

# Professional and Ethical Challenges of Social Media and Medicine

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## Objectives

- | Discuss the application of social media to the delivery of information about healthcare
- | Describe the various online social media resources available for professional use by physicians
- | **Cite the risks and benefits associated with the professional use of social media**
- | **Discuss principles of medical ethics that should guide physicians using social media to interact with patients and potential patients**

## **Social Media**

- | **Social Networking =**
  - online connection of people
  - who share interests or activities
  - In groups or communities

## **Social Media (2)**

- | **Web 2.0 = e.g. Facebook, Google+, YouTube, Twitter**
- | **Facebook**
  - 800M users (July 2011)
  - 41.6% of US population (April 2010)
    - Google+ 40M users; 13% US adults (October 2011)
  - Personal profile, add users “friend,” exchange messages, automatic notification of friend updates
  - Photographs, personal weblog “blog”

## **Social Media (3)**

- | **YouTube – video posts**
- | **Twitter = service for sending short (140 character) text messages (“tweets”)**
  - with links to an online community of subscribers (“followers”)
    - who can tweet to their followers
  - Launched 2006
  - 300M users - March 2011
  - 65 million tweets/day - June 2011

## **Social Media (4)**

- | **Professional Social Media**
  - LinkedIn (business) 100M users
  - Sermo (physicians only)
    - Register after credentials verified/ Pseudonym
    - Discussion, polls, articles
  - Physician Nexus
  - QuantiaMD (clinicians only)

## Patients Use of Social Media for Fundraising

- | **“Help the Haleys Have a Baby” Campaign**
- | **Dozens of campaigns on Indie GoGo**
  - Posting free, takes 4% of money raised
  - Jessica and Sean Haley, Melbourne, FL
  - Facebook and Twitter
  - Insurance didn’t cover infertility treatment
  - Raised \$8,050
    - Parker-Pope T. Patients, too, turn to the Internet for fund-raising. New York Times. Nov. 21, 2011.

## Patients Use of Social Media for Second Opinions

- | **“How Facebook Saved My Son’s Life”**
  - “My social network helped diagnose a rare disease that our doctors initially missed.”
  - 4 year old son with rash, thought to be scarlet fever by pediatrician
  - Photo posted on Facebook
    - Former neighbor and cousin-cardiologist both suggest eventual Kawasaki disease diagnosis
  - **“Bravo, Facebook!” said Pediatrician**
    - Copaken Kogan D. How Facebook saved my son’s life. Slate.com July 13, 2011.  
<http://www.slate.com/id/2297933>

## Crowd-sourcing Diagnoses

- | Patient with night fevers and swats, 15 lb wt loss, mass in liver
- | Physician-friend with blog posts and sends to KevinMD who posts
- | Within hours, a dozen comments, several considering large hemangiomas
- | Patient's physician reaches same conclusion independently
  - Sanders L. The heat of the night. New York Times Sep. 10, 2010. <http://www.nytimes.com/2010/09/12/magazine/12FOB-diagnosis-t.html> cited in:
    - Farnan JM, Arora VM. Blurring boundaries and online opportunities. J. Clin. Ethics. 2011;22(2):183-186.

## Physician Use of Social Media

- | **34%**
  - Medimix International 2010
- | **41.6%**
  - Bosslet G. *Journal of General Internal Medicine* online 2010
- | **84% (for personal use)**
  - Frost and Sullivan 2011
- | **67% (professionally)**
- | **87% (for personal use)**
  - QuantiaMD 2011
    - Lewis Dolan P. Nearly all U.S. doctors are now on social media. AM News. Sep. 26, 2011. <http://www.ama-assn.org/amednews/2011/09/26/bil20926.htm>

## Newer Physicians are More Active in Social Media

- | 65% of recent medical grads on Facebook
  - 63% activated privacy options, restricting info to 'friends'
  - Remaining (37%) revealed:
    - 37% sexual orientation
    - 16% religious views
    - 43% relationship status
    - 46% photos with alcohol use
      - 10% images of intoxicated
  - Cross sectional survey of use of Facebook by 2006 & 2007 medical graduates
  - MacDonald J, Sohn S, Ellis P. Privacy, professionalism and Facebook: a dilemma for young doctors. Medical Education 2010;;44:805-813.

