How Technology Supports Self-care and Literacy: Insights From the National Health Community

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Presentation Overview

- The Digital Landscape
- Digital Government Strategy
- Health Literacy and the Digital Landscape
- Examples of Implementing Joint Digital Health Literacy Strategies at HHS
- Final Thoughts
The Landscape
The Digital Government Strategy

“I want us to ask ourselves every day, how are we using technology to make a real difference in people’s lives.”

– President Barack Obama
The Digital Government Strategy

By 2015, more Americans will access the internet via mobile devices than PCs.

In 2011, CDC's liberated content was syndicated to 700 registered partners in all 50 U.S. states & 15 countries and accounted for an additional 1.2 million page views.

Citizens don't know & don't care how government is organized... so why make them jump from agency site to agency site to agency site to agency site to get the full picture?

In the State of Federal Web Report, agencies reported 150 separate implementations of 42 different systems used to create & publish content & 250 web hosting providers.
What is the Digital Government Strategy?

The Federal Government wants to take **All** of its data and package it in such a way that its customers can access it **Anytime, Anywhere** using **Any Device**.

**Enabling** itself, its vendors and entrepreneurs To

- **Create** new applications across a broad set of devices
- **Employ** consistent open technologies
- **Foster** innovation using the mass of Federal data
The Digital Strategy

BIG FOUR

1. INFORMATION-CENTRIC
   ✓ Modernize content publication
   ✓ Manage discrete pieces of data
   ✓ Increase structure

2. SHARED PLATFORM
   ✓ Interoperable
   ✓ Reduced duplication
   ✓ Innovate with less

3. CUSTOMER-CENTRIC
   ✓ Anytime, anywhere, any device
   ✓ Higher quality of service
   ✓ Spur innovation
   ✓ Feedback driven

4. SECURITY & PRIVACY
   ✓ Safe/secure data
   ✓ Protect information & privacy
   ✓ Increase structure
Customer Centric Example: AIDS.gov

1. Information dispersed on various federal websites
   - CDC
   - HUDH.info
   - HRSA
   - SAMHSA

2. Data consolidated into user friendly map interface

3. WIDGET: Portable & Shareable
   - Embedded on other websites (extending reach)
   - Use for Campaigns

4. Accessible on social platforms

5. Accessible via mobile devices

Open data

Customer Centric Example: AIDS.gov
Responsive Design
Page-Based Model of Content Syndication

CDC.gov

Syndicated Content

Partner Web Sites

From AIDS.gov
Maintaining Multi-channel Content with our API

Fact Sheet
From: John Doe
To: Jane Public

Lorem ipsum dolor sit amet, consectetur adipiscing, sed
Aliquam eget odio dictum, sed amet nunc.
Nunc tincidunt ligula id ligula posuere at eu
Phasellus elementum fermentum, nunc a.

Content Services API

Facebook
RSS
EHR
Apps
Widgets
m.cdc.gov
Partner sites / Partner Apps

New Social Networking
TV/Video
Games

Content

m.cdc.gov

Vital Signs
Learn vital information on HIV testing

EHR
Partner sites / Partner Apps

Games

Facebook

TV/Video

Widgets

RSS
Remember this...

“any where, anytime, on any device.” – Digital Government Strategy
The Health Literate Digital Landscape at HHS

The National Action Plan to Improve Health Literacy

• Leverage technology and electronic health tools to deliver health information and services at the time, in the place, and in the multiple formats people need and want; insure access; test for understanding

The Federal Health IT Strategic Plan 2015-2020

Encourage the application of human factors, health literacy, and user-centered design in the development and use of health IT products, systems, and services
The Health Literate Digital Landscape

Health Literacy Online

• Evidence based criteria for designing health literate user interfaces

Healthy People 2020

• Health Communication and Health IT Topic area co-led by ONC, ODPHP and CDC
  • A national survey tracking quality health websites
  • Tracking use of digital personal health information
Implementing combined digital and health literacy strategies at HHS

Examples of implementing joint Digital Health Literacy Strategies at HHS

• Co-design Challenges using, APIs of health literate health information, health literacy and usability criteria (myfamily app winner)
• ONC’s Health design challenge
• HHS Idea Lab/ HHS Ignite examples (eg Collaborating for User-Centered Design)
• Mydata Initiative – gives consumers access to their own individual data. Blue Button- fueling an ecosystem of apps and tool development to catch patient data
Going Mobile

• Digital Government Strategy

• Cell phone use in the U.S.
  • 56% of adults own smart phones
  • 19% of adults have downloaded health apps
  • Access to underserved populations

• Content syndication and responsive design

• Enhance program offerings and brand awareness

- Designed using health literacy principles
- Evidence-based prevention focus
- Wellness: Health Topics A-Z
- Preventive Services: myhealthfinder
Health Literate Mobile Apps

Process for Developing Health Literate Apps

Co-Design with End Users

Apply Health Literacy Principles

Main Principles:
- Information is appropriate for the users.
- Information is easy to use.

