DEFENSE CENTERS OF EXCELLENCE
For Psychological Health & Traumatic Brain Injury

Integrating Technology into DoD Efforts to Promote Psychological Health

Nov. 20, 2014; 1-2:30 p.m. (EDT)

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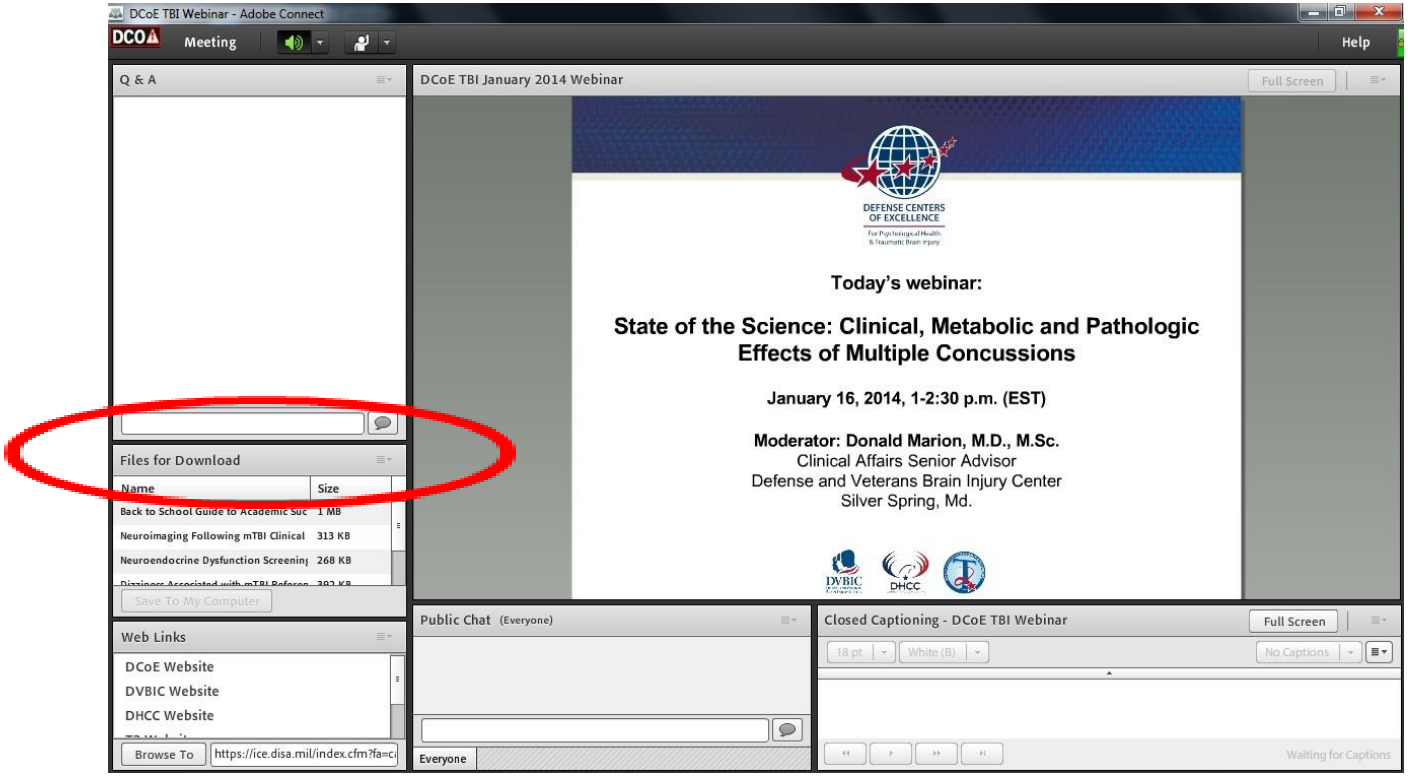
DVBIC Defense and Veterans Brain Injury Center
DHCC Deployment Health Clinical Center
National Center for Telehealth & Technology

Webinar Details

- Live closed captioning is available through Federal Relay Conference Captioning (see the “Closed Captioning” Pod)
- Webinar audio is **not** provided through Adobe Connect or Defense Connect Online
  - Dial: CONUS **888-877-0398**; International **210-234-5878**
  - Use participant pass code: **3938468**
- Question-and-answer (Q&A) session
  - Submit questions via the Q&A Pod

Resources Available for Download

Today's presentation and resources are available for download in the "Files" Pod on the screen, or visit www.dcoe.mil/Training/Monthly_Webinars.aspx



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- DCoE's awarding of continuing education (CE) credit is limited in scope to health care providers who actively provide psychological health and traumatic brain injury care to active-duty U.S. service members, reservists, National Guardsmen, military veterans and/or their families.

- The authority for training of contractors is at the discretion of the chief contracting official.
  - Currently, only those contractors with scope of work or with commensurate contract language are permitted in this training.

- All who registered **prior** to the deadline on **Thursday, Nov. 20, 2014,** at 3 p.m. (EST) and meet eligibility requirements stated above are eligible to receive CE credit or a certificate of attendance.

Continuing Education Details (continued)

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- Credit Designation – The Duke University School of Medicine designates this live webinar for:
  - 1.5 AMA PRA Category 1 Credit(s)
- Additional Credit Designation includes:
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  - 0.15 IACET continuing education credit
  - 1.5 NBCC contact hours credit commensurate to the length of the program
  - 1.5 contact hours from the American Psychological Association (APA)
  - 1.5 NASW contact hours commensurate to the length of the program for those who attend 100% of the program

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Questions and Chat

- Throughout the webinar, you are welcome to submit technical or content-related questions via the Q&A pod located on the screen. **Please do not submit technical or content-related questions via the chat pod**.
- The Q&A pod is monitored during the webinar; questions will be forwarded to presenters for response during the Q&A session.
- Participants may chat with one another during the webinar using the chat pod.
- The chat function will remain open 10 minutes after the conclusion of the webinar.

Webinar Overview

Many behavioral health providers are beginning to incorporate modern technologies into the psychotherapy relationship and process, often at the encouragement of patients who bring apps and downloaded Internet material into clinical settings. This presentation will articulate various opportunities for enhancing the therapeutic impact inherent in several current technologies including web and mobile applications, simulations, and distance collaboration technologies and will highlight the necessary steps for moving forward with an integrated model of behavioral health care.

During this webinar participants will learn to:

- Understand and articulate reasons why the standard of practice in behavioral health does not currently incorporate the use of modern technologies to include web and mobile applications and distance collaboration technologies
- Describe some promising opportunities for improving behavioral health care through the use of these technologies as an adjunct to standard treatment
- Outline the steps needed for moving forward with the integration of these technologies into their standard practice

Don Workman, Ph.D.

- Director of Emerging Technologies Program at the National Center for Telehealth and Technology at Joint Base Lewis-McChord.
- Licensed clinical psychologist and holds a doctoral degree in clinical psychology as well as a master's degree in theology.
- More than 20 years of experience in providing psychological services and consultation in the inpatient primary care, psychiatric, and rehabilitation settings as well as outpatient behavioral health.
- Previously served as Vice President of Business Development at Western Institutional Review Board (WIRB), Associate Vice President for Research Operations at Northwestern University and was responsible for the administration of the Human Subject Protection Programs at the University of Illinois at Chicago and St. Jude Children's Research Hospital.

Robert Ciulla, Ph.D.

- Ph.D. in Clinical Psychology.
- Director of the Mobile Health Program at the National Center for Telehealth and Technology at Joint Base Lewis-McChord.
- Program is focused on developing psychological resources across a spectrum of technology platforms to meet the needs of the military community, particularly website development and mobile applications.
- Dedicated to ensuring the military system is attuned to mobile health concepts as it moves toward a system for health.
- He leads development of mHealth solutions supporting service members, veterans, and military families.

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Integrating Technology into DoD Efforts to Promote Psychological Health

Don E. Workman, Ph.D.
Chief of the Emerging Technologies Program

Robert Ciulla, Ph.D.
Chief of the Mobile Health Program

National Center for Telehealth and Technology (T2)

DVBIC Defense and Veterans Brain Injury Center
DHCC Deployment Health Clinical Center

Disclosure

- The views expressed in this presentation are those of the presenters and do not reflect the official policy or position of the Department of the Defense or the U.S. Government.
- We have no relevant financial relationships to disclose.
- We will be discussing web and mobile applications that have been developed by the Defense Department, including those developed by the National Center for Telehealth and Technology (T2). Some of these applications may fall under FDA device regulations, and in those cases we will consult with the USAMRMC Division of Regulated Activities and Compliance for guidance.

