

HOW CAN CONSUMERS INTERNATIONAL CREATE POSITIVE CHANGE FOR CONSUMERS IN THE DIGITAL WORLD?

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IF works with organisations shaping our digital world. Together we show how they can empower people, be trusted with data and be effectively regulated

Sarah Gold founded [IF](#) in 2015 to develop a more ethical society with organisations shaping people's future. That means ensuring that, as technology develops, people and society are put first. A [NESTA New Radical](#) and [Forbes 30 under 30](#) awardee, Sarah sits on the practitioner panel for the [Research Institute in the Science of Cyber Security](#). She regularly gives talks about privacy, security and ethics.

Digital technology has created new expectations and opportunities in every aspect of life. As [our project for Consumers International showed](#), policy responses to 'digital' range from the mundane to the radical: from investing in broadband to establishing digital personhood.¹ But very few of these policies address something inherent in digital technology: its global nature.

The technologies people use around the world share the same foundations. That means that a vulnerability in a computer chip – like the recently revealed 'Meltdown' and 'Spectre' – can affect millions of people around the globe. But there aren't many services that can support people who are affected by these faults on such a massive scale.

There's an opportunity here for Consumers International to take the lead. They can use their position at the heart of the consumer advocacy community to champion, build and connect the pieces of a new digital infrastructure.

THE RISKS WE CAN'T SEE

An exploit is a piece of software or list of instructions that allow people to take advantage of bugs, weaknesses and flaws in products. Exploits break the products people use in ways they can't see. These vulnerabilities affect the security of consumer data and privacy, and when someone takes advantage of one it can lead to a direct assault on an individual's rights.

A recent example of an exploit is CVE-2017-7240, which affects an industrial dishwasher made by Miele.² This exploit allowed malicious actors to get information that could help them access other devices on the network the dishwasher is connected to. These dishwashers are marketed to hospitals and schools: if someone were to gain access to the devices on those networks, the consequences could be catastrophic.

Stories about exploits like these are regular features in the technology press. Companies push themselves to follow a trend and connect devices to the internet without considering the risks to the rights of their customers should something go wrong.

Part of the reason for that, is that it's really hard to track an exploit. That makes it difficult to hold a company to account when something goes wrong.

DATA AS INFRASTRUCTURE

The way exploits are described and documented to date has been for a technical audience. The rather cumbersome name CVE-2017-7240 comes from the [Common Vulnerabilities and Exposures database](#).³ This database gives a reusable identifier to an exploit, accompanied by a brief description of the exploit from the [National Vulnerability Database](#).⁴ More detail is usually published by researchers on their own websites, or on mailing lists like [SecLists](#).⁵

This data isn't legible or usable in a way that would help most consumers find out about problems with the things they own. Sometimes journalists pick up on high profile exploits and make them readable to a general audience, but it's impossible to cover every exploit in every product.

Some websites, like [Have I Been Pwned](#) have started to make exploit information more accessible so people know when their digital rights are being affected.⁶ But it would be better if the databases themselves were human-readable, easy-to-understand, and built in a way that helped developers use that data more effectively. That way they'd be accessible to more people, and more useful for consumers.

GLOBAL DIGITAL INFRASTRUCTURE

Consumer rights organisations all need to do similar things - like [alert people to dangerous products](#), [test digital products](#), agree on technical standards - and do this in the



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1 Consumers International website; digital policies, <http://digitalpolicies.consumersinternational.org/>

2 Common Vulnerabilities and Exposures website; CVE-ID, <https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2017-7240>

3 Common Vulnerabilities and Exposures website; home-page, <http://cve.mitre.org/>

4 National Vulnerability Database website, <https://nvd.nist.gov/>

5 Seclists website, <http://seclists.org/>

6 Have I been pwned website, <https://haveibeenpwned.com/>

context of a global economy.^{7,8} Historically, these organisations have worked together to share best practice and new approaches to challenges. Today, they could continue that work and build a shared, open infrastructure that supports services around the world.

Today, when companies build digital services, they rely on digital infrastructure that's available quite widely. This can be anything from hosting provision to open data. When it comes to consumer advocacy, what would that look like? It probably includes things like:

- an open register of products
- an open register of components
- an open register of software vulnerabilities
- an open register of hardware vulnerabilities
- a versioned database of terms and conditions
- shared software and best practices for testing connected devices
- standards for publishing test results
- shared software and best practices for understanding software supply chains
- an open register of data breaches
- open standards for product recall notices

Some of these do exist in a nascent form, but as independent projects rather than things that governments or consumer rights organisations rely on. Programs from other sectors - like [IATI](#), the open standards for publishing international aid - show that this is both possible and transformative.⁹

If this infrastructure is built in the right way, new services could emerge. Retailers could automatically notify consumers about dangers in products they've bought if issues arise after-purchase. Or home routers might be able to disconnect devices on a network that turn out to have a bug or a security flaw.

Consumer rights organisations, working together, could build this infrastructure. Consumers International is in a fantastic position to convene that conversation. Working with the existing community, it can understand the needs and capabilities of teams around the world, and steer development of infrastructure that would benefit consumers.

GLIMPSES OF THE FUTURE

The recent efforts of Consumer Reports, Disconnect, Ranking Digital Rights, and The Cyber Independent Testing Lab to develop [The Digital Standard](#) shows this kind of collaborative approach is possible.¹⁰



The standard is a community effort to bring together privacy and security best practices for those building digital products and services. Specifically, it aims to help organisations test products - maybe a smart thermostat - and assess how well it respects the owner's rights.

The Digital Standard encourages manufacturers to answer the sort of questions owners currently can't, including:

- Who's the data shared with?
- Will it still work if the company loses interest?
- Can owners update the software after it's out of warranty?
- Does it give hackers an easy way into a network?
- Is there anything on the device that would block a consumer's ability to repair it?

The great thing about the standard is that's [it's being developed in the open](#).¹¹ It's already part of the shared infrastructure needed to build better products and services. It's the kind of thing services like [havebeenpwned.com](#) and the [Restart Project's wiki](#) do too.¹² It involves groups working together, in the open, and making what they've built available to everyone.

That's a critical step towards infrastructure that supports digital rights.

7 European Commission website; consumer safety, http://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/content/pages/rapex/index_en.htm

8 Which? Website; testing and research, <http://www.which.co.uk/about-which/research-methods/lab-testing/>

9 International Aid Transparency Initiative website; <http://www.aidtransparency.net/>

10 The Digital Standard website, <https://www.thedigitalstandard.org/>

11 GitHub Website, <https://github.com/TheDigitalStandard/TheDigitalStandard/>

12 The Restart Wiki website, https://therestartproject.org/wiki/Main_Page

PEOPLE NEED SUPPORT

There's no shared understanding of our rights in the digital world. While the [GDPR](#) starts describing a precedent, what it doesn't do is describe how it will exist in the real world.¹³ Digital rights need a digital infrastructure.

The reassuring thing is, we've been here before. The Consumer Bill of Rights was an incredible achievement, and set the precedent for decades of work around the world. Consumer groups around the world have a terrific history of addressing problems around consumer safety, new technology and people's rights.

What's needed now are organisations willing to lead development of a new infrastructure. Consumers International have a pivotal role at the heart of a global network. They can convene, drive and deliver the change needed to support consumers into the future.

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13 The information Commissioner's Office website; overview of the GDPR, <https://ico.org.uk/for-organisations/data-protection-reform/overview-of-the-gdpr/>