

# Herzlich willkommen!

19. September 2019, St. Pölten

# Keynote



## Combating digital health inequality and building digital health literacy

Bob Gann

National Health Service United Kingdom



*5th Conference of the Austrian Health Literacy Alliance*

# Combating digital health inequalities and building digital health literacy

Bob Gann  
Digital Inclusion Specialist  
National Health Service  
United Kingdom

# Our digital lives

## Always on technology

news.com.au National World Lifestyle Travel Entertainment Technology



## Driverless cars

### Self-driving taxis to be launched in London by 2021, Addison Lee says

Firm announces alliance with self-driving software company Oxbotica

Shehab Khan | @Shehabkhan | Monday 22 October 2018 08:59 | |

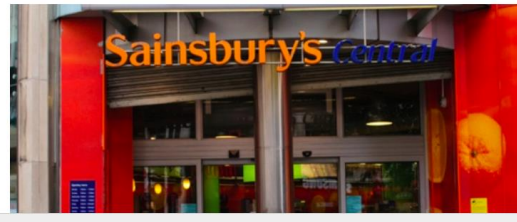
Like to follow The Independent



## Check out free shopping

### Sainsbury's mimics Amazon with launch of 'first' checkout-free store in London

Supermarket's SmartShop tech will let customers skip the queue



## Automated check-in



## Drone delivery

Manna from heaven

### How e-commerce with drone delivery is taking flight in China

Chinese e-commerce giant JD.com is investing in drones to bring online shopping to a 600m-strong rural population



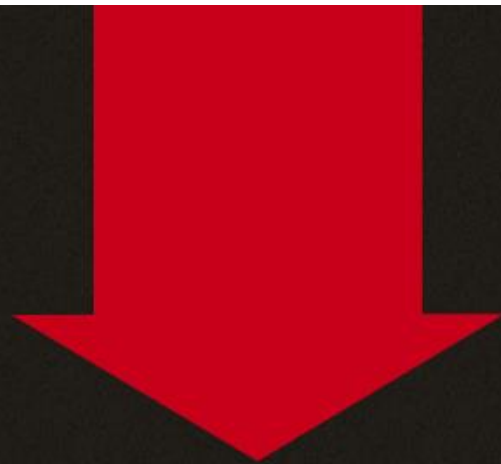
## Social media



# Technology downgrading humans

While companies have been **upgrading technology**, they've been **downgrading humans**:

- ↓ Shortening attention spans
- ↓ Rewarding outrage over dialogue
- ↓ Addicting children
- ↓ Polarizing the democratic process
- ↓ Turning life into a competition for likes and shares





# Are we eliminating the human?

MIT  
Technology  
Review

Connectivity

## Eliminating the Human

We are beset by—and immersed in—apps and devices that are quietly reducing the amount of meaningful interaction we have with each other.

by David Byrne

Aug 15, 2017



“We are beset by – and immersed in – apps and devices which are quietly reducing the amount of meaningful interaction we have with each other”.

David Byrne 2017

# Our digital lives in 2025

“ Experts predict that in ten years the internet will be readily available, everywhere, at low cost – embedded in people’s lives for good & ill”

“ The greatest impact will be on personal health. Health care will become self administered. We will detect, monitor, diagnose, get advice & treatment, through mobile, wearable & implanted network devices”

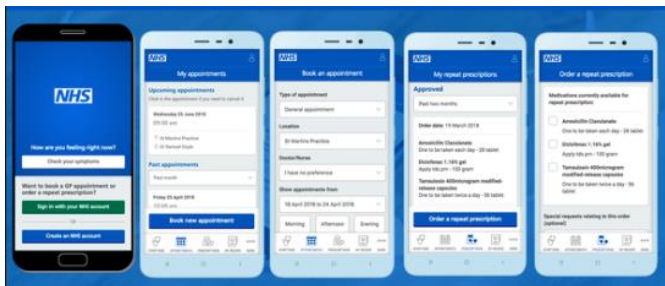
“ But...we risk a dangerous divide between the digital haves & have-nots. Networked transactions may benefit smaller & smaller segments of the global population”



