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Technology Backdrop

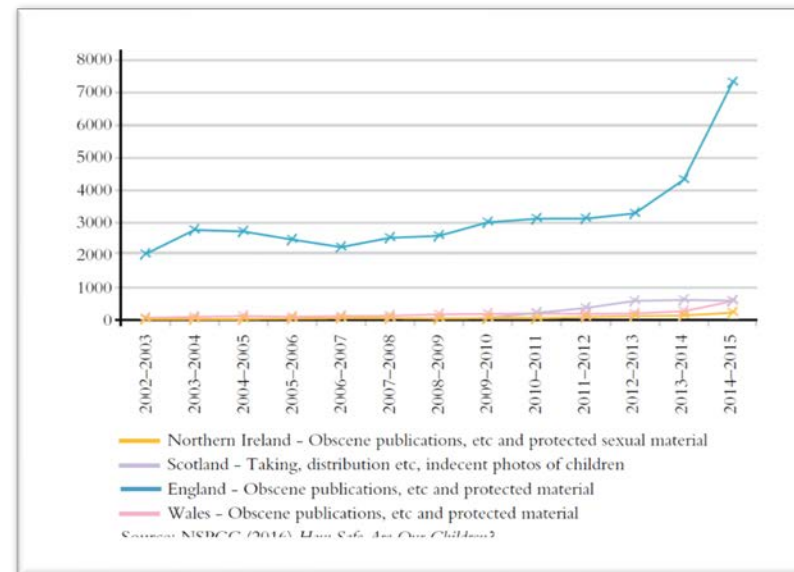
- Desktop, Internet, Mobile, Big Data, Ai
- 50 Billion connected devices predicted.
- Security, content explosion.
- Mass processing
- Importance of dense processing to achieve efficiency.

Why Hail-O

- World Wide Problem amplified by technology – IIOC
- Indecent Images of Children
- Volume crime impacting society
- Hail-O Initiative

What's the problem?

1. Technology makes it easier to carry out the crime.
2. Massive backlogs exist within UK Police Forces.
3. Humans are fallible.
4. The crime is not decreasing.
5. Current methods are failing.
6. Re-victimization.



Modelling what you can't see

1. The images themselves.
2. Dealing with ambiguity.
3. The Hail-O team
4. First run pain points
 - Overzealous belief in our results.
 - Dataset size.
5. Doubling up on DGX servers
 - 1 server working on the internet
 - 1 server working on indecent images

What we get for the work

1. Working model.
2. Human vs Hail-O.
 - Speed
 - Consistency
 - Reduces psychological damage
 - Humans costs more than Hail-O
3. Solution for victim identification.
4. Repurpose skilled resource.
5. Upstream impact.

Closing thoughts

1. Hail-O wants to improve society
2. Focus the resource in the right place



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Any questions?

The parties involved in Project Hail-O

- Scan Computers International
- Lemberger & Associates Limited
- Hargs Solutions (Dr. Chris Hargreaves)
- IntaForensics
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 - Nvidia (Donya Briggs, Carlo Ruiz)
 - Dr. Soumik Gosh
 - Nicola Clayton
 - Brendan MacGregor
 - Ian Meek

Citations

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<https://www.nspcc.org.uk/globalassets/documents/research-reports/online-child-sexual-abuse-images.pdf>

- Gallagher, P. (2016) Number of people accessing child abuse images feared to have doubled in three years: iNews

<https://inews.co.uk/news/health/thousands-seek-help-child-abuse-images-online/>