## Physician Info on the Internet

- | 93.6% = Physicians with personal or professional info on web
  - 92.8% professional info
  - 32.4% personal info
    - 10.8% Facebook
    - 10.0% hobbies
    - 9.6% charitable or political donations
  - Google search on 250 randomly selected IM physicians
    - Mostaghimi A, Crotty BH, Landon BE. The availability and nature of physician information on the internet. J Gen Intern Med. 2010; 25:1152-6.

## Physician Use of Social Media for Communication with Patients

- | 33% of physicians had received a friend request from a patient on Facebook
  - 75% of those physicians declined those invitations

- Lewis Dolan P. Nearly all U.S. doctors are now on social media. AM News. Sep. 26, 2011. <http://www.ama-assn.org/amednews/2011/09/26/bil20926.htm>

## Facebook = 4.74 degrees of separation

- | History = Six degrees of separation
  - John Guare play and film
  - Milgram S. The Small World Problem. 1967
    - Letters addressed to individual in Boston suburb to be passed to friends
    - Based on “Chains” Frigyes Karinthy 1929 suggestion that no one is more than six friends away from another
- | Average number of Facebook links from one arbitrarily selected person to another = 4.74

- 721 M Facebook users. Algorithm by Univ. of Milan researchers.
    - Markoff J, Sengupta S. Separating you and me? 4.74 degrees. New York Times. Nov. 21, 2011. [http://www.nytimes.com/2011/11/22/technology/between-you-and-me-4-74-degrees.html?\\_r=2&scp=1&sq=4.74&st=cse](http://www.nytimes.com/2011/11/22/technology/between-you-and-me-4-74-degrees.html?_r=2&scp=1&sq=4.74&st=cse)

## Convergence of Virtual and Real Selves

- | “The use of social media is heading towards the convergence of our virtual and real selves.”
- | “Profiles will no longer be outlines, but detailed self-portraits of who we really are, including the books we read, the music we listen to, the distances we run, the places we travel, the causes we support, the videos of cats we laugh at, our likes and our links.
- | “And, yes, this shift to authenticity will take getting used to and will elicit cries about lost privacy.”
  - Sheryl Sandberg, chief operating officer of Facebook. The Economist Nov 17th 2011, from The World In 2012 print edition

## Social Media & Identity

- | Ahmed Rushdie?
  - Facebook deactivated Salman Rushdie, demanded proof of identity, and then turned him into Ahmed Rushdie, using his first name, which is how he is identified on his passport
- | Facebook & Google+
  - require “authentic identity,” or real names
- | Twitter allows the use of pseudonyms
  - Sengupta S. Rushdie Runs Afoul of Web’s Real-Name Police. New York Times. Nov. 14, 2011.
    - <http://www.nytimes.com/2011/11/15/technology/hiding-or-using-your-name-online-and-who-decides.html?scp=2&sq=rushdie&st=cse>



## Information Wants to be Free

- | “Information wants to be free
  - [because the cost of getting it out is lower and lower].”
    - Stuart Brand 1984
- | ...free in price and free in movement
- | E.g.
  - Arab Spring
  - Wikileaks
  - SONY PlayStation Security Breach
    - Access to 100M users info 2011

## Patient Information Thefts and Disclosures E.g. (1)

- | VA 2006 & 2011
  - 2006 theft - VA employee's laptop's personal data on 26.5 million veterans and 2.2 million service members costing \$48 million in notification and a subsequent class action lawsuit
  - 2011 theft – 616 veterans' info
    - Hoover JN. Stolen VA Laptop Contains Personal Data. InformationWeek. May 14, 2010.
    - <http://www.informationweek.com/news/government/security/224800060>
- | UCLA Medical Center 2011
  - 16,288 patients' information on computer stolen from former employee
  - Data encrypted, but password on piece of paper also missing in burglary
    - Lewis Dolan P. UCLA breach shows that even home isn't always a safe place for data. AM News Nov. 21, 2011.
    - <http://www.ama-assn.org/amednews/2-11/11/21/bise1122.htm>

