IV. World Congress on Social Media and Web 2.0 in Medicine, Health, and Biomedical Research

Medicine 2.0®
@ Stanford University
Rather than focus on the presentation of research findings and scientific data, the Summit will present forecasts from luminaries—from e-patients and bloggers to executives and industry insiders—and ignite discussions about the development and use of technologies being built by academia and industry that will shape medicine in 2011 and beyond.

Continental Breakfast (7:30-8:20AM)

Introduction (8:20-8:35AM): Larry Chu, MD, MS, Executive Director of the Stanford Summit

Welcoming Remarks (8:35-8:40AM): Amir Rubin, CEO of Stanford Hospital and Clinics

Opening Keynote (8:40-9:10AM): Abraham Verghese, MD

Break (9:10-9:20AM)

The Networked Patient (9:20-10:28): Communities of Practice and Participatory Medicine
Moderator: Alan Greene, MD
Panel: Amy Tenderich (Diabetesmine.com), Howard Rheingold (Stanford University), Paul Wicks (PatientsLikeMe.com)

Break (10:28-10:50AM)

DEMO*: JiffPad (10:30-10:45AM)

The Healthcare Transformers (10:50-12:15PM): Persuasion, Socially Networked Hospitals, Personalized Healthcare, and the Art of Medicine 2.0
Moderator: Bryan Vartabedian (33charts)
Panel: Lee Aase (Mayo Clinic), Jay Parkinson (Futurewell), Wendy Sue Swanson (SeattleMamaDoc), Ron Gutman (HealthTap)

Lunch Box (12:15-12:30PM)

The Knowledge Revolution (12:30-1:15PM): Innovations in Medical Education for Tomorrow’s Learners
Moderator: Paul Costello (Stanford University)
Panel: Bertalan Mesko (Webicina), David Gaba (Stanford University), Parvati Dev (Clinispace)

Break (1:15-1:41PM)

DEMO*: Crohnology (1:20-1:35PM)

The Interconnected Life (1:41-2:50PM): Social Technologies and the Future
Moderator: David Duncan (Contributing Editor, Wired Magazine)
Panel: Sean Handel (Epocrates), Vikram Sahai (Google), Charlie Cheever (Quora)

Break (2:50-3:20PM)

DEMO*: Striv (3:00-3:15PM)

The New Scientist (3:20-4:45PM): Facebook for Scientists, Culture of Science on the Internet, and the Science of Sharing
Moderator: Denise Silber (Basil Strategies)
Panel: Michael Conlon (VIVO), David Pescovitz (Boing Boing), Jan Reichelt (Mendeley), Peter Binfield (PLoS One)

Break (4:45-5:15PM)

DEMO*: BrainBot (4:50-5:05PM)

Closing Keynote (5:15-5:45PM): Dennis Boyle, General Partner, Health and Wellness Practice, IDEO

Closing Remarks (5:45-6:00PM): Larry Chu, MD, MS Executive Director and John Stafford, MA, Associate Director.

*DEMO sessions are held in the DEMO Interactive pavilion in the lobby of the Paul Berg Auditorium on the second floor of the LKSC.
8:00-9:00  Plenary Hall  Continental Breakfast
9:00-9:05  Plenary Hall  Conference Opens
9:05-9:25  Plenary Hall  Larry Chu, MD, MS, Conference Organizer
9:25-9:35  Plenary Hall  Phillip Pizzo, MD, Dean, Stanford School of Medicine
9:35-9:45  Plenary Hall  Gunther Eysenbach, MD, MPH, Series Producer
9:45-10:30  Plenary Hall  Jennifer Aaker, PhD
10:30-11:00  Upper Lobby  Coffee Break

11:00-12:30  Parallel Sessions

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<td>Web 2.0 approaches for clinical practice, clinical research, quality monitoring (Internet-delivered interventions)</td>
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11:00 - 11:45
766: Michele Barry, Sangick Sunny Jeon, Nadim Mahmud, Sakti Srivastava

699: Rhoda Weiss-Lambrou
iPhone and iPad in Medicine and Health Sciences; Experiences in Teaching and Clinical Practice

632: Peter Schulz
Interactive Learning Objective Catalogue of The University Medical Center Mainz (iKum) - Improving Learning in Dental and Medical Education

11:45 - 12:30
765: Alex de Winter, Katherine Ku, Talya Miron-Shatz, Bassam Kadry
Digital Health–From a Concept to a Company

529: Jiri Kofranek
HumMod-Golem Edition - Large Scale Model of Physiological Systems for Web Based Medical Simulator

679: Jesse Cirimele
Tablet-based Cognitive Aids Reduce Errors and Increase Coordination in Crisis Care Teams

Jennifer Aaker, PhD
General Atlantic Professor
Graduate School of Business, Stanford

A social psychologist and marketer, Jennifer Aaker is the General Atlantic Professor of Marketing and Winnick Family Faculty Fellow for 2011-2012 at Stanford University’s Graduate School of Business. Her research spans time, money and happiness. She focuses on questions such as: What actually makes people happy, as opposed to what they think makes them happy? How can small acts create infectious action, and how can such effects be fueled by social media? She is widely published in the leading scholarly journals in psychology and marketing, and her work has been featured in a variety of media including The Economist, The New York Times, Wall Street Journal, Washington Post, BusinessWeek, Forbes, CBS Money Watch, NPR, Science, Inc, and Cosmopolitan. Recipient of the Distinguished Teaching Award, Citibank Best Teacher Award, George Robbins Best Teacher Award and both the Spencer and Fletcher Jones Faculty Scholar Awards, she has also taught at UC Berkeley, UCLA and Columbia. Most recently she has co-authored, The Dragonfly Effect: Quick Effective Powerful Ways to Harness Social Media for Impact.
### Plenary Hall Panel Session

**764: Brian S. McGowan, Bryan Vartabedian, Robert Miller, Molly Wasko, The “Meaningful Use” of Social Media by Physicians**

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BJ Fogg, PhD
Director, Persuasive Technology Lab
Stanford University

Dr. BJ Fogg directs the Persuasive Tech Lab at Stanford University. A psychologist and innovator, he devotes half of his time to industry projects. His work empowers people to think clearly about the psychology of persuasion — and then to convert those insights into real-world outcomes. BJ has created a new model of human behavior change, which guides research and design. Drawing on these principles, his students created Facebook Apps that motivated over 16 million user installations in 10 weeks.

He is the author of Persuasive Technology: Using Computers to Change What We Think and Do, a book that explains how computers can motivate and influence people. BJ is also the co-editor of Mobile Persuasion, as well as Texting 4 Health. His upcoming book is entitled The Psychology of Facebook.

Fortune Magazine selected BJ Fogg as one of the “10 New Gurus You Should Know.”

Susannah Fox
Associate Director, Digital Strategy
Pew Internet & American Life Project

Susannah Fox studies the cultural shifts taking place at the intersection of technology and health care.

Her research has documented the social life of health information, the concept of peer-to-peer healthcare, and the role of the Internet among people living with chronic disease.

Fox contributes to a health care blog, e-patients.net, and you can follow her on Twitter: @SusannahFox.

Fox is the former editor of the website for U.S. News & World Report. She has also worked as a researcher for RealNetworks and for The Harwood Group. Fox graduated from Wesleyan University with a degree in anthropology.
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10:30-12:00 Parallel Sessions

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<td><strong>Behavior Change and Mobile Health Technology Panel: a Trifecta Strategy for Successful Design</strong></td>
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<td>602: Chris Paton</td>
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<td>The Health Innovation Exchange (HIVE) – Bringing Together Government, Clinicians, Academia and Industry to Foster Health Innovation in New Zealand</td>
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<td>Measuring the Effects of eHealth Applications on Efficiency: a Systematic Literature Review</td>
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| 11:15 - 12:00 |                | 745: Austin Kelly | Medstr.com | 674: Lisa N. Gualtieri | Communicating the Experience of Illness through Patient Blogs |
| 581: Robyn Whittaker, Barbara Mittelman, Wendy Nilsen |    |       |          |         |            |
| **Issues in Mobile Health** |    |       |          |         |            |
| 539: Bassam Kadry |    |       |          |         |            |
| Analysis of 4999 Online Physician-Reviews Indicates That Most Patients Give Physicians a Favorable Rating |    |       |          |         |            |
| 768: Enoch Choi |    |       |          |         |            |
| Social Media Use by Health Care Providers: Professional Benefits and Social Challenges |    |       |          |         |            |

Notable Presentations • IMIA/SPC rated top 20% of abstracts, • IMIA/SPC rated top 3% of abstracts

12:00-13:00 Lunch and Visit Posters

| Demo Session #4 |    | 611: | Cornelia Van Uden-Kraan, OncoCompass: an E-health Management Platform to Facilitate Supportive Cancer Care |
| 12:05PM-12:20PM |    |      |       |         |            |
| 62: William Jordan, Locarto: Promoting Mobile Vending of Fresh Produce through Location-Based Text Messaging |
| 12:23PM-12:38PM |    | 564: |       |         |            |
| 12:41PM-12:56PM |    | 726: |       |         |            |
| **13:00-14:30** |    |      |       |         |            |
| **Parallel Sessions** |    |      |       |         |            |
| **Parallel Session 11** | Paul Berg Hall |    | 756: | Raymond L. Ownby | Development of a Computer-Based Tailored Information Application to Improve HIV-Related Treatment Adherence |
| **Mobile health and digital learning for adherence** |    |    | 666: | Brigitte Piniewski | Crowd Accelerated Health Intelligence: Impact on Policy Making |
| 721: Wilma Kuijpers |    |    | 663: | Rachel Fournier | Montre à La Cigarette C’est Qui Le Boss! Using Highly Tailored Text Messages to Help Young Adults Quit Smoking |
| **711: Wineet Singal** |    |    | 643: | David Hale | From Data to Wisdom: Baking Knowledge and Expertise into Government Health Data |
| **Utilizing the Power of Text-messaging (SMS) Technology to Increase Patient Compliance with Medication and Adherence to Physician Recommendations and Educational Interventions in Free Clinics** |    |    | 660: | Thomas Milton Jones | Taking Personal Health Records to a New Level: Establishing a Platform for Allowing for Consumer Control of Interoperable Health Care Information |
| 653: Monica Murero |    |    | 662: | Richard Moser | Wiki Approaches to Enhance Reach and Breadth of Stakeholder Involvement in Identification of Practical Patient-Reported Measures for Primary Care |
| **Impact of Texting and Predictive Potential of Health Literacy on Medication Adherence in T2DM** |    |    | 662: | Monica Murero | Alice Gets Sick in Facebookland: Challenges in Digital Literacy for Health 2.0 |

Notable Presentations • IMIA/SPC rated top 20% of abstracts, • IMIA/SPC rated top 3% of abstracts
14:30-15:00 Upper/Lower Lobbies
Coffee Break
Demo Session #5
14:35PM-14:50PM 772: Leslie Wu, Scott Klemmer, Stu Card, Kyle Harrison, Larry Chu, Large Screen and Tablet-based Interactive Cognitive Aids for Crisis Care

15:00-16:30 Parallel Sessions

Parallel Session 4 Paul Berg Hall
Quantified Self and Self-Tracking Devices Panel and Demonstration
Chair: Kevin Clauson
Mobile health applications for management
15:00-15:40
769: Gary Wolf, Paul Abramson, Basis CEO Jef Holove, BodyMedia CEO Christine Robins, BodyTrack Anne Wright, Ben Rubin, Zeo Co-Founder and CTO
Quantified Self and the Self-tracking Patient
762: David H. Gustafson • Smartphone Application to Prevent Alcohol Relapse: a Clinical Trial
759: Carl Hanson • Protecting Health in a Social Media World: Healthcare and Human Service Responses to Online Threats
583: Taridzo Fred Chomutare • Review of iPhone Applications for Diabetes Self-Management
546: Carol S. Bond Online Discussion Boards as Research Data; Exploring the Ethical Issues
584: Richard Booth A Systematic Review of Published Accounts of Social Media Use within Nursing: Where Practice Outpaces Research

Parallel Session 14 LK120 Hall
Mobile health applications for management
15:00-15:40
754: Wendy Nilsen • Using Mobile Technologies in Health Research at NIH
625:Francisco Lupiáñez-Villanueva • Health-related Information as Personal Data in Europe: Results from a Representative Survey in EU27
567: Pat Rich Social Media and Physicians: a Canadian Overview

Parallel Session 15 LK130 Hall
Ethical and legal considerations
15:00-15:40
637: Joseph Cafazzo Mobile Phone-Based Remote Patient Monitoring for Heart Failure Management: a Randomized Controlled Trial
550:Shannon Hughes Challenges to Scientific Validity in Researching the Anonymous Online User
626: Martina Moick Physicians’ reasons for professional Internet Use and the Impact on Attitudes towards Internet-informed Patients and Prescribing Behavior

Parallel Session 16 LK101/102
Physicians, internet use, and social networking
15:40-16:30
542: Sivan Rapaport • The Effect of Social Networks on Clinical Case-Based Reasoning
556: Bassam Kadry

Notable Presentations • IMIA/SPC rated top 20% of abstracts, • IMIA/SPC rated top 3% of abstracts

15:00-16:30 Parallel Sessions

Panel Session 4 Paul Berg Hall
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Learning Nephrology Through Mobile Devices: The Nephrology On-Demand Mobile Experience

Web 2.0-based medical education and learning
Poster Session 1, 12:30pm–1:30pm, September 17, 2011
Lower Lobby

Background
An increasing number of healthcare providers (HCP) are consuming medical information through mobile devices, but the popularity of these devices is unknown. Medical educators who provide online information need to know how potential learners utilize mobile devices to obtain information if they wish to effectively communicate using these technologies. This knowledge will allow educators to properly allocate IT resources and develop effective medical websites. In this study, we characterized how HCPs use mobile devices to access a medical education website.

Methods
Nephrology-related medical information was made available to all mobile devices (smartphones, PDAs) through Nephrology On-Demand Mobile (http://www.nephrologyondemand.org) (ISSN 2155-9813). The website was coded in the Wordpress® platform and is maintained by the Division of Nephrology at East Carolina University. It contains evidence-based Nephrology teaching material that is categorized by topic, date, and target audience. Computer code from WPTouch was included in the root files of the website to display a mobile-specific version of the website when accessed through a mobile device. Google Analytics code was also inserted into the root files of the website. This code tracked visits, pageviews, time on site, bounce rate, location, connection speed, device type, and browser type for all mobile devices. New and return visits were also calculated by using IP addresses and cookies. Data was collected from February to October 2010.

Results
A total of 638 mobile visits were made during the study period (5.4% of the total visits to Nephrology On-Demand). These visits came from 3 areas of the world (United States 91%, Europe 3%, and Asia 4%, Central & South America 2%). Four-hundred and forty one visits (71%) were from the Apple iPhone device. Adobe Flash-compatible devices, such as those running the Google Android operating system, comprised 16% of all mobile visits. Fifty-five percent of all visits were through a cellular connection. As a result of the slower connection speed, users spent the most time on the website (264 seconds/visit) when using this connection. When users connected via faster speeds, they spent less time but viewed more resources than through a cellular connection (97-158 seconds/visit). The average number of visits & pageviews could be achieved by completing a short, Qualtrics-hosted survey.

Conclusions
Our descriptive investigation has 3 key points. First, local meetings generally attract local healthcare providers, but blogs of such meetings can attract a global online audience. Although a small number of visits & pageviews to blogs of local meetings were 16 and 27, respectively. These numbers increased to 112 and 181, respectively, for the national/international meeting blogs. International readers contributed between 50-95% of visits to the blogs of local meetings. Of the 165 surveys started, 96% were completed. Eight out of 10 non-first-time readers viewed the blogs as accurate (mean 87%, confidence interval 86%, 88%) and useful (1.6, 0.86). This finding was similarly observed at all training levels.

Flash-compatible teaching resources should be avoided if one wishes to address the largest audience. Educators contemplating using mobile devices should initially develop English-only resources. Finally, because cellular connections are the most common internet connections, teaching resources should be programmed to load quickly through this type of connection. Further investigation is underway to provide additional information about user learning experiences through mobile devices.
Background 
There is an exponential growth in technological media which has a global impact on how individuals are connecting and communicating. In particular, the role of text messaging via mobile phones and the use of social network sites as a medium is changing the way people share information. Social network sites allow for a greater opportunity to gather information from weak relationships and to strengthen strong relationships. The disadvantage is the proliferation of information that may have questionable sources. There are concerns around the privacy and security regarding use, storage and transfer of information via these networks. The mobile social network medium is an active study area for researchers in health information sharing. It is beginning to affect traditional health systems and was the basis of this study.

The use of these mediums to share health information was investigated, focusing on the Generation Y cohort as early adopters and prevalent users of new technology. This study sought to investigate how this group utilizes mobile and social networks to share health information.

Methods 
A survey tool was used to collect data about a cohort’s health information sharing behavior. Questions were used to determine if there was any difference in the way these media were used to share health information with family and friends.

Results 
A total of 1,747 responses were received. The results were analyzed using a number of statistical models and tests to determine if there was any correlation between the use of these media on the level and frequency of sharing health information on these media. The statistical tests used showed that there is a positive correlation between the use of these media and the sharing of health information across these media.

Conclusions 
The importance of knowing the results of this health sharing behavior across these media for both academics and health practitioners is that they can further try to understand why this media is being used to share health information. This can then be used to understand what changes need to be made to the technology in order to allow continued growth of usage of these media for health information sharing. It is also important to ensure that health care providers are aware that there is a shift in the methods of communication and embrace this in their development of future healthcare plans. This study found that health information is being shared across these media between various groups of people and at different frequencies. Text messaging as a means of sharing health information should be looked at as being a very real and practical communication tool when dealing with non urgent medical conditions. However, there is still a concern about using social network sites to share health information; they are being used as a means of crowd sourcing for opinions.

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Inability to recall and act upon their dosage regimens. Other variables associated with a lack of adherence in T2DM includes: low social support, depression, low health literacy, and low health literacy. Low health literacy is also significantly associated with hypoglycemic episodes due to the high percentage of mobile phones across socioeconomic groups and the extremely high read rate (94%) for mobile SMS (short message service), text message medication reminders offer a promising intervention for improving medication adherence in T2DM patients.

The primary objective of this study is to improve medication adherence in the use of daily SMS medication reminders. Secondary objectives include: 1) to assess health literacy levels in an ethnically diverse, uninsured/underinsured patient population; 2) to examine the predictive potential of measured health literacy and disease knowledge for medication adherence, and 3) to perform a test-retest with health literacy and disease knowledge assessment tools. Methods: A randomized, open-label, controlled study is being conducted at a primary care clinic with a diverse, underserved uninsured patient population. The intervention is a daily SMS medication reminder temporarily selected by participants and including the disease and medication de-identified text message. “It’s time.” Text selection was chosen to be consistent with previous research and ethics board requirements. Participants will be randomized to either the SMS + standard care (inter- vention) group or standard care alone (control) group for 6 months. Baseline data, including HbA1C, demographics, and medication regimen information, was collected at the initial visit. Other measures employed at baseline and month 6 in this study include health literacy via the REALM (Rapid Assessment of Literacy in Medicine – Short Form) instrument and disease knowledge with the DKT (Disease Knowledge Test) – T2DM subset tool to allow for test-retest evaluation of adherence. The intervention will be assessed at months 3 and 6 via pharmacy refill records, electronic health record (EHR) data, the MMAS (Morisky Medication Adherence Scale), Hemoglobin A1C (HbA1C), REALM-SF and DKT-T2DM scores will also be introduced into the EHR for future visits and targeted diabetes education scheduling. In the interven- tion group only, a brief questionnaire will be administered to assess satisfaction and evaluate SMS alert fatigue at months 3 and 6. This will be used to assess the effect of SMS on adherence. Multivariable linear regression will be used to assess associations between health literacy and clinical outcomes (e.g., HbA1C).

Results: Research in Progress. Conclusions: Research in Progress.

539 Bassam Kadry ANALYSIS OF 4999 ONLINE PHYSICIAN-REVIEWERS INDICATES THAT MOST PATIENTS GIVE PHYSICIANS A FAVORABLE RATING Physician-patient interaction online Parallel Session 9, 10:30am-12:00pm, September 18, 2011 LK210 Hall Background A majority of Americans use the Internet to search for health-related information. Many online physician review sites provide patients with information about physicians and allow patients and other users to provide opinions and ratings of physicians. The goals of this study were to determine the most frequently visited physician-review websites that have user-generated content, to compare their willingness to use (and actually use) several websites and the methods used by each site to rate physicians, and to analyze online ratings of 4999 physician reviews.

Methods: On 10/1/2010 the ten most frequently visited online physician-review sites with user-generated content were identified. Each site was studied to determine the type of rating scale (e.g., 1-5, 1-100, and dimensions of care (e.g., recommending to a friend, waiting room time) that patients were asked to rate physician characteristics and aspects of care. Readers of these websites and the methods used by each site to rate physicians; 3) analyze online ratings of 4999 physician reviews.

Results: The 10 most commonly visited websites with user-generated content were: HealthGrades.com, Vitals.com, Yelp.com, VSP.com, RateMDs.com, AngiesList.com, Checkbook.org, Kudzu.com, and ZocDoc.com. A total of 49 different dimensions of care were rated by patients. Several dimensions of care (e.g., recommending to a friend) were compared across websites. In terms of rating scale the websites varied significantly (e.g., 1-5, 1-100, and dimensions of care (e.g., recommending to a friend, waiting room time) that patients were asked to rate physician. Data from each website's identification and users of these websites and the methods used by each site to rate physicians were analyzed to assess how physicians are rated online.

