

Usability

I only use the internet with an ad-blocker. I have seen what the web looks like without this and it is almost unusable. I wonder how normal people cope with access to resources on the internet.

I think I take your point - if more effort were made to make technology more usable, then perhaps more people would use it more regularly, and to better effect.

This fits into a question that's wider than the web, though - tools and user interfaces go way beyond what we see on the web: mobile phone apps, for example, while often using web technologies in the background, might not be considered by some to be *just a part of the web*, or of the Internet.

Your other point here - that people whose day jobs don't involve this kind of technology might be less able to use it - is also well-taken; we the technological community may well see a very skewed picture of what usage of these tools and systems is like.

As an aside, I'm not really familiar with ad-blockers myself; perhaps the things I do on the web are different from your experience.

As another aside, though, the presence of ads, of course, is not intended to make use simpler, but to generate ad revenue.

How high is security rated within digital poverty especially for the vulnerable? How could this be combated?

Perhaps the security question could be incorporated into usability: obviously the cliché about weakest links in chains might suggest that individual people – especially the vulnerable – will often be open to exploitation through scams, and perhaps to a greater extent that technology.

But if we find a way to simplify security so that it becomes more usable, then we may find a way to protect the most vulnerable from such scams.

Improved data in gathered statistics

In terms of the statistics for how many people in the UK are in digital poverty, is there an age range on the data that has produced this statistic ? For example, is this counting people from school age upwards or just 18+?

When you say 1 in 6 over what age range? In particular, does that include young children?

I'll cover these two together: as far as my reading of it goes, both of the data sets (ONS and Lloyds) cover adults, except in the obvious cases where they talk about households with children.

This is a good point, though – it isn't **very** clear who exactly we're talking about when we talk about the raw numbers. I'll try to correct this in future talks.

Digital poverty in a household is not a good measure since households with more than one school aged child has needed their own device to link to lessons. Is there any information on the number of devices in households?

That's definitely a very interesting question; there is, in fact, more data available than I've shown - some of the audience have pointed me towards, for example, Ofcom data referred to elsewhere in these answers.

I don't have any additional data on number of devices per household; that doesn't mean that the data isn't there somewhere, of course, and I am still looking.

What about Ofcom data? check this out <https://digitalaccessforall.co.uk/the-numbers>

Thanks - this looks like more detailed than the ONS data, certainly.

Economic data

One unmentioned impact of digital poverty is academic achievement of students from poorly connected households.

Yes - this feels a little like another question here on job prospects impacted by Digital Poverty: at the extreme end of disengagement, there is massive potential to improve education by getting people engaged; but just above that, there is still potential to improve outcomes for those who are digitally engaged, but poorly.

You missed job prospects impacts of Digital Poverty.

Good point! I hope I touched lightly on this with reference to the DCMS report on digital skills, and I'll be talking more about this aspect on 2 December at the BCS Virtual Festival of Digital Skills.

But it is also true that there are additional benefits available once we move from adding digital engagement to improving digital engagement and skills; I wonder if this opens up a separate opportunity to deal differently with those who are *entirely* digitally disengaged and those who are engaged, but need more engagement.

Should the demographic for digitally poor be broken down by age range? Certainly a lot of the older generation aren't online, but is this because they don't want to or because we haven't supported their understanding of it? How could we make access easier for them and simple tools to navigate it?

Yes, quite likely - I think that a demographic breakdown may well give us insight into how to apply fixes for the various missing components of digital capital; I don't yet know which demographic breakdown will be most useful here, but an age-related component may well be useful.

Personal interactions

From your hospital case study, do you have any personal insights that you can share on addressing digital poverty in groups like that?

In the short term, personal interactions can help: people in digital poverty may have peers who can support them and get them engaged and increase their skills.

But in the longer term, and on a wider scale, I think we need to take advantage of existing programmes to address this; local activities will certainly help, but they rely on the luck of happening to know someone who can help. This risks missing out on fixes for those who are stuck in digital and social isolation.

In your opinion, when you talk about collaborators do you consider service providers such retailers as key potential leaders in this area?

