

# Leveraging Technology to Support Comprehensive Alcohol Programs

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NASPA Alcohol &  
Other Drug Abuse  
Conference

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# Learning Objectives



**At the conclusion of this session, participants will be able to:**

- **Define the rationale for using technology in comprehensive alcohol programs**
- **Discuss three examples of applying technology to addressing alcohol abuse prevention and intervention among college and university students**
- **Describe key steps to making the fiscal case for applying technology to alcohol programs**
- **Describe three strategies for evaluating technology-based alcohol abuse prevention and intervention efforts.**

# Why is Technology Important?



- **Our population(s)**
- **Our budgets**
- **Our need for evidence- and theory-informed (-based) practice**

# Generations



- **Veterans – 1924 – 1946**
  - Depression and world wars
- **Boomers – 1946 – 1964**
  - Growth and prosperity
- **Generation X – 1964 - 1982**
  - Unsettled, boom and bust economy
- **Generation Y “Millennials” – 1982 – 2000**
  - Dawn of technology-connected populations
- ~~Generation Z – 1990 – now~~ . . . . .
  - Internet, social networks, on demand, “digital natives”

# Students & Technology



- **Our students turn to the web before reaching out to individuals or campus offices (tech-driven “net generation”)**
- **The development of a 24/7 expectation results in the need to have information for students on their schedule**

# Why use technology?



- **29% of cell owners aged 18-29 have used their phone to look up health or medical information**
- **15% of cell owners aged 18-29 have software applications or “apps” on their phones that help them track or manage their health**

(Pew Internet & America Life Project, 2010)

# There's an App for that...



**There are apps for:**

- **counting calories and nutrition information**
- **logging fitness workouts**
- **monitor vital signs**
- **providing health tips**
- **calculating disease risks**
- **calculating body mass index**
- **keeping personal health records**
- **providing users' health information to physicians and emergency workers**
- **learning about medicines**
- **smoking cessation**

(Pew Internet & America Life Project, 2010)

# There's an App for that...



- App developers are fast moving
- They may be presenting apps that run counter to our health-promoting efforts



iBeer app



# More of the why...



- **A September 2010 survey finds that 57% of American adults have a wireless connection and use a laptop or a cell phone to access the internet**
- **78% of wireless internet users have looked online for health information, compared with 70% of internet users with desktop access and 59% of all American adults**

# Even More Research



## How Young People Use the Internet for Health Information

Among the 15 to 24-year-olds who have used the Internet to find health info:

- **4 out of 10 (39%) say they generally find online health information “very useful”**
- **4 out of 10 (39%) say they have changed their personal behavior because of health info they got online**
- **1 in 7 (14%) have seen a doctor or other health care provider because of health info they got online**

# Parents & Technology



- “...internet users in Gen X (those ages 34-45) and older cohorts are more likely than Millennials to engage in several online activities, including visiting government websites and getting financial information online.”
- “Finally, the biggest online trend is that, while the very youngest and oldest cohorts may differ, certain key internet uses are becoming more uniformly popular across all age groups. These online activities include seeking health information...”
  - Pew Internet & American Life Project
- Suggests that we need to use web-technology if we are going to engage parents as key partners in addressing alcohol on campus.

# Potential AOD Efforts



**Accurate and Culturally  
Competent AOD Information**

**Health Promoting AOD Policy**

**Creating Health  
Promoting Environments**

**Targeted  
Interventions for  
College Students**

**Individualized  
Interventions**

# Technologically Involved



**Accurate and Culturally  
Competent AOD Information**

- Websites with health information
- Sharing responsible AOD behavior data online (CORE, ACHA-NCHA, etc.).

**Health Promoting AOD  
Policy**

- Online access to policy.
- Training modules for servers.
- Online policy feedback systems.

**Creating Health  
Promoting Environments**

- E-mail messages from key administrators.
- Messages on electronic screens.
- Video and audio message systems.

**Targeted  
Interventions for  
College Students**

- Online alcohol education programs.
- Audience-response / clicker technology.
- Course management sites for AOD peer educators or other key collaborators.

**Individualized  
Interventions**

- Using technology to manage BASICS.
- Online Self-assessment with personalized real-time feedback.
- Screening as part of self-check in for EHR users.

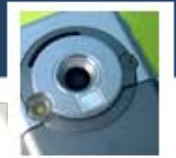
# From the NIAAA



**“One strategy for increasing participation in these interventions [mandated individual sessions] is to...use technology, particularly the Internet, to reach larger percentages of students.”**

*NIAAA, What Colleges Need to Know Now, An Update on College Drinking Research*

# Web-based Efforts



- **Helps to create and support an environment that is health-promoting**
- **Allows the utilization of technology to give participants real time individualized feedback along with referrals to campus resources**



# health services at columbia

1. How often do you have a drink containing alcohol?

- | Never                 | Monthly or less       | 2-4 times a month     | 2-3 times a week      | 4 or more times a week |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |

2. How many drinks containing alcohol do you have on a **typical day** when you are drinking?

- | 1 or 2                | 3 or 4                | 5 or 6                | 7 to 9                | 10 or more            |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

3. How often do you have six or more drinks on one occasion

- | Never | Less than monthly | Monthly | Weekly | Daily or almost daily |
|-------|-------------------|---------|--------|-----------------------|
|-------|-------------------|---------|--------|-----------------------|

4. How often during the last year have you found that you were unable to stop drinking once you had started?

- |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|

5. How often during the last year have you failed to do what was normally expected of you because of drinking?

- |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|

6. How often during the last year have you needed a drink in the morning to get yourself going after a heavy drinking session?