Learning Objectives

- Understand and articulate reasons why standard of practice in behavioral health does not currently incorporate the use of modern technologies (including web and mobile applications and distance collaboration technologies).
- Describe some of the promising opportunities for improving behavioral health care through the use of these technologies as an adjunct to standard treatment.
- Outline the steps needed for moving forward with the integration of these technologies into the learners standard of practice.

Integrating Technology

- Why is it essential?
- Why is it not yet standard of care?
- How do we move toward the “tipping point?”

Why Technology Needs to be Integrated

- Counter Impact of Stigmatization (IOM, 2012)
- Improve Access to Care
- Improve Quality of Care Experience
- Lower per capita Cost
- Utilize the “white space” for prevention and treatment

“It is increasingly urgent for psychologists to confront the difficult questions raised by the way that information and communication technologies are altering not only health care, but also the human experience worldwide…”

(Maheu, M. M., Pulier, M. L., McMenamin, J. P., & Posen, L., 2012, p. 613)

Active Duty Service Members

- Technology is often at the heart of:
  - Their work
  - Their play
  - Their knowledge-seeking
  - Their love life
  - Their connection to family and friends
- The Premack Principle (Premack, D., 1959)

eWork

Photo by Lt. Col. Deanna Bague www.dvidshub.net

ePlay

Photo by: Spc. Kelly Lecompte www.dvidshub.net

Credit: Multi-National Corps - Iraq Publ
http://www.dvidshub.net/image/4825/life-camp-victory

eRelationships

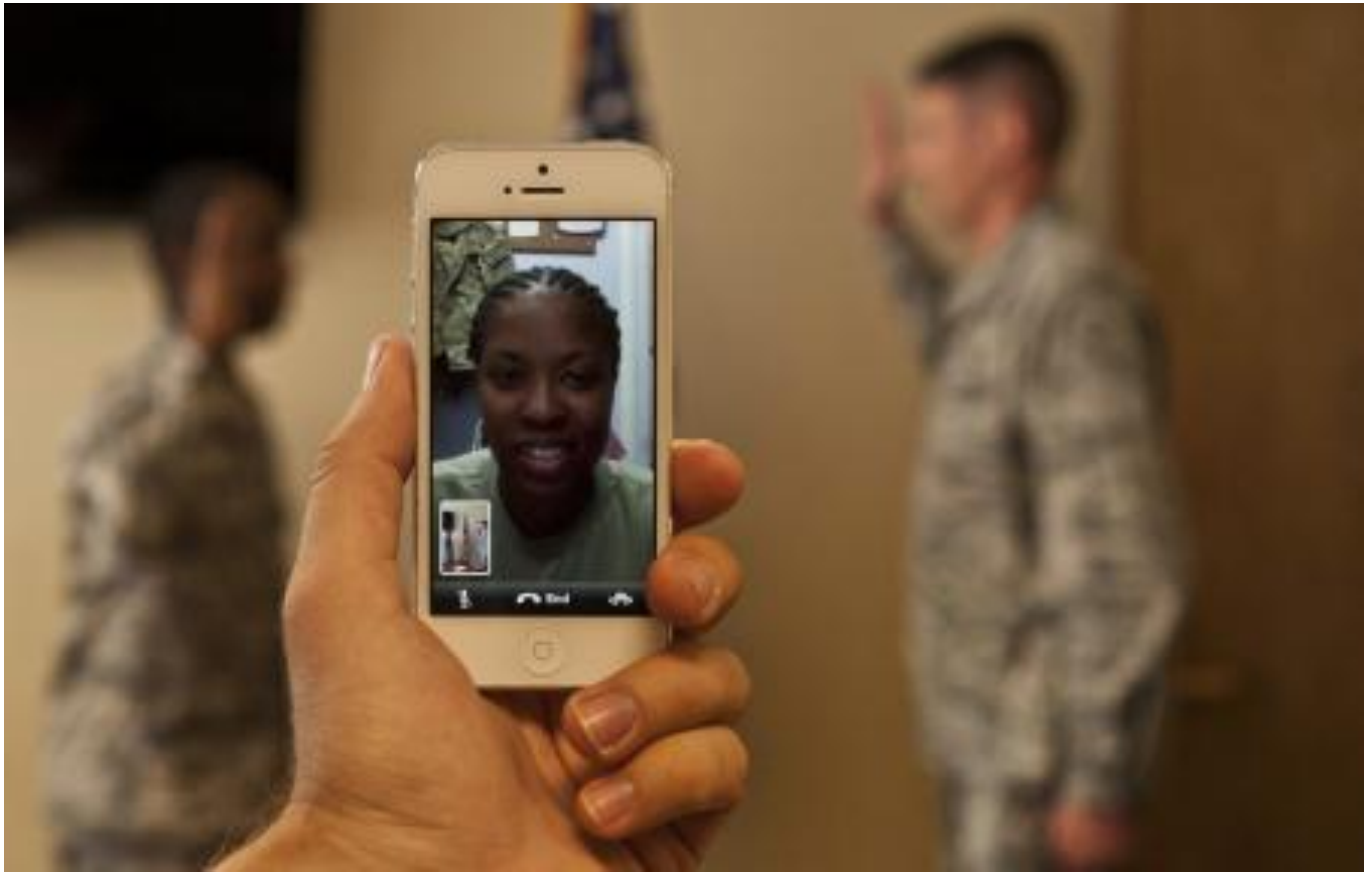


Photo by: Senior Airman Daniel Hughes www.dvidshub.net

Why Is it Not Yet Standard of Care?

- The Digital Divide (Prensky, M., 2001)
  - Digital Natives
  - Digital Immigrants
- Multiple digital divides
  - Culture
  - Technology Availability
  - Access (SES, and geolocation)
  - Literacy
- Ethical and Legal Concerns

How Do We Move Toward the Tipping Point?

- Innovative Thought Leadership
- Empirical Support
- Education and Training
  - Skills Acquisition
  - Peer Consultation
- Changing Provider behavior (knowledge transfer)

PTSD Experience in Second Life

Photo by: University of Southern California, Institute for Creative Technologies

Impact of Immersive Simulation on Attitudes and Learning

- Better understanding of
  - the causes of PTSD
  - Symptoms of PTSD
  - Treatments for PTSD
- More likely to seek treatment or refer to treatment

Improved Access to Care and Experience of Care

Photo by: Kevin Holloway, Ph.D.

Pilot Study of EBP in VW

	PCL-M	BDI-II	BAI
Patient 1			
Pre	31	13	7
Post	17	4	2
Patient 2			
Pre	56	33	20
Post	38	19	8

Holloway, K., personal communication (2013)