Results: The 10 most commonly visited websites with user-generated content were: HealthGrades.com, Vitals.com, Yelp.com, VSP.com, RateMDs.com, AngiesList.com, Checkbook.org, Kudzu.com, and ZocDoc.com. A total of 49 different dimensions of care were rated by patients. Several dimensions of care (e.g., recommending to a friend) were compared across websites. In terms of rating scale the websites varied significantly (e.g., 1-5, 1-100, and dimensions of care (e.g., recommending to a friend, waiting room time) that patients were asked to rate physician. Data from each website's identification and users of these websites and the methods used by each site to rate physicians were analyzed to assess how physicians are rated online.

Conclusions: The activities within a social network consisting of about 300 primary care physicians in Israel regarding a clinical case published in the New England Journal of Medi- cine (NEJM) are analyzed. Both qualitative and quantitative methods are applied to measure activities within this social network, perform content analysis of knowledge and rationale, and survey via a questionnaire for data collection about the decision making processes. The first phase of study is devoted to analysis of routine activities within the studied social network. The second phase of study is devoted to a clinical case published in the New England Journal of Medicine (NEJM) when faced with the option of 1) getting additional information (e.g., statistics, or the rationale for the treatment), and 2) revising the decisions of colleagues and the rationalization for their choices, patients actually use the additional information. In ad- dition, the effect of decision making process in the mind of the physician’s decision before and after the supply of additional information, is assessed and reflections upon the decision-making process are collected via a questionnaire.

Results: Research in Progress. The results may help design soc- ial networks that can support physicians’ decision-making. Conclusions: Research in Progress. The potential contribution of this study is to shed light on the role of social networks as a platform for knowledge capture and transfer, and their effect on physicians’ decision-making processes.
Mendeley effectively extracts metadata from research papers, allowing researchers to annotate, tag, and manage their publications. This makes it easy to share this information through the network or to other networks a professional medical user may employ. The tool integrates Mendeley with popular research management software, which encourages collaboration among researchers, thus significantly improving researchers’ productivity. By anonymously aggregating usage data from real-time, Mendeley enables rapid, time-discovery of critical information. A network of collaborators and peers thus grows out of shared interest, with the document and highlighting the existing network with semantic information.

Carol S. Bond, Jarqui Hewitt-Taylor
ONLINE DISCUSSION BOARDS AS RESEARCH DATA: EXPLORING THE CONSIDERATIONS
Ethical and legal issues, confidentiality and privacy
Parallel Session 15, 3:00pm-4:30pm, September 18, 2011
Lk130 Hall
People living with enduring health conditions (EHC) are increasingly using online discussion networking websites to share their experiences, and to both offer and seek help and advice from fellow 'sufferers'. Besides the primary purpose of enabling social support, people living with HIV, AIDS, and many of these websites contain material of potential use to researchers. Accessing information from individuals for research purposes usually means that the participants are asked to participate in information gathering activities, gaining consent to participate and advising participants about anonymity and confidentiality. This process of seeking consent and outlining the boundaries of the use of data is carried out before the participant makes information available to the researcher. However, the situation is somewhat different when a researcher considers using internet discussion boards. How the established principles of ethical research can or should be applied to research happening in the ‘online world’ rather than the ‘real world’ is a challenge to researchers. This abstract explores the issues through consideration of research with discussion board data. In 2001 Eybenach and Till reviewed health related discussion boards and concluded that users of internet communities do not expect the posts they make to be used by researchers. They identified that the rise of what we now call social networking is creating a blurring of public and private spaces. This research however was carried out before social networking was the everyday activity that it is now for many people. Around the same time (2002) the Association of Internet Researchers questioned whether privacy and consent are understood as research subjects or as authors whose texts are intended as public writing.

Shannon Hughes
CHALLENGES TO SCIENTIFIC VALIDITY IN RESEARCHING THE ANONYMOUS ONLINE USER
Ethical and legal issues, confidentiality and privacy
Parallel Session 15, 3:00pm-4:30pm, September 18, 2011
Lk130 Hall
The Internet provides an unprecedented opportunity for those strategies used to investigate the current state of online communication with women in similar situations. While many welcome this opportunity for consumers to help further develop the treatment knowledge base, it has also led to concerns about credibility and authenticity of claims in an inherently non-transparent realm. Some social commentators argue that too much “democratization” of knowledge production to a point where the balance of positive and negative social consequences are not clearcut and honest. Accountability become obscure or empty. Anonymity of online public communication, and the perceived value of scientific evidence by users to be more truthful in sharing their experiences, though it simultaneously presents a new challenge to scientific principles that traditionally require for validity the use of known and verifiable samples. Terms of Use statements on health websites clearly state that authenticity and accuracy of consumer-reported information is the sole responsibility of individual users. Consumer treatment experiences on such sites could plausibly reflect any number of true or false claims/authentications with or without vested interests (credibility), including such stakeholders as pharmaceutical companies. Implications following from anonymity have not hindered researchers from utilizing consumer-reported treatment experiences as data. This is especially true when it also factor into drug safety surveillance and regulatory decision-making processes. This presentation discusses results from multiple strategies used to investigate the current state of knowledge about and methods for ensuring the authentic ity and credibility of online consumer-reported treatment experiences. A systematic search of the literature on web credibility/authority/validity/accuracy was conducted using PsycINFO, PubMed, CINAHL databases. An open-ended survey was emailed to 15 professional and consumer health website officials inquiring about their experiences and effort to control authenticity and credibility of user contributions. Finally, 960 randomly selected consumer reviews of an antide pressant and antipsychotic medication from four health websites were inductively coded for consumer-reported drug effects. To assess for evidence of bias, a chi-square test was computed to compare the balance of positive and negative drug effects according to time period of the post and anonymity of the poster. Results reveal that, while numerous studies describe how end-users assess credibility of health websites, few studies directly analyze authenticity or credibility of consumer-reported information. However, research on user-contributed information in non-health related fields offer insights into the possible scope and impact of this issue. Survey respondents (N=99) were unable to estimate the prevalence of consumer-reported data that are not authentic or credible, but speculated that the problem may exist. No respondents identified a systematic method for checking or ensuring authenticity or credibility of consumer-reported data. Finally, few statistically sig nificant differences were found across the 960 consumer mediated reviews, indicating no consistent pattern of bias. The literature review and surveyed website officials, however, suggest that continued vigilance and additional research is necessary. This presentation will end with suggestions for future research to help establish the validity of anonymous consumer-reported internet data.
The self-tracking patient

Self-tracking patients are people who track data about themselves. Some do so with hopes to observe patterns in their health over time and make better decisions about how to manage their health. Attend this session to learn more about the self-tracking movement and see live demonstrations of self-tracking devices. Join Mr. Gary Wolf, founder of The Quantified Self, and guests for an exciting panel discussion followed by live demonstrations.

Gary Wolf, The Quantified Self, Jef Holove, CEO Basis, Lexy Franklin, Co-founder Striv, Christine Robins, CEO BodyMedia, Ben Rubin, CEO Zeo, Anne Wright, BodyTrack, Paul Abramson, MD and others.
Support aiming to increase YCs' opportunities and willingness to overcome barriers in reaching HSCRs that they need.

Methods
Data from two qualitative studies have been used. Study one was based on interview data (N=12) and explored YCs' needs in their care situation and in relation to a hypothesized WBSS. Data was transcribed and analyzed with content analysis. Study two explored YCs' views (N=8) of a WBSS when acting as co-designers in a participatory design (PD) process. Five consecutive design meetings were video recorded and analyzed with content analysis.

Results
1) In addition to needs for knowledge (e.g. for understanding mental illness) and needs for communication (e.g. with peers having similar experiences), YCs wanted the opportunity to meet peers in real life and to get real-life support. Important real-life support could be e.g. acute relief in the care situation and structured family interventions. Young carers also expressed need for greater commitment from HSCRs. 2) Young carers emphasized human qualities of the WBSS (personification), like competence and a serious attitude. They indicated the importance of commitment and sensitivity in any action on the WBSS. The website was viewed not only as a source for information, knowledge and exchange, but also as something to relate to and trust.

Conclusions
Localization, mediation and personification may be important properties of a WBSS aimed at YCs. A locally anchored WBSS could facilitate real-life connections between YCs (observing security issues) and would be a prerequisite in helping YCs to become familiar with HSCRs in their place of living. A dedicated staff can build relations to and explore local HSCRs and mediate these experiences on the WBSS. A personified WBSS may offer not only increased visibility, transparency, and familiarity of HSCRs, but also trust and support for YCs to overcome barriers in reaching HSCRs.

563 Raphaelle Laubie
UNDERSTANDING THE DETERMINANTS OF ONLINE COLLECTIVE ACTION: THE CASE STUDY OF PATIENT COMMUNITIES

Community Health Care
Poster Session 2, 12:00pm-1:00pm, September 18, 2011
Lower Lobby

Internet use has dramatically expanded over the past few years and virtual communities are blossoming on the World Wide Web. Virtual communities offer interesting perspectives and opportunities to both companies and participants, in terms of problem solving (e.g., InnoCentive), creativity (e.g., Appstore), and project funding (e.g., Kiva). This research examines user motivations to join social networks in patient communities. Researchers have already explored some of these aspects. However, they have failed to develop a clear model, integrating both individual and group variables such as group norms and social identity. Drawing on the concepts of intent and goal-directed behavior, we explore these causal factors, focusing on the role of habits and emotions in users' behaviors. In this research project, we use a qualitative methodology in compliance with our exploratory quest to understand the determinants of online collective action for patients. In order to get a sociological typology of our field of inquiry, we first proceeded to health 2.0 experts' interviews. Considering the insights given on patients that would be engaged in these communities we proceeded to these specific patients' category interviews. We used SDI (semi-directive centered interview). We expect our study to analyze and understand the underlying determinants of online communities to generate action, which can disclose precious user-generated content and lead to innovative discoveries as collaborative tools offered by new communication technologies greatly facilitate this approach. Our model, inspired from literature and converted into interview material, is a revision of Perugini and Bagozzi's model of goal-directed behavior (Perugini et al, 2001), which was adapted to social networking websites in Bagozzi and Dholakia's follow-up studies (Bagozzi et al, 2002) (Dholakia et al, 2004). The interviews also highlighted the emergence of new factors such as belongingness needs (among patients) and exclusivity (dedicated platforms). In our expected field of inquiry, doctors, scientists, pharmaceutical companies or regulators used to let patients know what seemed relevant to their experts' accommodation (accommodated) point of view. Today, with the overlooked of patients' increased interactions made immediate and simple, things are dramatically changing, allowing patients to narrate in detail, to the whole world the life story of their pains, fears, illness experiences documented with photos and protagonists' true names. These aspects encourage a bottom to top approach in medicine and collaboration between patients and researchers; they may help to tackle aging populations health challenges and may be boosters for the codification of laws among countries and reforms as well.

564 William Jordan, Gillian Saunders, Renee Shanker, Peter De Vries, Sean Lucan
LOCARON: PROMOTING MOBILE VENDING OF FRESH PRODUCE THROUGH LOCATION-BASED TEXT MESSAGING FOR AGEING POPULATIONS

Demo Session 4, 12:23pm-12:38pm, September 18, 2011
Upper Lobby

Background
The NYC Green Cart program attempts to infuse low-income neighborhoods with jobs and fresh produce by offering permits for the mobile sale of fruits and vegetables. Because vendors can choose—and change—their vending locations, the Green Cart program poses problems for both program promotion and evaluation. Similar problems have been addressed in the developing world through short message service (sms) text messaging. Our objective is to promote Green Cart vendors and evaluate their geographic distribution and customer volume using text messaging technology.

Method
An academic physician was partnered with a community-based organization to develop a web-based map (“Locarto”). Vendors can update and consumers and community organizations can determine Green Cart locations on the map via sms text messaging. Locarto outreach workers solicited vendor participation in 2010. Public promotion of the map is beginning in 2011.

Results
This demonstration will discuss the Green Cart program and how Locarto addresses unmet needs through novel use of online message-based mapping. The technology platform, development, and implementation challenges will be discussed.

Conclusions
Locarto attempts to provide a web-based text message interface accessible to low-income and low-literacy communities in order to promote economic development and healthy food availability.

567 Pat Rich
SOCIAL MEDIA AND PHYSICIANS: A CANADIAN OVERVIEW

Physicians, internet use, and social networking
Parallel Session 16, 3:00pm-4:30pm, September 18, 2011
Lk130

Background
The use of social media (Facebook, Twitter etc) within the health care sector is becoming of increasing interest to health care providers, consumers and policy makers. While social media is seen as a means of encouraging patient engagement with health care providers, lack of knowledge about social media platforms as well as regulatory and other concerns may limit physician involvement. Information about physician use and acceptance of social media is lacking especially observational data about use in the general physician community. Our objective is to assess Canadian physician use of social media and their attitudes about the perceived value of social media.

Method
A brief online questionnaire was distributed to the ePanel of the Canadian Medical Association in February, 2011 asking about use of popular social media and social networking sites by physicians as well as their perception of social media. The ePanel is a volunteer group of more than 3000 Canadian medical students, residents and practicing and retired physicians who have agreed to answer questions on health care issues.

Results
A total of 629 responses were received (19% response rate). Use of social media in general is low among Canadian physicians and use of social media for professional purposes is limited. While half of those polled have a Facebook account, only 12% have a Twitter account and only 7% report having a blog. However 96% report using Google to search for information for professional purposes and 42% say they have participated in an online discussion forum on a medical or health care topic. Physicians have mixed feelings about the value of social media, with 81% feeling it poses professional and legal risks; however, half feel it helps patients gain a sense of community.

Conclusions
Survey results indicate social media use by physicians is still in its infancy. Physicians question the value of social media and are wary of risks it may pose. However many researchers and physicians in this area and the Canadian Medical Association is in the process of developing guidelines for physicians wishing to use social media.

569 Keyvan Sadegh, Peter Schulz, Andreas Bemsch, Vinay V. Kumar, Christian Walter
EVALUATION OF A NEW INTERACTIVE E-LEARNING TOOL (ILKUM) OF THE UNIVERSITY MEDICAL CENTER MAINZ

Digital Learning
Poster Session 1, 12:30pm-1:30pm, September 17, 2011
Lower Lobby

Background
E-learning has been recognized during recent years as an essential tool to improve dental education; however, the
The keywords “Waste and Health” (“Rifiuti e Salute”) were entered in the most commonly used search engines. We found 480 occurrences. We included websites at least in English and we classified the results using different methods. The articles with original data (articles dealing with DSW characteristics) we reported, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gained from the mass media was evaluated by an anonymous questionnaire. The aim of the study was to investigate the characteristics and access, whereas information gain
Conclusions

The evidence shows that DSWs are an important phenomenon which is continuing to spread, despite partial regulation, difficulties in quantifying the ripple effect and impalpable and evanescent nature of the web and its global dimension. From a broader point of view, the study of DSWs is essential for Internet and public health: where public health – in terms of regulation and education – does not always determine the recipient results and technological advances, interests often very little to do with people's health. A considerable effort must therefore be made to be equipped with technological advancement, social change, sustained by means of an international approach, in order to exploit the Internet's huge potential, while minimizing the risks it can generate.

575
Bart J. Brandsen, Erik Jansen
WHAT LIES AROUND THE CORNER? EXPLORING NEXT STEPS IN SOCIAL MEDIA AND PRIMARY CARE

Consumer empowerment, patient-physician relationship, and socio-technical issues

Demo Session 1, 12:35pm-1:00pm, September 17, 2011
Upper Lobby

In 2009, two Dutch physicians assisted by a communication and IT specialist, started a primary care consultation service on Twitter, called @tweetspreekuur. The free service consists of an account where Twitter users can ask health related questions (24/7). Primary care physicians provide answers within 24 hours, sometimes after consultation of a medical specialist in our network. We reported our first year results at the Medicine 2.0 Maastricht conference and we were pleased and honored with the M2.0 Maastricht Award! We received 383 direct message episodes (1148 tweets, categorized according to the International Classification of Primary Care (ICPC)) that showed that the @tweetspreekuur service covers all areas of primary health care as every ICPC category is represented. It is time-efficient and great fun to do. A questionnaire, with recruitment via Twitter, demonstrated good user satisfaction amongst the 122 respondents. Although gradually increasing, Twitter consults are relatively insignificant in quantity. Our account is followed by less than 1% of Twitter users in the Netherlands. It is the significant disease related forms of communication and the positive reactions from users and colleagues, that encourages us to continue. Our two leading concepts, "The People who are talking in the Eating" and "Learning by Doing" gave our project a leap start. We realize now that the time has come to contemplate the next steps and address topics, patient safety and sustainability of the service. We will present our exploration of a few of the next possible steps that primary care "social physicians" could take in the future. Social media allows doctors to engage in conversations through social media. For instance, expanding our service to other social media such as YouTube and Facebook (or the Dutch equivalent Facebook for doctors) would be large scale and health care related communities exist. Comparing our social media practice with the legal e-consultation guidelines of the Royal Dutch Medical Association demonstrates how theory and practice differ and also shows that transparency and accountability are an important part of the solution. Once again confirming the findings of our previous analysis of our second year, with ongoing research in the field of e-consultation, social media is an important area of attention (Derks et al) as well as with data from the Netherlands Information Network of General Practice (the LINH database) helps to determine the social media landscape within the spectrum of 21st century health care services. With the aid of a holistic framework for sustainable e-health technologies (Nijlant, 2011) we will measure the sustainability of our health innovation. Finally, our 2010 questionnaire taught us a lot about the characteristics of our clientele. Some memorable Twitter consults sparked our curiosity to find out more. We will present a few video vignettes of the remarkable social media pioneers that have enthused their health problems to us.

576
Sivera A.A. Beren, Tom H. Van De Belt, Lucien L.J.P.G. Engelzen, Lucien L.J.P.G. Engelzen
SOCIAL MEDIA IN EUROPEAN HOSPITALS: A DESCRIPTIVE STUDY

Poster Session 1, 1:30pm-2:15pm, September 17, 2011
Lower Lobby

Background

Internet and Social Media are an important part of daily life. Social media (SoMe) like Twitter, LinkedIn, and Facebook, improve communication and patient participation in health care. Patients and professionals use SoMe for multipurpose communication. An American initiative showed that many hospitals in the USA are using SoMe. However, it is unknown whether hospitals in Western Europe use SoMe, and which types of SoMe they are using. The objective of this study is to explore SoMe usage by hospitals in Western Europe.

Methods

A descriptive study was performed to explore SoMe usage by hospitals in the following thirteen European countries: Norway, Sweden, Denmark, United Kingdom, Ireland, The Netherlands, Belgium, Luxembourg, Germany, France, Spain, Switzerland and Austria. We included hospitals with at least 200 beds. Between April 2009 and July 2011, three measurements were performed for each hospital. During these measurements, we visited the hospital website and searched for the use of SoMe with a standardized method and questionnaire. The measurement included: (I) the number of hospitals that were examined: the use of YouTube accounts or other video channels and number of views, Twitter account and number of followers, Facebook page and number of friends, LinkedIn account and the number of connections. Finally, we examined whether the hospitals used weblogs and RSS-feeds. The outcomes of the third measurement are currently being analyzed using descriptive statistics.

Results

SoMe usage is high in hospitals in the USA, but relatively low in hospitals in Western Europe. Furthermore, patients and professionals use different types of SoMe. Patients use personal SoMe more than professional or institutional ones. SoMe usage is increasing and different forms of SoMe are used. For instance, patients tweet and Share informative health information, tips, and personal stories. Sometimes, also for entertainment. Professionals use SoMe to enhance patient education, to update patients about their medical state, to support patients and professionals and to persuade them to make lifestyle changes. Furthermore, the number of hospitals per country that used SoMe ranged from 7 (Luxembourg) to 741 hospitals (Germany). The first measurement showed that: five types of SoMe were used in two countries, i.e., the Netherlands and United Kingdom; two types of SoMe were used in one country, i.e., Germany; two types of SoMe were used in four countries, i.e., Netherlands, France, Luxembourg, France and Luxembourg; one type of SoMe was used in two countries, i.e., Spain, Norway, Austria and Belgium; no type of SoMe was used in two countries, i.e., Ireland and Switzerland. The second measurement included in the randomized hospitals that used SoMe. Furthermore, the number of different type of SoMe that were respectively used increased as well. Differences within countries and between countries will be presented at the Medicine 2.0 Congress at Stanford. At the end of the results of the third measurement will also be available.

Conclusions

Our preliminary results showed that Hospitals in Europe use Social Media. We found remarkable differences between countries as well as an increased use of SoMe during the study period. In September 2011, we will launch an interactive website with the results of this study.

579
Ingela Skärsätter, Läsia Ali, Mikael Elf, Barbro Krevers
YOUNG ADULT CARERS IN THE RISK ZONE. DESIGN OF A HEALTH PROMOTING, RANDOMIZED TWO-ARMED CONTROLLED TRIAL FOR YOUNG ADULTS WHO SUPPORT PEOPLE WITH MENTAL ILLNESS

Poster Session 1, 1:30pm-2:15pm, September 17, 2011
Lower Lobby

Background

Currently, most psychiatric care takes place in outpatient settings where family members and close friends often provide most of the support. It is important, therefore, to learn how best to support patients and the people who care for them, to learn which forms of social support are of greatest value to those struggling with mental illness, and how individuals can benefit from specific components of support, such as information, education, and in their daily lives. Pedagogic processes integrated with person-centred care and treatment may become a dynamic development (Puyau et al). The overall aim of this study is to evaluate the quality and usefulness of information and communication technology (ICT) health efforts among young adult caregivers of close relatives or friends of individuals with mental illness.

Methods

Participatory healthcare is a participatory design of the program comprises three phases: (I) a survey of the needs of young relatives and close friends for Internet-based information, education, and support. (II) the development of an online website (www.livstips.se) or an intervention based on the previous phases. A randomized two-armed controlled trial of the intervention, with follow-ups at 4 and 8 months, will be conducted in 30 intervention sample of young adults aged 16–25 years living in community in Sweden. To allow for drop-outs, an estimated total of 400 participants will be randomized. An interview with a friend with mental illness would be included in the study.

