Access to and use of Web 2.0 and social media applications within the NHS in England: the role and impact of organisational culture, information governance, and communications policy

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7th July 2015

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We trust our staff with patients' lives, so why don't we trust them with social media?

NHS Employers (2013, p. 9)

Shouldn't we be managing the risks more effectively in order to allow learners the freedom to use IT resources to better effect?

Prince et al. *(2010, p. 437)*

Overview

- Introduction and background
- Definitions
  - Content types
- Web application blocking: earlier findings
- Perceived benefits and risks
- Research questions and issues
- Methodology and methods
- Findings
  - Availability
  - Respondent perceptions
    - Risks
    - Benefits
  - General findings
- Questions

Introduction and background

- LIS Manager in mental health NHS FT 2008-2012
- Variety of technological barriers / hindrances to information seeking, teaching and learning, clinical and management decision-making
  – ascribed variously to:
  - Information governance/ information security
  - IT infrastructure policies and practices
  - Communications policy
- Blocking of 'legitimate' websites
- Obstacles to use of particular content types and applications
- Social media / Web 2.0 a particular problem
- *Implications?*

Web 2.0 and social media - definitions

- ## Web 2.0
- Difficult to define – not just technologies – an approach – about *values*
- "A network platform through which end users interact with each other to generate and share information over the web" (Singh *et al.,* 2014)
- "A collection of web-based technologies … where users actively participate in content creation and editing through open collaboration between members of communities of practice" (McGee & Begg, 2008)
- Inherently egalitarian and unstructured – cf. 'traditional' IT
- Require AJAX, Adobe Flash, RSS
- *e.g.* mashups, start pages, folksonomies, podcasting

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Web 2.0 and social media - definitions

- ## Social media
- Subset of Web 2.0 – applications allow the creation and exchange of user generated content (Kaplan & Haenlein 2010)
- Rapidly developing field
- "[involve] the explicit modeling of connections between people, forming a complex network of relations, which in turn enables and facilitates collaboration and collaborative filtering processes"
  - Enable users to see what other connected users are doing
  - Enable automated selection of "relevant" information
  - Enable reputation and trust management, accountability and quality control
  - Foster "viral" dissemination of information and applications
  - Provide "social" incentives to enter, update, and manage personal information (Eysenbach, 2008)

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Web application blocking

Impacts
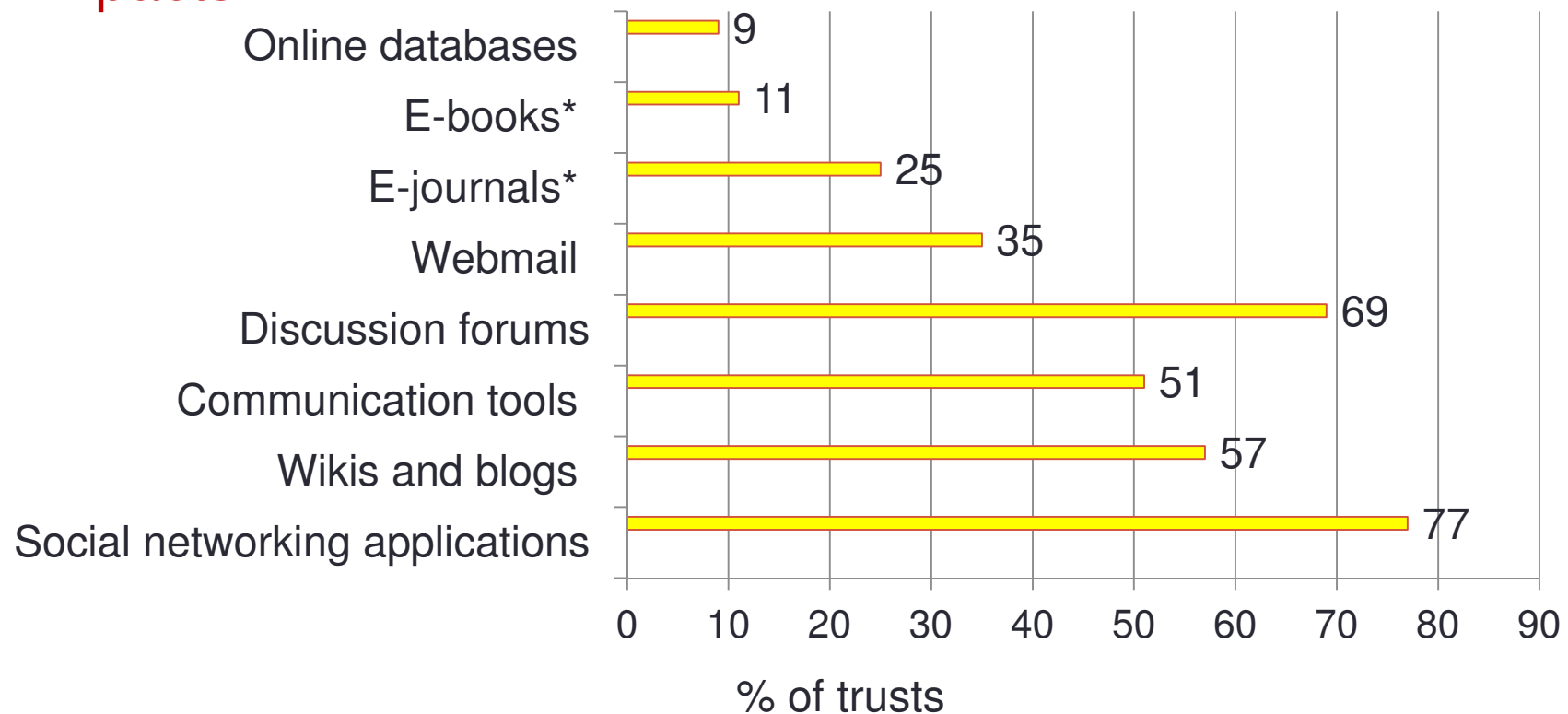
SHALL IT subgroup survey of NHS librarians (2008)