## Patient Information Thefts and Disclosures E.g. (2)

- | **Stanford 2011**
  - Medical data for ~20,000 ED pts on Web for almost a year
  - Billing contractor's marketing agent to a job prospect as skills test and applicant seeking help posts on a tutoring Web site.
  - Suit filed seeking certification as class action seeking \$20M
- | **Florida Hospital Orlando**
  - Three employees accessed 2,252 ED patient records to forward accident victim names to plaintiff attorneys
- | **Federal law requires disclosure of medical privacy violations involving  $\geq 500$  individuals**
  - Since Sept. 2009 start, 330 episodes 4 that affected >1M people
    - Sack K. Patient data landed online after a series of missteps. New York Times. Oct 5, 2011.
    - [http://www.nytimes.com/2011/10/06/us/stanford-hospital-patient-data-breach-is-detailed.html?\\_r=1&smid=tw-nytimesnational&seid=auto](http://www.nytimes.com/2011/10/06/us/stanford-hospital-patient-data-breach-is-detailed.html?_r=1&smid=tw-nytimesnational&seid=auto)

## “Twitterology: A New Science”

- | “Denizens of Twitter-verse, please be advised...your words are being analyzed.”
  - Despite Noam Chomsky's assertion that Twitter “is not a medium of serious interchange.”
    - Zimmer B. Twitterology: a new science. Opinion. Sunday review. New York Times. Oct. 30, 2011
- | **Public health researchers used Twitter to reflect public attitudes toward Influenza A (H1N1) vaccine.**
  - Moyer CS. Social media increasingly used to gauge public health. Amednews Nov. 7, 2011. <http://www.ama-assn.org/amednews/2011/11/07/prsa1107.htm>

## **Social Media Business Model**

- | **Business model = for profit**
- | **Through targeted advertising**
  - Data mining
  - Data analysis
- | **Subject matter of accounts**
  - E.g. Google advertising targeted based on email content

## **Facebook settlement with FTC**

- | **FTC complaint that alleged Facebook deceived consumers by asserting their information would be private, then making it public**
- | **Now Facebook will have to give consumers prominent notice of changes and get consent before changing privacy settings**
- | **The company will also have to undergo privacy audits every two years for the next 20 years**
  - Cassens Weiss D. Facebook Settles Privacy Complaint by FTC; Two Lawyers Will Oversee Efforts. Nov. 29, 2011  
[http://www.abajournal.com/news/article/facebook\\_settles\\_privacy\\_complaint\\_by\\_ftc\\_two\\_lawyers\\_will\\_oversee\\_efforts/](http://www.abajournal.com/news/article/facebook_settles_privacy_complaint_by_ftc_two_lawyers_will_oversee_efforts/)

## **“Selling our souls to Mark Zuckerberg”**

- | “Hand over your data, your life, your ... soul. And enjoy eternal like [sic] in the social media universe.”
- | “Facebook...with its growing list of partners...will track all of your shopping, listening and viewing...”
- | “The concentration of data in the hands of one company...should raise concern.”
  - Chicago Tribune Editorial. Sept. 28, 2011

## **“Facebook can get you fired”**

- | Employers can fire employees for posting inappropriate content on social media
  - Not covered by 1<sup>st</sup> Amendment
    - Unless employer is governmental agency
  - But National Labor Relations Board may overrule
    - Gripes about work not protected
      - E.g. Commenting about tipping policy, clients
      - Even posting comments on US Senator’s “Wall” not protected
    - But “concerted conduct” is protected
      - And policies concerning social media cannot be “overly broad”
  - Office of the General Counsel Division of Operations-Management. Report of the Acting General Counsel concerning social media cases within the last year. Memorandum OM 11-74. Aug. 18, 2011.
    - [mynlrb.nlr.gov/link/document.aspx/09031d458056e743](http://mynlrb.nlr.gov/link/document.aspx/09031d458056e743)

## Trust and Boundaries

- | **“One way to maintain trust is to maintain boundaries. Boundaries are no less important online.”**

- Snyder L. Online professionalism: social media, social contracts, trust, and medicine. J. Clinical Ethics. 2011;22(2)173-175.