*Digital life in 2025. Pew Research*  
Views of 2,500 experts & members of public



# Digital healthcare



Check symptoms, book appointments, request medication via NHS app

Access NHS website via Amazon Alexa

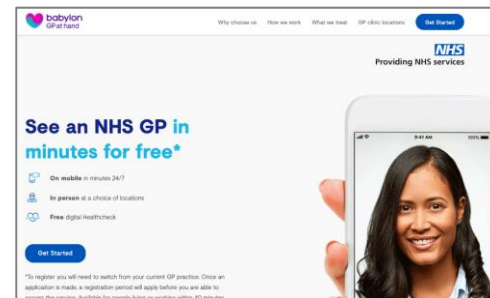
## Amazon Alexa offering NHS health advice

10 July 2019

Share



People will be able to get expert health advice using Amazon Alexa devices, under a partnership with the NHS, the government has announced.

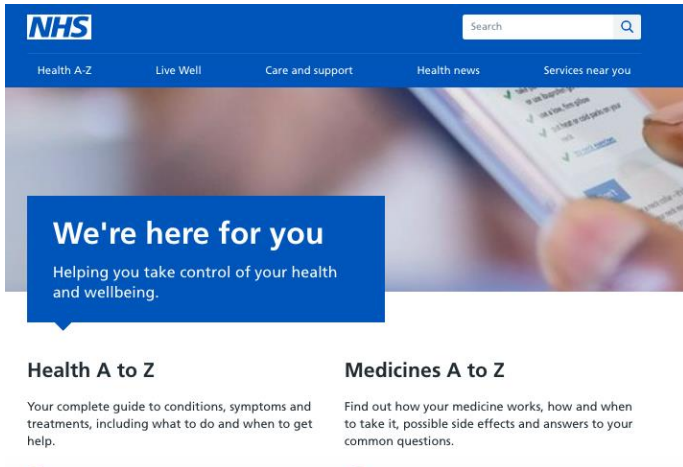


Digital primary care with video consultation driven by artificial intelligence



# Health information is increasingly digital

- Over 80% of internet users have searched for health information (Amante, 2015)
- One in twenty Google searches are for health information (Gibbs, 2015)
- There are over 300,000 health related apps (Pohl, 2017)
- Over a million people a day visit the NHS website (NHS.uk analytics)



The screenshot shows the NHS website homepage. At the top is a blue navigation bar with the NHS logo on the left, a search bar in the center, and menu items: Health A-Z, Live Well, Care and support, Health news, and Services near you. Below the navigation bar is a large image of a hand holding a smartphone. A blue call-to-action box is overlaid on the image with the text: "We're here for you" and "Helping you take control of your health and wellbeing." Below the image are two columns of text: "Health A to Z" and "Medicines A to Z".

**Health A to Z**  
Your complete guide to conditions, symptoms and treatments, including what to do and when to get help.

**Medicines A to Z**  
Find out how your medicine works, how and when to take it, possible side effects and answers to your common questions.



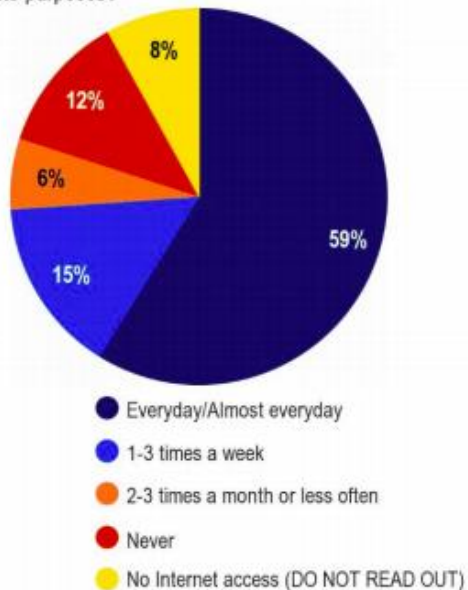
The screenshot shows the Austrian health portal website, "GESUNDHEIT.GV.AT". The header is blue with the logo on the left and "Aktuelles" and "Über uns" on the right. Below the header is a dark blue navigation bar with menu items: "Gesund leben", "Krankheiten", "Diagnose & Labor", "Gesundheitsleistungen", "Services", and "Professional". The main content area features a large image of a man sitting on a couch, looking distressed with his hands clasped. To the right of the image is the text: "KRANKHEITEN" and "Hilfe bei Depression". Below this is a paragraph of text: "Eine echte Depression ist mehr als traurig zu sein, sie ist eine ernst zu nehmende Erkrankung. Dabei kommt es unter anderem zu gedrückter Stimmung, Gefühlsleere, vermindertem Antrieb sowie sozialem Rückzug. Auch körperliche Symptome können sich zeigen. Erfahren Sie mehr zu Diagnose und hilfreichen Therapiemöglichkeiten."