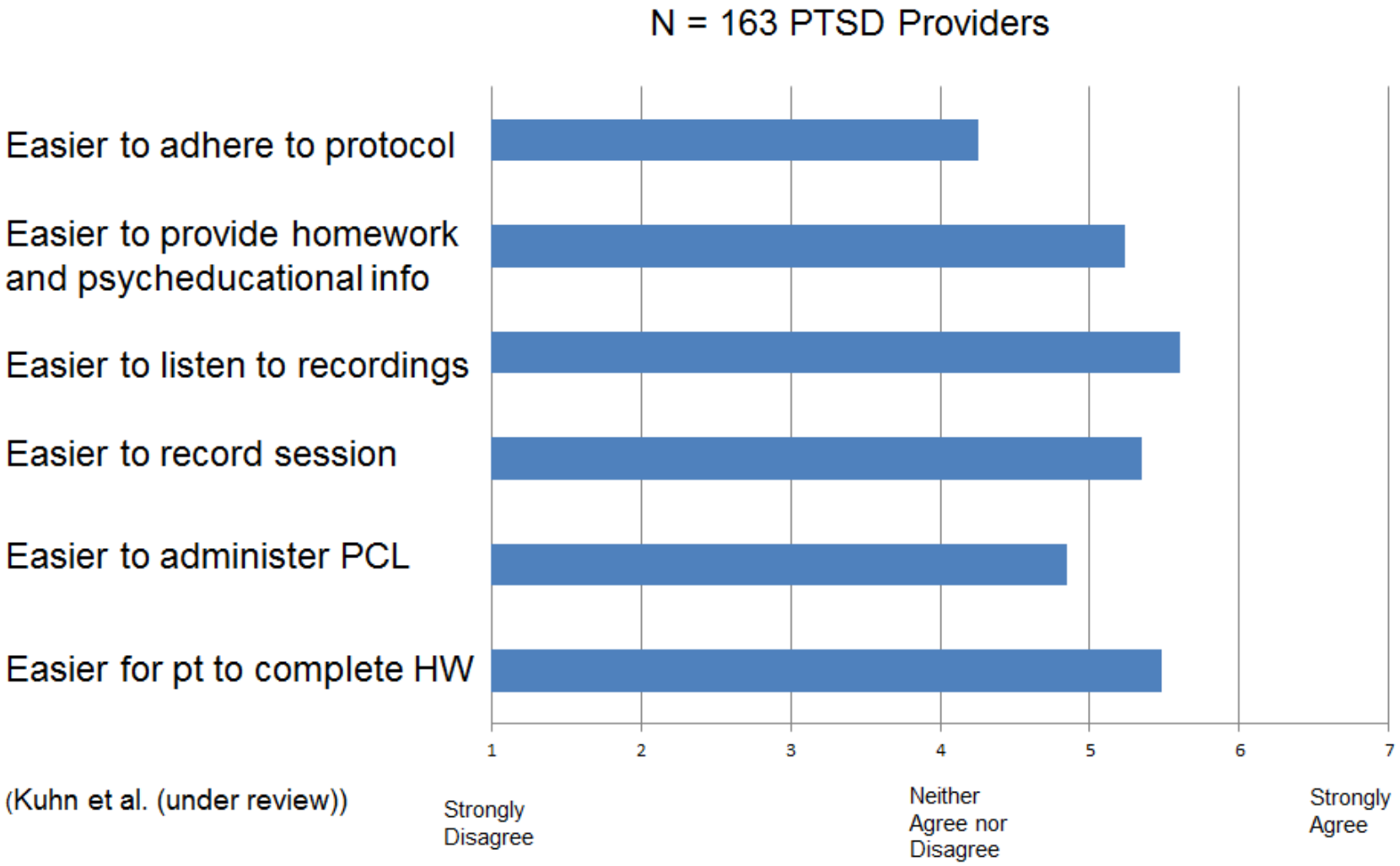
PE Coach

The first mobile application that supports all of the patient-centered elements of an evidence-based psychotherapy for PTSD

Features:

- Session homework
- Hip-pocket convenience
- Confidentiality
- Available therapist guide
- Session audio recording
- Assessment result tracking
- Disabled veteran accessible

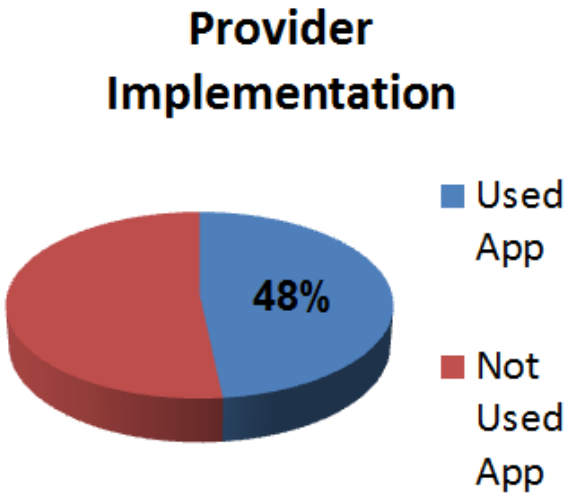
Perceived Value

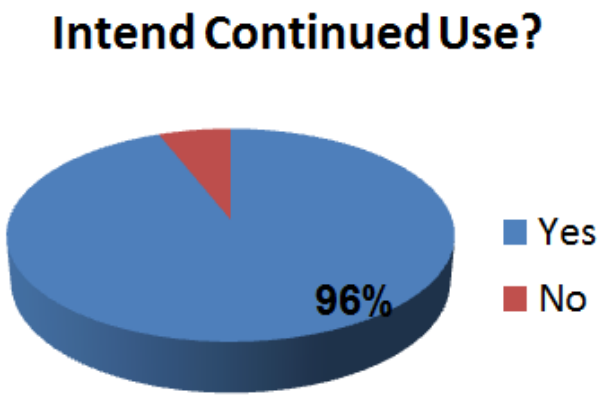


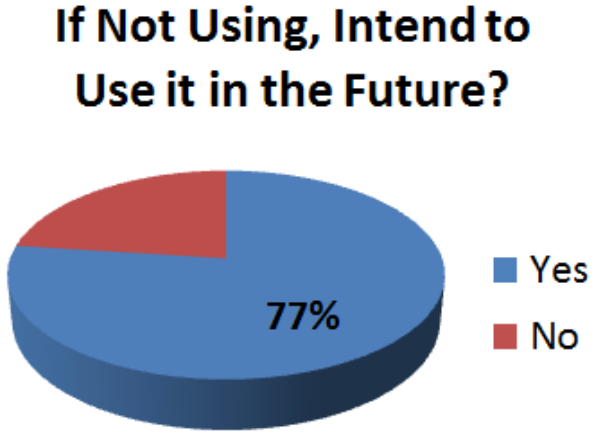
(Kuhn et al. (under review))

PE Provider Community and PE Coach

N = 271 PE Trained PTSD Providers

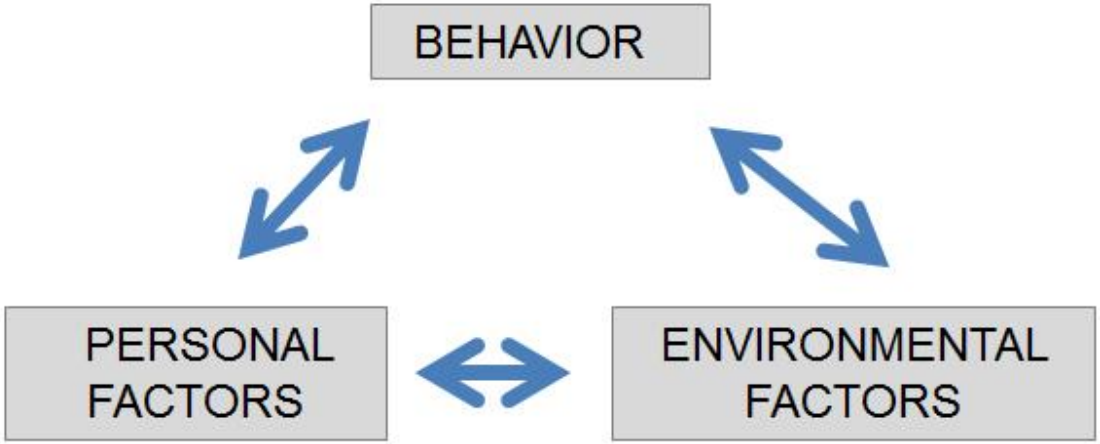






(Kuhn, Eftekhari, Hoffman, Crowley, Ramsey, Reger & Ruzek, 2014)

Bandura's Self-Efficacy Theory



(King, D.B., Viney, W., and Woody, W.D., 2013)

Technology

- A familiar tool for getting the “upper hand”
- Ego-syntonic “self-extender”
- Enhances the sense of self-efficacy
- May facilitate reconstruction of the self and identity to embrace a “disabled identity” into the larger self

References

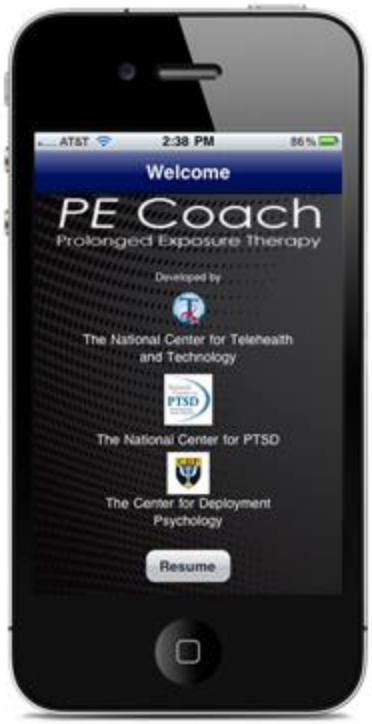
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215.
- Committee on the Assessment of Ongoing Efforts in the Treatment of Posttraumatic Stress Disorder, Institute of Medicine of the National Academies. (2012). Treatment for Posttraumatic Stress Disorder in Military and Veteran Populations: Initial Assessment. The National Academies press, Washington DC.
- Handley-Cousins, S. (2014). PTSD and the civil war. The Opinion Pages, The New York Times, August 13, 2014, accessed on September 2, 2014 at: http://opinionator.blogs.nytimes.com/2014/08/13/ptsd-and-the-civil-war/?_php=true&_type=blogs&_r=0
- Holloway, K. (2013). Personal communication with Don Workman, Ph.D.
- Institute of Medicine (2012). Further Steps Needed to Reduce Stigma and Expand Access to Substance Abuse Screening and Care in Armed Forces. http://iom.edu/Reports/2012/Substance-Use-Disorders-in-the-US-Armed-Forces/Press-Release-MR.aspx
- King, D.B., Viney, W., and Woody, W.D. (2013). *A History of Psychology: Ideas and Context, Fifth Edition*, Pearson.