Research questions / issues

- The nature and extent of restrictions on access to such applications within NHS organisations arising from organisational policies
- Their impacts on professional information seeking and sharing, and working practices in general
- The attitudes, professional norms, presuppositions and practices which bear on how social media policy is implemented within NHS trusts, in relation to overall organisational strategies

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- Rationales for restrictions
- Differing stakeholder perspectives involved
- Attitudes to / assumptions about (information governance) risk
- Usage of mobile devices by health professionals to access social media

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Methodology and methods

Exploratory case study

- Unit(s) of analysis
  - One or more NHS trusts of different types (district general hospital + community services, mental health, teaching hospital)
- Methods
  - Semi-structured interviews with key informants (10+ per trust)
    - selected via purposive / snowball sampling
    - representing a variety of perspectives:
      - Clinician education and staff development
      - Library and information
      - Communications
      - Information governance
      - IT management, esp. network security and PC support
      - Human resources
      - Workforce development

Methodology and methods

Exploratory case study

- Methods (cont'd)
  - Interviews with other key informants: NHS Evidence, medical school e-learning lead, secure web gateway vendor
    - Gained additional perspectives
  - Documentary analysis – selective / *ad hoc*
    - Background
    - Policies and strategies: IT, LIS, workforce development, information governance, Internet AUP
    - Codes and standards
    - Reports and reviews
    - Statements of values
    - Security device documentation
  - Thematic analysis using NVivo

Availability: Web 2.0

Classification: Kaplan & Haenlein (2010)

	T1-DGH	T3-MH	T4-TH
Podcasts	Trust starting to use podcasting on intranet Availability of external podcasts?	Sometimes unable to download from web / appear blocked owing to inadequate bandwidth – but podcast content planned for new trust intranet Podcasts produced internally for training purposes and used for PG medical education – but clinical tutor mentioned one being blocked	Podcasts created by speech and language therapists for ENT training *Respondents unclear about availability of external podcasts*
File storage and sharing applications	Time quota set for use	*Not mentioned*	Dropbox blocked Google Docs available
Web conferencing	Skype blocked	Skype blocked WebEx, GoToWebinar used within trust	*Not mentioned*
Start pages / portals	*Not mentioned*	*Not mentioned*	Accessible to users - library has several. Weebly formerly blocked

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Availability: social media

	T1-DGH	T3-MH	T4-TH
Blogs / Microblogs	Unable to access or create – prevents library using for current awareness purposes Time quota set for use of Twitter. Trust starting to use for corporate communications but individual use not encouraged	*Restrictions not mentioned on general blogs* Twitter, Facebook: users and would-be bloggers should seek advice from Communications before using professionally	WordPress blogs formerly (maybe still) blocked Issuing of Twitter handles requires permission from divisional director Twitter blocked by default
Collaborative projects	*Restrictions not mentioned*	*Restrictions not mentioned*	*Restrictions not mentioned*
Social networking services	Facebook: time quota set for use Originally blocked entirely following breach of confidentiality by clinical staff member LinkedIn and other 'professional' sites accessible	Facebook blocked LinkedIn and other 'professional' sites accessible	Access to Facebook etc. blocked on PCs but not on users' mobile devices – trust has a BYOD network and policy. Some staff approved to use social media for work purposes. LIS has Pinterest site – infographics
Content communities	Time quota set for use of SlideShare Prezi formerly blocked as presenting confidentiality risks – now has time quota set Time quota set for use of YouTube	SlideShare not mentioned Prezi - restrictions not mentioned – IT manager unsure of policy – Comms provides training on Prezi Specific permission required to access YouTube - NB bandwidth limitation statement in place – 10s pauses	Status of SlideShare unclear Prezi blocked YouTube reported by pharmacist as blocked but this denied by IT Manager

