



Digital Health, Assistive Technologies and Cameras in Care Homes: What are the Social Policy Issues?

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Elder Abuse

- ▶ Elder abuse is here to stay
- ▶ Often hidden
- ▶ Frequent media exposés
- ▶ Increasing (?) concern
- ▶ How can technologies help?
- ▶ What will be the impact?
- ▶ What are the key issues?
- ▶ Should technologies be seen in a new light?



Key Issues

- ▶ The 'privacy dilemma' and ethics of surveillance
- ▶ The manner of use of different technologies in providing care
need to consider 'ordinary' homes as well as care and nursing homes
- ▶ What information (images, data etc.) is / are gathered?
why, when, how often, what type, how encrypted, how stored and protected,
how used?
- ▶ How technologies 'fit' within safeguarding frameworks
- ▶ Rights of older people, carers and others
issue of consent (how informed?)
- ▶ Impact on care relationships
- ▶ Workforce skills (and roles of care and nursing staff)

The Privacy Dilemma

- ▶ How private are we in reality; how private do we want to be? *‘Liever bloot dan dood!’* (NL)
- ▶ Attentiveness and responsiveness
 - ... key facets of care (Joan Tronto)
- ▶ Special obligation to those who are vulnerable ...
 - ... and parallel need to recognise right to (and protect people’s) privacy
- ▶ Potential new kinds of service framework
 - new approaches, new procedures
 - new working practices
 - new kinds of camera technologies to facilitate this



The Seven Principles

1, 2

1. Any reasonable level of surveillance, including cameras, is appropriate for common or public areas in care homes

... overt; clarity in contract documents, etc.

2. Care homes should be able to provide or should be willing to permit or facilitate the use of surveillance technologies (including cameras) within a resident's room or other private areas

... subject to consent, taking account of (older) person's capacity

... allows for surveillance in bedrooms and bathrooms - but demands very careful consideration of way that images, audio or video-footage are treated

The Seven Principles

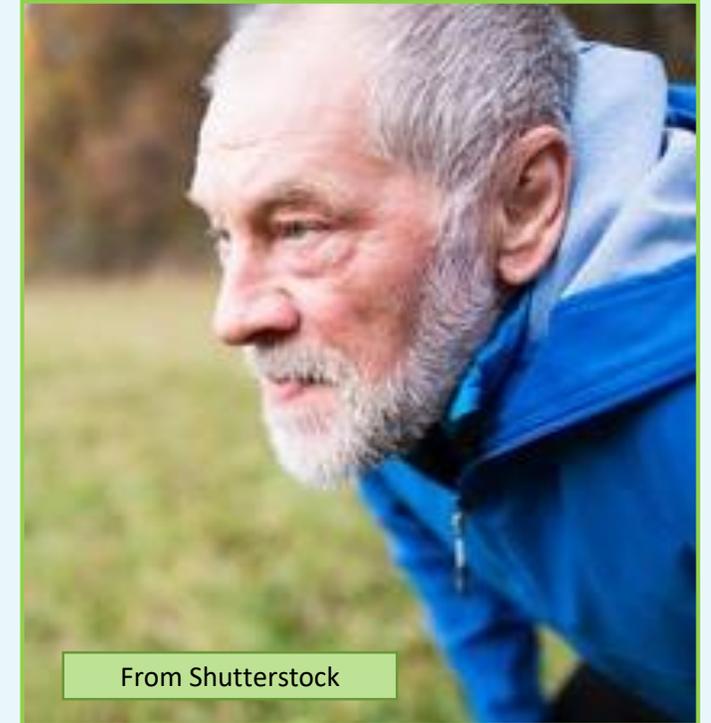
3, 4, 5

3. The location of surveillance technologies should be carefully considered. They should be visible or otherwise clearly known to be present
 - ... issues of décor etc. can be addressed but devices must be visible or clearly pointed to (e.g. when embedded in light-fittings, clocks, etc.)
4. Staff should be fully aware of their responsibilities in relation to surveillance technologies
 - ... staff must understand and support reasons for use, recognising that it can also safeguard *them*
5. Access to data, images, audio or video footage should be restricted only to authorised persons or agencies in particular, defined circumstances
 - ... including controls on levels of access, allowing for escalation
 - ... circumstances could include falls, theft, and 'positive' occasions
 - ... potential role for external body