Conclusions

We believe that the design of the study, and the randomization procedure, outcome measurements, and study protocol are innovative. Our study will be the first to use Web 2.0 technologies to increase young adult support. For the first time, we will use ICT to enhance young adult support and one that should have the potential to effectively target the heterogeneous needs of the young adult carers.

581
Robyn Whitaker, Mark Carroll, Barbara Mittelman, Wendy Nielsen
ISSUES IN MOBILE HEALTH PANEL

Web and mHealth applications

Panel Session 3, 11:15am-12:00pm, September 18, 2011
Plenary Hall

Mobile phones have had the most rapid uptake of any health related technology. They have become a significant vehicle for health education and awareness. By using a wiki tool, patients are able to participate in the development of health promotion campaigns within a variety of health professionals (physicians, nurses, laboratory workers). Furthermore, quality improvements with regard to patient care can be executed. We also hope that
information leaflets will be dynamic and up to date. Finally, using a wiki in the creation of patient information leaflets may save resources, including money, health professional time, and editorial resources.

583 • Taridzo Chomutare, Luis Fernandez-Luque, Gunnar Hartvigsen, Eric J. Ebeling

REVIEW OF IPHONE APPLICATIONS FOR DIABETES SELF-MANAGEMENT

Mobile health applications for management

Parallel Session 16, 3:00pm-4:30pm, September 18, 2011 LN120

Background

We are experiencing an increasing growth in interest for mobile health (mHealth) applications for self-management of chronic diseases. In 2009, we found 60 diabetes applications on iTunes for iPhone and as of February 2011 the number has grown over 400% to 260. Despite this growth, individuals still lack access to diabetes mHealth applications. For example, the impact that emergent technology such as social media has on further development of social, technical, and political categories. Our objective is to study the salient characteristics of mobile applications for diabetes in the Norwegian market using a popular mobile applications, Apple’s iPhone. Methods

We searched the Norwegian app market iTunes Store for diabetes applications using search terms “diabetes” and “glucose”. The inclusion criterion was applications that featured a tool for blood glucose tracking. We excluded applications for professional use and non-English applications. Search hits were 260, of which 49 met the selection criteria and were installed on an iPod for further analyses. The inclusion comprised 19 free and 30 paid applications, where the mean and modal price was the equivalent of $5.80 and $0.99, respectively. We studied the following features: 1) self-monitoring (blood glucose, physical activity, diet, weight, insulin and blood pressure), 2) functionality (text, video and internet), 3) the use of wireless sensors, usage of PHR in augmenting social networking parameters, and 4) synchronization with Personal Health Records (PHR) or portals. Results

Tools for tracking insulin injections were present in 33 of the 49 selected applications, although most neglected making reference to Type 1 or Type 2 diabetes, or insulin pump technologies. Just over half of the applications had some form of diet management; either by tracking carbohydrate intake or making meal suggestions. Weight tracking and physical activity had each 20 and 19 applications, respectively. Only two of the eight applications with an educational component provided information on medication adherence, 7 had reminders, while 11 had some form of integration with social media. Four applications had a component for synchronizing data with health portals. No applications featured a component for blood glucose tracking. We studied the visible effort towards patient privacy and safety beyond disclaimers and warnings about potential risks with the use of the applications. Conclusions

While we are seeing a wide selection of applications available for people with diabetes, this study shows the hype about social media has not yet translated to seamless integration of mHealth tools and social media. Usage is high in many applications. Web 2.0 tools can provide peer support and personalized education, both of which are recommended for people with diabetes not using insulin. ZIPhealth is a good example of a functionality integrated application, where specialist functionality is coupled with specialist content. The portal allows users to create open groups in different subtopics such as diabetes, Parkinson’s disease, heart disease, and other conditions. Most notably, the portal was developed with the input of people living with these conditions in order to inform other people about the portal. These individuals feel like doing more to approach them, entering into a dialogue. The portal gives the participant the opportunity to learn more about their views by reading online dialogues. There is interest expressed in adapting more content for patients with mental health issues. The participant aims to evaluate the usefulness of a web-based intervention for young people with mental illness. Methods

588 • Elektra Krevres Krevres, Mikael Elfs, Lilas Ali, Ingela Skärstam

IN PURSUIT OF QUALITY AND USEFULNESS REGARDING WEB-BASED SUPPORT SYSTEMS FOR YOUNG CARERS OF PERSONS WITH MENTAL ILLNESS

Participatory healthcare

Poster Session 1, 12:30pm-1:30pm, September 17, 2011 Lower Lobby

Background

The Internet is still a new field for health care service delivery. Consequently there is a need to examine the quality and usefulness of web-based support for different target groups. This requires a framework that adapts theories and methods concerning quality of care, since these are originally developed for a health care based on personal medical education or treatment. Young carers of people with mental illness should have good quality support. They are vulnerable and at risk of falling ill; for this reason it is important to develop useful support that meets their needs. The present study is a part of a research project that develops and evaluates a web-based support system (WBSS) with concern for young carers’ needs. The WBSS is based on a participative design process that involves participants from the target group to accurately define their needs. The WBSS provides information and possibilities to communicate via FAQ, forum and blog with health care professionals and with other young carers in similar situations. The present aim is to evaluate the usefulness of a WBSS intervention for young carers, and to scrutinize usefulness in relation to quality of care. Methods

242 participants 16-25 years of age, caring for a family member or a close friend with mental illness, were randomized into two groups receiving different interventions; Group A got access to the WBSS and Group B got a workbook. The groups were designed to get feedback, i.e. the content concerned the target group, as well as good process quality: i.e. easy to navigate and read. Less than half of the participants thought that the content was easy to follow, their own problems and the use of interactive communication in the WBSS was low, with implications for result quality. Comparsion of views on the intervention were obtained in Group B. Conclusions

WBSS was considered to have good quality in several aspects; presumably due to the participatory design. Although the participants had high expectations of the WBSS they also thought that they had negative influence on the result quality i.e. to what extent the WBSS could meet the participants’ needs. An important insight is that a framework for WBSS quality must also consider the governing factors for interactive usage of WBSS, in the pursuit of high quality and usefulness for young people.
589  Joseph Kandel
THE IMPACT OF SOCIAL MEDIA IN PHYSICIAN CONTINUING MEDICAL EDUCATION
Web 2.0-based medical education and learning
Parallel Session 3, 2:30pm-4:00pm, September 17, 2011
LKL30 Hall
We will explore the impact of incorporating social media and other online communications into continuing medical education (CME) activities for US-based physicians. We will examine several examples where social media and other online methods have closed gaps in practice gaps and educational needs of physicians. We will review specific CME activities that incorporate the use of social media and social learning tools and consider several examples of contents and discussions that are relevant to the stated learning objectives of each activity. We will also explore the impact of social media on physician engagement and learning.

592  
CANCER THRIVING AND SURVIVING: AN ONLINE WORKSHOP THAT IMPROVES QUALITY OF LIFE.
Participatory healthcare
Parallel Session 2, 11:00am-12:30pm, September 17, 2011
LKL30 Hall
Background
Surviving cancer following initial treatment is ever more common. Cancer survivors, even those with low chances of survival, may be depressed, suffer post-traumatic stress, and have poor sleep among many other problems. These issues are seldom addressed in standard cancer treatment. Cancer Thriving and Surviving, a six week peer facilitated, asynchronous workshop was developed to determine the: 1. Acceptability of an online interactive six-week program for cancer survivors 2. Effectiveness of the intervention (improvements in fatigue, depression, stress, sleep, role function within 6 weeks) 3. Patterns of health care utilization and self-rated health) 3. Patterns of health care utilization
Methods
British Survivors with five years of survivorship or less were recruited mostly from the Macmillan Cancer Support Trust website to participate in a six week peer led, cancer survivor workshop. The workshops combined the strengths of interactive didactic content, structured social networking, and self-learning. Workshops consisted of approximately 20 pages of new didactic material each week, as well a four threaded discussion boards where participants could interact, provide feedback and ask questions. Workshops consisted of approximately 20 pages of new didactic material each week, as well a four threaded discussion boards where participants could interact, provide feedback and ask questions. Workshops contained sections for keeping individual records, links to other websites, and an internal forum for discussing the workshop with the other participants. The workshop was based on self-efficacy theory and self-taught. Workshop topics included: stress, pain, sleep, depression fatigue and weight management, problem solving, finding joy, goal setting, action planning, decision making, healthy eating, dealing with difficult emotions, body changes, effects of cancer, treatment and treatment options, coping and work and dealing with the health care team. Data was collected online using standardized validated instruments at baseline and six months later. Data was analyzed using student T-tests.
Results
312 survivors left contact information, 145 completed baseline questionnaires, 135 participated in one or more workshop session and 110 completed follow up data. 82.6% of patients scored at least one question on each of the six sessions with a mean log in of 5.5 times per week. Participants visited a mean of over 1300 different web pages. Each workshop generated approximately 1000 bulleted pages. Social learning tools did not work as expected, conversations failed to be redirected, some participants could not find the information they were seeking, and drop out rates were high. The latter were 12.410 years after the board exams.

595  Lena Rosenmann, Roger Sevi, Omer Or, Itzhak Gur, Yoav Mattan, Leonid Kandel
ORTHOPEDIC SURGEONS ARE WILLING TO PROVIDE AN “INTERNET PRESCRIPTION” FOR THEIR PATIENTS
Health information on the web: surgery and conservative treatment
Parallel Session 5, 2:30pm-4:00pm, September 17, 2011
LKL05
Background
In the 21st century, internet is a major source of health information. 78% of Israeli citizens use it. Many physicians refer patients to various sites and even run their own sites. However, the quality and the integrity of the information is often confusing and unclear. Sometimes it does not take into account different treatment options, creating a conflict between the physician and the patient. Professional medical organizations try to deliver more reliable and non-biased sites, but these are few among thousands of others. Thus we hypothesized that physicians, and especially surgeons, will mistrust this channel of patient education. This study was conducted to examine the attitude of orthopedic surgeons toward Internet-educated patients.
Methods
This is a cross-sectional survey of nationally representative sample of orthopedic surgeons. We prepared a questionaire about surgeons’ attitude to their patients’ Internet use which contained 12 closed questions, asking about: the percentage of patients who search the internet; referral of patients to different education sites; data quality; influence of internet-educated patients on surgical decisions; doctor-patient relationship; patient’s control perception and compliance; unnecessary tests and interventions; and patient’s compliance and satisfaction. All patients who gave their consent were referred to orthopedic surgeons, both board-certified and residents, during an annual National Orthopaedic Association meeting. The questionaire was offered to all the surgeons attending the meeting and they were aggressively urged to fill it. 201 surgeons filled the questionaire. Their mean age was 46.61 years (62. years old and 35.44 years). and 139 were attending surgeons (mean age 51.49 years). The latter were 12.410 years after the board exams.
Results
83% of surgeons referred their patients to different Internet sites, however 27% did it only rarely. 62% of surgeons felt that the quality of information is fair. 27% felt that the quality is good or excellent. Most of surgeons believed that Internet does not jeopardize their authoriy (77%), doctor-patient relation (91%) and patient’s control perception (91%) and compliance (84%). However, 74% of surgeons were concerned that Internet-educated patients are exposed to unecessary tests and interventions. When stratified by professional age (residents, young specialists, older specialists), an interesting trend is seen. Younger surgeons (residents and young specialists) rarely refer their patients to the Internet as opposed to older specialists (p<0.5). However, 20 after years experience, this trend is reversed. When asked about the data quality (p=0.08), 90% of surgeons wanted the National Orthopaedic Association to provide a website that can serve as an “internet prescription” for patients’ referral. 45% agreed to participate in this project, however only a small minority supplied their contact details.
Conclusions
In our study we found a positive attitude among orthopedic surgeons towards Internet-educated patients.

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CLIMATE Change INVESTIGATION (HIVE) – BRINGING TOGETHER GOVERNMENT, CLINICIANS, ACADEMIA AND INDUSTRY TO FOSTER HEALTH INNOVATION IN NEW ZEALAND
Physician-patient interaction online
Parallel Session 9, 10:30am-12:00pm, September 18, 2011
LKL30 Hall
The Health Innovation Exchange (HIVE) – www.hive.org.nz is a social networking site designed to support and foster innovation in the New Zealand healthcare sector. The HIVE is funded by New Zealand Ministry of Health and is operated by the National Institute for Health Innovation (NIHI) at the University of Auckland. Based on the Drupal Open Source platform, the HIVE brings together the disparate user groups targeted by the HIVE is a careful effort to cater to each group and offer a neutral ground for discussion. The homepage blog, created by the community and curated by Dr. Chris Paton, targets the Health Innovation industry and technical workforce such as hospitals and CEOs of Health IT companies. Clinicians are drawn in by the HIVE e-Learning platform used for Post-Graduate clinical courses at the University of Auckland. During their studies, clinicians can use the HIVE to communicate with other students and teachers and hold discussions in private forums set up for them.
Senior government officials are brought into the discussions through a series of coordinated consultation efforts. For example, the Chair of the NZ Board at the NZ Ministry of Health used the HIVE to facilitate discussion about a new “Health IT Plan” for the country. In another example, the Ministry of Research, Science and Technology (MoRST) used the site to promote a range of videos it produced to support a new multi-million dollar grant scheme to foster innovation in the health sector. As these communities begin to discuss and form networks, they can use the HIVE to track their new connections and build trust and develop communications that foster innovation in the health sector. The key to bringing together the disparate user groups targeted by the HIVE is a careful effort to cater to each group and offer a neutral ground for discussion. The HIVE is funded by New Zealand Ministry of Health and is operated by the National Institute for Health Innovation (NIHI) at the University of Auckland. Based on the Drupal Open Source platform, the HIVE brings together the disparate user groups targeted by the HIVE is a careful effort to cater to each group and offer a neutral ground for discussion.
system which uses Rich Internet Application technology and the “Software-as-a-Service” model to provide a high-scale, ongoing training solution which addresses the issues that plague other training modalities. This system can also achieve the following critical goals: 1) to provide high-fidelity and affordable simulation training anywhere and anytime; 2) to foster development of team management skills; 3) to facilitate centralized storage of simulation scenarios within the database; 4) to enable users and supervisors to easily review performance history and track simulation competency; and 5) to facilitate rapid distribution of simulation scenarios and system improvements for ACLS providers.

Current Stage of Development

The Simulation component has been commercialized and used by individuals around the world, as well as several US institutions. The OncoCompass grant company has been invited to present at several conferences including the 11th International Meeting on Simulation in HealthCare, the international 2010 American Society of Anesthesists Annual Meeting, and national 33rd Annual Meeting of the Society of General Internal Medicine. The system is under constant evolution on the advanced modeling and simulation as well as the development of new content.

Background

In the Netherlands, government policy statements and national research fund scientific and societal support for a structured, integrated approach to supportive care in cancer patients. However, care providers often lack the operational means to deliver adequate supportive care in a cost-effective manner. IT applications can be used as helpful tools and have the potential to improve the efficiency of organizational, clinical, and e-health management platform, supportive cancer care may be facilitated and innovated. Eventual more insight will be obtained into supportive care interventions, including the need for and use of minimal intervention strategies, self-help programs, and allied health services. Also, more insight will be obtained into possible determinants of supportive cancer care and success of interventions such as socio, demographic, and clinical parameters; co morbidity; and coping strategies.

Our objective is to develop the OncoCompass, a personal e-health portal that supports cancer survivors by finding and obtaining optimal supportive care, adjusted to their personal health status and situation.

Methods

The OncoCompass is based on the PreventionCompass: an e-health portal which facilitates direct-to-user delivery of individualized preventive healthcare. We adapted this general e-health portal for cancer survivors based on the Dutch national guidelines “Cancer Rehabilitation” and “Screening for the need for psychosocial care”. The basic assumption in developing the OncoCompass is to implement the most recent scientific insights as obtained from literature reviews. Quality of life and lifestyle domains incorporated in the OncoCompass are evaluated by a multidisciplinary oncology team and experts in the field of cancer rehabilitation and supportive care. To ensure adequate uptake of the OncoCompass, end-users and other stakeholders are involved in the development process. Currently, needs assessments are conducted among cancer survivors and care professionals. The remaining usability (user acceptance, satisfaction with content, interface and functionality) of the OncoCompass will be assessed by a scenario-based testing with Morae™ software. Following on from this, the OncoCompass will be refined.

Results

By means of the OncoCompass patients can independently fill in questionnaires on quality of life (physical, psychological, social and spiritual) and identify data which are processed in real-time. Patients can view the results by means of a well-being profile. Supported by an evidence-based knowledge based on academic research institutions, end users can gain information on healthy habits and high service neighbours. The system is tested and deployed within real life settings in The Netherlands. Furthermore, it is designed to provide self-help treatments and professional care providers. intervention mapping. Web 2.0 features will be added to the OncoCompass, such as an intervention portal and professional knowledge database. The system will be validated and deployed in 150 housing units built for elderly people located in Amsterdam and Tampere, Finland and in 150 nursing care units in several European Living Labs. The program has been funded by European and national grants. The project builds on earlier development of software developed by this team to address different health care concerns in the elderly. It is a collaboration between living labs and industry partners across Europe.

The feasibility and cost-effectiveness of the OncoCompass will conduct several multi-centre studies among cancer survivors.

Combining socio-technical virtual coaching to prevent and overcome loneliness and break sedentary lifestyles in elders

Web 2.0 approaches for clinical practice, clinical research, quality monitoring.

Parallel Session 7, 4:30PM-6:00PM, September 17, 2011

Plenary Hall

Between one-third and one-half of older Europeans suffer from mild or severe loneliness - the subjective feeling that the social needs of their current life are not being met. Loneliness in the elderly is linked to a low quality of life and early morbidity as lonely people exhibit poor health behaviors, excess health care use, inadequate or inefficient physiological repair and maintenance processes. In the management of chronic disease in elderly patients, it is crucial to prevent loneliness.

While a variety of face-to-face interventions exist to combat different forms and causes of loneliness, these programs typically rely upon a large staff of health care workers to deliver services. The advent of the social web presents new opportunities to design technological solutions to target loneliness in elders. Insights from social psychology, gerontology and communication science can be adapted to create technologies that relieve patients and family members.

The project combines virtual coaching with social networking to prevent and overcome loneliness in Europe's aging populations and increase overall physical activity among the elderly. The goal of the project is to develop an easy-to-use, cost-effective solution embedded within the home environment that helps people connect with others in their existing social network, meet new people, and remain active.

End user care organizations will offer the system to their residences. The 3D virtual coaching system is being developed based on user experiences and guidelines that includes an iterative process of user involvement. The virtual coaches are specifically developed to engage elders for enduring social engagement and to include virtual coaching visits throughout their day from when they wake to when they go to sleep and present messages and other mediated communication from the social network: both the personal and the professional care network.

The program offers support on multiple levels by providing information about the physical environment of the home. The virtual coach teaches the elderly to use the new technology and social networking tools (e.g. Facebook and Skype) that connect with people. It also supports them in information processing about social and care services and activities within the community. The virtual coach provides prompts and guides the elderly from moment to moment. In order to help elders improve social interaction, the virtual coach guides the elderly through a behavioral enrichment program, based on empirical research, that helps elders initiate and maintain meaningful, lasting conversations. The virtual coach guides the elderly through a behavioral enrichment program based on implicit and intentional motivational theory to motivate the elders to increase social interaction. The virtual coach is connected to the system providing input for real-time feedback of the virtual coach to the elderly.

While current interventions offer new ways to overcome loneliness, it is also a new and sometimes intimidating way for elders to connect. The platform is therefore designed for usability and acceptance through a co-creation design process developed in related projects. To inform the design of the system, elders participated in the design process. Elders participated in focus groups, interviews, and tests of early versions of the platform in several European centers. Usability and acceptance studies of the system were carried out in the Netherlands. The research was conducted at the virtual coach. Several pilot tests conducted within the apartment of retired elderly (+65) living independently with and without a risk for diabetes type II or cardiovascular disease, yielded promising results. We will present the results of these studies that combining virtual coaching with social networking is a promising way to help elders to create and sustain social networks.

While new technologies provide new ways to overcome loneliness, it is also a new and sometimes intimidating way for elders to connect.

THE CASE OF KANKER.NL

Building virtual communities and social networking applications for patients and consumers

Poster Session 1, 12:30pm-1:30pm, September 17, 2011

Lilas Ali

Background

Medicine 2.0 presents opportunities to develop new patient-centric treatments, but existing models have failed to meet success. A key design problem concerns the tension between developing designs to fit user needs versus designs that anticipate needs unknown to users. How do we design Medicine 2.0 applications that are innovative and support novel modes of patient participation, while still addressing user needs? As a team we are drawn to the ideas of User Centered Design (UCD), where developers build to the needs and capacities of users, while still seeing some limitations. UCD may increase usability, but the process has difficulty generating designs beyond the user experiences, especially in social media platforms, where the tool gains increasing value the more time and users cannot anticipate final products.

We present a hybrid design process. Based on expertise, lessons learned from other projects, and available resources, we plan to build a platform that combines the knowledge and insight on top of the expert-generated clinical information. The result will be a single system to access, discuss, collect, add to, and share information about cancer and quality of life. Within that general concept, we propose a design process that includes our users within each phase. The program, Kanker.nl, is a collaboration between the umbrella organization for 25 cancer patient organizations (NFK), comprehensive cancer centers in the Netherlands that collect outcome data on patients (CCC), and the Dutch Cancer charity (KWF Dutch Cancer Society). This collaboration is unique in that we have access to patient information, outcome data, and reflect on their views as a team.

The goal for this phase of the project is to design a platform that is innovative and capitalizes on our unique resources and is designed to be useful and acceptable to people with cancer, family members and patient organizations. To do so, we aim to develop a design process that integrates UCD into a plan for innovation.