## Social Media Medical Incidents (1)

- | **ED staff takes photos of dying 60 yo man stabbed more than a dozen times and posts on Facebook**

- St. Mary's Medical Center, Long Beach, CA

- | **5 Nurses and 5 staff members fired for discussing patients on Facebook**

- Hennessy-Fiske M. When Facebook goes to the hospital, patients may suffer. Los Angeles Times. Aug 8, 2010.  
<http://articles.latimes.com/2010/aug/08/local/la-me-facebook-20100809>

## Social Media Medical Incidents (2)

- | Photos of patients having operations were posted on Facebook
  - Southern General Hospital in Glasgow
    - Hospital operation photos appear on Facebook. BBC News. Jan. 22, 2010.  
[http://news.bbc.co.uk/2/hi/uk\\_news/scotland/glasgow\\_and\\_west/8474081.stm](http://news.bbc.co.uk/2/hi/uk_news/scotland/glasgow_and_west/8474081.stm)
- | Surgery resident takes photo of penis with tattoo during gallbladder surgery
  - Mayo Clinic Hospital, Scottsdale AZ
    - US 'penis photo doctor loses job.' BBC News. Dec. 21, 2007.  
<http://news.bbc.co.uk/2/hi/7155170.htm>

## Social Media Medical Incidents (3)

- | 23 incidents of patient information being posted on social networking sites
  - July 2008-July 2011
    - Cf = 91 incidents of NHS staff looking up details of colleagues
    - Broken Records. Big Brother Watch report 2011
      - <http://www.bigbrotherwatch.org.uk/home/2011/10/nhs-data-protection.html#.TqwFzmCk8VI>

## The Power of the Net (1)

- | “An article in the Journal of General Internal Medicine highlights some of the hazards...
- | In one example... the unprofessional images of drinking, carousing and posing with guns cast a poor light on what by all accounts was exemplary medical work.”
  - Ofri D. Should your doctor be on Facebook? New York Times online, April 28, 2011.  
<http://well.blogs.nytimes.com/2011/04/28/should-your-doctor-be-on-facebook/?ref=health>

## The Power of the Net (2)

- | “In one instance, physicians and other health professionals delivering aid in Haiti posted pictures of naked and unconscious patients in operating suites, and of physicians drinking or posing with grins and ‘thumbs up’ in front of patients or coffins.”
  - Greysen SR, Kind T, Chretien KC. Online professionalism and the mirror of social media. J Gen Intern Med 2010;25:1227-9. citing:
    - Valencia N, Fernandez B, Deaton J. Photos of drinking, grinning aid mission doctors cause uproar. CNN.com Feb 3, 2010.
    - <http://www.cnn.com/2010/WORLD/americas/01/29/haiti.puerto.rico.doctors/index.html?iref=allsearch>

## **Social Media Can Promote Professionalism**

- | Disseminate knowledge
- | Help public interpret medical studies
- | Hospitals and other medical institutions are using social media
- | Respectful clinical narratives without disclosure of personally identifiable info
  - promote understanding and reflection of physician patient relationship

• Greysen SR, Kind T, Chretien KC. Online professionalism and the mirror of social media. J Gen Intern Med 2010;25:1227-9.