References

- Kuhn, E., Eftekhari, A., Hoffman, J. E., Crowley, J. J., Ramsey, K. M., Reger, G. M. & Ruzek, J. I. (2014). Clinician perceptions of using a smartphone app in Prolonged Exposure Therapy. *Administration and Policy in Mental Health*, *41 (6),* 800-807 DOI 10.1007/s10488-013-0532-2
- Maheu, M. M., Pulier, M. L., McMenamin, J. P., & Posen, L. (2012). Future of telepsychology, telehealth, and various technologies in psychological research and practice. *Professional Psychology: Research and Practice*, *43*(6), 613.
- Pollina, D. A., & Barretta, A. (2014). The effectiveness of a national security screening interview conducted by a computer-generated agent. *Computers in Human Behavior*, *39*, 39-50.
- Premack, D. (1959). Toward empirical behavior laws: I. Positive reinforcement. *Psychological Review*, *66*(4), 219.
- Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the horizon*,*9*(5), 1-6.
- Yoshida, K. K. (1993). Reshaping of self: a pendular reconstruction of self and identity among adults with traumatic spinal cord injury. *Sociology of Health & Illness*, *15*(2), 217-245.
- Wilson, T. D., Reinhard, D. A., Westgate, E. C., Gilbert, D. T., Ellerbeck, N., Hahn, C., ... & Shaked, A. 2104. Just think: the challenges of the disengaged mind. *Science*, *345*, 75-77.

Contact Information

PE Coach



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Agenda

- Mobile Health
  - Definition/ Adoption/ Potential
- Health Tech on the Horizon
- Next Steps

Mobile Health is *the use of mobile and wireless devices to improve health outcomes, healthcare services and health research.*

Defined by a National Institutes of Health (NIH) consensus group

(Free, C., Phillips, G., Felix, L., Galli, L., Patel, V., & Edwards, P., 2010)

Key Developments in Health Care

- A healthcare system to a *system for health*
- The “activated” patient (empowerment)
- The whitespace/ lifespace
- Tracking/ quantification (the quantified self)
- Interoperable systems
- Access to resources
- “Anytime, anywhere, and securely”

Mobile Health (mHealth) is transforming healthcare

Web… Mobile… Is there a Difference?

56%: “multi-platform” users

(Lella, Lipsman, & Dryer, 2014)

Mobile Friendly Websites

Poll # 1

- Do you use websites to obtain medical information (about yourself or someone else)?
  - Examples: WebMD, Mayo Clinic, MedicineNet, NIH

- If you do access medical info via a website (for you or someone else), how often?
  - Daily/ Weekly/ A Few Times a Month/ Rarely

Poll # 2

- Do you carry at least one health-related app on your personal smartphone?
  - Examples: Activity/ calorie/ heart rate/ chronic conditions

- If you have one or more health apps on your phone, how often do you use such apps?
  - Daily/ Weekly/ A Few Times a Month/ Rarely

Polling Questions: Results

- Use/ frequency of websites for medical info
- Carry smartphone apps/ frequency of use

Web-Based Applications

- 53% of Internet users say the Internet would be, at minimum, “very hard” to give up, compared with 38% in 2006.

- *More than half* of all Americans look online for health information, and *more than one-third* use the Internet for diagnostic information.

(Fox & Rainie, 2014; Fox & Duggan, 2013)

Mobile Applications

- Seeking health information:
  - 1/3 of cell phone and 1/2 of smartphone users
  - 19% of smartphone owners have at least one health app (exercise, diet, weight)
- Cell phones:
  - Adults 53% in 2000 vs. 90% now
- Smartphones:
  - 35% in 2011 vs. 58% now

(Fox & Rainie, 2014; Fox & Duggan, 2012)

Technology Use Comparison

SMs

- 89% own a smartphone (58% Android)
- 65% weekly gamers
- Majority don't own a tablet

PROVIDERS

- 56% own a smartphone (67% iPhone)
- 93% no gaming
- Highest proportion own tablets

(Pew Research, 2014)

An Information Gap

- Are military providers using health technologies in their practice?

Top Ten Technology Adoption Challenges

10. “I still can’t program my DVD player.”

9. “I’m waiting on the IT department.”

8. “I don’t own a smartphone.”

7. “Using tech means more work – I’m already busy.”

6. “I’m still learning the new medical record.”

Top Ten Technology Adoption Challenges

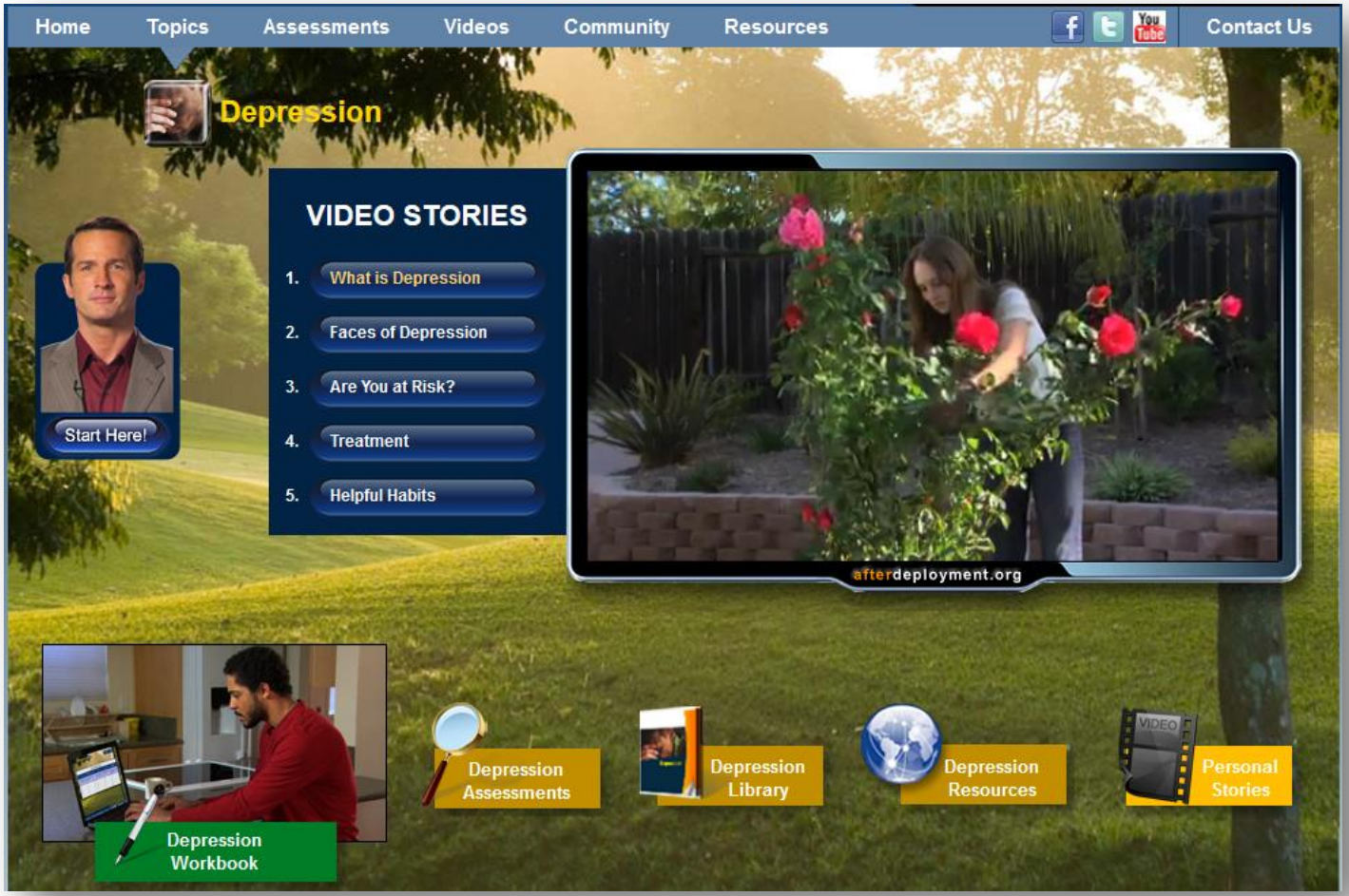
5. “These apps are just a fad.”