**KRANKHEITEN**  
**Hilfe bei Depression**

Eine echte Depression ist mehr als traurig zu sein, sie ist eine ernst zu nehmende Erkrankung. Dabei kommt es unter anderem zu gedrückter Stimmung, Gefühlsleere, vermindertem Antrieb sowie sozialem Rückzug. Auch körperliche Symptome können sich zeigen. Erfahren Sie mehr zu Diagnose und hilfreichen Therapiemöglichkeiten.

# Digital exclusion in Europe

Q1. On average, within the last 12 months, how often have you used the Internet for private purposes?



*Digital health literacy in Europe  
European Commission 2014*

One in five people (20%) in Europe are not online

Netherlands most online (94%) & Bulgaria least (71%)

Those who are not online are likely to be older, less educated, with low income or not in paid employment, have a disability or chronic illness

Likely to have lower health literacy – and have greatest need for healthcare services

# Digital health inequality

People with lower health literacy are less likely to use preventative services or access treatment, have more hospitalisation & higher rates of treatment errors

As health information & services are increasingly delivered digitally we risk widening health inequalities even further

A new digital inverse care law?

## **THE INVERSE CARE LAW**

JULIAN TUDOR HART

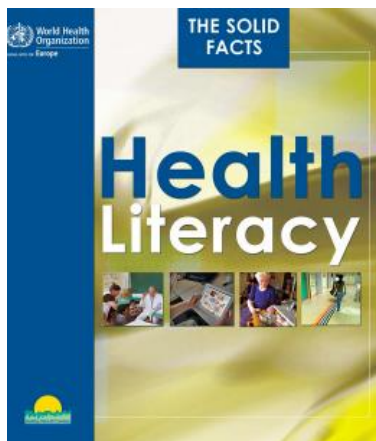
*Glyncorrwg Health Centre, Port Talbot, Glamorgan, Wales*

**Summary** The availability of good medical care tends to vary inversely with the need for it in the population served. This inverse care law operates more completely where medical care is most exposed to market forces, and less so where such exposure is reduced. The market distribution of medical care is a primitive and historically outdated social form, and any return to it would further exaggerate the maldistribution of medical resources.

*Tudor Hart, J. Lancet, 1971*

# What skills do people need for the digital world?

Digital health literacy: the ability to seek, find, understand and appraise health information from electronic sources and to apply the knowledge gained to addressing or solving a health problem



Includes:

- traditional literacy
- health literacy
- computer literacy
- information literacy
- scientific literacy
- media literacy

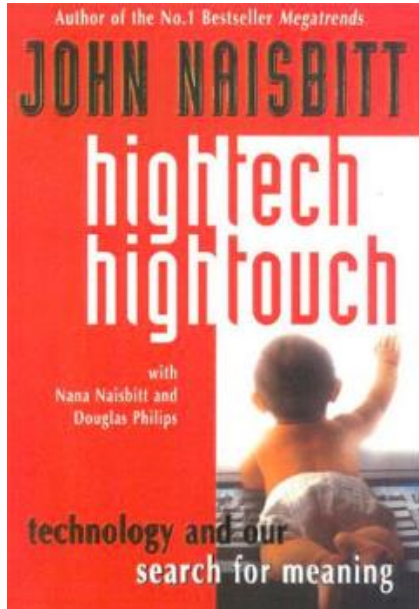
# Navigation skills in a digital world



“Navigating increasingly complex healthcare systems is a major challenge for patients and their families” (Rudd, 2006)