Methods

We understand our users, test assumptions, ensure usability and engage our future users as we are conducting two types of research. In the first, using interviews and surveys, we wish to identify areas of potential need and social support needs. In the second, we test prototypes with end users. The platform begins with a proof of concept and research study to include feedback and functional usability. To evaluate the success of our design process, we will follow up on our design with work-based evaluation studies that will measure the usability of the system, the perceived level of innovation, and level of user acceptance as compared to existing websites for cancer patients in the Netherlands.

Results

SEPTEMBER 16-18, 2011 | MEDICINE 2.0 @ STANFORD 21
We are designing for participation in healthcare but recognize that the design process cannot be solely participatory. This requires us to adopt a research approach. Our design research is ongoing. Individuals and patient organizations have been receptive and enthusiastic about contributing to this research. We are building a new media platform with multiple partners to motivate changes in the culture of a variety of organizations. Early results indicate that the organizations not only welcome future user acceptance, it heightens interest and support for the project and comfort with implementing these changes. Organizations interested in hosting surveys and supplying participants for research exercises, qualitative and quantitative findings from our evaluation study will be presented.

621 Chris Paton, Peter Murray, Margaret Mary Hansen, Francisco Grajales  
USING SOCIAL MEDIA APPLICATIONS IN ACADEMIC RESEARCH  
Building virtual communities and social networking applications for health professionals 
Panel Session 2, 2:30pm-3:15pm, September 27, 2011  
Plenary Hall B

This international panel discussion aims to explore issues relating to the use of social media applications in academic research and to hone in on social media applications that may align with research methodologies. While use of social media is growing in both patient and academic communities, there has been, to date, little exploration of or research into its use toward various communities (e.g. providers, patients, educators, learners). This is an appropriate time to discuss the issues and begin the process of developing suitable research agendas that strive to address questions about issues such as privacy, transparency, virtual social interactions and respective platforms.

The panel members will present introductions to four topic areas, which will then be opened up for discussion with attendees. We recognize that there are many other potential issues to explore, and the discussion will also offer opportunities to record these.

Conducting Evaluations of Social Media Applications and Implementations in Healthcare

The process of including social interactions in software applications generates some interesting and difficult research conundrums for academic evaluations. The success or failure of a social interaction has to do with the technical suitability of an implementation and much more to do with network effects to interact with each other.

We now need new tools and procedures for conducting evaluations of social media implementations and need to recognize the importance and potential impact involved in conducting evaluations in the social realm.

Data-mining Social Media Healthcare Applications for Academic Research

Very large quantities of data are being generated by social media applications. Online patient communities are generating information that reflects the individual patient’s health and also the social connections between the users in the community. We will discuss some of the academic research issues resulting from this exponential increase in data including issues of data-storage and anonymization and how to use natural language processing to make sense of the content.

Using Social Media to Enable Academic Research: Collaboration Tools for Researchers and Leveraging Social Tools for Data Collection

Research groups spanning multiple countries and time-zones often conduct academic research. Social media tools enable academics to connect and collaborate in both synchronous and asynchronous communications. Using these tools, research collaborations can form Virtual Organizations (VOs). Where next for social media and academic research? Which tools have the panel members decided are important in their respective fields?

622 Arun Keppanasseri  
MEDI CINE 2.0 - A W IS H LI ST  
Health information on the web: supply and demand 
Parallel Session 5, 2:30pm-4:30pm, September 17, 2011  
LKO05

Medicine has been notoriously slow in incorporating information and communication technology. For a long time, Internet was considered as unimportant and mostly unaffordable to the healthcare sector. Landmark reports about patient safety and the relentless growth of health care costs didn’t leave much choice for medicine but to undertake a whole new look at the way it operates. As a result, medicine has slowly but surely adopted the Internet as a mechanism to inform and educate patients and healthcare professionals, but blogs of such meetings can attract a global online audience. Albeit generating a small number of visits, blogs of such meetings can attract a global online audience. Albeit generating a small number of visits, online patient communities are increasingly participating in eHealth applications has been measured in the existent literature. The existing literature on eHealth applications has been measured in the existent literature.

The efficiency of eHealth applications has been claimed to improve efficiency in health care. Nevertheless, eHealth investments need to be justified through rigorous efficiency studies. The efficiency of eHealth applications has been measured using a wide array of approaches and parameters, such as the quality of care, patient satisfaction, clinician satisfaction, the number of outpatient visits, the longevity of care episodes, and the cost of care. The existing literature on the efficiency of eHealth applications appears to be rather fragmented. We believe that future research could benefit from a structured approach and from the development of a systematic review. The objective of this research is to analyze how the efficiency of eHealth applications has been measured in the existing literature. The scope of this inquiry is limited to web-based applications.

Methods

Neurology On-Demand (http://blog.ecu.edu/sites/nephrolgyondemand) is a comprehensive educational website that provides information in many multimedia formats. These include podcasts, videos, and other multimedia formats. The website is well designed and easy to navigate. The website is categorized into different sections, such as “Neurology Basics,” “Neurology Update,” and “Neurology Research.”

The objective of this research is to analyze how the efficiency of eHealth applications has been measured in the existing literature. The scope of this inquiry is limited to web-based applications.

Conclusions

Neurology On-Demand (http://blog.ecu.edu/sites/nephrolgyondemand) is a comprehensive educational website that provides information in many multimedia formats. These include podcasts, videos, and other multimedia formats. The website is well designed and easy to navigate. The website is categorized into different sections, such as “Neurology Basics,” “Neurology Update,” and “Neurology Research.”

The objective of this research is to analyze how the efficiency of eHealth applications has been measured in the existing literature. The scope of this inquiry is limited to web-based applications.

The survey was conducted in each EU Member States via a national random-stratified samples of ~1,000 interviews; overall, 26,574 Europeans aged 15 and over were interviewed face-to-face in their homes. The questions covered a broad range of topics, including health issues, health insurance, and quality of care. The survey results were stratified by age, gender, and geographic region. The results showed that the majority of Europeans believed that the internet was a valuable resource for health information, and that they used the internet to search for information on health-related topics.

623 Iris Rippa, Patrick Francke, Johan Groop, Karita Reijonsaari  
MEASURING THE EFFECTS OF EHEALTH APPLICATIONS ON EFFICIENCY: A SYSTEMATIC LITERATURE REVIEW  
Social networks 
Parallel Session 10, 10:30am-12:00pm, September 18, 2011  
LKO10

Background

Efficiency metrics currently are used to the fullest extent to monitor the efficiency of eHealth applications. The latter have been claimed to improve efficiency in health care. Nevertheless, eHealth investments need to be justified through rigorous efficiency studies. The efficiency of eHealth applications has been measured using a wide array of approaches and parameters, such as the quality of care, patient satisfaction, clinician satisfaction, the number of outpatient visits, the longevity of care episodes, and the cost of care. The existing literature on the efficiency of eHealth applications appears to be rather fragmented. We believe that future research could benefit from a structured approach and from the development of a systematic review. The objective of this research is to analyze how the efficiency of eHealth applications has been measured in the existing literature. The scope of this inquiry is limited to web-based applications.

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Based on their reasons for using the Internet, four types of Internet users were revealed. The different types of Internet users were described based on demographic data, e.g. practice type, age as well as duration of private and professional use of the Internet.

Results

Based on physicians’ reasons for using the Internet, four types of Internet users were revealed. The different types of Internet users were described based on demographic data, e.g. practice type, age as well as duration of private and professional use of the Internet.

Methods

In December 2010 and January 2011 a survey of German physicians was conducted. The survey contained a set of questions about use of the Internet, attitude towards Internet-interventions and prescribing behavior. The sample was drawn from a physicians e-panel maintained by GfK HealthCare, a survey research company in Nuremberg, Germany. 287 physicians from three medical fields participated in the survey. To assess the reasons why physicians use the Internet for their professional activities, respondents were asked to rate their level of agreement on a 7-point scale (1, strongly disagree; 7, strongly agree). By using principal component analysis with varimax rotation, three different primary reasons for using the Internet were found: (1) being on the cutting-edge and self-expression (Kronbach’s alpha = 0.778), (2) efficiency and effectiveness (alpha = 0.710). The three factors accounted for 51.3% of variance. Moreover, to identify particular types of Internet users, the physicians, a Two-Step-Cluster analysis was used and four types of Internet users were revealed. The different types of Internet users were described based on demographic data, e.g. practice type, age as well as duration of private and professional use of the Internet.

Results

Preliminary tests of this fidelity monitoring system have demonstrated positive effects on several key indicators, including (1) nutrition and fitness, (2) stress management, (3) sleep hygiene, and (4) substance use. This intervention approach, and program developers and website developers. The system will be demonstrated along with key features that assist MTF clinicians to monitor and intervene in real-time to improve program fidelity and outcomes.

Conclusions

The contribution to unsuccessful cessation eforts is the prohibitive need for intensive monitoring by intervention developers/consultants, a difficulty exacerbated as the increasing number of individuals and community agencies attempting to achieve and maintain implementation fidelity. The current project proposes one possible solution: an Internet-based fidelity feedback mechanism for program consultants, clinical supervisors and interventionists as part of an empirically-validated program’s data collection and reporting functions; mechanisms that would link clinical projects and nationally-based dissemination teams through direct, immediate, high quality data and make it more likely that local service organizations can implement services that are evidence-based and more strongly community-based intervention outcomes.

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Rachel Fournier, Catherine L. Lavoie, Trevor Van Miero, Peter Selby

MONTRÉ A LA CIMENT C’EST QUI LE BOSS! USING HIGHLY TAILORED TEXT MESSAGES TO HELP YOUNG ADULTS QUIT SMOKING

Mobile health and digital learning for adherence

Parallel Session 11, 1:00pm-2:30pm, September 18, 2011

Plenary Hall

Background

Smoking rates among young Canadian adults remain high at 27%, compared to 18% of the general population. Young adults tend to underrate their personal risk, evidence-based smoking cessation services and their own abilities to quit smoking. However, research to date has primarily been among English-speaking populations. This pilot study is testing the interest of French-speaking young adults in Quebec in an adapted mHealth quit support intervention, and the effectiveness of such an intervention.

Methods

The Quebec Division of the Canadian Cancer Society (CCS) developed a pilot program targeting francophone smokers aged 18 to 24. The mHealth service was an adaptation of Evolution Health’s general population, English-language mHealth smoking cessation platform. At project end, CCS conducted a series of qualitative studies including focus group testing and individual interviews. Results were utilized in the cultural and age-specific adaptation of the mHealth platform and its delivery algorithms and protocols. Following this adaptation, a promotional campaign targeting young adults was implemented to recruit participants. To implement an Internet-based fidelity feedback mechanism for program consultants, clinical supervisors and interventionists as part of an empirically-validated program’s data collection and reporting functions; mechanisms that would link clinical projects and nationally-based dissemination teams through direct, immediate, high quality data and make it more likely that local service organizations can implement services that are evidence-based and more strongly community-based intervention outcomes.

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Edward G. Feil, Peter Sprenglemeier, Betsy Davis

FIDELITY AND MONITORING OF MULTIDIMENSIONAL TREATMENT FOSTER CARE USING A MULTI-MEDIA INTERNET-BASED SYSTEM

Building virtual communities and social networking applications for patients and consumers

Parallel Session 4, 2:30pm-4:00pm, September 17, 2011

Lk330 Hall

Background

While there have been numerous validated interven- tions developed to increase behavioral health and mental health concerns, it has been difficult to move these treatment approaches into the community while retaining the effectiveness found in the clinical trials. Multidimension- al Treatment Foster Care (MTFC) is a well-researched psycho-social intervention in which multiple treat- ment agents work in a coordinated manner to address the behavioral and health issues and provide young people with in vivo behav- ioral interventions. These programs have been highly controlled trials that have demonstrated the effectiveness of this intervention approach, and program developers have created ways by which implementing agencies can demonstrate that they are meeting fidelity criteria. These criteria have been formalized as a certifica- tion process for agencies that are interested in implementing these interventions to improve clinical outcomes by moving more efficiently towards and maintaining fidelity of program implementation.

Results

The research will involve a randomized control trial nested design, wherein foster adolescents (as secondary subjects, who are children of foster parents) and their foster family will be nested within community agency and agency nested within TFC consultant. Community agencies will be randomly assigned to one of two condi- tions: Internet-based Fidelity implementation vs. usual care MTFC implementation.

Results

Preliminary tests of this fidelity monitoring system have demonstrated positive effects on several key indicators, including (1) nutrition and fitness, (2) stress management, (3) sleep hygiene, and (4) substance use. This intervention approach, and program developers and website developers. The system will be demonstrated along with key features that assist MTF clinicians to monitor and intervene in real-time to improve program fidelity and outcomes.

Conclusions

The contribution to unsuccessful cessation eforts is the prohibitive need for intensive monitoring by intervention developers/consultants, a difficulty exacerbated as the increasing number of individuals and community agencies attempting to achieve and maintain implementation fidelity. The current project proposes one possible solution: an Internet-based fidelity feedback mechanism for program consultants, clinical supervisors and interventionists as part of an empirically-validated program’s data collection and reporting functions; mechanisms that would link clinical projects and nationally-based dissemination teams through direct, immediate, high quality data and make it more likely that local service organizations can implement services that are evidence-based and more strongly community-based intervention outcomes.

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Peter Schulz, Keyvan Saghe, Andreas Bemsch, Vinay Kumar, Harald Alfeldt, Kathy Taylor, Christian Walter

INTERACTIVE LEARNING OBJECTIVE CAT ALOGUE OF THE UNIVERSITY MEDICAL CENTER MAINZ (ILKUM) - IMPROVING LEARNING IN DENTAL AND MEDICAL EDUCATION

Web 2.0-based medical education and learning

Parallel Session 1, 11:00am-12:30pm, September 17, 2011

Lk330 Hall

Background

E-learning has been recognized during recent years as an essential tool to improve educational results; however, the best approach to implementing computer-assisted learning, as well as avoiding information overload is topic and user oriented. ILKUM, the Department of Oral and Maxillofacial Surgery has been developing an interactive e-learning tool called ILKUM to improve the coordination between education content and student learning requirements.

Methods

ILKUM is an interactive e-learning database focusing on the medical and dental curriculum (DC, Lenzielkatalog) and is based on the concept of the ADZ e-Assistant of Dental Education in Europe) and Miller levels. In addition to the classical interactive construction, the system has been merely implemented to improve reconciliation between DC and the medical performance requirements. The database rests on the technical concept developed for the MQI Workbench an open-source Unix-based server with a Debian operating system in a Java-runtime environment. These requirements reflect precipitations required to give a high level of reliable, buffered, authenticated (password) access to the DC-database. To communicate with other university databases, ILKUM is equipped with the standard Web Services (WSDL, Web Service Interface (REST)). Based on this interface, ILKUM communicates via extensible markup language (XML) with the university authentication, mail, video streaming, and calendar services. Also a web application for the Apple iOS and Google Android operating systems communicates over the REST interface with ILKUM. As an additional feature, ILKUM is able to send real time strings from its system architecture to NCBI PubMed to obtain the latest scientific literature. Results

The content modules of the e-learning-database are interactive and directly linked to the appropriate lecture files and purchased educational sequences (e.g. scientific articles). This guarantees a quick, topic-oriented method to query the learning content without time and local limitations, as well as direct individual determination of the required knowledge conditions. Since 2009, ILKUM has been used by about 1500 students and 900 members of the dental and medical students for using ILKUM as the e-learning main portal for their learning and communication requirements. Conclusion

The broad acceptance and demand on the part of the students show the development potential of this e-learning project. Neglecting inclusion into qualification and enhancements of the database in close co-operation with the students, as well as enlargement of the self-testing capabilities. The newly designed e-learning software is believed to have positively contributed to students’ and academic teachers’ desire to improve and utilize a promis- ing teaching tool. Moreover, it offers a new state of the art “level based” modular learning style.

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Daniel Todkill, John Powell

PARTICIPANTS’ EXPERIENCES OF AN ONLINE INTERVENTION AND RANDOMIZED CONTROL TRIAL

Web 2.0 approaches for clinical practice, clinical research, quality monitoring

Parallel Session 7, 4:30pm-6:00pm, September 17, 2011

Plenary Hall

Background

The Internet has become host to a growing variety of interventions from tools to treat depression or increase physical activity, to helping the user stop smoking. While there is an expanding body of data on the effectiveness of these interventions, fewer studies have examined participants’ motivations and experiences of engaging with an intervention that is delivered solely online. This can inform how we may tailor interventions to these users, as well as improving the design of future interventions that uses online. In the current study, a randomized controlled trial and their experiences of using an online inter-vention through a directed, online training tool, MoodGYM which uses a cognitive behavioral therapy
on performance and score based on performance. 2. Tell participants they are “using a dance program focused on dance and exercise.” An example of this format is a simple game using the Xbox Music, which gives feedback on performance, score, workout time, and number of calories burned. We will observe the objective score, performance, and measure reflecting motivation for this activity frame. We will instrument participants with a Zephyr Bio-Harness to objectively monitor exertion levels.

**Results**

**Research in Progress.** Results from this study should help us determine if framing messages to promote physical activity in different ways is effective. If true, the insights from this study could be applied to different settings and disciplines to improve health promotion and framing messages to promote physical activity in games.

**Conclusions**

Understanding the link between the framing of an activity and its impact on exertion and behavioral engagement has important implications for promoting physical activity. Based on this link, we plan to explore the power of social media to engage competition, cooperation, and reward in motivating physical activity gaming. Still, we have found that different frames have unintended negative consequences on motivation due to the person’s social network.

**635**

**John W Sharp**

**BRAIN-HEALTH AT HOME: WE HAVE AN APP FOR THAT**

Collaborative biomedical research, academic scholarship, communication, publishing and peer review

**Poster Session 2, 12:00pm-1:00pm, September 18, 2011 Lower Lobby**

To promote clinical research, a variety of tools are available to be utilized by different approaches to research and data collection. The availability of open source tools and rapid development platforms has been a boon to allow researchers to still require basic web forms and secure databases to store data quickly and allow exporting of the data for analysis. The increasing use of electronic health record (EHR) requires large storage capabilities, the use of relational or NO SQL databases, strong query capabilities and visualization tools. Again, open source, rich media and light weight web services enable the management of these data sources. Open source tools are by design the creation of an interactive community of programmers and users. Traditional clinical trials, especially those regulated by the FDA, have required expensive, proprietary solutions. Now, open source tools will be our future although extensive validation procedures are still mandated by regulations. Social networks for research teams provide daily interaction on problems and recruitment issues. Genomic data also requires massive storage capability. Genomic scientists have developed a broad range of open source tools developed in small online communities plus statistical packages like R for analysis. Social networking in the biomedical research community enables linkages between researchers with similar interests leading to collaborative grants and projects. Several open source tools are now available for rapid deployment efforts that can now be supported by a variety of available tools which are lightweight and flexible. Most are now open source which allow a researcher to start source tools are developed and enhanced through communities. Clinical research can benefit by these rapid development platforms appropriate for each type of study.

**637**

**Emily Seto, Kevin J Leonard, Joseph A Cafazzo*, Caterina Massino, Jan Barnsley, Heather J Ross**

**MOBILE PHONE-BASED REMOTE PATIENT MONITORING FOR HEART FAILURE MANAGEMENT: A RANDOMIZED CONTROLLED TRIAL**

Mobile health applications for management

**Parallel Session 14, 3:00pm-4:30pm, September 18, 2011 Lower Lobby**

**Background**

Remote patient monitoring of heart failure patients has been shown to be able to improve health outcomes. Mobile phones are becoming increasingly ubiquitous and economically feasible and the feasibility of Health-related mobile remote monitoring system is still unknown. The objective of this randomized controlled trial was to determine the effects of a user-centric mobile phone-based remote system on heart failure outcomes, self-care, and clinical management.

**Methods**

Remote patient monitoring of heart failure patients has been shown to be able to improve health outcomes. Mobile phones are becoming increasingly ubiquitous and economically feasible and the feasibility of Health-related mobile remote monitoring system is still unknown. The objective of this randomized controlled trial was to determine the effects of a user-centric mobile phone-based remote system on heart failure outcomes, self-care, and clinical management.

**Results**

One hundred heart failure patients were recruited from a large multidisciplinary Heart Function Clinic and randomized into the remote mobile monitoring group (RM) and the control group (SC) who received standard care. The RM group (N=50) took daily weight and blood pressure readings, weekly symptom monitoring, and answered daily symptom questions on a mobile phone for 6 months. Readings were automatically transmitted wirelessly to the mobile phone and then to data servers. Instructions were sent to the patient’s mobile phone and alerts were sent to a cardiologist’s mobile phone as required. During recruitment, all participants were asked to complete a baseline questionnaire (94 returned) and were interviewed. Post-study questionnaires were provided to all participants (84 returned). A total of 12 patients withdrew from the RM group and 5 clinicians were interviewed post-study.

**Results**

Approximately 70% of RM patients completed at least 80% of their daily readings over the 6 months. Quality of life measured with the Minnesota Living with Heart Failure Questionnaire showed a significant improvement for the RM group (decrease of 9 points, p<0.02). Heart function (left ventricular ejection fraction (LVEF)), heart failure progression (Brain Natriuretic Peptide (BNP) blood tests) and theSeattle Heart Failure Index) improved for both the RM and SC groups. Being enrolled into the clinic was a confounder to the impact of the tool. The median age of the patients who were new to the clinic (enrolled less than 6 months) showed greater improvements when compared with the median age of patients who were enrolled into the clinic over 6 months (BNP p<0.003; LVEF p<0.02). A subgroup analysis, removing the 37 new patients from the total of 100 patients, had a 91% confidence interval that one of the most significant improvements in BNP (decreased by 150 pg/ml, p<0.02), LVEF (increased by 7.4%, p<0.005), and self-care maintenance (from 1 to 3) was statistically significant (increased by 10 points, p<0.03). No differences were found between the RM and SC groups in terms of mortality, re-hospitalization rates, or emergency department visits. The small sample size was a limitation of this study because it was underpowered to detect differences in these outcomes. The patient interviews revealed that the monitoring system helped patients improve their self-care knowledge and confidence, and it helped them identify their lifestyle behavior according to changes in weight, blood pressure, and symptoms. Patients found the portability of the system useful as it allowed them to follow up the monitoring system on vacation. Clinicians thought the system helped them manage their patients, particularly through modification changes.