- Identify the intended users and evaluate their understanding.
- Acknowledge cultural differences.
- Use plain language.
- Improve usability of the information.

Consider Usability and Design

- Provide predictable, consistent navigation
- Simplify the user experience
- Incorporate multimedia
- Offer a functional homepage
- Be clear and simple
- Use the users' language by minimizing jargon and technical terms.

Usability & Design
Health Literacy
Evidence-based health information
Co-Design
Innovation in Design
Functionality & Accuracy
Look & Feel

From healthfinder.gov Mobile App Challenge

From Quick Guide to Health Literacy

From 8.2 Usability Survey
healthfinder.gov Mobile App Challenge

• **Phase 1:**
  ✓ Developers will submit working app prototypes, along with documentation and evidence of public feedback via Health Tech Hatch
  ✓ The top three applicants will be awarded $10,000 each and move on to Phase 2

• **Phase 2:**
  ✓ Phase I winners will fully develop their apps and compete for $50,000 grand prize
Challenge Criteria

- Usability & Design
- Health Literacy Principles
- Connection to Clinical Preventive Services & Wellness Information
- Evidence of Co-Design with End User
- Innovation in Design
- Functionality & Accuracy
- healthfinder.gov Branding
Co-Designing an App

healthfinder.gov provides reliable and actionable information on a number of prevention and wellness topics, including preventive services covered under the health reform law (Affordable Care Act). HHS is challenging developers to design a mobile application that makes healthfinder.gov content customizable and easy to use, reaching the user where they are.

The US Department of Health and Human Services' Office of Disease Prevention and Health Promotion, with the Robert Wood Johnson Foundation as an advisor, challenges teams of developers and health professionals and health consumers to co-design a mobile app that will be used by the public to access customized decision support for preventive services and wellness information from healthfinder.gov.

Developers and testers, we want to make the process of collaborating on the development of these apps as easy as possible. If you have any questions, or problems using the site, please don't hesitate to call or text (319) 538-6992 or (415) 599-6147, or contact us via email at info@healthtechhatch.com. Many thanks, The Hatch Team.

View the submissions, and give your feedback!
Or upload your projects for a chance to win a grand prize of $50,000!

Prizes

Submission Deadlines
Crowdsourcing Results

Developers
• 28 teams submitted ideas to HTH
• 56 registered teams on Health 2.0
• 26 final submissions

Testers
• >160 registered
• 95 complete questionnaires
• >260 comments
Example of Co-Design Feedback

Developer Comments:

“Great feedback so far. I have incorporated the following features that you suggested: bilingual, ability to login without Facebook, and ability to add people who are not on Facebook.”

“Based on your feedback I'm now working on adding the database of community health centers that the HHS maintains.”

- Two test versions
- 6 testers, 7 tester comments, 4 developer comments
- Designed own questionnaire
- Took a vote on titles for app
- Feedback from testers:
  - “Like the dual language.”
  - “[I suggest] ability to login without Facebook, and ability to add people who are not on Facebook.”
  - “Add database of community health centers.”
## Survey of participating developers

Excerpt; 7 respondents so far (still collecting responses)

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How valuable was the iterative feedback</strong> in shaping your overall approach to the app you are developing for this Challenge? (1 = not at all valuable; 5 = extremely valuable)**</td>
<td>Four 5s, Two 4s, One 3</td>
</tr>
<tr>
<td><strong>Did you make any changes</strong> to your original concept or design based on the feedback you received?**</td>
<td>6 of 7: Yes</td>
</tr>
<tr>
<td><strong>Would you post apps on Health Tech Hatch in the future</strong> to get early user feedback?**</td>
<td>7 of 7: Yes</td>
</tr>
</tbody>
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Final Thoughts

- Advantages of combining digital strategy and health literacy
  - Open data, APIs, user-centered design, private sector engagement, informed consumer engagement
Closing Quote

“…we want every American ultimately to be able to securely access and analyze their own health data so that they can make the best decisions for themselves and for their families.”

-President Obama January 2015
Resources

- http://www.health.gov/
- http://www.health.gov/communication/HLActionPlan/
- http://www.healthfinder.gov/
- http://www.healthit.gov/policy-researchers-implementers/health-it-strategic-planning
- http://www.hhs.gov/idealab/
Thank You!

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