## **Social Media for Physicians**

- | Sermo (physicians only)
  - Register after credentials verified/ Pseudonym
  - Discussion, polls, articles
- | Physician Nexus
- | QuantiaMD (clinicians only)



## **HIPAA 1**

### **Health Insurance Portability and Accountability Act**

- | **Federal privacy rule**
- | **Effective April 14, 2003**
- | **Applies to electronically transmitted or stored protected health information**
- | **Applies to any person or organization that stores or transmits individually identifiable health information electronically**
- | **Penalties: Civil \$100-\$250,000 Criminal**

## **HIPAA 2**

### **Health Insurance Portability and Accountability Act**

- | **Protected Health Information (PHI)**
- | **18 “identifiers”**
- | **Must be removed before health information can be considered de-identified, i.e. not personal data**

## **Social Media Consultation Pitfalls for Physicians**

- | Inadvertent disclosure to individuals other than health care personnel providing consultation
- | Security breaches at online medical site
- | Intentional deception
- | Intentional disclosure by health care professional to non-secure social media site

## **Factors to Consider re: Online Consultation**

- | How likely is an online consultation to produce an opinion that is better than those available locally
- | Would a secure e-mail to a specific consultant be as effective?
- | Consider using a secure HIPAA-compliant, physician-credential-verified network site with secure transmission in communication

## **Online Consultation Recommendations 1**

- | Case descriptions should not include HIPAA protected identifiers (PHI)
- | Use as few details as possible that could connect a specific patient or individual to the info
  - As the patient case description becomes more identifiable, the risk of breach becomes greater
    - Even a few salient details may be enough to identify a patient

## **Online Consultation Recommendations 2**

- | Consult only with the minimum number of identified and verified physician-consultants needed to provide advice necessary for patient benefit
- | Online expert colleague consultation entails significant ethical and legal risk

## **Internet & Doctor-Patient Relationship**

- | **Beyond providing broader, speedier access to information**
  - the Web is profoundly changing communication between doctor and patient e.g. email, websites
    - Googling symptoms and signs gave correct diagnosis in majority 15/26 published case records
      - Tang H, Ng JHK. Googling for a diagnosis – sue of Google as a diagnostic aid: internet based study. BMJ 2006;333:1143-5.
- | **Information + knowledge ≠ wisdom**
- | **Physician expertise and experience more essential**
  - Hartzband P, Groopman J. Untangling the Web – Patients, doctors and the internet. N Engl J Med. 2010;362:1063-1066.

## **Defining the Practice of Medicine Online**

- | **= Diagnostic evaluation, advice and consultation, or a medical or surgical intervention**
- | **Factors in traditional medical practice**
  - Implied or express consent
  - Provision of medical advice
  - Foreseeable reliance by the patient on advice
  - Setting independent – e.g. informal may create relationship

## **Information vs. Medical Practice 1**

- | **Direct or personal communication**
  - Central to relationship
  - On call physician need not have direct personal contact
  - Internet posted info unlikely to generate relationship in absence of one-on-one personal communication
- | **Tailored advice**
  - Medical history, evaluation, tests, professional judgment
- | **Closure and foreseeable reliance**
  - Expectation that patients will act in reliance on advice, and reasonable foreseeability of patient acting in reliance

## **Information vs. Medical Practice 2**

- | **No single factor decisive**
  - Analysis of facts
- | **Web disclaimers that consultation with physicians ≠ medical advice**
  - Will not withstand judicial scrutiny if fly in face of facts of online encounter
  - Do not meet acceptable ethical or professional standard
- | **When physicians provide info on the Net**
  - Have an obligation to assure accuracy

## **Professional Communication with Patients using Social Media**

- | As new generation moves from email to messaging through social media
- | May replace the email between doctor and patient

## **Setting Parameters: Competent Medical Practice and Accountability Online**

- | Addressing Conflicts of Interest
- | Meeting the Duty of Care
- | Importance of Physical Exam in the Encounter
- | Quality of Online Communication
- | Physician Identity
- | Informed Consent
- | Privacy and confidentiality

## **Privacy and Confidentiality (1)**

- | **Concerns by patients and physicians – major barrier**
- | **Over half of all U.S. adults very concerned about potential invasion of privacy of personal health information through Internet – 2007**
- | **Health Insurance Portability and Accountability Act (HIPAA)**

