

Censorship and Internet Engineering

Iain R. Learmonth
<irl@fsfe.org>
0x56FF9EA4E9846C49

University of Aberdeen / Open Rights Group

Day 3 / Lightning Talks

Hello


- University of Aberdeen's Electronics Research Group
 - <http://www.erg.abdn.ac.uk/>
- Open Rights Group
 - <https://www.openrightsgroup.org/>

Internet Measurements

- Measuring deployments
- Testing for path brokenness
- Real world environment

Enter Censorship

- The UK government has pressured ISPs to filter traffic to prevent children and young people from seeing content that is deemed unsuitable
- Results from blocked.org.uk (Top 100,000 websites¹):
 - TalkTalk Strict: 12982 blocked (13%)
 - Sky: 7006 blocked (7%)
 - TalkTalk Kidsafe: 5587 blocked (6%)
 - Virgin Media: 4320 blocked (4%)

¹From the Alexa top 1 million websites, about 6 months ago 

The Lists

- Each ISP uses a different block list
- Each ISP may even have many different block lists
- The lists are not publicly available
- The lists may not even be available to the ISPs

The image shows three side-by-side settings panels from a web interface. Each panel has a title in pink, a list of two options with radio buttons, and a blue 'Edit settings' link at the bottom.

- Kids Safe**
 - ☒ OFF: No website restrictions
 - ☐ ON: Help protect your kids from inappropriate websites
 - [Edit settings](#)
- Homework Time**
 - ☒ OFF: No website restrictions
 - ☐ ON: Set a time limit to block social networking and gaming websites
 - 4:30 pm to 6:00 pm**
Monday to Sunday
 - [Edit settings](#)
- Virus Alert**
 - ☒ OFF: No website restrictions
 - ☐ ON: Block websites infected with viruses

The Blocking

- Each ISP has a different way of dealing with requests for blocked content
- blocked.org.uk has complex rulesets for detecting blocked requests
- The blocks are not predictable
- Ideally, blocked.org.uk shouldn't exist

```
28         "isp": "BT",
29         "match": [
30             "re:url:^(http://blockpage\\.bt\\.com/pcstaticpage/blocked\\.html",
31             "re:url:^(http://www\\.ukispcourtoorders\\.co\\.uk/",
32                 "re:body:^(<p> Error \\- site blocked </p>",
33                 "re:body:^(<p> Error .*? site blocked</p>"
34         ],
35         "blocktype": [
36             "PARENTAL",
37             "COPYRIGHT",
38             "COPYRIGHT",
39             "COPYRIGHT"
40         ],
```

Bad Science

- It's not possible to know easily when your experiment has been hijacked
- You end up measuring the ISP's filtering system and not the hosts you're really interested in

Solutions

HTTP 451 Unavailable For Legal Reasons

- draft-tbray-http-legally-restricted-status-05
- A new HTTP status code "for use when resource access is denied as a consequence of legal demands."
- Machine readable transparency



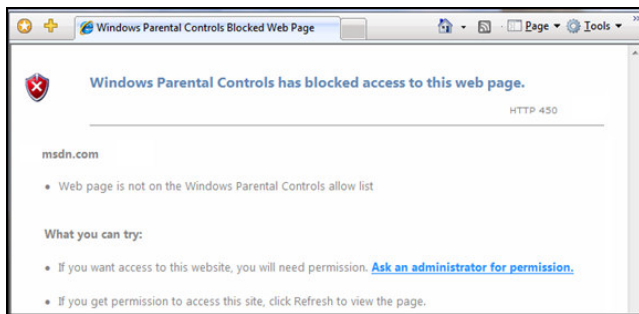
Что делать дальше?

- Перейти на [главную](#)
- Почитать [Справку](#)

Solutions

HTTP 450 Blocked by Windows Parental Controls

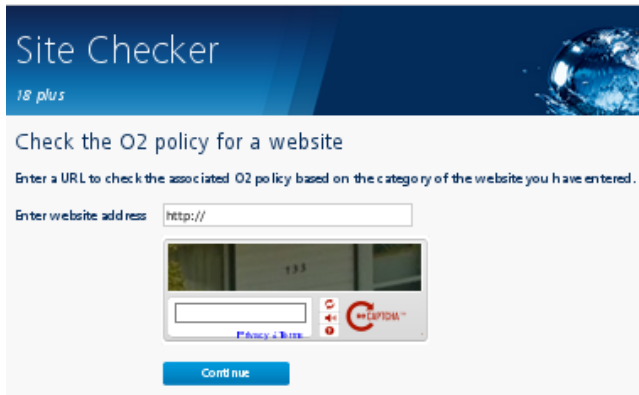
- Used by Microsoft
- Can be generalised to cover all parental controls and age restricted content filters



Solutions

More Transparency

- Online lookup tools



The screenshot shows the 'Site Checker 18 plus' web application. The header has a blue gradient with a globe image on the right. Below the header, the text 'Check the O2 policy for a website' is displayed. A subtext reads: 'Enter a URL to check the associated O2 policy based on the category of the website you have entered.' There is a text input field labeled 'Enter website address' containing 'http://'. Below this is a video player showing a blurred image of a building. Under the video is a search bar, a 'Privacy & Terms' link, and a 'Continue' button. A small 'weCAPTCHA' logo is visible on the right side of the video player area.

Thanks

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<http://www.erg.abdn.ac.uk/>
<http://www.openrightsgroup.org/>
<http://www.blocked.org.uk/>
<http://www.451unavailable.org/>