4. “Technology doesn’t fit into my clinical orientation.”

3. “Tech will interfere with the therapeutic alliance.”

2. “Patients will be emailing me 24/7.”

1. “Technology is making us more isolated.”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CONNECT WITH KIDS LIKE YOU!
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TEENS age 13 to 17
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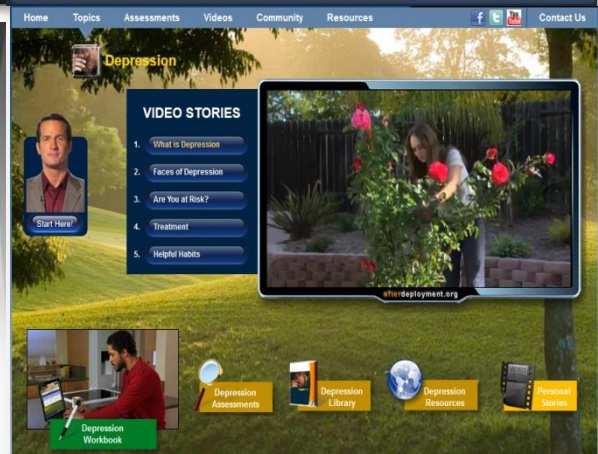
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mobile app

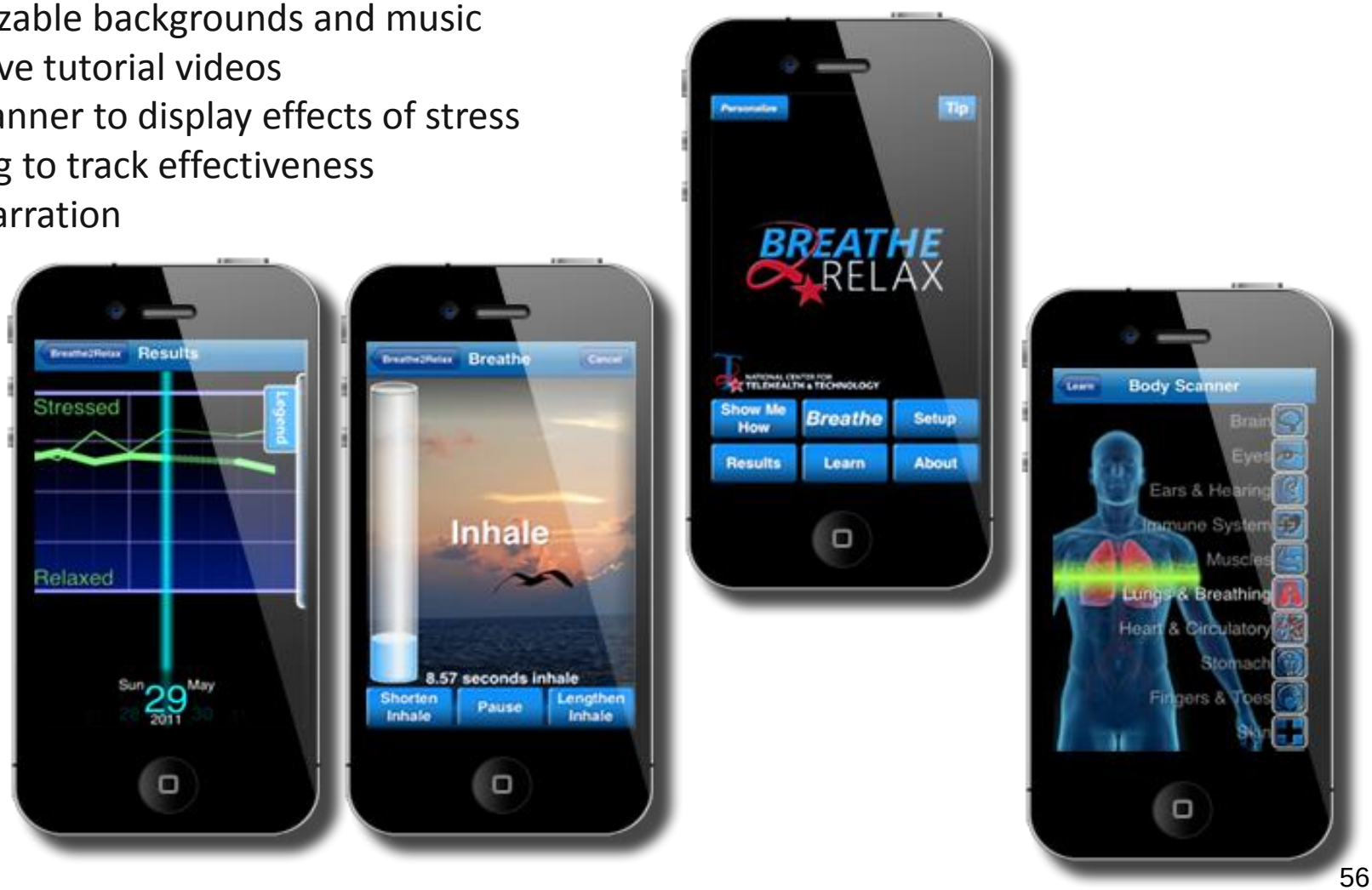
- **An application (software) made for:**
  - Smartphones (e.g., Blackberry, iPhone, Android, Windows phones)
  - Tablet computers (e.g., iPad, Kindle Fire)
  - Generally available via app stores (Google Play, iTunes, Amazon Appstore)

T2 Mobile Applications

Breathe2Relax

Features:

- Customizable backgrounds and music
- Immersive tutorial videos
- Body scanner to display effects of stress
- Graphing to track effectiveness
- Audio narration



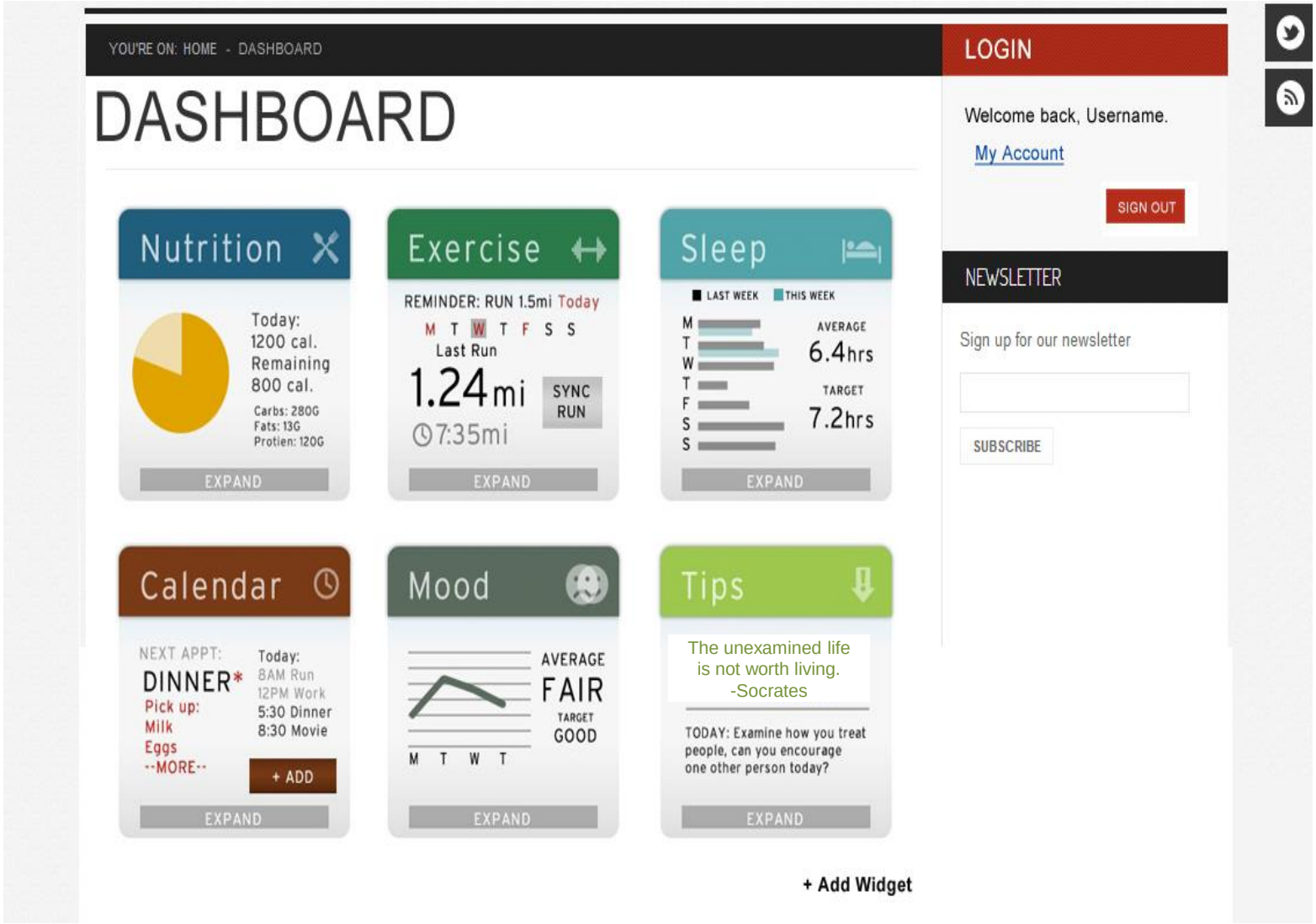
Next Technologies & Clinical Support Tools