**Conclusions**

In summary, the findings from the trial have provided evidence that mobile phone-based remote monitoring, which support the findings from recent meta-analyses. These results support the implementation and further research of such systems as cost-effective and portable tools compared to traditional remote monitoring systems for heart failure management.

**640**

**Sven Olsson, Tobias Svedberg, Yva Tolle Lagrero**

**STRATEGIES TO ENCOURAGE E-HEALTH – THE EFFECTS OF USING DIFFERENT REMINDERS TO VARIOUS EXTENTS ON OVERALL RESPONSE PATTERNS in A LARGE RANDOMIZED INTERNET-BASED INTERVENTION STUDY**

Usability and human factors on the web

**Poster Session 2, 12:30pm-1:30pm, September 17, 2011 Lower Lobby**

**Background**

The use of the Internet as a research tool has dramatically increased in the past several years. Yet, the current literature favors the response rate achieved from paper-based methods. Knowledge-based methods to increase participation in Internet-based research is scarce. The objective of this study is to examine the effects of different reminder strategies on various overall response patterns in an Internet-based intervention study.

**Methods**

In 2008, 3,876 employees at four companies in the railway sector in Sweden were randomly e-mail invited to participate in a lifestyle intervention study to improve physical activity and health outcomes from mobile phone-based remote monitoring, which support the findings from recent meta-analyses. These results support the implementation and further research of such systems as cost-effective and portable tools compared to traditional remote monitoring systems for heart failure management.
total response rate, yet generated a positive effective on the response rate among office workers (71%). Since the planning protocol for the study targeted 90% of the highest overall response rate (61% P<0.001), despite receiving a moderate number of additional reminders. The empirical investigation of the stage 1 planned the highest overall response rate. Participant characteristics including sex, age, BMI, smoking, motivation to change health habits, and version of the ICD-9 code for obesity at baseline were not associated with time of response. The highest participation at follow-up, however, was found for those who completed baseline questionnaire A, consisting solely of questions.

Conclusions
A well-established collaboration with the participants prior to the study will be necessary to send out smaller reminders on a continuous basis are two effective strategies to increase the response rate in Internet-based studies. Additionally, reminders in the work environment can only be effective among office workers participating in Internet-based studies.

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David Hale

DATA TO WISDOM: BAKING KNOWLEDGE AND EXPERTISE INTO GOVERNMENT HEALTH DATA
Public EHealth and health policy
Parallel Session 12, 1:00pm-2:30pm, September 18, 2011
LK120 Hall

The U.S. government’s Open Government Initiative focuses on repurposing information into form that is beneficial to all. Health data is only one component of the public value that can be provided to the public. The missing link is an experience with the data. These critical elements must be baked into a data system that supports partnerships, cooperative weaving and marshaling of data, and development of web and backend services that provide Health IT developers, researchers, and citizens to solve challenges requiring new models. The primary objective of the project is to provide a prototype government data集市 that is useful. The sessions will be conducted utilizing systems of this type.

This study will highlight the limits of open government for innovation that directly benefit citizens. Empowering industry, academic researchers, and citizens to solve challenges requires not only a change in the tools themselves but in how we think about how they are used. These benefits will be used to construct a questionnaire that will measure the influence of each of these in a broader pool of population of emergency physicians.

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Marietta Anneli Välimäki, Heiti Härnäinen, Lauri Kuosmanen, Markku Heikkinen, Pertti Laitinen

CONSUMER EMPOWERMENT: HEALTH INFORMATION ON THE WEB
Consumer empowerment, patient-physician relationship, and socio-technical issues
Parallel Session 8, 4:30pm-6:00pm, September 17, 2011
LK30 Hall

Background
E-Health has been increasingly used in the field of mental health care. Major difficulties may still arise when introducing new web-based health information into routine daily practice. Psychiatric nurses use less often used computers or Internet with patients and their information and communication technology (ICT) skills may be low. Substantial evidence suggests that to change behaviour is possible, but this change generally requires comprehensive approaches at different levels (nurses, doctors, team practice, hospital, wider environment), tailored to specific settings and target groups.

The objective of this study is to describe and evaluate the implementation of a web-based portal into daily clinical practice on psychiatric wards.

Methods
We developed an interactive multi-service online portal application (in English Mental.Net) to support their knowledge of their own illness and treatment and self-management skills. The portal is meant for patients with schizophrenia spectrum psychosis (F20-29, ICD-10) and their professional carers. The portal can be used anywhere and anytime by patient and nurse. It aims to offer health information to support patients’ self-management and to update nurses’ knowledge level. The portal was implemented in two acute psychiatric hospital wards (n = 9) with a six-step implementation model. The study population consisted of all registered and practical nurses working on nine acute psychiatric wards (N = 89) and patients admitted in the study. The implementation was supported by the project team. Patients’ feedback was collected through interviews (N = 32). Nurses attitudes toward computers and IT use were evaluated before and after implementing the portal as well as with computers, computer use and Internet use (Burgess 1991) at Baseline and 18 months after the implementation of the portal. The analysis of 93 patient education sessions was conducted.

Results
This study showed that it is possible to implement Web-based portal into daily clinical practice with systematic implementation process. Out of 100 possible patients, 93 used the portal during the study. Participants reported that portal supported their individual information management process. They were more aware of the existence of the portal which all patients used. However, some concerns were also raised related to safe Internet use, such as privacy and security issues. In general, nurses’ attitudes were neutral toward computers at the baseline and the follow-up assessment. Further, IT use did not changed significantly during the study period. Based
GOING (DIGITAL) NATIVE: INVOLVING YOUNG PEOPLE IN MEDICINE 2.0 RESEARCH

Consumer empowerment, patient-physician relationship, and socio-technical issues.
Poster Session 2, 12:00pm-1:00pm, September 18, 2011
Lower Lobby

Background

The term “digital natives” has increasingly been used in academia to describe the generation of young people who have grown up using Web 2.0 technologies as part of their every day lives. When conducting research with the aim of developing interventions to support the healthcare needs of young people, it is important to involve young people in the design of the research. The Web 2.0 technologies can confer many benefits, including: maximizing the chances of adoption of the intervention, identifying relevant outcome measures, acquiring recruitment data, and assisting with the dissemination of findings. User involvement in research is about understanding and incorporating the user perspective. In the initial stage of development for young people to engage in this process, it is important to equip them with the knowledge, skills and confidence to comment on and contribute to proposed programs of research.

The two main objectives are as follows: to use innovative methods for involving users of young people to inform the design of a program of research examining the role of Web 2.0 technologies in supporting the health care needs of young people, and with long term conditions and to give young people an insight into the research process and to build their confidence in communicating their ideas and opinions on the research team.

Methods

We invited twenty young people aged between fifteen and seventeen years from diverse socio-economic backgrounds to participate in a Young Researcher Scheme, conducted an individual interview. The young people were recruited through their schools, and nominated by their teachers on the basis of their enthusiasm for the project and their ability to reflect without this impeding on their studies. The young people were invited to attend a day-long workshop held at the University of Warwick website to introduce to the project and the research team and given a short course in research methodologies. The team post videos on YouTube and set up a Facebook page to announce the project. The young people selected prepare for their involvement in both the Young Researcher Scheme and with the research team. On the first day of the young health media, asked to design a research project based around the theme of: “long term conditions, young people and Web 2.0/social media” and were asked to narrate their area of interest by members of the research team, patients and experts. They were encouraged to choose the web 2.0 technologies in support of their condition. We invited young people to research independently, helping the research team to gauge whether action is needed in the health condition or the young people engaged with the most. Participants in the young people selected prepare for their involvement in this presentation.

Results

The reports and videos produced by the Young Researchers were used to refine existing research objectives within the Young Researcher Scheme and help identify future areas of interest. We will demonstrate videos of these outputs in this presentation.

Conclusion

Innovative approaches to user involvement in research can help to capture the views of participants who may not contribute to research. The user involvement strategy piloted here was successful in ensuring sustained engagement with our research program, and will be replicated in future studies. Medicine 2.0 research has much to gain from understanding the perspectives of the younger generation of digital natives and their relationship with technology in the context of their healthcare.
an application that combines webcrawling and semantic functionalities to suit this purpose. The profile will continue to interact with peers. In the future, the profile will be assembled through a series of queries for viewing by others. The profile is kept in source systems and can then be exchanged between the three dimensions (Healthcare Provider, Personal Health, and Population Health) of the national health information infrastructure. The NCVHS concluded that “The full potential of PHR systems will not be realized until they are capable of widespread exchange of information and other sources of personal and other health data.” Because the Tolven PHR has been developed on the same open source platform utilizing the PHR data model (standard vocabularies, data types) as the Tolven EMR and the Tolven Clinical Research applications, interoperability of data exchanged between the two systems is greatly enhanced. The Tolven platform is now serving as a secure infrastructure for health information exchange in the Netherlands, United Kingdom, and Germany, and is being implemented in Singapore. By placing the consumer at the hub of health information exchange, consumers can be more confident that information can be shared not only when appropriate and only with whom the consumer designates. Through the creation of secure accounts for consumers and for health care providers, Tolven has created a model for avoiding collisions between networks with competing interests. The Tolven PHR will enable health information for the consumer while side-stepping the pitfalls of a national health care information database. Our current experience has shown that patients are motivated to use PHRs that assure privacy and consumer control of health information exchange. We believe that PHR use will be accelerated by including such functionality as secure messaging between patients and providers and availability of appointment scheduling options.

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Rebekah Austin Ahlström, Agneta Nydén, Helena Osmar Swerksdotter, Lena Niklasson, Marie Lindström, Louise Hakanäs-plååte, Elizabeth Wentz
A FOCUS ON EVERYDAY LIFE: INTERNET-BASED SUPPORT AND COACHING FOR YOUNG ADULTS WITH NEUROPSYCHIATRIC DISORDERS - A CHAT LOG ANALYSIS
Poster Session 2, 12:00pm-1:00pm, September 18, 2011
Lower Lobby

Background
Few studies conducting qualitative research regarding treatment and living with bipolar disorder for young adults with neuropsychiatric disorders such as ADHD, autism spectrum conditions, and Tourette’s disorder have been published.

The objective of this study is to describe how young adults with neuropsychiatric disorders function and manage their everyday life based on chat log analysis.

Methods
This study is part of a larger intervention project, NP Young, which is a psychological support and coaching program for young adults with neuropsychiatric disorders. Twelve young adults between age 15 and 25 years were included in the current study. The coaching started during eight weeks over the internet (chat and e-mail) twice a week. The texts consisted of chat session conversations with an online coach that logged a total of 445 pages. Qualitative content analysis was conducted in NVivo 9. The text was divided into meaning units. All the meaning units were labelled with codes which were compared regarding differences and similarities, and thereafter sorted into subthemes and themes.
Results

Two themes became visible: "ways of functioning in everyday life," "difficulties they had," and "ways of dealing with stress and rest" and "when feelings and thoughts are a concern," and the theme "ways of managing everyday life" with the subthemes: "deal and carry out" and "making choices for life." The young adults described their ways of functioning which showed that they were dealing with difficult things such as being bullied, offending by teachers and peers and being undeservedly accused for behaving egotistically. They also experienced hard words from teasing siblings, friends and parents, which was a source of sorrow. The young adults described that their feelings of stress were caused by being too busy and feeling too unnoticed in social situations. In the second phase of the study they described feeling stressed and led to not getting things done. The young adults were drained of energy and had serious sleep problems. Feelings and thoughts were a concern when they were dissatisfied with their bodies, felt obsessive, and felt anxious. Feelings of discomfort were described as a consequence of their own stressful or stressful situations. Ways of managing everyday life included decisions to plan and following those plans. To enable that, control was needed. The young adults showed that they had made choices for life and wanted to succeed. They had high expectations of themselves, and strove for high school degrees and distinct ideas about what would be their future profession.

Conclusion

This study led to a more in-depth knowledge about these young adults' everyday lives through support and coaching of the study group. It showed the need not only to use the chat for expressing what every day life meant to them. The implications of the findings are that by using e-coaching, young adults who have low or no education are available for health care professionals to acknowledge these young adults' problems, and online coaching could facilitate communication between these young adults and the medical and healthcare service.

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Monica Murero

ALICE GETS SICK IN FACEBOOKLAND: CHALLENGES IN DIGITAL LITERACY FOR HEALTH 2.0

Personal health records and patient portals

Parallel Session 13, 10:00pm-2:30pm, September 18, 2011

Background

The aim of this study is to evaluate what challenges Facebook Group users with poor levels of Digital Literacy encounter when accessing the medical contents in Health 2.0 contexts. Do they act like a modern "Alice in cyberland?" In this paper, a novel concept of experienced-based learning aimed at improving Digital Literacy for Health 2.0 environments will be delineated. The need for international educational programs addressing the Digital "illiteracy" 2.0 is documented.

Relevant experienced-based literature was combined to picture the general criticism that have been observed in the last ten years, showing that privacy, security and surveillance discourses fail to protect citizens and patients online, particularly in social media and web 2.0 environments.

Methods

A survey was conducted to assess the ability of the sample (n=342) to define terms, to recognize threatening situations, and to discover opportunities while visiting a selected number of Facebook's groups discussing health-care related issues in the field of transplants and organ donation. Also, experience-learning attitudes and behaviors were assessed. A 6-month assessment of the short-term effects of an educational model aimed at improving Digital Literacy 2.0. The sample was recruited via an online "snowball" methodology.

Results

Preliminary results clearly show that Facebook Group users are mostly aware of online risks, and are not proficient in protecting their privacy. This is particularly relevant when disclosing personal information. In the second phase of the interview the fact that the sample perceives password-protected environments as safe, in 92% of the cases they are not aware that Facebook have a "simple" code and can be easily accessed by profit-oriented third parties. None of those users perceived password-protected environments as safe, in 92% of the cases they are not aware that Facebook have a "simple" code and can be easily accessed by profit-oriented third parties. None of those users perceived password-protected environments as safe, in 92% of the cases they are not aware that Facebook have a "simple" code and can be easily accessed by profit-oriented third parties.

Conclusions

Creating a Facebook based on active learning aimed at improving Digital Literacy for Health 2.0 will be a common strategy.

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Leonor Roa Santiveres, Jesus Canora Lebrato, Maria Luaces Mendoza, Lourdes Santos

WEB 2.0 BASED TOOLS AND PHYSICIANS: ARE WE REALLY READY TO GO?

Collaborative biomedical research, academic/ scholarly communication, publishing and peer review

Poster Session 2, 12:00pm-1:00pm, September 18, 2011

Lower Lobby

Background

The use of web 2.0 tools is growing in everyday life. 2011 will be possible to observe Internet applications going mainstream. As for other sectors, physicians also find multiple applications available for daily practice research and communications. One of the working hypotheses of this study is that most practitioners can use these tools but are still reluctant to use them in their practice. In times of cuts back for social services in most developed countries, the use of efficient tools is essential, not only for doctors, but also for the management of medical institutions.

Purpose

This research tries to describe the state of the art of the use of web 2.0 tools in the daily medical practice in Spain, with a special focus on the efficient use of tools. Furthermore, patterns of usage, reasons for choosing these purposes and clinical applications of web 2.0 tools could be described, in order to adopt educational programs for the implementation of competency based training methods.

Methods

A first heuristic approach led to a survey, which was deployed through an online distribution; through media, social networks like Facebook and Twitter. Due to the preliminary state of this research work, it is important to follow up the first results with qualitative case studies on the efficient use of web 2.0 tools which add value to the medical practice in hospitals and doctor's offices.

Results

Research in Progress. In less than 2 weeks time and until 3000 Facebook users have answered this first survey. First preliminary results have shown that 97% have Internet at home and 47% use mobile phones. The percentage of Internet users on Spanish population. What is interesting is that the most popular application are still e-mail and more than 80% do not use them for their professional training. Doctors are not generally advanced e-learning users, with more than 40% learning online. Most doctors also use office products. Although more than 70% have published scientific articles and post graduate studies, the usage of web 2.0 research tools like Zotero, for instance, is very low. A high percentage of the interviewed physicians find web 2.0 tools theoretically useful and efficient.

Conclusions

Research in Progress. First results have shown that the hypotheses could be backed. Most Spanish physicians have internet at home and use it in many of the web 2.0 tools but they don't use them in their daily practice or in their research work. Most of their internet time is still for leisure purposes. Although there is no doubt physicians could be motivated in the use of these tools, showing them the added value with the help of best practices and lessons learned.

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Pierre Bly, Niall Bajam, Hadley Wickham, Clifford Dacek

A USER-DRIVEN WEB APPLICATION TO EXPLORE TREATMENT OPTIONS FOR LOWER BACK PAIN

Online decision technology

Poster Session 5, 2:30pm-4:00pm, September 18, 2011

Lower Lobby

Background

Chronic lower-back pain (CLBP) affects 30 million Americans yearly, at an annual cost of over $100 billion. Few patients find complete pain relief in a sea of uncertain treatment alternatives. For physicians CLBP involves uncer- tainty over symptoms and patients’ perceived notions. These factors must be considered in making the best possible treatment decision. The AHP method is a tool for decision-making for 30 years. Through binary pairwise comparisons, the AHP allows the decision maker to assign values for each of the treatment alternatives. In this talk we will present an open source toolkit (Infovigil) for appropriate expectations of pain improvement.

Methods

Our preliminary research – primarily done on the internet. Our preliminary research – primarily done on the web-based Analytical Hierarchy Processing framework for appropriate expectations of pain improvement.

Conclusion

Combining a proven decision framework with the Web 2.0 values of information sharing and user-centered content, AHP offers unique value for CLBP decision-making for patients and practitioners. It may also level patient expectations and reduce regret. We have begun developing a systematic methodology to apply AHP to other diseases.

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Gunnher Evesenbach, Cynthia Chen

INFODEMIOLOGY AND INFOVEILLANCE: INNOVATIVE METHODS AND TOOLS TO MEASURE, TRACK, AND ANALYZE POPULATION HEALTH-RELEVANT UNSTRUCTURED DATA FROM THE INTERNET AND SOCIAL MEDIA

Health information on the web: supply and demand

Parallel Session 5, 2:30pm-4:00pm, September 17, 2011

Lower Lobby

Methods

Infodemiology can be defined as the science of distribution and determinants of information in an electronic medium, specifically the Internet, or in a population, with the ultimate aim to inform public health policy. "Infoveillance" is the longitudinal tracking of infodemiology metrics for surveillance and trend analysis. With "informa- tion" being defined as that which is experienced in real-time, infodemiology is defined as the systematic collection of information produced and consumed by the public on the Internet.

Our preliminary research – primarily done on the context of seasonal influenza and the H1N1 pandemic – suggests that collecting, mining, and continuously analyzing textual data from various open and proprietary Internet sources has significant potential to inform public health and public policy. Infodemiology data can be collected and analyzed in real time, and infodemiology metrics and indicators can be constructed, which show – in analogy stock indices – if a certain condition is affecting the public health relevant behavior, and knowledge. It can also measure inequities and disparities in the availability of health information. Examples for infodemiology applications include: detecting and quantifying disparities in health information availability by location; identifying Internet search engine query patterns to predict disease outbreaks (eg. influenza); monitor- ing peoples’ status updates on microblogs such as Twitter for syndromic surveillance; identifying and monitoring of disease outbreaks (eg. influenza); monitoring peoples’ status updates on microblogs such as Twitter for syndromic surveillance; identifying and monitoring of disease outbreaks (eg. influenza); monitoring peoples’ status updates on microblogs such as Twitter for syndromic surveillance; identifying and monitoring of disease outbreaks (eg. influenza).
seeking and provision patterns on the Internet. We will illustrate the potential of this approach by present- ing data from field experiments. Participants have archived all tweets containing the keywords H1N1 or “swine flu” or “swineflu” sent during the H1N1 pandemic (over 2 million between May and December 2009). Among other sub-projects, we analyzed vaccination sentiment over time, identified frequently tweeted news articles, analyzed the health information exchanged in public health agencies and hospitals, and evaluated the impact of individual and organizational twitter users (as measured by re-tweets and other metrics).

The Infovigil platform is a tool allowing researchers and public health officials to set up analysis and tracking proj- ects, and filter for “all hazards” or risk intelligence, and we are looking for partners and funders to grow this vision.

666 Brigitte Piniewski, Cristiano Codagnone, David Osimo CROWD ACCELERATED HEALTH INTELLIGENCE: IMPACT ON POLICY MAKING
Public eHealth and health policy
Poster Session 12, 1:00pm-2:30pm, September 18, 2011
LK020 Hall

In this paper, the authors discuss how preventable health in recent decades has spread across the globe with a tsunami-like intensity. Despite the massive health impact we are witnessing today, adequate prediction and/ or prevention mechanisms remain grossly underdevel- oped. Hence, this tsunami continues to threaten the future prosperity of our nations, bringing economies throughout the globe to their knees.

Yet, core to this discussion is that preventable health is by definition preventable. This tsunami appears almost entirely mediated through unintended conse- quences of modernization. In the pure pursuit of profit we have unwittingly supported the choice architectures that overwhelmingly support the poor lifestyle choices in preference to optimal choices.

The authors then go on to explain why aggressive at- tempts at improving health care delivery (supply side) has left us remarkably inept at transforming the health as well as the health costs of crowds. This almost singular focus of Health Information Technology (HIT) on care delivery may be largely responsible for the underperformance of our predictive and preventive capacity at this time. Relying on institution protocols and understanding comprehensive levels of information presented and identifies gaps in their knowledge, electronic resources are provided as part of the program to help close these gaps in their under- standing of their condition or their medication.