The Seven Principles

6, 7

6. Data, images, audio or video footage should be treated as if owned by the resident – gathered, held and used for his/her benefit
 - ... but not able to be accessed by them except in special circumstances
 - ... full erasure after defined period
 - ... ability to suspend surveillance e.g. with trusted visitors
7. Consent for the use of surveillance technologies that might intrude excessively on an individual's privacy should be subject to approval by the appropriate regulatory agency
 - ... accounting for prior experience, extent of control and compensatory effects



The Seven Principles

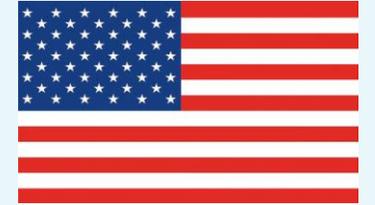
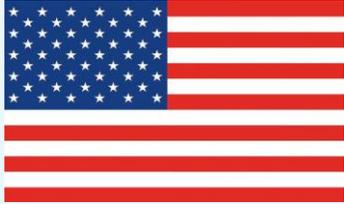
Overall Message

- ▶ Need to think about ‘images’ and ‘data’ rather than ‘cameras’
 - ... and also the wider context of assistive technologies
- ▶ Benefits can be pointed to
 - ... but all the questions are far from being answered
- ▶ The seven principles offer an initial way forward
 - ... which is more achievable given further advances in camera technology
- ▶ But, first, a brief international overview!



The International Scene

(or, rather, a small part of it!)



- ▶ First law on ‘granny cams’ in Texas 2001
 - ... monitoring of a resident’s room permitted using ‘electronic monitoring devices’ with express written consent of resident or guardian and ‘roommates’
- ▶ Now laws in 10 States
 - ... Illinois, Kansas, Louisiana, Maryland, New Mexico, Oklahoma, Texas, Utah, Vermont and Washington.



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OH: Proposed law would allow cameras in nursing homes but subject to being turned of when e.g. person bathes

CA: Licensing arrangement allows cameras but not audio recording – 2 examples in San Diego.

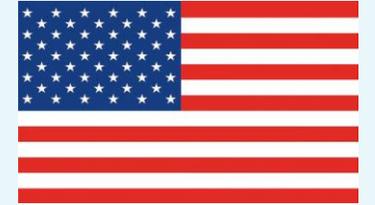
IL: Rules include visibility of cameras; signs on entry; consent of roommate (plus allowance for switch-off periods); and resident pays all costs.

NJ: Families can borrow 'hidden cameras' for 30 day periods

15 other states are considering laws

The International Scene

(or, rather, a small part of it!)



- ▶ Care Quality Commission (CQC) consultation 2014-15 and information (for family members; service providers)

... simplistic view of cameras; no consideration of other AT

... strong on legal issues

- ▶ HC-One (large care home provider) Consultation (2014) re. cameras as 'safeguarding tools'

... Overall yes for **47%** residents; **87%** family members; **63%** staff

... Complementary study by GMB Union (of its HC-One staff) -

... 'Visible cameras could help identify and prevent abuse' **70%** Yes

... 'There would need to be clear rules ...' 92% Yes

... 'Cameras should be introduced only with consent ...' **79%** Yes

... 'Cameras don't tell whole story ...' 87% Yes

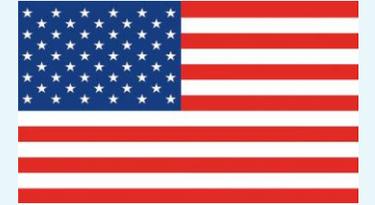
But note – HC-One did not go ahead with installations



The International Scene



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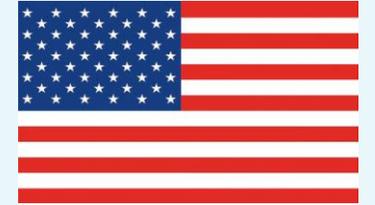