Dashboards Wearables Avatars Games Robotics

*"Dashboards tap into the tremendous power of visual perception to communicate."**

- What is a ***"Dashboard?"***
  - An interface that helps the user make sense of and effectively use large amounts of data.

***** (Few, S., 2006)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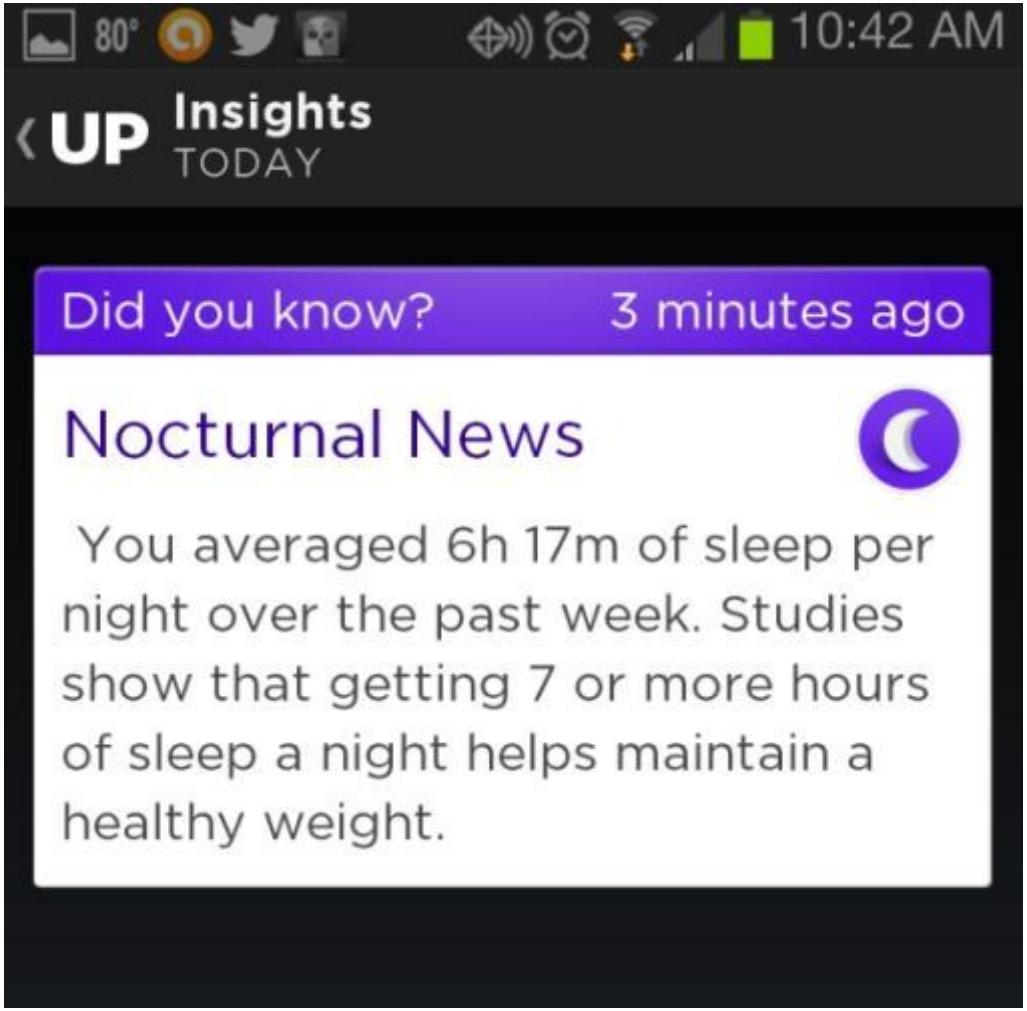
LIVE FEEDBACK