CECity works closely with content providers to design the program and ensure that what myPME™ delivers fulfills federal Patient Package Insert (PPI), medication guide and, if applicable, other Risk Evaluation Mitigation Strategy (REMS) requirements. myPME™ is designed to be more than just a fully FDA-compliant digital patient package insert. It also addresses the longstanding challenge of providing balanced, high-quality health information to patients in an easy-to-use format that is both understand- able, trackable, and adherent. This tool delivers the guidelines that they don’t know, and then closes those gaps.

The tool has been in extensive testing with patients and healthcare professionals. The final phase of the initial launch is scheduled for summer 2011. After launch, select healthcare providers will be using the tool with their patient populations to determine the adherence rates using available prescription drug data.

CECity, the industry leader in lifelong learning and performance improvement, leads the collaboration to develop myPME™ with expert consultation from leaders in consumer medication education. CECity has applied over 15 years of research to the principles of adult learning and healthcare education to develop myPME™; myPME™ delivers the highest quality information for patients’ conditions and their prescribed medications. The result is a one-of-a-kind patient education and medication, safety, compliance, and adherence solution.

669 Wilbye, Margaret Morris, Sean Munson, Paul Resnick AFFECTCHECK: HOW REAL-TIME FEEDBACK ON AFFECTIVE TONE INFLUENCES TWITTER COMMUNICATION ECoaching
Poster Session 2, 12:00pm-1:00pm, September 18, 2011
Lower Lobby

Background: Tools that invite self-reflection of affective tone may help people communicate more effectively in online social networks, as they maintain the social connectedness that contributes to health and well-being. In a recent study, people described reluctant to post health information online because they were afraid they would be perceived as either complaining or boasting, and with an aversion to those that they perceived as chronically complainers. To help people enhance self-awareness about projected affective tone on Twitter.

To help Twitter users (“Twitterers”) self-monitor affective tone, we created a tool that reflects the positivity or neg- ativity of “tweets” as they are written. Inspired by real-time spell checking, the tool automatically color-codes words (red for negative words and green for positive words), which allows writers to edit their emotional content before publication. Further, after writers’ tweets, writers learn to personalize and correct the automatic classification of words. By clicking on a word, writers can redefine it as neutral, positive, or negative. We investigate the potential for real-time feedback about affect as a tool for improvement management in social media. More specifically, we identify when affect- check- ing influences microblogging communication on Twitter. Specifically, we test whether feedback leads to more edit- ing to the balance of negative and positive words. We also measure whether affect feedback and associated editing influences the reactions of readers, that is, whether they retweet the tweet of a user who gets more direct responses, and whether responses are more positive.

Methods: We will recruit active Twitterers who have expressed an interest in self-improvement (by following a self-im- provement thought leader on T witter). Participants in our study will install a Firefox add-on that collects keystroke- level data on how they write tweets using the Twitter.com website. During the first phase of the study, the add-on will gather data about how participants write tweets without any affect-checking feedback. During the second phase of the study, the add-on color codes tweets as they are composed prior to posting. The initial dictionary of posi- tive and negative words is established, but users can customize their dictionaries. The affect checker stems words and reverses their emotional valence. The tool then displays the result as “not” or “can’t.” Effects will be evaluated using a within-subjects design, comparing baseline activity to activity when the affect-checker is turned on. Dependent measures include the total number of tweets posted, the percentage of positive vs. negative valence words, the amount of edit- ing during message composition, and the probability of being re-tweeted, the probability receiving a reply, the affect of replies, and the number of followers.

Results: Research in Progress.

Conclusions: Research in Progress.

670 • Mark Boguski, Michele R. Bernstein THE GOODY-GAGA EFFECT: HEALTH COMMUNICATION AT THE NEXUS OF SOCIAL MEDIA & POPULAR CULTURE
Health information on the web; supply and demand
Parallel Session 5, 2:30pm-4:30pm, September 17, 2011
Lk005

CECity, in collaboration with healthcare partners, has established the myPME™ website is a tool allowing researchers and public health officials to set up analysis and tracking projects, and filter for “all hazards” or risk intelligence, and we are looking for partners and funders to grow this vision.

We will recruit active Twitterers who have expressed interest in self-improvement (by following a self-improv- ement thought leader on Twitter). Participants in our study will install a Firefox add-on that collects keystroke-level data on how they write tweets using the Twitter.com website. During the first phase of the study, the add-on will gather data about how participants write tweets without any affect-checking feedback. During the second phase of the study, the add-on color codes tweets as they are composed prior to posting. The initial dictionary of positive and negative words is established, but users can customize their dictionaries. The affect checker stems words and reverses their emotional valence. The tool then displays the result as “not” or “can’t.” Effects will be evaluated using a within-subjects design, comparing baseline activity to activity when the affect-checker is turned on. Dependent measures include the total number of tweets posted, the percentage of positive vs. negative valence words, the amount of edit- ing during message composition, and the probability of being re-tweeted, the probability receiving a reply, the affect of replies, and the number of followers.

Results: Research in Progress.

Conclusions: Research in Progress.

671 Alan Littleford, Mark Boguski HOW TO EXPERIENCE RESOUNDING HEALTH
Consumer empowerment, patient-physician relationship, and socio-technical issues
Demo Session 2, 1:45pm-4:30pm, September 17, 2011
Upper Lobby

CECity, in collaboration with healthcare partners, has established the myPME™ website is a tool allowing researchers and public health officials to set up analysis and tracking projects, and filter for “all hazards” or risk intelligence, and we are looking for partners and funders to grow this vision.

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Results: Research in Progress.

Conclusions: Research in Progress.

673 Mark Casselman, Nathaniel Hamming, Kevin Tallei, Joseph Cafazzo A MOBILE PHONE-BASED SELF-MANAGEMENT SYSTEM FOR ADOLESCENTS WITH TYPE 1 DIABETES
Web and mHealth applications
Demo Session 9, 9:50am-10:30am, September 17, 2011
Upper Lobby

Background: More than 80% of primary care visits and two-thirds of medical admissions into hospital emergency departments are related to chronic diseases. Effective chronic disease management can improve health, reduce health care costs, and increase quality of life. One of the most common chronic diseases affecting children, adolescents, and adults is type 1 diabetes mellitus (T1DM). World-wide data have repeat-
edly demonstrated that therapeutic targets are not met among adolescents with T1DM. Moreover, data have failed to demonstrate consistent adherence to self-care behaviors and glycemic control, suggesting that factors such as self-care behaviors and educational models likely have substantial impact on outcomes. Increased attention to these factors may lead to improved blood glucose control. Given their propensity for new technology, eHealth may provide important opportunities to engage adolescents and to help them improve self-management skills and behaviors.

The goal of this project is to evaluate whether technol- ogy can be successful in engaging adolescents with self-care behaviors and improve glycemic control. With patient, family, and multidisciplinary professional input, we have developed a novel iPhone diabetes application (“bant”) that differs from current technology in that it uses prompts to aid adolescents with analysis of data and with decision making regarding pharmacological and lifestyle-based interven- tion. The primary outcome is improved glycemic control (A1C); secondary outcomes include measures of quality of life, self-care behaviors, adherence to self-care recom- mendations, and effectiveness of different compo- nents of “bant.” Each participant will receive an Apple iPhone or iPod Touch (at the discretion of the investigator) and a self-management application (“bant”) and a blood glucose meter that is linked wirelessly to the device. Participants will use the tool for 30 days, and then will answer a survey and inform daily decision-making related to their diabetes management between quarterly clinic visits (standard care).

Results
We are in the midst of completing the 3-month pilot study to test whether adolescents are able to self-man- age their diabetes on a daily basis between quarterly visits with their healthcare team. The pilot trial will be completed in June 2011.

Conclusions
If successful, “bant” may lead to long-lasting improvements in care of patients with T1DM and to the development of other technology-based self-management systems.

674 Lisa N. Gualtieri, Pamela K. Resller

COMMUNICATING THE EXPERIENCE OF ILLNESS THROUGH PATIENT BLOGS
Parallel Session 10, 10:30am-12:00pm, September 18, 2011
LK130 Hall
Background
Patient blogs range from New York Times journalist Dana Jennings blogging about his prostate cancer with hundreds of thousands of readers and hundreds of commen- tators to a woman writing about her breast cancer with a small number of readers and few, if any, comments. Thirteen percent of e-patients write a blog about their diagno- sis and treatment, where e-patients refer to the 61 percent of US adults who use the Internet for health information. The number of patient bloggers is likely to grow with the popularization of the design and development of the application, the increased use of blogs on public health, hospital, and media websites.

Our primary question was what motivates people with chronic disease to start and maintain a blog. Our secondary question was what are the benefits for these patients, their family and friends, their healthcare providers, and others, with the same disease.

Methods
We conducted a qualitative preliminary survey study of individuals diagnosed with chronic illness. The 24 respon- dents, 20 of whom were selected to participate by responding to a request by email or on Twitter. A larger study is under way.

Results
The reasons the 20 bloggers had for starting and maintaining a health blog included to help others with the same diagnosis, to express feelings, and to track the progression of the disease and treatment. Respondentsblogged for varying lengths of time and varying reasons. Some thought they were doctors, and were concerned their doctor would be offended by some of what they wrote. Four respondents did not blog; the reasons they did not blog included they were too depressed, didn’t want to think about their illness, or were concerned about privacy.

Conclusions
Patients who blog are very committed to the process and write very openly about the devastating experience of diagnosis and the despondent development of the application.

While people write journals and books about their experi- ence of chronic disease and use email to communicate with family and friends and provide visibility and immediacy. Many patients who blog are highly motivated to com- municate with their family and friends and to help others, but the majority have not been in touch with healthcare professionals. Since the number of health bloggers is likely to grow, there is value in better understanding the motivations of this growing group of people when they are so many other ways to communicate the experience of illness. A further study is currently under way to investigate the motivations of these people, their family, friends, and healthcare providers. One goal is to understand the benefits from these different perspectives; another is to consider if there are patients who would not otherwise consider it yet could benefit from a recommen- dation from their healthcare provider to start a blog. Finally we suggest that the Web 2.0 platform provides the oppor- tunity for people with chronic illness to take control of their health and healthcare professionals can learn from perus- ing these narratives of the experience of illness.

675 Julienne David, Lise Pissout, Anne Rochette, Sara Ahmed

A QUALITATIVE STUDY ON THE DEVELOPMENT OF AN INTERPROFESSIONAL VIRTUAL COMMUNITY OF PRACTICE
Building virtual communities and social networking ap- plications for health professionals.
Poster Session 1, 12:30pm-1:30pm, September 17, 2011
Lower Lobby
Background
Information and communication technologies have the ability to accelerate access and sharing of relevant information to support clinical decision-making. The Web 2.0 (blog, forum, wiki) potentials to support the best clinical practice. In Quebec, health professionals are increasingly pressured to adopt an evidence-based practice to improve the efficiency of their services. However, the transition between “know what to do” and “know how to do” is still difficult. To overcome this situation, the Web 2.0 is beginning to be used within professional practice to expose that knowledge through communities of practice.

The aim of this research was to: 1) gain a better un- derstanding of the perceptions of professionals on the development of a Web 2.0 platform in order to support communities of practice and examine the employees that have an impact on the perceived ease of use and usefulness of the platform.

Methods
A qualitative study was conducted with clinicians and managers. We conducted semi-structured interviews with three groups of professionals. The first group consisted of active members of the Montreal Stroke Network (MSN), which is a face-to-face network. Since 2006, this network has gathered three communities of practice in stroke care. The second group consisted of less active profession- als who still belong to the MSN. The third group consisted of people who worked outside the greater Montreal area and were unaware of the MSN. The structure of the guide was orga- nized around four sections: 1) to explain their job and then specifically discuss their perceptions and needs relative to a Web 2.0 platform. Issues related to the use of blogs such as the benefits of community of practice, and the use of technology were also discussed. The interview transcripts were subject to a constant analysis based on the Technology Acceptance Model.

Results
Twenty-four interviews were conducted (mean age 45.41 years; men=12/4). The main emerging theme related to usefulness and ease of use perceived by health care providers concerning Web 2.0 knowledge transfer was identified by 23 out of 24 participants to be the most useful outcome of a Web 2.0 platform. Respondents also expressed the need for a user-friendly platform that is accessible. Some thought they could be used on a computer and the Internet, characteristics of the Web 2.0 platform, user support, technology skills and previous technical experience were found to influence perceived ease of use and usefulness. Lack of time emerged as having a negative impact on the use of these tools. They use this tool, despite the highly perceived usefulness of Web 2.0.

On the other hand, nearly half of respondents mentioned that they would like to see how they should use this tool. According to this study, the perception of the Web 2.0 platform would allow them to save time. Conclusions

Professionals consider Web 2.0 to be a very useful ap- plication, important to improve their daily practice, and 2) the patient agrees to use a personalized tag set. The patient consents to use a designated social media service; 2) the patient agrees to use a personalized tag set. The second agreement process involves a one-time face-to-face consultation. During this consultation, a set of pertinent and agreed-upon tags are developed. This process aims to: 1) help physicians embed a wider lens into the needs of patients, which can subsequently improve quality of care and empower patients.

The agreement process in our practice is twofold: 1) the patient consents to use a designated social media service; and 2) the patient agrees to use a personalized tag set. The second agreement process involves a one-time face-to-face consultation. During this consultation, a set of pertinent and agreed-upon tags are developed. This process aims to: 1) help physicians embed a wider lens into the needs of patients, which can subsequently improve quality of care and empower patients.

The agreement process in our practice is twofold: 1) the patient consents to use a designated social media service; and 2) the patient agrees to use a personalized tag set. The second agreement process involves a one-time face-to-face consultation. During this consultation, a set of pertinent and agreed-upon tags are developed. This process aims to: 1) help physicians embed a wider lens into the needs of patients, which can subsequently improve quality of care and empower patients.
We will evaluate two prototypes that build upon the commercially available iPad-based “StanMed” application. Using video, we will qualitatively explored the important pieces of a crisis situation and elicited concrete design ideas from doctors. Both of these prototypes were part of our qualitative research component. Participants were asked to construct the narrative of our cognitive aid design. The research scenario was driven by a real-life scenario and focused on the design of a cognitive aid. At the end of the scenario, participants will be asked to create a design and execute effective and powerful tools in their practice.

Methods
A case study was conducted with a group of medical students who used interactive video in their practice. This prospective study involved collecting data from video recordings of medical students’ performance of clinical tasks. The researchers observed and evaluated the students’ performance and collected data on their video performance. The data collection process involved the use of video recordings and interviews to collect data about the students’ performance. The students were also asked to complete a survey about their experiences with the video recordings. These data were analyzed to determine the effectiveness of the interactive video applications in improving medical students’ performance.

Results
In the context of our qualitative research component, we found that participants were able to use the interactive video application to effectively engage in clinical tasks and improve their performance. The video recordings served as valuable tools for reflecting on their performance and identifying areas for improvement. Participants also reported that the interactive video application facilitated their learning and helped them to better understand the clinical tasks.

Conclusion
These findings suggest the potential benefits of using interactive video applications in medical education. Interactive video can serve as an effective tool for improving medical students’ performance and providing valuable feedback for their learning. The use of video recordings can help medical students to reflect on their performance and identify areas for improvement. Interactive video can be a valuable tool for medical education and can help to improve the quality of patient care.

688
Simone Karp
DEMO OF A PLATFORM THAT SUPPORTS CONTINUOUS PERFORMANCE IMPROVEMENT BY INTEGRATING PERFORMANCE ASSESSMENT, METRIC-FOCUSED INTERVENTIONS, INCENTIVES, AND COMMUNITY TO IMPROVE HEALTH
Public eHealth and health policy
Parallel Session 12, 1:00pm-2:30pm, September 18, 2011
LKL20 Hall
CERC’s AVEDIS platform is a system that supports a holistic approach towards Continuous Performance Improvement (CPI) for the health care continuum, including individual providers, cross functional teams, and disparate organizations. Through the alignment of Performance, Learning, and Incentives, the AVEDIS platform is being used to deliver programs in support of various healthcare models with a focus on improvement. Programs deployed through AVEDIS are supporting shared risk models, such as Accountable Care Organizations, and other initiatives such as Bundled Payments, Quality Designation Programs, Professionalism Programs such as Maintenance of Certification, and others. Additionally, the AVEDIS system will facilitate data collection from multiple sources, including web-based chart abstraction (retrospective), registries (prospective), and integrated data feeds from 3rd party database systems (EMR, Health Plan, etc.).

In the proposed presentation, you will see how the AVEDIS platform, branded as ASPIRE, is being used to support the Pennsylvania Collaborative by integrating continuous performance assessment with metric-focused interventions to improve metrics of health plan members. More than 90% of the estimated 3.5 billion annual prescriptions are written to treat leading chronic diseases. Up to 80% of these medications are non-adherent to prescribed use (i.e., are not taken as prescribed). These non-adherent patients are more likely to have increased health care costs, increased ED visits, and poorer health outcomes. The goal of this work is to demonstrate the impact of targeted interventions to improve medication adherence for the PA Medicaid in Pennsylvania.

These three have designed a research project to learn more about health behavior, health tech entrepreneurs, and the effectiveness of web and SMS-based messaging for sexual health behavior change. Their research project is a mixed-methods study that will explore trends among priority populations experiencing high rates of STD transmission. Preliminary data will be presented. The project will help to develop a working process to reveal professional similarities and differences, likes, and dislikes. Audience members will walk away with perspectives on the web and SMS-based messaging for sexual health behavior change.
to publicize the network and analyze differences in the use of the two platforms (APTIC Social Network vs. APTIC Facebook Group).

Methods

User data were collected from Google Analytics in order to obtain information on user’s features, visited pages, user generated content, etc. We used questionnairenaires and made focus groups with users of both groups to analyze the similarities and differences in the user’s care and management of the platforms (APTI Social Network vs APTIC Facebook Group).

Results

One year after setting up the network we have 450 users in APTIC (most of them without posting contributions to the site) and 3500 in the APTIC Group in Facebook (with a higher level of participation). In its first year of activity, the APTIC Social Network has become a reservoir of information that can be used and shared among patients and caregivers of children and teenagers in APTIC Group and the current APTIC Social Network as a “hub” from which users can access other services. We also need to expand our network to many parts of the world, to serve as a center for users to create a pervasive and ubiquitous environment while at the same time offering users a “private space” which they can use in the way they want.

694

Jobke Wentzel, Maarten Van Limburg, Joyce Karreman, Lisette Van Gennip

PARTICIPATORY DEVELOPMENT OF A 2.0 PLATFORM TO IMPLEMENT AN INTERNATIONAL ANTIBIOTIC STEWARDSHIP PROGRAMME

Participatory healthcare Provider

Poster Session 1, 12:30pm-1:30pm, September 17, 2011 Lower Lobby

Background

To reduce the risks resistant bacteria pose to patient safety, more prudent use of antibiotics both in and outside care facilities is needed. Our literature review shows there is a lack of available, usable, and tailored information on antibiotic use in public health and care facilities. Antibiotic Stewardship Programs (ASPs) have become the main means of promotion and dissemination of ASPs. Most ASPs have learned about the APTIC Social Network and the APTIC Facebook Group.

Conclusions

We conclude the presentation. Further research will describe how the iPhone and iPad are being integrated in the classroom setting as well as in hospitals and clinics where users and others can access the site as well as some of the users’ attitudes and perceptions of the applications of these mobile devices (including tablets and smart phones) as tools for communication, collaboration and social networking as well as some of the users’ attitudes and perceptions of mobile learning and social networking. Finally, we will present a list of the author’s Top 2.0 applications for teaching and learning as well as for patient education and intervention.

Conclusions

The discussion will focus on how mobile learning and social networking will become significant tools for change for medical and health science education and practice in the future. Obstacles that may be encountered while integrating these mobile devices will be addressed and recommendations for future direction of research will conclude the presentation.

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Talbot

YOU FOLLOW? AN ANALYSIS OF PROBLEM DRINKING AND TWITTER

The nature and dynamics of social health networks and health

Poster Session 1, 12:30pm-1:30pm, September 17, 2011 Lower Lobby

Background

Twitter is a prominent web 2.0 application. A normative belief refers to an individual’s perception about what people important to that individual think she should do. Whereas most Twitter content is senseless rambling, Twitter may be a platform upon which individuals communicate subjective norms. Second, it is likely that the purpose of the study was to explore the extent to which Twitter users tweet about problematic alcohol-related behaviors. Method

Data from this study came from tweets originating in one of 9 randomly selected states, from each of the nine interviews with Twitter APs not used to collect tweets during the month of October, and again during the second half of the month of October. The Twitter APIs were selected which indicate problem drinking behaviors. Tweets were coded for the presence or absence of the keywords.

Results

Twitter users were most likely to tweet about problem drinking on Friday, Saturday and Sunday during the hours from 10 pm to 2 am. Tweets originating during the New Year’s Eve holiday (0.53%) were twice as common when compared to tweets during the month of October (0.34%).

Conclusions

Tweets that mention problem drinking may be problematic; e.g., the characteristics of these messages and the beliefs that such behaviors are acceptable and expected. Social norms interventions may be an effective tool in correcting injunctive norms of the users. In addition, drinkers by informing Twitter followers that problem drinking behaviors are not normative.
A head-mounted display interface was connected to the S-video output of an ultrasound HMD (MicroOptical CV-3, MyVu, Wellesley, MA, USA) to alleviate the ergonomic challenges of USRA. The device's monitor was directed away from the procedural field and overall block quality for each USRA procedural attempt.

Results
All 10 USRA procedures were successfully completed based on proper needle control and visualization and circumferential injectate spread around the sciatic nerve. Needle deflection away from the procedural field to directly view the ultrasound monitor while performing any of the USRA procedures.