I see a clearer way that manufacturers of tech hardware might be involved than retailers of it; but there are many opportunities for digital libraries, by which I mean places or services where users might learn more about how to get digitally engaged, or get to use new services, as we have historically done with traditional libraries. I wonder if tech hardware retailers might be a sensible place to have that kind of digital library service.

What organizations are leading the way in fixing digital poverty... A lot of work seems to be done by banks... but what about tech firms?

Yes, some tech firms are engaged. I may have focused on Lloyds data gathering, and training and other services from Barclays, but certainly other tech firms are engaged here; Good Things Foundation and Future Dot Now, for example, collaborate with the tech industry.

Perhaps this highlights the missing overall leadership, though: we have a lot of individuals and organizations in all sectors doing work here, but it is really hard to get a handle on who's doing what.

Don't kids need access to an internet connected suitable device to grow the skills?

Yes, absolutely, but here is a great example of why I'm pushing use of the term **digital capital** rather than other terms, and in particular **broadband**: access to a suitable Internet-connected device may well be **necessary**, but it is far from **sufficient**; we need that **and more** for both children and adults.

We have a digital inclusion programme in Wales - Digital Communities Wales - funded by Welsh Gov. Dave is right to highlight the ONS figures and Lloyds do not give a true reflection. Digital poverty also includes data poverty and this is has been a more acute issue under the pandemic. How can industry work with initiatives like ours in Wales and Good Things Foundation to improve digital poverty/inclusion for individuals?

This is a great question, thanks, and is basically the point of this work: there are many organizations in the private, public and third sectors that are willing – and in fact able – to help, but as outsiders trying to get involved in these initiatives, it can be hard to break in to help out.

I think that language can help us to focus on the same things as other players – for example, talking about **digital capital** rather than **Internet access** can help those conversations focus on the other bits of digital capital that we need. And while language is only a start, we do need to make that start, and we need to have those conversations: “who is missing which pieces of digital capital?” and “how can I help to address those missing pieces?”

As a long-retired computer scientist, I have tried to encourage and assist friends of a similar age to use computers and the Internet. I have very often encountered resistance, or even hostility. Have you any suggestions on how to address this?

With for example banks shutting down branches and moving to a mainly online presence, how do we approach a certain demographic who may be resistant to embrace learning how to use the technology?

Two questions at once again here: from an engineering point of view, I think the key here is to identify **problems** before attempting to provide **solutions**: firstly, a full understanding of a problem can help to define the solution properly.

Secondly, though, there may be a personal benefit to this method, in that persuading people that they might benefit from access to the digital world might simply work better if we can be clearer about what benefits they might achieve from it.

So I think I would recommend trying to see areas where individuals might benefit in more concrete ways: online grocery shopping, for example, can be a good way of saving time or money for some people.

Hardware provision

I am involved in local Repair Cafe movement. This covers repair of laptops, as well as other devices. A prime objective of us is to educate people on how to repair, and dispel the fear of opening your devices. At the moment we have computer and phone manufacturers deliberately making repair impossible or difficult. Your views of this, how does it impact Digital poverty?

Aside from the positive environmental impact that repair and reuse can have, we risk missing out on regifting of old devices to good causes if manufacturers make repair difficult.

I'd be very keen to see manufacturers encouraging refurbishment of used hardware a lot more.
<https://twitter.com/davedonaghy/status/1321794795807924226>

How can the problem be addressed for people with disabilities. Public bodies have a legal requirement to make tech accessible, but this doesn't apply to private companies?

I don't have much experience here, but this is a very interesting aspect of the question.

I have worked to some very limited extent in this area - in particular with selection of colour palettes for web interfaces that work better with people with difficulty in colour perception. But even with that limited experience, it is clear to me that there is a wide range of issues that might make access digital technology difficult.

This, I think, is a particular case of the issue of making technology simple to use for non-experts, which itself is a special case of user experience (UX) work.

Having said that, I would hope that it is the case that manufacturers and technologists provide solutions that are suitable for all users, but I don't know enough detail about the legal situation here.

Is there any research or data that identifies specific schools or areas and community centres that may experience digital poverty, as oppose to households?

I would very much hope so, but I haven't yet encountered it; if anyone has more familiarity with this area, please do get in touch.