Classification: Kaplan & Haenlein (2010)

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Perceived risks / reasons for non-use

- Breaches of privacy
  - Sharing of images via smartphone and tablet cameras
- **Breaches of confidentiality**
  - Patient information
    - *T1 – breach of confidentiality by clinician – led to clampdown*
  - Corporate information
- **Failure to maintain appropriate professional boundaries**
  - Patients, carers, students
- Affecting reputation
  - Employing organisation, profession, individual / career
- Time-wasting / trivial / unproductive
- Lack of time
- Lack of encouragement, training and guidance

Perceived benefits / existing uses

- Staff, patient, public engagement
- Professional networking and discussions
  - *e.g.* LinkedIn, Doctors.net.uk, Sermo, #WeNurses on Twitter
- Research dissemination / current awareness
  - Library portals / RSS feeds, Twitter
- Teaching
  - Podcasts, YouTube videos
- Information sharing and collaboration
  - File storage and sharing applications *e.g.* Dropbox
  - Content communities *e.g.* Mendeley, SlideShare, Prezi
- Teaching / learning administration
  - *e.g.* Facebook

General findings

- Often perceived as high-risk – especially by nurses – privacy and confidentiality concerns
- Sometimes felt to be suitable only for personal or recreational use (*cf.* Ward *et al.,* 2009)
- Professional online forums favoured by AHPs
- Big generational differences in use and expectations
- Gradual process of acceptance
  - external drivers *e.g.* NHS Employers, professional bodies
  - starts with corporate use – T1
  - "gently washing in" – T3
  - tool for patient / public / staff engagement
  - availability of policies and guidance, *e.g.* NMC, GMC, HCPC, BASW
- BYOD a facilitator – T4 – relates to mobile device use
- Educational usefulness of YouTube content increasingly recognised by IT
- Hierarchy of needs? (Chretien & Kind, 2014)

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Questions?

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References

- Blenkinsopp, J. (2008). Bookmarks: web blocking – giving Big Brother a run for his money. *He@lth Information on the Internet,* (62), 2008.
- Bradley, P. (2012). Why librarians must use social media. At http://www.slideshare.net/Philbradley/why-librarians-must-use-social-media [accessed 23/01/2015]
- Cain, J. (2011). Social media in health care: the case for organizational policy and employee education. *American Journal of Health-System Pharmacy* 68, 1036-1040.
- Chretien, K., & Kind, T. (2014). Climbing social media in medicine's hierarchy of needs. *Academic Medicine*, 89(10), 1318–1320.
- Eysenbach, G. (2008). Medicine 2.0: social networking, collaboration, participation, apomediation, and openness. *Journal of Medical Internet Research* 10(3), e22.
- Hamm, M. P., Chisholm, A., Shulhan, J., Milne, A., Scott, S. D., Klassen, T. P., & Hartling, L. (2013). Social media use by health care professionals and trainees: a scoping review. *Academic Medicine : Journal of the Association of American Medical Colleges*, 88(9), 1376–83.

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References

- Hughes, B., Joshi, I., & Wareham, J. (2008). Health 2.0 and Medicine 2.0: tensions and controversies in the field. *Journal of Medical Internet Research,* 10(3), e23.

- Hughes, B., Joshi, I., Lemonde, H., & Wareham, J. (2009). Junior physician's [sic] use of Web 2.0 for information seeking and medical education: a qualitative study. *International Journal of Medical Informatics,* 78(10), 645–55.

- Kaplan, A. M. & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons* 53(1), 59-68.

- Koch, H., Leidner, D. E., & Gonzalez, E. S. (2013). Digitally enabling social networks: resolving IT-culture conflict. *Information Systems Journal*, 23(6), 501-523.

- Lafferty, N. (2013). *NHS-HE connectivity project: Web 2.0 and social media in education and research*. Retrieved from https://community.ja.net/groups/search/NHS-HE%2520forum.

- NHS Employers (2014). A social media toolkit for the NHS. London: NHS Employers. Retrieved from www.nhsemployers.org.

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References

- NHS Employers (2013). HR and social media in the NHS. London: NHS Employers. Retrieved from www.nhsemployers.org.
- Prince, N. J., Cass, H. D., & Klaber, R. E. (2010). Accessing e-learning and e-resources. *Medical Education*, 44,(436-437).
- Renaud, K., & Goucher, W. (2012). Health service employees and information security policies : an uneasy partnership? *Information Management and Computer Security*, 20(4), 296–311.
- Technical Design Authority Group (2008). TDAG survey of access to electronic resources in healthcare libraries. London: TDAG.
- Ward, R., Moule, P., & Lockyer, L. (2009). Adoption of Web 2.0 technologies in education for health professionals in the UK: where are we and why? *Electronic Journal of e-Learning* 7(2) 165-172. Retrieved from www.ejel.org.