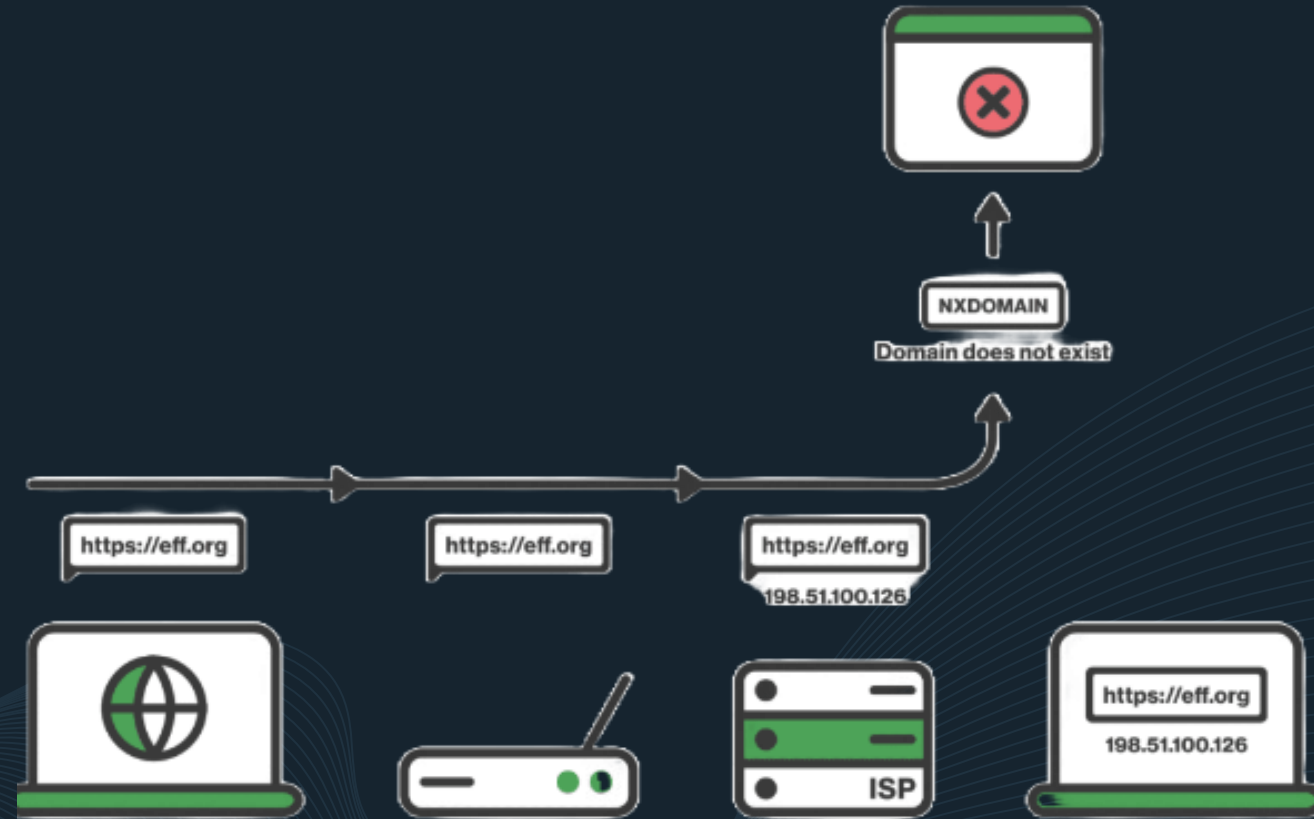
Keyword Filtering

2. Network Layer (3)

IP Blocking

3. Non-Specific

Deep Packet Inspection

Points of Control

Internet censorship occurs at various levels of the OSI model

03 Measuring Censorship
Methodology

`<p>` How the research is and will be conducted `</p>`

Measuring Censorship **Methodology**

```html
<p> OONI Probe </p>
```

A free software project released under TOR
Uncovers censorship around the world

```html
<p> Virtual Machine </p>
```

A virtual machine will be used to run OONI CLI
Provider: Interhost.co.il

```html
<p> Data Analysis and Comparison </p>
```

Use ground truth to prove/ disprove notions about both locales

OONI | Explorer   Findings

January 26, 2025 at 7:42:11 PM UTC

! Anomaly

https://aljazeera.com/

DNS tampering

Israel

AS1680 Cellcom Fixed Line Communication L.P

04 **Results**
Ireland vs Israel

`<p>` Discussing the contrast between the States' approach `</p>`

Results Ireland vs Israel

Ireland

- Reactive

- Illegality

- Non-political

- Judicial process

- Regulated by the EU

Israel

- Proactive

- National Security; military lead

- Political

- Targeted, (Al Jazeera)

- Arguably authoritarian, surveillance

05 Ongoing Research

`<p>` An outline of the work to come before April `</p>`

Ongoing **Research**

- Quantify censorship conducted by both governments

- Comparison of research to date vs ground truth

- Comparison of Ireland & Israel

- Contribute to the OONI probe:

  - Additional tests

  - Solve some GitHub issue

ooni / probe

Type / to search

<> Code ⊙ Issues 453 ⇅ Pull requests ⊙ Actions ▦ Projects 📖 Wiki 🛡 Security 📈 Insights

probe-engine: investigate using a stronger random generator to comply with gosec #2789

⊙ Open

DecFox opened on Aug 7, 2024 · edited by DecFox   Edits ···

Assignees

DecFox

Challenges

- Sources in Hebrew

- Dated research

- Cross validation of OONI

- Contribute to the OONI probe:

  - Additional tests

  - Solve some GitHub issue

THANK YOU!

Do you have any questions?

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