The Security-Privacy tension: recent developments in the U.K. and elsewhere

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Overall Thesis

- When it comes to security/privacy, there is no "specification"
- It is useless to look to "public opinion" for a requirements analysis
- There is actually no requirement on "public policy" to be consistent

Furthermore, these problems are not limited to "computing": it's just that computing has made them more obvious.

Where I am coming from

I am fundamentally a mathematician/computer scientist:

- a member of both departments at Bath;
- Chartered Fellow of, and accredit degrees for, both the Institute of Mathematics and its Applications and the British Computer Society
- represent the IMA on the London Mathematical Society (i.e. pure maths) Computer Science Committee

I naturally live in a world of specifications and logic But I've recently been writing policy statements for the BCS (as a member of its Security Community of Expertise) Views today are personal!

Also, this is not an attack on particular politicians If anything, it's an attack on the process

A word about "Snowden" (1)

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Press Coverage has been very mixed
(sometimes within the same paper)
        UK<sub>1</sub> "courageous whistleblower" (Guardian)
        UK<sub>2</sub> "despicable traitor" (Telegraph)
        UK<sub>3</sub> a small comment on page 19 (Sun)
        US<sub>1</sub> "courageous whistleblower" (NY Times)
        US<sub>2</sub> Apparently ignored by many "serious" papers
     Canada Largely ignored/"well, the US would do that,
              wouldn't thev"
   Germany "How dare they spy on us"
     Ireland "How dare they not spy on us"
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A word about "Snowden" (2)

Much of the commentary has confused (probably through ignorance, not least Snowden's own ignorance)

- Discussions on internal blogs with policy decisions
- i.e. "could we" with "we will"

and "we will" with "we have"

- Capability with (legal) use with (illegal) use
- Logging with mining the logs

and legal mining with illegal mining

We believe that police won't break down doors without warrants, but don't have the same belief electronically

"Logging versus mining the logs" is hard

"We are therefore examining the complex interaction between the Intelligence Services Act, the Human Rights Act and the Regulation of Investigatory Powers Act, and the policies and procedures that underpin them, further." [Intelligence and Security Committee of Parliament, July 17 2013]

Anglo-EU Translation Guide

What the British say	What the British mean	What others understand
I hear what you say	I disagree and do not want to discuss it further	He accepts my point of view
With the greatest respect	I think you are an idiot	He is listening to me
That's not bad	That's good	That's poor
That is a very brave proposal	You are insane	He thinks I have courage
Quite good	A bit disappointing	Quite good
I would suggest	Do it or be prepared to justify yourself	Think about the idea, but do what you like
Oh, incidentally/ by the	The primary purpose of	That is not very important

our discussion is...

way

"Logging versus mining the logs" is hard

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[Intelligence and Security Committee of Parliament, July 17 2013]

My translation

"We are pretty sure the laws are contradictory, and we're not sure the policies fix this"

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My translation

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My simplified translation

"It's a mess"

UK Prime Minister 22 July 2013 [Cam13]

- "I want to talk about the internet ..., how online pornography is corroding childhood, and how, in the darkest corners of the internet, there are things going on that are a direct danger to our children and must be stamped out"
- "But in no other market and with no other industry do we have such an extraordinarily light touch when it comes to protecting our children"
- "[the database] will enable the industry to use digitalhash tags
 ... to proactively scan for, block and take down those images wherever they occur"

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arguable/see later/probably illegal (and certainly unwise) But caused much (largely positive) press coverage and provoked a parliamentary enquiry (CMS = Culture, Media & Sport)
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CMS question

- Q "How best to protect minors from accessing adult content
- BCS "There is no known technology which will determine if a computer, or other device, is being used by a minor"
- BCS "there is no international agreement about what constitutes 'adult' content"
 - The proportion of the Internet which has been formally rated is vanishingly small, and is not the problem anyway.
- BCS A particularly worrying development is the prevalence of truly home produced material by apparent minors. In one four-week period, the IWF had 12,224 such images reported.

What has happened (in the UK)

- Under such pressure, BT and other ISPs have introduced "parental controls" by default
- (which are actually the parent buying someone else's controls)
- Or in the case of BT re-introduced a product it had withdrawn four years previously for lack of customers

and lack of Government support against legal threats



"filters can be a helpful tool in reducing the chances of coming across something upsetting"



"remember that filtering is only part of the solution" [UK SIC]

"At a public swimming pool we have gates, put up signs, have lifeguards and shallow ends, but we also teach children how to swim"

BCS "and we help parents to teach children to swim, and we teach parents to be lifeguards"

BCS: blacklisting is not free (probably still good, but ...)

It has both financial and non-financial costs:

- The ISPs need to install and operate substantially more powerful equipment to do filtering than is needed to pass through requests unexamined;
- The ISPs, very largely, fund the IWF;
- There is a risk of error and "false positives": one such prevented edits to the whole of Wikipedia;
- It is difficult to get right: the Irish study of filtering in schools; showed that 50% of schools reported that filtering occasionally blocked valid educational sites, with a further 20% reporting that it regularly did so;
- Filtering encourages the use of bypasses.

UK society is (currently) willing to bear these costs

Facebook worldwide

In October 2013, Facebook changed the settings for those users it knew to be under 18 (not the same as being under-18)

default became "friends" rather than "friends&friends2": +

but they were now allowed to post publically. -

The reason for this, according to Facebook, was "user demand" But pubs can't sell alcohol to under-18s citing "user demand"! See "such an extraordinarily light touch when it comes to protecting our children" (UK PM)

- BCS "Although many young people are tech savvy, they are not as savvy when it comes to information sharing and the long-term consequences it can have"
- 88% of the 12224 "naughty selfies" by miors were on third-party "paratsite" sites

Other people also get it wrong

In Oct 2013 International Telecommunication Union (who ought to know better) and UNICEF launched draft Guidelines for Industry on Child Online Protection [Int13]

- confused ISPs and content providers (apparently on the grounds that some firms did both)
- many of their recommendations were therefore illegal (at least in the EU)
- The EU eCommerce directive means that trying to protect, and occasionally failing, is much worse than not trying

But ITU/UNICEF ignores the fact that legislation makes the rules

It's not just the Internet

2005 A flurry of stories about photograph developers reporting parents over image of their children

Have parents stopped photographing their children?

No: they use digital cameras!

Monday "Father hid camera to catch e-lover hitting daughter" [The14]

She was sentenced to supervision and 180 hours community labour

He certainly violated her privacy, but there's no mention of this!

The non-digital society is pragmatic ("the end justifies the means"), but alas computers don't do pragmatism, not does legislation, which is basically algorithmic

Conclusions (?)

- Society is used to "muddling through" in these areas,
- Society holds mutually contradictory views, e.g.
- 1 Privacy is very important
- 2 Child abuse must be stopped
- which too often translate into bad legislation
- or legisation with perverse consequences, e.g. the EU eCommerce Directive

But the debate is steerable (how?)

I'm still confused, and lacking in specifications



The internet and pornography: Prime Minister calls for action.

https://www.gov.uk/government/speeches/
the-internet-and-pornography-prime-minister-calls-for2013.

International Telecommunications Union/UNICEF.

ITU & UNICEF consultation on Guidelines for Industry on

Child Online Protection.

http://www.itu.int/ITU-D/sis/newslog/2013/10/29/ITUUNICEFConsultationOnGuidelinesForIndustryOnChildOnliaspx, 2013.



Father hid camera to catch ex-lover hitting daughter, 5. *The Times January 11*, pages 15–15, 2014.