- ▶ Survey (July 2019) by carehome.co.uk (of some 2,300 care homes)
 - ... just over 100 have CCTV in both communal areas and bedrooms
 - ... Wellburn Care Homes – finding that ‘surveillance cameras can improve residents’ sleep due to reduction of necessary night checks’
 - ... Action on Elder Abuse (the main UK charity) are not fully convinced ‘the solution to abuse is better trained and supervised staff, adequately funded care’ but ‘CCTV may have a limited place’
- ▶ Some politicians showing support, but generally ‘divided’
- ▶ CQC Chief Inspector of Adult Social Care
 - ... ‘it should be the exception rather than the rule’
- ▶ Main player in UK is Care-Protect care-protect.co.uk
 - ... modest number of installations



The International Scene

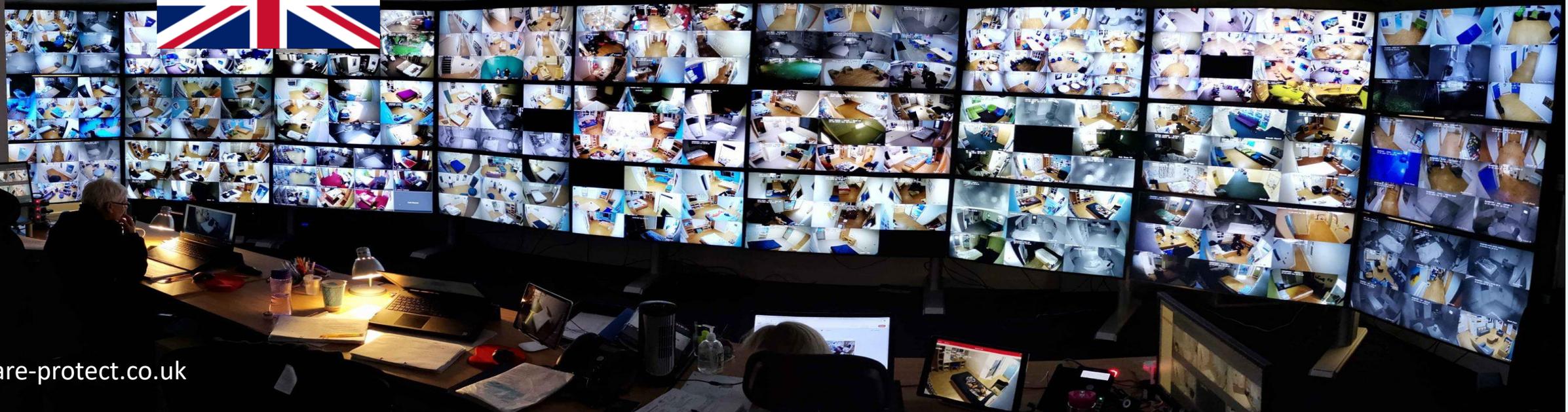
(or, rather, a small part of it!)



- ▶ Main player in UK is Care-Protect care-protect.co.uk
 - ... modest number of camera installations including bedrooms
 - ... recording triggered by motion, sound or lighting (other triggers possible)
 - ... audio at behest of service provider
 - ... video link is to central monitoring station (not the home itself)
 - ... benefits shown through e.g. identifying otherwise un-witnessed falls; improvement in manual handling techniques
 - ... ‘a more broad tool to improve resident and patient safety’
 - ... follows a specific service model where cameras are used in a ‘conventional’ way
 - ... witness the monitoring centre (overleaf)

The International Scene

(or, rather, a small part of it!)

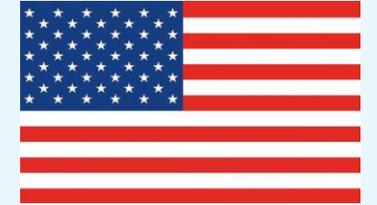


care-protect.co.uk

Combining the use of the latest visual and secure cloud technology with monitoring undertaken by our team of highly experienced independent experts. With the prior consent of residents and relatives/next of kin or consent following a best interests assessment, our system helps to safeguard and protect adults and children in health and social care settings, globally. As a result care providers can expect higher standards of quality and safety whilst ensuring greater transparency exists with all other stakeholders.

The International Scene

(or, rather, a small part of it!)