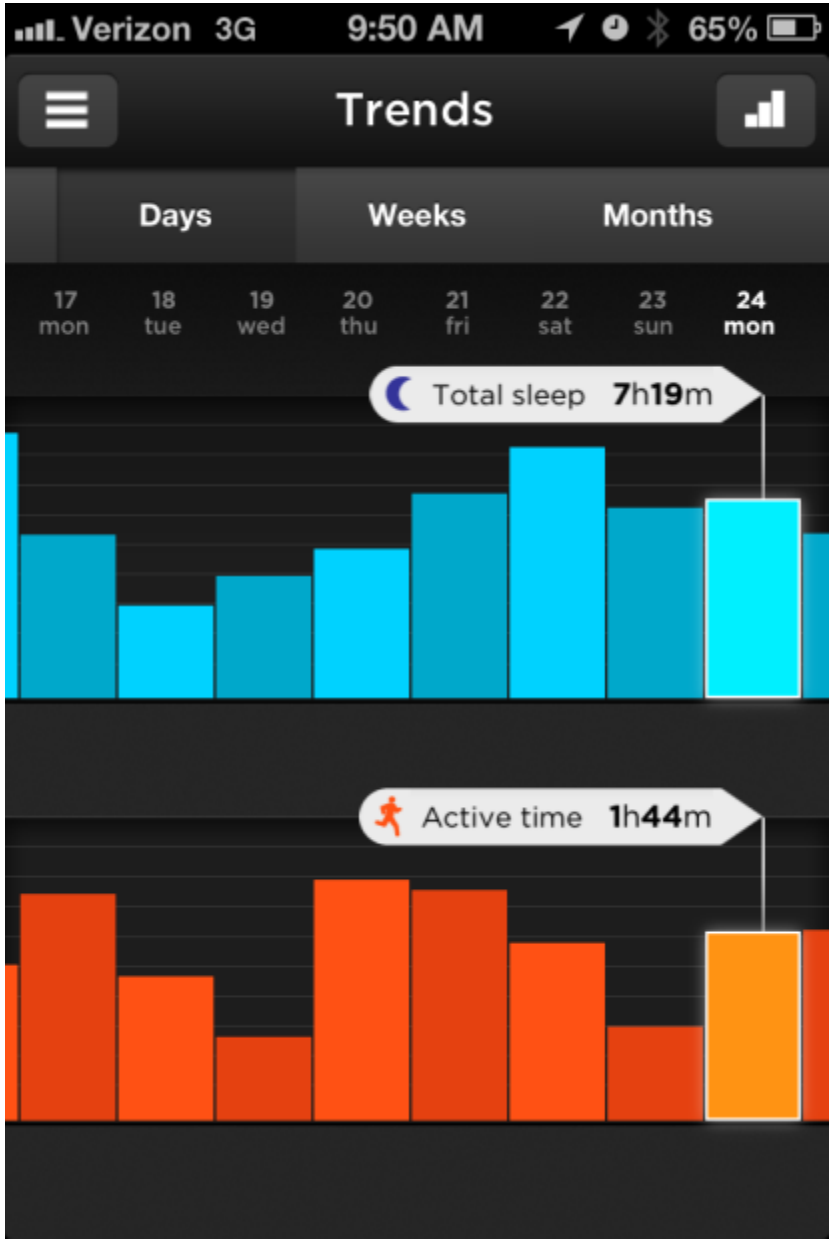
COUNTS
REPS AND SETS

MEASURES
HEART RATE

CALCULATES
CALORIES BURNED

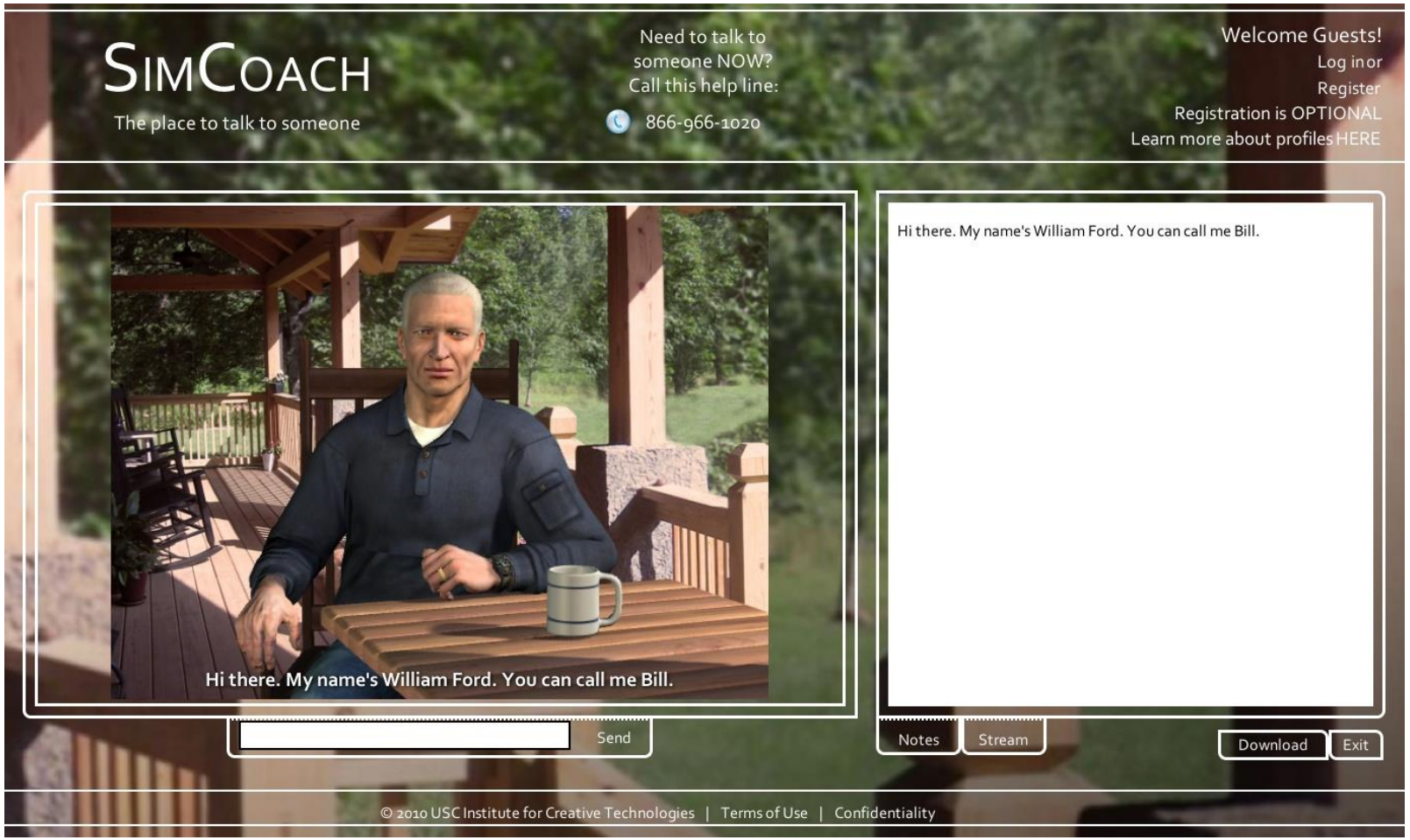
WORKS
W/ YOUR FAVORITE APPS


80°
10:42 AM
UP
Insights
TODAY
Did you know?
3 minutes ago
Nocturnal News
You averaged 6h 17m of sleep per night over the past week. Studies show that getting 7 or more hours of sleep a night helps maintain a healthy weight.


Verizon 3G
9:50 AM
65%
Trends
Days
Weeks
Months
17 mon
18 tue
19 wed
20 thu
21 fri
22 sat
23 sun
24 mon
Total sleep 7h19m
Active time 1h44m

braveheartveterans.org

http://braveheart.simcoach.org/simcoach/bh.html



Games

- Gamification is a stylistic design method that makes non-game contexts more engaging.

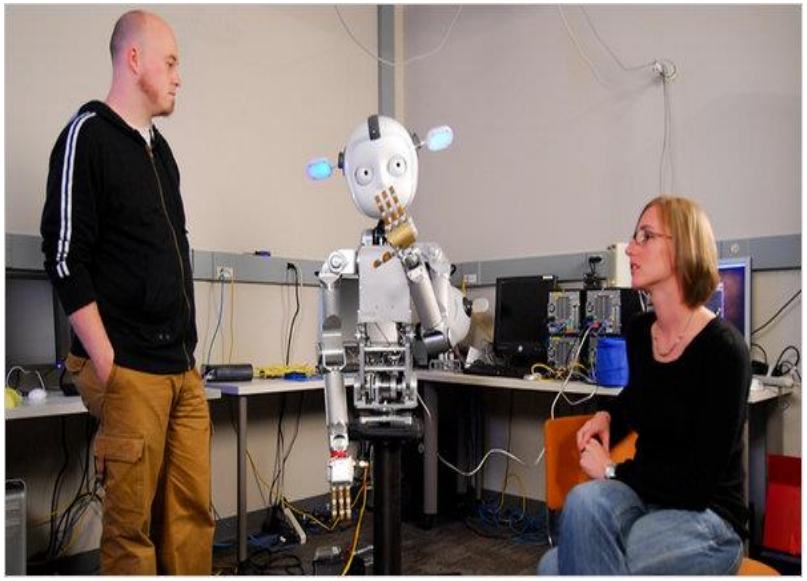
- Gamification captures the interest of users while providing opportunities for learning.

Social Robotics

“Students, Meet Your New Teacher, Mr. Robot”

“Computer scientists are developing robots like this one: highly programmed machines that can engage people and teach them simple skills…”

(Carey, B., & Markoff, J., 2010)



(Credit: NY Times article, July 10, 2010)

Technology Promises a lot…

- Adoption challenges
- Security issues
- Impact on the therapeutic setting
- Human factors (human-machine)
- Interoperability considerations
- Tech doesn’t ensure behavior change

“The Doctor Knows Best…”

Technologies are ushering in a *new model of healthcare,* one that is *patient-centric*, where individuals can quickly learn about health conditions, track their behaviors, and send information to their providers electronically.

The “White Space”

“A snapshot of the average year with the average patient shows that healthcare providers spend approximately 100 minutes with their patient during that year. How much health happens in those 100 minutes?...But what happens in the remaining 525,600 minutes of that year? What happens in the ‘White Space?’ I will tell you what I think happens – that is where health is built, that is where people live.”

Lieutenant General Patricia D. Horoho
The Surgeon General of the United States Army
Testimony for Committee on Appropriations
8 March 2012

(Horoho, P. G., 2012)

Next Steps

- What do we need to know?
  - Users- who, where, which apps
  - Inventory of apps
  - Outcomes studies

- What do we need to do?
  - Training manuals and clinical practice guidelines
  - Communities of practice
  - Credentialing

Research Studies on T2 Products

- AfterDeployment
  - Website easy to use (active duty, vets, and reservists)
  - Lowered PTS using AD with and without clinician
- LifeArmor
  - Assessments were highly reliable and perform well
- Virtual Hope Box
  - High risk patients used VHB more regularly than conventional hope box

Contact: Dr. Jae Osenbach @ janyce.e.osenbach.ctr@mail.mil

“A new century is at hand, and a fast-spreading technology promises to change society forever. It will let people live and work wherever they please, and create dynamic new communities linked by electronics.”