Navigation skills are an increasingly important part of health literacy in today’s digital world

# High tech, high touch



“At its best, technology supports and improves human life; at its worst, it alienates, distorts and destroys”

John Naisbitt, *High tech, high touch: technology and our search for meaning* 1999



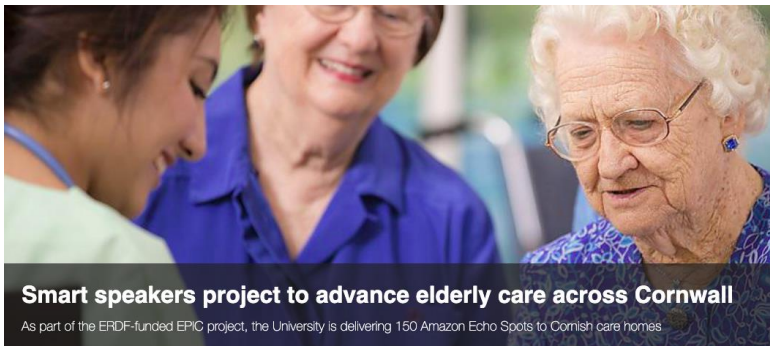
# 1. Remote consultations can be a humane environment for care



- Familiar technology (eg Skype)
- Patients spared cost, stress, time and inconvenience of travel
- Can support a more personal relationship – invited into home
- Humane environment, even for breaking bad news

*Wales: CARTREF (Care Delivered with Telemedicine to Support Rural Elderly and Frail)*  
*London: Scaling Up Virtual Consultations at Barts NHS Trust*

## 2. Smart speakers can open up digital world



### 92-year-old Pat uses Amazon Echo and iPad to boost her wellbeing

RNIB 'Technology for Life' service helps blind and partially sighted people. This builds on partnership work between Digital Communities Wales and RNIB Cymru.

- Voice activated devices including Amazon Echo (Alexa) & Google Home
- People who lack digital skills or have sight or dexterity problems can use voice recognition
- Set up spoken reminders for medication, appointments etc
- Access websites, apps and social communication

*EPIC: eHealth Productivity & Innovation in Cornwall*  
*Digital Communities Wales*

### 3. Wearables can motivate physical activity & digital literacy



- Older people in Wales provided with Fitbits had increased physical activity, and were motivated to improve digital skills and confidence
- Joining communities increased social interaction
- Doctors prescribing Fitbits and digital health literacy course

*Delivering digital health for all. Social Market Foundation, May 2019*  
*Population health in a digital age. Public Health Wales, May 2019*

## 4. Virtual reality can help people connect with a positive world



- Digital Heroes programme in Wales
- Intergenerational mentoring between schoolchildren & care home residents
- Reduction in anti-psychotic medication and falls
- Ambulance call-outs reduced by 28%

*Digital Communities Wales*

# NHS Widening Digital Participation: Evaluation

500,000 people engaged in national programme to improve digital health literacy skills



- 82% of people trained were **socially disadvantaged** and likely to be experiencing health inequalities
- 27% say they feel more self reliant and have reduced their use of the NHS for **minor ailments**
- 52% say they feel less **lonely and isolated**
- 48% say they have **saved time** by doing something online
- 32% say they have **saved money** (eg avoiding travel costs)



# NHS Widening Digital Participation: Pilots

20 pilot projects in areas of social deprivation & health inequality

Gaining better understanding of the barriers to digital health literacy

Co-creating solutions

It's not just about digitally literate individuals, it's about digitally literate organisations