## **Privacy and Confidentiality (2)**

- | **Best practices would include:**
  - **Explicit consent from patient to engage in online communication**
  - **Password protection of email access from work or home**
  - **Limits on extraneous medical detail**
- | **Protection of patient confidentiality and privacy an ethical obligation beyond HIPAA regulations**

## **Provision of Information vs. Medical Practice**

### **| Publication ≠ practice of medicine**

- Courts have held publishers do not have relationship with readers that establishes a duty of care and concomitant potential liability
- First Amendment protection

### **| Clear, identifiable line critical for patients, physicians, public policy**

- Physicians should understand scope of obligations, requirements for licensure, standard of care
- Patients should understand when consumer vs. patient
- Two separate frameworks for accountability, privacy and other duties

## **Online Medicine**

### **| “This is a pale imitation of a doctor visit... We’re going to give up any pretense of examining the patient and most of the non-verbal clues that doctors use.”**

- David Himmelstein, Harvard

### **| The argument that you need ‘laying on of the hands’ is an old and tired argument that simply has no credibility...**

- Rashid Bashur, Director of Telemedicine, U. Mich.
  - Cain Miller C. The Virtual Visit May Expand Access to Doctors. New York Times. Dec. 21, 2009



## Professionalism & Social Media

### AMA CEJA Report 1

- | Be cognizant of standards of patient privacy and confidentiality in all environments...and refrain from posting identifiable information
- | Use privacy settings to safeguard personal info
  - Privacy settings not absolute, content likely permanent
- | Maintain appropriate boundaries of the physician-patient relationship
  - Consider separating personal and professional content online
    - Shore R, Halsey J, Shah K, Crigger B, Douglas SP. Report of the AMA Council on Ethical and Judicial Affairs: Professionalism in the Use of Social Media. J. Clinical Ethics. 2011;22(2):165-172.

## Professionalism & Social Media

### AMA CEJA Report 2

- | If colleague post appears unprofessional, bring to attention of individual so can remove/take other appropriate actions.
  - If significant violation of professional norms and no appropriate action, notify the appropriate authorities
- | Recognize that actions online and content posted may negatively affect reputation and have consequences for medical careers
  - especially for trainees and medical students
  - And can undermine public trust in the medical profession.
    - Shore R, Halsey J, Shah K, Crigger B, Douglas SP. Report of the AMA Council on Ethical and Judicial Affairs: Professionalism in the Use of Social Media. J. Clinical Ethics. 2011;22(2):165-172.

## **Appropriate Authorities**

- | Institutions should take a proactive approach to engage users of social media in setting consensus-based standards for “online professionalism.”

- | Greysen SR, Kind T, Chretien KC. Online professionalism and the mirror of social media. J Gen Intern Med 2010;25:1227-9

- | **? Authorities**

- Regulatory agencies/Medical examining boards/licensing boards
  - Medical associations
  - Healthcare organizations

## **Social Media Recommendations for Physicians**

- | “First, do no harm”
- | Maximize privacy settings for personal information
- | Consider “dual citizenship”
  - Professional - Dr. Blank (public)
  - Personal – Bill Blank (private)
- | Check out your online presence through self-searches
  - | Discourage your patients from using social media such as Facebook or Twitter for communication with you and other physicians
  - | Never disclose HIPAA protected health information online in social media

## **The Other End of the Keyboard**

- | At the other end of the keyboard is the world
- | You will make unintended tweets/posts
- | Once you put it out there you can take it down, but you can't take it back
  - Measure twice, cut once =>
  - Consider posting twice, post once

## **References**

- | Derse AR, Miller TE. Net Effect: Professional and Ethical Challenges of Medicine Online. Cambridge Quarterly of Healthcare Ethics (2008) 17, 453-464.
- | Miller TE, Derse AR. Between Strangers: The Practice of Medicine Online. Health Affairs (2002) 21 (4), 168-179.
- | Derse AR. Social media consults may harbor dangers. Ethics Forum. American Medical News. February 15, 2010. <http://www.ama-assn.org/amednews/2010/02/08/prca0208.htm>