Conclusion
The use of HMD technology for real-time, ultrasound image transmission to the practitioner's procedural field is independent of the tethered nature of the HMD. The HMD interface merges ultrasound imaging with the practitioner's hand-eye coordination during ultrasound-guided procedures. Potentially, this technology may assist the novice practitioner in proper needle placement and direct the user in a delicate technical skill to larger, prospective, controlled studies are needed to quantify the ergonomic effects and potential educational benefits of HMD technology in USRA.

709
Tiago Vilhena, Luis Felipe Cavalcante
HIGH LEVEL LISTSERVER-BASED VIRTUAL CONFERENCES FOR FAMILY MEDICINE RESIDENTS AND YOUNG FAMILY PHYSICIANS: THE PORTUGUESE EXPERIENCE
Building virtual conferences for medical networking applications for patients and consumers Parallel Session 4, 23:00-4:00pm, September 17, 2011 LK130 Hall

In Portugal, there is a “Yahoo Groups” based listserver aimed at Portuguese Family medicine residents and young family physicians, constituting the main Portuguese portal in health and biomedical information for the Portuguese speaking public. The innovation from this program is to generate a structure of highly qualified and accessible health and biomedical information.

So far a sizable amount of health information (some 900) contents describing the most common medical disorders and preventive medicine, novel/relevant findings in different medical fields all delivered in multiple formats: text, video, audios, etc. Improvement from the already established basis of a blended communication strategy (communication 1.0 + communication 2.0 + communication 3.0) with focusing of information transmission. This blended communication strategy was adopted to reach different public segments with different ages, education levels, and professions. From the far, HMDs: 3D channels, in particular the Facebook HMDs-PY webpage, is proving to bring added value to this blended communication strategy as an information distribution vehicle to the HMDs-PY content among Portuguese health web leaders and web opinion makers. The program will be formally evaluated in terms of its promotion improvement of health literacy of the Portuguese public.

708
Arndt Deepak Udani, T. Kyle Harrison, Steven K. Howard, T. Edward Kim, John G. Brock-Utne, David M. Gaba, Edward R. Mariano
CAN A HEAD-DECK MOUNTED DISPLAY INTERFACE ALLEVIATE ERGONOMIC CHALLENGES IN ULTRASOUND-GUIDED REGIONAL ANESTHESIA? HUMAN-COMPUTER INTERFACE (HCI) DESIGN Poster Session 1, 12:30pm-1:30pm, September 17, 2011 Lower Lobby Background
The use of a head-mounted display (HMD) for the real-time transmission of vital signs to the anesthesiologist's visual field in clinical anesthesia has been described. The practice of ultrasound-guided regional anesthesia (USRA) requires a high level of coordination between the practitioner's visual field and continuous, real-time, ultrasound imaging within the practitioner's visual field. We tested the feasibility of using HMD technology to alleviate the ergonomic challenges of USRA.

Methods
In this pilot study, the clinical scenario of performing preparation of percutaneous needle insertion was simulated using a pig hind-quarter with intact popliteal fossa and sciatic nerve on a gurney in an actual block room. A HMD (MicroMax, Optical CV-3, MyVu, Wellesley, MA, USA) was connected to the S-video output of an ultrasound machine (MicroMax, Sonosite, Bothell, WA, USA) and the machine's monitor was then positioned out of the practitioner's procedural field. Two anesthesiologists (one expert, one non-expert) performed a total of 10 ultrasound-guided popliteal-sciatic nerve blocks. For each procedure, the sciatic nerve was visualized in short-axis with a 7.5 MHz linear probe (LM-12, B. Braun, Bethlehem, PA, USA) was directed in-plane from lateral to medially toward the target nerve, and injectate was deposited around the nerve. An independent observer measured the number of times the practitioner’s attention was directed away from the procedural field and overall block quality for each USRA procedural attempt.

Results
All 10 USRA procedures were successfully completed based on proper needle control and visualization and circumferential injectate spread around the sciatic nerve. Needle deflection away from the procedural field to directly view the ultrasound monitor while performing any of the USRA procedures.

Conclusion
The use of HMD technology for real-time, ultrasound image transmission to the practitioner's procedural field is independent of the tethered nature of the HMD. The HMD interface merges ultrasound imaging with the practitioner's hand-eye coordination during ultrasound-guided procedures. Potentially, this technology may assist the novice practitioner in proper needle placement and direct the user in a delicate technical skill to larger, prospective, controlled studies are needed to quantify the ergonomic effects and potential educational benefits of HMD technology in USRA.
customers include the general public, businesses seeking affordable employee wellness programs, and health providers seeking a licensed solution to promote health to their members. Our online portal, MyHealthtalk.org, provides an affordable and effective option to provide personalized information relevant to the specific situation in which they find themselves.

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Samuel Alan Stewart, Syed Sbita Raza Abidi
USING SOCIAL NETWORK ANALYSIS TO UNDERSTAND WEB 2.0 COMMUNICATIONS
Social networking
Parallel Session 10, 10:30am-12:00pm, September 18, 2011 LK330 Hall
Background
Web 2.0 provides new and valuable tools to the world of medicine and health care. The cross-section of the web of the physical and temporal boundaries that prevent face-to-face communication, allowing them to share their experiences and thoughts with one another, forward with web 2.0 tools in the healthcare community, it is important to understand how clinicians communicate online, so that we may improve the provision of these services, and ultimately facilitate the formation of virtual communities of practice. Social Network Analysis (SNA) can provide insight into the formation of web 2.0 communication networks. This paper explores the potential for SNA methods to explain the patterns that occur in web communication behavior for a group of expert and isolating potential subgroups of interest. These results are incorporated into VECO, a novel network visualization tool designed to improve the standard network exploration process by presenting the network graphically and incorporating SNA statistics into the presentation.

Methods
The Pediatric Pain Mailing List has over 700 members that use it to communicate with their peers from around the world to ask questions and share experiences about the provision of pediatric pain management. This mailing list will be analyzed using SNA techniques in order to identify content experts and isolate potential subgroups of interest. These results will then be presented in a Java-based network visualization tool called VECO.

Results
Using micro-level SNA techniques, potential content experts were identified through centrality and betweenness measures. Clustering algorithms have not been as successful in isolating potential subgroups, which may be due to the choice of interaction venues or the lack of existing subgroups. The results, when presented in the VECO system, provide new and valuable insights to the users about the structure of the network.

Conclusions
Medicine 2.0 technologies can provide valuable online tools for facilitating knowledge sharing, and understanding the flow of knowledge in these virtual communities is key to developing new systems. SNA provides necessary tools for understanding the flow of communication within these networks. It has provided a list of potential content experts within the list, has recognized several active subgroups, and has partitioned the network into groups of potential experts. Though the VECO project is only in its beta stages, preliminary results are promising, and they suggest that SNA visualization systems and SNA tools have been added. The ultimate goal of the VECO system is to provide a network visualization tool that will help users make new connections within the PPML community, expanding the scope and connectivity of the virtual community.

721
Wilma Kuipers, Wim Groen, Michel W.J.M. Wouters, Hester S.A. Olthof, Anton W. van Zuylen
EVALUATION OF A PERSONALIZED INFORMATION WEB SITE (“VOORLICHT OP MAAT”): USER EXPERIENCES AND FUTURE PERSPECTIVES
Personal health records and patient portals
Parallel Session 3, 10:00am-12:00pm, September 18, 2011 LK330 Hall
Background
In the Netherlands Cancer Institute – Antoni van Leeuwenhoek Hospital (NKI-AVL) we have developed a personalized information website entitled “Voorlicht op Maat” (VOM), which could be roughly translated as “Tailored Information.” Via this personalized, secure website, physicians can provide their patients with tailored information relevant to the specific situation in which they find themselves. This development builds on research that has indicated that patients who receive adequate and personalized information report, in general, have a better quality of life. In the context of a larger cancer rehabilitation program (Alpe d’Huez Cancer Rehabilitation or A-CaRe), we will extend VOM to be an interactive patient portal that will include a survivorship care plan, and will specifically address issues surrounding physical activity and cancer. This development builds on research that has indicated that patients who receive adequate and personalized information report, in general, have a better quality of life. In the context of a larger cancer rehabilitation program (Alpe d’Huez Cancer Rehabilitation or A-CaRe), we will extend VOM to be an interactive patient portal that will include a survivorship care plan, and will specifically address issues surrounding physical activity and cancer. In the context of a larger cancer rehabilitation program (Alpe d’Huez Cancer Rehabilitation or A-CaRe), we will extend VOM to be an interactive patient portal that will include a survivorship care plan, and will specifically address issues surrounding physical activity and cancer.

Methods
Structured interviews will be held with 40 patients (20 lung and 20 breast cancer patients), and with health care professionals involved in VOM (n = 5-10). The content of the semi-structured interviews will be based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model, adapted for the specific health care setting. These models assert that directly or indirectly predict user behavior; performance expectancy, effort expectancy, social influence, and facilitating conditions. The questions addressing these determinants will be modified to fit the specific situation of VOM. Additional questions will be posed about sociodemographics, the content of the information with respect to the perceived quality of VOM, and familiarity with the internet and web-based information technology in general. We will also assess patients’ attitudes and quality of life (the EORTC QLQ-C30 + condition specific modules). Clinical data (diagnosis, stage of disease, treatment) will be obtained from the medical records. Finally, desired functionalities for the interactive patient portal will be determined. Given the pilot nature of the study and limited sample size, the data analysis will be primarily descriptive in nature.

Results
Research in Progress. Results will be presented during the conference.

Conclusions
Research in Progress.

722
Sue Ziebold, Graham Shaw
Healthtalkonline
BUILDING VIRTUAL COMMUNITIES AND SOCIAL NETWORKING APPLICATIONS FOR PATIENTS AND CONSUMERS
Parallel Session 7, 4:30pm-6:00pm, September 17, 2011 LK330 Hall
Background
The DIPEx Charity produces two award-winning websites, www.healthtalkonline.org and www.youthhealthtalk.org. Both websites provide a safe and anonymous place to learn how others cope. In addition to our main website, Healthtalkonline, we have a sister website, Youthhealthtalk. The DIPEx Charity produces two award-winning websites, www.healthtalkonline.org and www.youthhealthtalk.org. Both websites provide a safe and anonymous place to learn how others cope. Healthtalkonline and Youthhealthtalk.org provide a lifeline to other people’s lived experiences.

Methods
Analysis of how people talked about the internet showed that people with pancreatic cancer and their carers talked about web based health information as a routine and unremarkable part of life. Thematic analysis showed that people used the internet for a wide variety of purposes including before and after the consultation, to check the meaning of symptoms and tests, to seek second opinions and find out how others had experienced treatments. In these respects their use was similar to those reported in studies of people with cancer and other serious illnesses. However, because people with pancreatic cancer face very limited treatment options some used the internet to seek experimental treatment based on clinical trials. The poor prognosis caused alarm to those who stumbled across on-line survival statistics (including those on sites run by voluntary organizations). Patients often express anxiety about the potential for negative information to damage relationships with health professionals, from using the internet. Patients and family carers reported successful strategies for handling information, including asking partners and family to filter what they found.

Conclusions
In contrast to our 2004 study in which people using the internet for cancer information were aware they were in a vanguard, internet use is now routine. Clinicians may be concerned that people will find unwanted or contradictory information, yet it is probably counter-productive (and can appear patronizing) if they try to steer people away from the internet. There are concerns that people will find unwanted or contradictory information, yet it is probably counter-productive (and can appear patronizing) if they try to steer people away from the internet. There are concerns that people will find unwanted or contradictory information, yet it is probably counter-productive (and can appear patronizing) if they try to steer people away from the internet. There are concerns that people will find unwanted or contradictory information, yet it is probably counter-productive (and can appear patronizing) if they try to steer people away from the internet.

725
Maria C.H.J. Van Eenbergen, Lonneke V. Van De Poll-Franse, Florence M.O.
THE PROFILES REGISTRY: SCOPE, RATIONALE AND DESIGN OF AN INFRASTRUCTURE FOR THE STUDY OF PHYSICAL AND PSYCHOSOCIAL OUTCOMES IN CANCER SURVIVORSHIP COHORTS
Longer Lobby
Background
The presentation will look at the level and cost of resources patients and their families have been established in Germany, Korea and China. DIPEx has pioneered a greater understanding of what it’s like to experience health issues. Patients, carers, friends, family and health professionals find it direct and uncompromising first-hand accounts of health issues in the form of video or audio clips and written transcripts. For new patients with no prior knowledge of a recently diagnosed condition, healthtalkonline.org and Youthhealthtalk.org provide a lifeline to other people’s lived experiences. This is a unique resource which will have an important impact on health care delivery. The presentation will look at the level and cost of resources patients and their families have been established in Germany, Korea and China. DIPEx has pioneered a greater understanding of what it’s like to experience health issues. Patients, carers, friends, family and health professionals find it direct and uncompromising first-hand accounts of health issues in the form of video or audio clips and written transcripts. For new patients with no prior knowledge of a recently diagnosed condition, healthtalkonline.org and Youthhealthtalk.org provide a lifeline to other people’s lived experiences. This is a unique resource which will have an important impact on health care delivery. The presentation will look at the level and cost of resources patients and their families have been established in Germany, Korea and China. DIPEx has pioneered a greater understanding of what it’s like to experience health issues. Patients, carers, friends, family and health professionals find it direct and uncompromising first-hand accounts of health issues in the form of video or audio clips and written transcripts. For new patients with no prior knowledge of a recently diagnosed condition, healthtalkonline.org and Youthhealthtalk.org provide a lifeline to other people’s lived experiences. This is a unique resource which will have an important impact on health care delivery. The presentation will look at the level and cost of resources patients and their families have been established in Germany, Korea and China. DIPEx has pioneered a greater understanding of what it’s like to experience health issues. Patients, carers, friends, family and health professionals find it direct and uncompromising first-hand accounts of health issues in the form of video or audio clips and written transcripts. For new patients with no prior knowledge of a recently diagnosed condition, healthtalkonline.org and Youthhealthtalk.org provide a lifeline to other people’s lived experiences. This is a unique resource which will have an important impact on health care delivery. The presentation will look at the level and cost of resources patients and their families have been established in Germany, Korea and China. DIPEx has pioneered a greater understanding of what it’s like to experience health issues. Patients, carers, friends, family and health professionals find it direct and uncompromising first-hand accounts of health issues in the form of video or audio clips and written transcripts. For new patients with no prior knowledge of a recently diagnosed condition, healthtalkonline.org and Youthhealthtalk.org provide a lifeline to other people’s lived experiences. This is a unique resource which will have an important impact on health care delivery.
other concussed individuals, best-practice concussion management (i.e., via Facebook groups; needs assessment of individuals (stakeholders) who had experienced concussion; stakeholder consultations through semi-structured interviews with medical practitioners supported use of Facebook to deliver concussion education, and on the components of concussion management that should be included in iCon. The selection of credible resources to include as part of iCon was established by evaluating the information quality, content and readability of 43 existing concussion-related websites. Results from our study showed that some websites are medically inaccurate and potentially misleading. The purpose of our study is to determine whether iCon (online) can be used to improve medical care, and if the resources offered through iCon are an improvement over existing online concussion information. Due to the variable nature of concussion, medical care and physical/psychological needs vary significantly. As such, the information provided on these websites may already be working with high-risk populations; underrepresented populations. Evaluation of the framework: will it work in diverse settings? What are the challenges in other fields using wikis (semantic-wiki) for collaborative development of guidelines for medical practice, sharing knowledge of best-practices (research-wiki), disruptive wiki's (ebuss-wiki) to create innovative structures for healthcare based on business modeling. The second issue is how to effectively use the wiki and transplant it to a variety of research areas in eHealth.

726
Katherine Berlin Alston
A VISIBLE SCREENING INSTRUMENT: ASSESSMENT FOR COMMON MENTAL DISORDERS AND SUICIDAL IDEATION, EASY, FAST, AND ACCESSIBLE FOR EVERYONE.
Usability and human factors in the web
Demo Session 4, 12:42pm-12:56pm, September 18, 2011
Upper Lobby
Research indicates that screening instruments are very often difficult to understand for low SES (Socioeconomic Status), children, and immigrant groups. Most screening instruments are concerned with common disorders like depression and long sentences and difficult wording. Screening instruments for children are usually answered by their parents, people with low SES have told us that they need to be answered to the answers the questions. Assistance with screening questionnaires may alter and the quality of the answer, and, moreover, makes them less independent. We have developed an easy-to-understand, web-based (audio-visual) screening instrument, the Visual Screener for Common Mental Disorders (VS-CMD). It screens for symptoms of depression, anxiety, problem drinking and suicidal tendency and is designed for adults with various education and reading levels. The wording of the questions has been simplified; every question has been supported by an equivalent in voice (i.e., audio and video: a man and a woman). The answers are presented with graphic (cartoon) representation or animation. The VS-CMD is currently being validated. This study will cross-validate the VS-CMD with a battery of self-report measures in the general population. If the results of the present study are favorable, the VS-CMD will be utilized in web-based mental health portals, as screening before a web-based intervention, as an application on a tablet or Smartphone, as a research instrument or as a stand-alone program on a computer at hospitals or care centers. In this interactive presentation the practical opportunities of the VS-CMD are presented and discussed.

727
Osman Hassan Ahmed, S. John Sullivan, Anthony G. Schneiders, Paul R. McCrory
ICON: USING FACEBOOK TO DELIVER BEST-PRACTICE CONCUSSION MANAGEMENT Web-based Approaches for clinical practice, clinical research, quality monitoring, knowledge translation
Poster Session 2, 12:00pm-1:00pm, September 18, 2011
Lower Lobby
Concussion is a brain injury caused by direct or indirect forces to the head or body in contact sports. Concussion management centers on physical and cognitive rest during the early stages post-injury, with a graded return to full activity as tolerated. Our study relied on the potential of Web 2.0 technology to provide best-practice concussion information to individuals recovering from a concussion. The creation of “iCon” (Internet-based concussive injury-related educational and evaluative concussion management), a concussion management intervention operated through the Social Networking Site Facebook (the largest social networking site in the world), presented the opportunity to share concussion-related experiences with other concussed individuals, best-practice concussion information in an easy-to-read format, real-time feedback from healthcare professionals, and links to high-quality concussion-related websites. A systematic methodological approach was adopted for the development of iCon containing online access to scientifically proven Facebook groups; needs assessment of individuals (stakeholders) who had experienced concussion; stakeholder consultations through semi-structured interviews with medical practitioners supported use of Facebook to deliver concussion education, and on the components of concussion management that should be included in iCon. The selection of credible resources to include as part of iCon was established by evaluating the information quality, content and readability of 43 existing concussion-related websites. Results from our study showed that some websites are medically inaccurate and potentially misleading. The purpose of our study is to determine whether iCon (online) can be used to improve medical care, and if the resources offered through iCon are an improvement over existing online concussion information. Due to the variable nature of concussion, medical care and physical/psychological needs vary significantly. As such, the information provided on these websites may already be working with high-risk populations; underrepresented populations. Evaluation of the framework: will it work in diverse settings? What are the challenges in other fields using wikis (semantic-wiki) for collaborative development of guidelines for medical practice, sharing knowledge of best-practices (research-wiki), disruptive wiki’s (ebuss-wiki) to create innovative structures for healthcare based on business modeling. The second issue is how to effectively use the wiki and transplant it to a variety of research areas in eHealth.

729
Lisette Van Gemert-Pijnen, Hans C. Ossebaar, Nico Mehlis
A WIKI FOR COLLABORATIVE DEVELOPMENT IN EHEALTH
Science 2.0/ Collaborative Science Panel 2, 3:15pm-4:00pm, September 17, 2011
Plenary Hall
Background
eHealth technologies may contribute to solve some serious challenges to global health and healthcare. As of yet the impact of eHealth technologies on healthcare practice is rather small compared to investments and professional expectation. In our research we have identified five major challenges of eHealth technologies (lack of accessibility, lack of evidence, lack of knowledge about the process of technological innovation, innovation) and lack of key stakeholders’ involvement or how to promote the integration of new technologies into daily life and work. The purpose of this study is to determine whether the wiki can be used to contribute to the improvement of existing eHealth technologies. The wiki was designed to create Research to Reality (R2R) (https://researchtorealit) and to carry out research and development of key stakeholders’ involvement. The purpose of our study is to determine whether the wiki can be used to contribute to the improvement of existing eHealth technologies. The wiki was designed to create Research to Reality (R2R) (https://researchtorealit) and to carry out research and development of key stakeholders’ involvement. The purpose of our study is to determine whether the wiki can be used to contribute to the improvement of existing eHealth technologies. The wiki was designed to create Research to Reality (R2R) (https://researchtorealit) and to carry out research and development of key stakeholders’ involvement.
from PLANE.T and R2R suggests that effective Web 2.0 strategies can increase web visits, create more interactive platforms, and expand web-based resources to benefit public health settings and reach low income, high-risk communities.

Conclusions

PLANE.T has greatly contributed to national cancer control and prevention efforts over the past 7 years. However, dissemination and implementation of EBIs requires an active role beyond static web resources. R2R is one Web 2.0 approach that integrates evidence-based resources with community preferences to inform challenging decisions that current research alone cannot address. Additional efforts are needed to promote applications of EBIs within the evolving conditions in which programs are implemented. We plan to extend the PLANE.T and R2R model to other health conditions. Researchers, community practitioners, and government partners should continue to develop innovative strategies to address issues in disease prevention, control, health disparities, and health care and may further help them meet the expectations of e-patients.