- ▶ New law: Wet Zorg en Dwang ('Care and Coercion') deriving from GDPR
- ▶ Advisory organisation 'Vilans'
 - ... points to cameras with audio but only showing 'blurred' picture
 - ... therefore check on entry / exit, falls, etc.
 - ... intelligent analysis allows for entry / exit of someone without activation
 - ... older person takes decisive role in what he/she wants
 - ... only registered staff can view, with record of viewing
 - ... light on camera to show when active
 - ... viewing without recording is option
- ▶ Liver blot dan dood
 - ... 'better naked than dead'!



... and so to Cameras

- ▶ Initial approach I focused on was using cameras as digital devices
... collecting data that could be re-constituted into different kinds of image (next slide)



Different Kinds of Image

From: Francisco Flórez-Revuelta,
Kingston University

Kingston
University
London

Content of ensuing slides reflect
work undertaken by Pau Climent-
Perez and Francisco Flórez-Revuelta,
Kingston University



(a) Real image



(b) Blur



(c) Pixelating



(d) Emboss



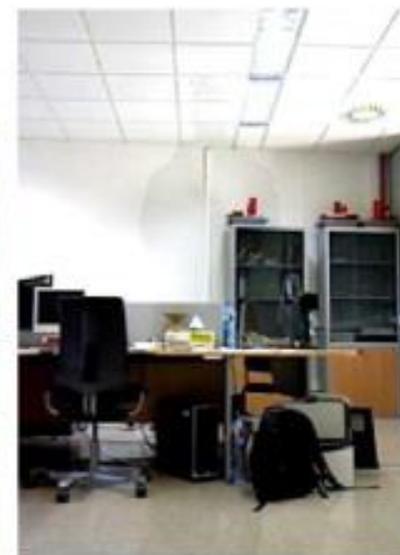
(e) Solid silhouette



(f) Skeleton



(g) 3D avatar



(h) Invisibility

... and so to Cameras

▶ New work builds on this

... still retaining the focus on privacy, but in way that (using proprietary filters and masks) gives greater clarity to the viewer when person represented by an avatar and/or an image is re-constituted

... recognising requirements of GDPR including 'privacy by design and default'

... using RGB data (red, green, blue) , 'blind vision', new algorithms and 'data hiding methods (e.g. pixel scrambling) – but reversible for 'authorised viewers' (social care or nursing staff?)

▶ This is about 'respectful cameras'

... establishing a 'circle of trust with concentric layers, with people closer inside having access to more information / less redacted data

... privacy levels determined according to factors such as user preference, location, activity being undertaken, clothed or unclothed, event (fall, noise) or status of viewer (social care or nursing staff?)



Summing Up

- ▶ The arguments about cameras are international and will rumble on
 - ... as long as there is elder abuse, plus pressure from families, politicians and others
 - ... lessons from US, UK and NL – but we need to look more widely
 - ... is this social care or nursing? ... battles likely
- ▶ Evidence of initiatives is sparse – but lessons from US, UK and NL
- ▶ Failure to understand cameras as digital devices configured for privacy will hamper development of new service models
 - ... until there are successful initiatives using masks, filters and new algorithms
 - ... and with effective staff skills and deployment (regardless of whether nursing or social care)
- ▶ But new service models *are* possible
 - ... with ‘respectful cameras’ – privacy balanced by the need to safeguard
 - ... restrictions on access and, perhaps, a norm for people’s representation through avatars



Summing Up

- ▶ The arguments about cameras are personal and will rumble on ... as long as there is disagreement from families, politicians and others ... lessons from US, UK and NL ... is this social care or nursing look more widely
- ▶ Evidence of initiatives is from US, UK and NL
- ▶ Failure to understand cameras will hamper development of cameras configured for privacy ... until there are successful pilots and new algorithms ... and with effective staff skills regardless of whether nursing or social care)
- ▶ But new service models are possible with 'respectful cameras' – the need to safeguard ... restrictions on access and, perhaps, a norm for people's representation through avatars

But whatever happens, we can be sure that cameras, hopefully 'respectful cameras' will play their part. Social and nursing care staff will need to be ready! ★





ITAC 2020

TRANSFORMING INDEPENDENCE
THROUGH INNOVATIVE TECHNOLOGY

**Thank You
Diolch yn Fawr**

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Aged Care Industry
Information Technology Council

 **DE MONTFORT
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