(Drew, D.E., 2011)

An article about the telephone

1898

(Mee, A., 1898)

Change…

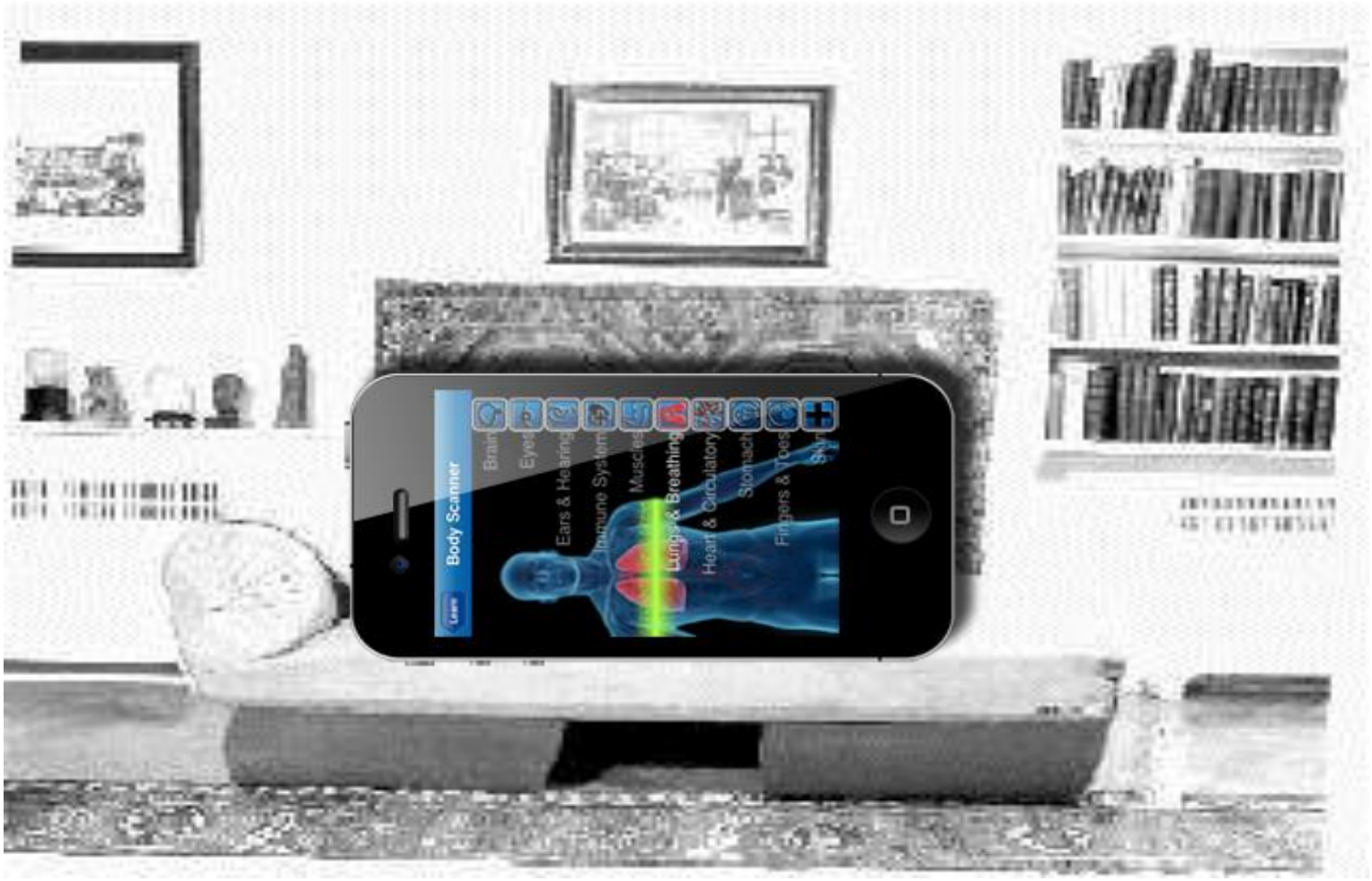
"If you want to make enemies, try to change something."

~Woodrow Wilson

(Singh, M. P., 2006)

The Iconic Analytic Couch

Mobile Health



References

- Anderson, C., & Wolff, M. (2010, August 17). The web is dead. Long live the internet. *Wired Magazine*. Retrieved from: http://www.wired.com/2010/08/ff_webrip/all
- Carey, B., & Markoff, J. (2010, July 10). Students, meet your new teacher, Mr. Robot. *New York Times.* Retrieved from: http://www.nytimes.com/2010/07/11/science/11robots.html?pagewanted=all&_r=0
- Drew, D. E. (2010). STEM the tide: Reforming science, technology, engineering, and math education in America. Baltimore, MD, USA: The Johns Hopkins University Press.
- Few, S. (2006). Information dashboard design: The effective visual communication of data. Sebastopol, CA, USA: O'Reilly Media, Inc.
- Fox, S., & Rainie, L. (2014, February 27). The Web at 25 in the U.S. *Pew Research Internet Project*. Retrieved from: http://www.pewinternet.org/files/2014/02/PIP_25th-anniversary-of-the-Web_022714_pdf.pdf
- Fox, S. & Duggan, M. (2013, January 15). Information triage. *Health Online 2013*. Pew Research Internet Project. Retrieved from: http://www.pewinternet.org/2013/01/15/information-triage
- Fox, S., & Duggan, M. (2012, November 8). Mobile Health 2012. *Pew Internet & American Life Project*. Retrieved from: http://www.pewinternet.org/files/old-media//Files/Reports/2012/PIP_MobileHealth2012_FINAL.pdf

References

- Free, C., Phillips, G., Felix, L., Galli, L., Patel, V., & Edwards, P. (2010). The effectiveness of M-health technologies for improving health and health services: a systematic review protocol. *BMC Research Notes, 3*(1), 250. doi: 10.1186/1756-0500-3-250
- Horoho, P. G. (2012, March 8). Written statement of Lieutenant General Patricia D Horoho the Surgeon General of the United States Army and Commander, US Army Medical Command: Testimony for Committee on Appropriations Subcommittee on Defense. Retrieved from: http://appropriations.house.gov/uploadedfiles/hhrg-112-ap02-wstate-phoroho-20120308.pdf
- Johnson, B. (2010, October 27). The web is reborn. *MIT Technology Review Magazine.* Retrieved from: http://www.technologyreview.com/featuredstory/421418/the-web-is-reborn

References

- Lella, A., Lipsman, A., & Dreyer, K. (2014, April 2). 2014 U.S. Digital Future in Focus. *comScore*. Retrieved from: https://www.comscore.com/Insights/Presentations-and-Whitepapers/2014/2014-US-Digital-Future-in-Focus
- Lella, A., & Lipsman, A. (2014, August 21). The U.S. Mobile App Report. *comScore.* Retrieved from: http://www.comscore.com/Insights/Presentations-and-Whitepapers/2014/The-US-Mobile-App-Report
- Mee, A. (1898, September). The pleasure telephone. *The Strand Magazine*. Retrieved from: http://earlyradiohistory.us/1898pls.htm
- Pew Research Internet Project: Mobile Technology Fact Sheet. 2014; http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/. Accessed March 13, 2014.
- Shaw, M. (2013, March 21). Putting the future in focus. *comScore*. Retrieved from: https://www.comscore.com/Insights/Presentations-and-Whitepapers/2013/Putting-the-Future-in-Focus
- Singh, M. P. (2006). Quote unquote: A handbook of famous quotes. Darya Ganj, New Dehli: Lotus Press

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- The Q&A box is monitored and questions will be forwarded to our presenters for response.
- We will respond to as many questions as time permits.

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Save the Date

- The next DCoE Telehealth and Technology webinar topic, **"*Technology Resources of Use to the Clinical Care of Military Sexual Trauma,"*** is scheduled for December 11, 2014, from 1-2:30 p.m. (EST)

- The next DCoE TBI webinar topic, ***"Performance Triad: Sleep, Nutrition and Exercise,"*** is scheduled for January 8, 2015 from 1-2:30 p.m. (EST)

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