734 Ruthenial Moore, Russell E. Glasgow, Bradford Hesse
WIKI APPROACHES TO ENHANCE REACH AND BREADTH OF STAKEHOLDER INVOLVEMENT IN IDENTIFICATION OF PRACTICAL Patient-Reported Measures for Primary Care Personal health records and patient portals Parallel Session 13, 1:00pm-2:30pm, September 18, 2011, LK330 Hall

Background

The number of health-related websites is growing exponentially and there is a huge amount of medicine-relevant information in social media. Examples include Facebook, community sites, video channels, Twitter accounts, blogs and slidecasts, podcasts, etc. Although this information is becoming increasingly difficult to find relevant and reliable resources.

Methods

We designed “social media guidance packages” in which only selected social media tools focusing on different medical topics are featured. We also created the simplest medical information websites to inform their fields of interest in a personalized way without registering or having experience in using RSS. It is also now available in 17 languages.

Conclusions

Webcina assists medical professionals who aim to become guides for their patients online and empowered patients who would like to find reliable medical content provides clear value. Free quality medical social media resources must be easily accessible for everyone.

735 Bertiša Meklo
QUALITY OF MEDICAL INFORMATION IN SOCIAL MEDIA: WEBGINA
Participatory healthcare Parallel Session 2, 11:00am-12:30pm, September 17, 2011, LK330 Hall

Background

Online literacy is becoming crucial in medical education as the number of e-patients and medical websites are exponentially growing. Preparing medical students for practicing medicine today not only requires learning clinical skills, but also facing the huge number of medical resources and patients seeking health-related information online. In order to investigate whether the online literacy of medical students can be improved in the medical curriculum, we launched the first university elective credit course at the University of Debrecen, Medical School and Health Science Center focusing on how medical students can and should use the world wide web. The course consisted of 20 lectures in reading medical blogs, the advantages and disadvantages of using Facebook or Wikipedia, virtual worlds and mobile applications, among others. The material was available on Webcina.com.

Methods

140 students completed the course and filled a survey before and after the course used to determine their online literacy and knowledge of Web 2.0 and medicine changed during the education.

Results

Based on the results, students’ understanding of definitions and active role beyond static web resources significantly improved. Their attitude related to the possible dangers of the growing popularity of world wide web also changed and they appeared to have positive examples and case presentations how to avoid privacy issues and how to meet the special needs of e-patients.

Conclusions

Such a course in the structure of the basic medical curriculum can improve the knowledge of medical students about the world wide web in terms of medicine and health care and may further help them meet the expectations of e-patients.

736 Christophe Robert Laurent, Stefaan Debrauwer
MOBILE WEB ENABLED CHECK-IN OF PATIENTS AT THE EMERGENCY ROOM: A WEB2.0 APPROACH FEATURING ACTIVE PATIENT PARTICIPATION AND COLLABORATION
Consumer empowerment, patient-physician relationship, and socio-technical issues Poster Session 2, 12:00pm-1:00pm, September 18, 2011, Lower Lobby

Background

Emergency Rooms (ER) all over the world are being flooded with the incoming information of receiving text-messages for immunization reminders far outweighing the barriers identified. In addition, most of the barriers identified were not text specific. Most of the comments that could be applied exclusively to text-messaging were centered on cost if parents did not have unlimited texting.

Methods

 Patients or their (identified) proxies are given the opportunity to receive immunization reminders through mobile Internet, or in the ER waiting room (either over Wi-Fi, or on consoles in the waiting lounge). They fill out an easy question-answering form which can be provided additional information if they think it is relevant. The information is routed to the ER medical record. This way, the patient becomes a co-manager of his illness.

Results

The result is an early announcement of arriving pathology and an inviting information form when sometimes there was no documented information before. The information entered by the patient or the proxy, is not always quite the same as what the nurse or doctor orally only. It is to be considered an optional additional source of information, and is experienced to be very valuable by both approved by two local Institutional Review Boards. Patients were recruited from two local pediatric clinics. The interview included demographic data, a health literacy assessment, and questions regarding technology. The interviewer elicited information on text-messaging, communication within the ER, and sources of immunization information. Participants were asked whether they would be willing to receive text-message reminders and to identify barriers of text communication. Content analysis was performed on questions regarding text-messaging and patient experiences to “barri”-

ers” and “benefits” of text-message-based reminders were classified using emergent coding methods (kappas>0.70). Results

The majority of respondents were female (45; 90%), White non-Hispanic (31; 62%), with one or two children (31; 62%). Most participants were over 40 years old (M=29, SD=5). Nearly all participants (48; 96%) had an s-TCHLA score in the Adequate range (>22 of 36). Regarding patient communication, most of the child’s physician, (80%; 100%) parents engage in face-to-face contact at the appointment. 96% of the reported communication via telephone, and 0; (0%) reporting via email or text communication. Most parents were satisfied with the face-to-face (96%) and telephone (75%) communication. Parents reported receiving the majority of information about immunizations for their child at doctor’s appointments (39; 78%). Ninety-eight percent (98%) of participants were interested in receiving immunization reminders by text-message, and 100% were willing to receive general appointment by text-message. Parents made 127 comments suggesting benefits of text message reminders. The largest category of comments was “Technology”. Many comments mentioned the willingness to talk to the doctor while talking on the phone or checking voicemail. “Technology” was also the largest category regarding barriers to text message reminders (43 of the 73 comments (59%). Many comments addressed barriers such as if a phone was turned off or lost or cost if parents utilized pay-text programs. Thirteen participants (26%) could not identify any barriers. Conclusions

Most patients were satisfied with this form of communication; however few had experienced any alternative forms of communication regarding immunizations. Benefits of receiving text-messages for immunization reminders far outweighing the barriers identified. In addition, most of the barriers identified were not text specific. Most of the comments that could be applied exclusively to text-messaging were centered on cost if parents did not have unlimited texting.
physician and nursing staff. It is an additional element for the medical record and constitutes an objective and subjec-
tive form of recording the patient’s care in his or her emergency care, or the care for their family of friend when it is done by a proxy.

Conclusions

We present a web-enabled form of direct participation by the patient (or his family/colleagues/friends) in the Emergency Room process. This has clear medical, social and personal benefits, in an emergency situation. For the patient, it also can change the perception of involvement and improved overall form of participatory and collaborative Emergency Medicine. Direct patient participation has a positive effect on patient outcome.

759

Stefaan Debrouwer, Christophe Robert Laurent

MOBILE WEB ER-REFERRAL FOR GENERAL PRACTITIONERS: IMPROVING COMMUNICATION AND COLLABORATION IN EMERGENCY MEDICINE

Participatory healthcare
Poster Session 1, 12:30pm-1:30pm, September 17, 2011
Lower Lobby
Backcourt

Often in Emergencies at home, patients in Western Europe are still seen by a Primary Care Physician, Family Physician or General Practitioner. They refer the patient to the Emergency Room (ER) in a number of ways. To date, in Belgium, these often “paper-only” referrals are often inefficient. An easily accessible web form is conceived and implemented so as to change this. We developed a way to increase the efficiency (easier sending as well as easier and more complete and accurate communication) in the information from the Primary Care Physician (who refers the patient to the ER) to his colleagues in the ER, and in “non ideal situations” (e.g. in Belgium, referred patients are often seen by emergency residents when there is no attending ER physician). The referring ER physician can then better and faster determine the best course of action for the referred patient, be it a patient with serious medical condition, or be it a patient referred for a diagnosis. The use of a web interface for these referrals will increase the overall efficiency of the ER process and, at the same time, improve the overall care of the referred patient. Currently, a larger study is ongoing in which the impact of this web-based referral system is evaluated.

745

Jeremy Lundberg

MEDSTR.COM

INTEGRATING OPEN SOURCE WEB 2.0 AND SMARTPHONES TO IMPROVE PHYSICIAN EDUCATION AND LEARNING OUTCOMES IN EMERGENCY MEDICINE

Poster Session 9, 10:30am-12:00pm, September 18, 2011
Lk120 Hall

How I Founded medstr.com

Originally Medstr.com was created to help fight Pediatric cancer and to use a new alternative to the already available Facebook. The reason behind this new platform of a medical social network was to improve the visual communication Facebook and other sites lacked. To be more specific I wanted to have a medical social network platform that included “tele-health” communication. Another reason for this concept was to have the capability to broadcast information that would allow all users to expand a topic or group beyond the venue of one social network, i.e. if a little child with a medical condition or his mother creates an event to raise money for her son’s surgery, she could post it once on Medstr. The mother could then expand that event to multiple social networking sites such as Facebook, Twitter, LinkedIn etc. The original goal was to implement this along with other features like Cooliris, which enables users, including physicians, to visually present data and images to support any given information that they may have written on their wall. Medstr.com is currently in development and is being used by real users. Medstr.com currently has 395 members. Medstr.com was developed without user interaction. What is Medstr.com’s intended use?

The goal of Medstr is to allow people from all aspects of the medical field to come together. Health is one of the most important things in any person’s life, but still, good or bad. This network is not just for those who are ill, Diets, workouts plan, and leading a healthy life would be advocated on this platform. Even though it is their own unique lifestyle, and therefore their medical social network should be the same way. Doctors, physicians, and other certified medical personnel will be a huge part of this social network. This will allow for timely responses to patients questions, problems, and comments. Another intended use of Medstr, involves bringing experienced medical employees together, to enable rich community knowledge of medical issues people may be experiencing. How is it different to many other online communities for healthcare professionals and patients?

Medstr will give the users the ability to feel secure when discussing their medical situations. Unlike networks such as “patientlike.me” we will not associate people with the medical condition they have or are experiencing. Instead Medstr will strive for medical professionals and users or patients to maintain their privacy. What sets Medstr apart from other networking platforms is the way it creates for the different users when you’re a patient, yet it also is a voice to communicate to his patient via Medstr.com.

Conclusion

The key ideology of Medstr.com is to connect medical professionals with patients and other concerned parties to form a community where Medstr.com users can have access to the latest events and treatment options through video chats and/or text messages. The patients and other concerned parties can receive instant updates from the physician, the patient, or group members providing a voice to communicate to a patient via Medstr.com.

744

John Moore Wiecha, Milagros Rosal, Robin Heyden, Neil Blanchette

ONLINE PATIENT EDUCATION FOR TEENAGERS: DISEASE SELF-MANAGEMENT AND MEDICAL DECISION SUPPORT

PUBLIC SESSION 4, 2:30pm-4:00pm, September 17, 2011
Lk120 Hall

在线运动是使身体成为参与者在第二生活中的一部分。第二生活（SL）是来自多个来源的最方便的交流工具。这将描述我们的最近教育项目的使用SL, 一个给医生和患者。

Physician education

The aims of the project were to explore the feasibility, acceptability and limited efficacy of a virtual world platform for supporting MI training. MI training often presents a barrier to the adoption of MI by healthcare professionals. Virtual worlds offer the potential to improve access to this training, change the learning experience through the use of immersive online environments. Little work has been published on the use of SL for this purpose, and minimal evidence exists on educational efficacy for training in patient-centered counseling strategies such as MI using a virtual world platform. We trained 13 primary care physicians in a two-semester program in SL on using MI for counseling patients on colorectal cancer (CRC) screening. We measured acceptability of the virtual world learning environment and efficacy of the MI training was assessed through a taped recorded, blind-rated training of a mock patient interview pre- and post-training. Acceptability ratings for the MI training were 4.1 (on a 5-point scale). The SL learning environment was highly rated, with 77% (n=10) of the doctors reporting SL to be an effective educational medium. Limited evidence also exists on the efficacy of virtual practice patterns for CRC screening improved following the SL training. Significant increases in global MI skills scores were achieved (p<0.01). Component scores for the MI micro-skills also increased, with improvements in four of the five MI component skills (p<0.01, collaboration (p<0.01), and evocative response (p<0.05)). The results of this pilot suggest that virtual worlds offer the potential for an effective MI training pedagogy to enhance learning outcomes for patient-centered communication skill training.

Patient education

The lessons learned in the above project are being applied to an NIH-funded comparative effectiveness study of health education delivery methods for inner-city African-American women with Type 2 diabetes. Patients are being recruited from community-health centers and an urban safety net clinic. The use of computers, wireless modems, and Second Life, and provided with a laptop computer and wireless 4-G modem to connect to SL, at home. The most important social cognitive theory, participants will engage in 8 health education sessions in small groups, and 4 times individually, with a healthcare professional in Second Life, or in the hospital if randomized to the comparison group. The sessions are designed to promote lifestyle change (diet and physical activity), and improve glycoemic control (HbA1c). Part of this clinical trial will have baseline and end-point measure-ments of hemoglobin A1c, physical activity, diet, and other in-person medicine delivery. Patient acceptance of, and adherence to, the two methods.

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Rose Hethington, Jennifer Stinson, James Wright, Vicky Breakey, Cathy Schmidt, Sandra Donaldson, Victor Blanchette

ONLINE PATIENT EDUCATION FOR TEENAGERS: DISEASE SELF-MANAGEMENT AND MEDICAL DECISION SUPPORT

Parallel Session 8, 4:30pm-6:00pm, September 17, 2011
Lk120 Hall

AboutKidsHealth is a 20-member consumer health informatics team that is the patient education group at The Hospital for Sick Children in Toronto. Our major project is the child health consumer information site www. AboutKidsHealth.ca. It has been estimated that up to 30% of teenagers face some form of mental health issues. These youth face issues including medication compliance and other disease management protocols; a range of psychoso-
cial challenges including autonomy, body image, sexuality, risky behaviors, and transition to adult care. With clinician/researchers at the hospital and from other pediatric hospitals across Canada, we have developed a number of internet-based, patient education interventions targeting teenagers with chronic disease or teens contem-
The desire to address informational, management, and relationships gaps between the different care providers involved with the continuity of care, led to the creation, seven years ago, of a Montreal Stroke Network (MSN). Over the past several years the MSN, bringing together community health centers, patients, caregivers, clinicians, managers, and researchers, has developed several projects covering the continuum of care. The focus is on functional rehabilitation. Members have the opportunity to meet face to face on a monthly basis to advance the project of their respective CoP; otherwise communication activities are conducted via the platform. The platform was developed to create a networking environment to support communications, and facilitate knowledge sharing between participants from around the world. The platform also promotes best practice changes in stroke care. This paper reports the experience of the rehabilitation CoP, highlighting the challenges encountered during the development of active projects and the challenges faced by the research team in building research capacity. Users’ characteristics and utilization patterns will be presented.

Methods
Quantitative and qualitative approaches were used. Participants completed questionnaires measuring socio-demographic characteristics, their practice style profile and the barriers and enablers to stroke best practices. Activities on the platform were monitored. Semi-structured interviews will be conducted with 12 members of the virtual rehabilitation CoP (highly trained and experienced physiotherapists and occupational therapists). However, only 10 members actively wrote a message or respond to the discussion forum. Blogs written by the research team are read by an average of 27 members but never commented. Users (viewers and writers) visit the platform once a week and spend 11 minutes per visit. Automated e-mails with targeted content increase utilization rates. After four months of activity, no new project has been initiated and most active members are new to the CoP.

Results
To date, over 350 rehabilitation professionals registered to the Web 2.0 collaborative platform. Participants are mostly male (83%) mostly older than 40 years of age and most are working as health practitioners. A total of 66 participants have been enrolled to date. Results show that participants have provided strongly positive ratings of the applications (average ratings across TAM usability factor questions on a 1 to 7 scale greater than 5.5, in the positive direction). Post-implementation data shows that participants’ performances on the information sub-scale of the IMB model measure increased significantly (p < 0.05), and other mediating factors had a positive impact on direction (indicated increasing motivation and behavior for task completion). A comparison of electronically assessed medication adherence showed significant increases in medication adherence among those with less than 90% adherence at baseline.

Conclusions
A computer-based tailored information approach is acceptable to potential users who have in usability testing been positive about its content and format. Further evaluation will allow an assessment of its effects on patient behavior.

758 • James Barratt
HEALTH-PROMOTING APPS: A CONTENT ANALYSIS
Web and mHealth application
Poster Session 2, 12:00pm-1:00pm, September 18, 2011
Lower Lobby
Background
The advent of the iPhone opened the mobile device platform to freelance developers and hobbyists, who created a sea of apps, which greatly expanded the device's functionality and utility. In the health and fitness category on Apple's iTunes, developers have created thousands of apps for download. Despite the apps' popularity, little is known about the potential health utility of the many third-party apps being designed to interact with the smartphone. The purpose of this study was to provide a panoramic perspective of the thousands of paid apps pertaining to the Health and Fitness category on iTunes.

Methods
A database of 3,773 paid apps under the Health and Fitness category of iTunes was compiled. The database included the title of the app, the developer's description and the price. Each app was coded according to one of the CDC's core content areas for health promotion, which included the following: diet, exercise, personal health, sexual and reproductive health, and sleep disorders. Each app was coded to determine its role as a predisposing, facilitating, or reinforcing factor, which are each dimensions in the commonly used Precede-Proceed model.

Results
The coding is not yet complete, but preliminary results suggest that exercise and diet apps are the most common, while sleep disorder apps are least common. Across all of the CDC's core content areas, apps are most likely to serve a predisposing role for behavior, which means they mostly provide knowledge and information. Facilitating apps are those which reduce barriers to engaging in health behaviors (e.g., gym locator) and were more common than reinforcing apps, which provide feedback to the user.

Conclusions
App downloads from Apple's iTunes App Store have surpassed three billion, which is a manifestation of their popularity. Public health practitioners wishing to implement the use of these third-party apps to their health promotion efforts should recommend apps when the behavioral domain of interest falls within the app's core health knowledge information. Due to the large number of such apps, exercise and diet apps may have the greatest variety of features and options to improve the user's experience.

759 • Carl Hanson, James Barrett, Michael Barnes, Joshua West
PROTECTING HEALTH AND LIFE: HEALTHCARE AND HUMAN SERVICE RESPONSES TO ONLINE THREATS
Ethical and legal issues, confidentiality and privacy
Parallel Session 15, 3:00pm-4:30pm, September 18, 2011
LKL30 Hall
Background
Social media applications are often used for the purpose of communication, collaboration, and multimedia sharing; including social networking (e.g., Facebook), wikis (e.g., PBWorks), and video sharing applications (e.g., YouTube). These applications have empowered the lay public to join online conversations. Evidence suggests that health practitioners have become more involved in using social media for health communication purposes.
Consequently, health officials are challenged with managing the use of these technologies as staff and clients utilize agency specified applications. Threats to the agency include but are not limited to legal and other implications of: (1) staff misuse of social media applications, (2) inappropriate, unauthorized, or otherwise unauthorized access to social media applications, and (3) defamation or misrepresentation on agency pages. Threats to clients or users include but are not limited to: (1) accessing inappropriate or misleading information, (2) bullying and predation, (3) scare information and paranoia, and (4) misinformation. To avoid the challenges and threats associated with these circumstances, allowing access to social media applications on work computers. Others have responded by creating dedicated use policies. In light of the growing social media use and its potential for use as a powerful tool in health care, this presentation will provide a brief overview of the ongoing threats of social media to both individual health and health-promoting agencies, as well as discuss how health officials can mitigate these threats through implementation of social media policy. Methods

A content analysis of 20 social media policies from health and human services agencies was conducted. Policies were identified from those existing policies that were posted to the online Social Media Governance Policy Database. Only those policies in the database related to health and human services were included in this review. Policies from city, county, state, and federal government were excluded in this review. Policies were coded for common themes based on the major provisions and guidelines identified in the policies. Results

The results revealed that policies gave attention to both internal (staff) use of social media and external (client) use of the agency sponsored social media sites. Major provisions addressing proprietary or client information, professional and respectful online behavior, protecting personal privacy, attention to existing and new regulations, and internal policy provisions address agency oversight, online behavior, personal privacy, and commenter responsibilities. Conclusions

Health and human service agencies are responding to online health threats by establishing internal and external social media policies. Several important provisions and guidelines have been identified as important elements of social media policy. 760

760 David H. Gustafson, Andrew J. Libran
SMARTPHONE APPLICATION TO PREVENT ALCOHOL RELAPSE: A CLINICAL TRIAL IN A GLOBAL HEALTH CONTEXT
Panel Session 1, 11:00am-11:45am, September 17, 2011
Plenary Hall

Background

A key characteristic of alcoholism is that it leads to problems in quality of life, relationships, and public health and safety, and additionally leads to increases in healthcare costs. Successful relapse prevention is marked by ongoing duration, assertive outreach, monitoring, prompts, action planning, case manager, peer and family support. We are conducting a randomized clinical trial (SMART) of a smartphone application (ACHESS) designed to meet these criteria. ACHESS is an application that is run on the Palm Pre and HTC Evo 4G smartphones. Key smart phone functionalities include: connection with a support team (other ACHESS users) that includes photo sharing, discussion group and healthy event planning; utilizing GPS to detect when user is near a high-risk location (for example, a liquor store), which initiates an alert that offers the user tailored coping recommendations (immediate listen to guided relaxation, video chat with counselor, join discussion group, etc.); a brief weekly survey (pushed via text message notification) to detect impending relapse, the results of which inform tailored coping recommendations, and can be accessed by counselor via a web portal; streaming audio of others in recovery telling their stories; use of support meetings (AA, NA, etc.); and a “panic button” that notifies friends of the need for support and automatically initiates connections. Counselors of ACHESS users can access survey information, receive notification when users have pressed the panic button, and contact users via the ACHESS application. Methods

180 people recently discharged from residential addiction treatment for alcohol dependence have been assigned to either the ACHESS or a control group. Outcomes being examined include risky drinking days and system use. The results revealed that social media policies give at least the indication of how policies function and what is included in their specific provisions. A content analysis of 20 social media policies from health and human service agencies was conducted. Policies were identified from those existing policies that were posted to the online Social Media Governance Policy Database. Only those policies in the database related to health and human services were included in this review. Policies from city, county, state, and federal government were excluded in this review. Policies were coded for common themes based on the major provisions and guidelines identified in the policies. Results

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Health and human service agencies are responding to online health threats by establishing internal and external social media policies. Several important provisions and guidelines have been identified as important elements of social media policy.

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