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Opportunities and Challenges of Social Media in Medical Education

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social media?

Overview

- Social media
- Value networks
- Medicine as anti-technology
- Digital Professionalism
- Who does what?

Facebook IS the web?

- >500 million unique users - Facebook is now the web?



Professional Social Media

I'm everywhere

- Blogs started and abandoned
- Wikis contributed to (inc Wikipedia)
- Comments – Apple rants
- Rate my XXX
- Flickr
- Digg
- Stumble
- delicious

SlideShare

Julie on SlideShare 2010 - <http://www.slideshare.net/jkhe-wett/the-use-of-social-media-in-medical-education>

Second Life

- Five avatars, all neglected
- Virtual vs augmented realities



Others ...

- Tweeted but don't find the focus useful
- Google Wave fizzled
- CHEC-CESC – activity-specific
- YouTube video about: EEMeC
- YouTube video by: CliniSnips, HSVO
- Dr-ED list (others)

“Being connected increasingly defines our ability to function in the world. Finding ourselves without network access can be frustrating, even disorienting”

Then and now

- 10yo few applications and tools available
- Largely provided by education institutions (typically email and discussion boards) and eagerly used
- Contemporary learners have many more options
- extensive voluntary use of social media by medical students
- matched it would seem by their neglect of all but the mandatory, assessed and credit-bearing networked activities
- learning networks were defined by their scarcity, now defined by their omnipresence

Value of communication networks

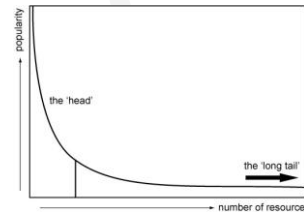
- Collocation
- Local variety
- Alignment
- Autonomy (and social)
- Collocation also reflects the concept of critical mass; there are minimum numbers of participants required to sustain certain activities.
- For social media the group can be more important than the individual user

More is better?

- Critical mass ≠ 'more is better'
- Salmon (2000) identifies that while some activities might need less than 10 participants, others need many hundreds
- Key factors:
 - Density of expected interaction
 - Tutor participation
 - Activity synchronous or asynchronous; generally synchronous activity requires significantly fewer participants than asynchronous

Active and passive participants

- Anderson's 'long tail'
- 80-20 rule, where 20% of a networked community provide the majority of its activity and therefore its value (Anderson, 2006)



Value: Metcalfe's law

- Originally about networked devices (rather than users)
- the value of a network proportional to square of the number of nodes on that network

nodes	value
10	100
100	10,000
1000	1,000,000

Value: Beckstrom's law

- the individual value of a network = the benefit of all transactions for that individual minus the cost of all transactions to them
- the total value of a network is the sum of all individual values

$$\sum_{i=1}^n V_{i,j} = \sum_{i=1}^n \sum_{k=1}^m \frac{B_{i,j,k} - C_{i,j,k}}{(1 + r_k)^{t_k}}$$

Network Effect

- Beckstrom identifies the network effect as 'more users means more value':
 - Facebook
 - Wikipedia
 - Crowdsourcing
- Inverse network effect where adding more users detracts from the value of the network:
 - ePBL
 - Funding notifications
 - Conferences?

Evaluating value in networks

- Exchange analysis: identify different exchanges and the ways in which they create value in the system as a whole
- Impact analysis: identify the impact of each value-creating activity on the participants and on the dynamics of the network as a whole
- Value creation analysis: identify the best ways of creating, extending, and extracting value from the network (Allee, 2008)

MedEd and Social Networks

- Curriculum network activities
- Learner network activities
- Faculty/staff network activities

Learner Networks

- Learners are communicating and collaborating, not just within a program but also between programs and institutions - generally hidden from institutional scrutiny
- Many learners report extensive sharing of learning resources and experiences between programs
- Value comes from:
 - augmenting and accelerating participants' learning opportunities
 - discussions with those outside their program communities
 - building future professional networks.
- Exchanges are defined by the tools learners select and by their needs and interests to participate
- Value is created by the contribution to the knowledge of the community

Problems and perils

- Hafferty "medical education is all about negotiating social networks"
- Hidden curriculum of netGen capabilities
- Hidden curriculum of social performance "who you know rather than what you know"
- Risks and norms of illegal actions
- Bleed between personal and professional
- Online actions can be forever
- Absence from curricula, accreditation, roles and outcomes

Curriculum Networks

- Discussion boards and forums, web conferencing, wikis, blogs, podcasting, virtual worlds ...
- Value depends on whether they contribute to the learners' goals, most of which are focused on passing or excelling within the program.
- If curriculum networks do not then the value is low and unlikely to succeed in getting or holding their attention.
- The affordances and constraints of the activity define exchanges within these networks
- Value is created through careful education activity design

Faculty and Staff Networks

- Include peer-peer networks such as participation in listservs, blogs and communities around medical education,
- Also third-party networks such as MedEdWorld, IAMSE and MedBiquitous.
- Value comes from fast and well-informed answers to immediate problems and being exposed to a variety of ideas, techniques and practices
- Exchanges are defined by easy access and alignment with workday practices, such as asynchronous access

Discipline and punish

The image shows a collage of news articles and social media posts. The main article is from TIME magazine, titled "Are Med-Student Tweets Breaching Patient Privacy?" with a sub-headline "The Successful Match: Facebook, a new way applicants?". Other visible text includes "Stony Brook medical student's photo with cadaver is off Facebook", "KevinMD.com", and "Medical students using Facebook and Twitter can get expelled".

digital professionalism

1. be online ... appropriately
2. manage what you show
3. manage how what you do is perceived
4. manage how what you do reflects on others
5. online = forever
6. protect yourself and your reputation
7. always a doctor, everywhere a doctor
8. honesty and openness
9. work within the law
10. behave professionally and respectfully in all media

Who does what?

- PLE: aggregates and connects all media
- Learner controlled – even built - smartphone/tablets = PLEs
- If everything is 'out there' then what do we do?
- Less ...
- Concentrate on what we need to do and only we can do
- Brown and Duguid balloon
- Teaching, learning, assessment – all change
- Teach cyborg students to be cyborg practitioners

Social media networks reprised

- Different kinds of networks afford different kinds of value for different kinds of users
- Value is a powerful metric for reflecting on the design and use of med-ed networks
- Value is a unifying concept for very different activities
- Importance of what participants do > the tools they use to do it
- Research required ...
- Today's systems are tomorrow's antiques
- Invest in activity, invest in learning

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