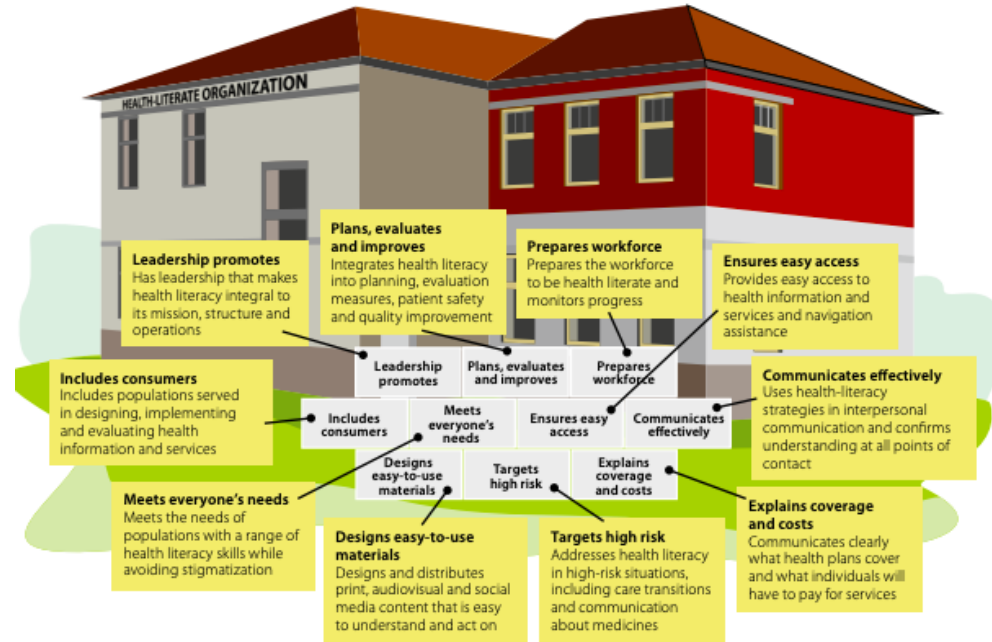
<https://digital-health-lab.org>



# What makes a digital health literate organisation?

*“A health literate organisation makes it easier for people to navigate, understand & use information and services to take care of their health” (Brach et al, 2012)*

- Supports patients & carers to build their digital skills & confidence
- Provides a digital infrastructure (eg free public wi-fi) which makes it easy to access online information & services
- Co-produces digital information & services which are relevant and accessible to users
- Takes the risk of digital exclusion into account when planning services
- Develops the digital skills of its workforce
- Has knowledgeable & committed digital leadership




Source: adapted from: Brach C et al. *Attributes of a health literate organization*. Washington, DC, Institute of Medicine, 2012 ([http://www.iom.edu/~media/Files/Perspectives-Files/2012/Discussion-Papers/BPH\\_HLit\\_Attributes.pdf](http://www.iom.edu/~media/Files/Perspectives-Files/2012/Discussion-Papers/BPH_HLit_Attributes.pdf), accessed 15 May 2013).

# For more information

Email: bob.gann@nhs.net

Twitter: Bob\_Gann

England 

[www.digital.nhs.uk/about-nhs-digital/our-work/digital-inclusion](http://www.digital.nhs.uk/about-nhs-digital/our-work/digital-inclusion)

Cornwall 

[www.plymouth.ac.uk/research/epic](http://www.plymouth.ac.uk/research/epic)

Wales 

[www.digitalcommunities.gov.wales](http://www.digitalcommunities.gov.wales)



# Herzlichen Dank & auf Wiedersehen

Koordinationsstelle  
der Österreichischen Plattform  
Gesundheitskompetenz (ÖPGK)

im Fonds Gesundes Österreich  
– ein Geschäftsbereich der  
Gesundheit Österreich GmbH

Aspernbrückengasse 2,  
1020 Wien  
Tel: +43 1 895 04 00-750  
E-Mail: [oepgk@goeg.at](mailto:oepgk@goeg.at)  
Webseite: [oepgk.at](http://oepgk.at)