- |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

- |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|

8. How often during the last year have you been unable to remember what happened the night before because of your drinking?

- |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|

9. Have you or someone else been injured because of your drinking?

- | No | Yes, but not in the last year | Yes, during the last year |
|----|-------------------------------|---------------------------|
|----|-------------------------------|---------------------------|

- |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|

10. Has a relative, friend, doctor, or other mental health care worker been concerned about your drinking or suggest you cut down?

- |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|

[Submit Results](#)



# health services at columbia

Thank you for participating in the alcohol use self-assessment. The responses you provided suggest that you would be considered at low risk for alcohol problems.

This screening tool is not intended to serve as a substitute for a complete substance use evaluation. If you feel that it would be beneficial for you to receive assistance for alcohol or other drug related concerns, please speak with your health care provider. Columbia University students can contact [Health Services at Columbia](#) for information about alcohol, other drugs, and related services available on campus.\*

For emergencies in the Columbia University Morningside Heights area, call CU Public Safety at 212-854-5555. For all other emergencies, please call 911.

\*These services are available at numerous other colleges and universities around the country. Please check with the health, counseling, or health promotion services on your campus to determine if the service is available or to be referred to another appropriate program. More information about substance abuse issues is available from the [National Institute on Alcohol Abuse and Alcoholism](#).

Return to Health Services

Powered by DatStat

# Web-based Alcohol Self-Assessment



## Development (Year 1)

- \$3500 to develop and deploy to the web
- Includes staff time, web launch

## Annual Recurring Costs

- <\$100 per year
- With estimated 500 users per year = \$0.20 per user annually

*Over five years, annualizing development and recurring costs = \$1.60 per user*

# Making the Fiscal Case



- **We exist in an environment of limited resources**
- **Research suggests that most students will not develop long-term problems with alcohol**
- **Some efforts can be costly with results that are difficult to quantify**
- **We should think about the technology costs of AOD-supporting efforts as producing results for more than one year (annualize costs)**

# Planning & Implementation



- Needs assessment
- Secure funding source
- Proposal (internal)
- RFP (external)
- Requirements documents and process flow
- Content
- Accessibility

- Tools to test accessibility
  - Wave by Webaim
  - JAWS - manual

World Wide Web Consortium



- Establish a timeline, modify your timeline, then modify your modified timeline...
- Create relationships with stakeholders

# Another Example



- Availability – web and other technology-based efforts can be available 24/7 and meet the population on the users terms
- The upfront costs are spread across multiple years, rather than a single budget timeframe
  - Example: \$10,000 spent to build a new website and management platform – good for 5 years is really only \$2,000 per year. Having a FT staff member with less than 24/7 availability will cost \$50,000+ for one year (salary, benefits, etc.)

# 21<sup>st</sup> Birthday



**21<sup>st</sup> Birthday Initiative**

**Alice! Health Promotion**

**Columbia University**

# Intervention and Research Purpose



**Reduce negative consequences of high risk drinking on 21<sup>st</sup> birthday**



**Describe students' drinking expectations and behaviors while celebrating their 21<sup>st</sup> birthdays**

# Intervention Components



- **Email invitation (SIS, CUIT)**
  - **Students are contacted 3 days before their 21<sup>st</sup> birthday**
- **Link to webpage**
- **Initial Survey (pre-test)**
- **BAC calculator, drink comparisons, and other resources**
- **Printable information and voucher**
- **Follow up survey (post-test)**
  - **Delivered by same mechanism two weeks after their birthday**

# E-mail



★ **Maren Olson** to Justin [show details](#) 10:34 AM (0 minutes ago) [Reply](#) | ▾

- Hide quoted text -

Happy 21st Birthday!

The Alice! Health Promotion Program has sent you an [interactive e-card](#) wishing you happiness, joy, and fun as you celebrate this special time.

Your birthday card will allow you to:

- Create a personalized blood alcohol calculator.
- Talk about your plans for celebrating your 21st birthday.
- Discover how many drinks are actually in some common concoctions.
- And best of all - get your birthday gift! Print a voucher for a discounted meal at a local business.

Here's to you!  
-Alice

[Alice! Health Promotion's 21st Birthday web page](#)

[Reply](#) → [Forward](#)

# Interactive Card



# Happy 21<sup>st</sup> Birthday Justin

Cheers! Salud! L'Chaim! Feliz Aniversario! Celebrare!  
 Alegria! давайте оставаться здоровыми  
 Janam Din Mubarak! à votre santé 喜び



## SURVEY

This survey will ask you 7 short questions about your plans for celebrating your 21st birthday. Data based on participant responses will be used by Health Services to develop prevention and intervention programs related to alcohol. all of your answers will remain confidential. By selecting "yes" below, you agree to participate in the survey. More details about your participation are available using this link (link to PDF pending IRB approval).



**LIQUOR** **WINE** **BEER**

ONE DRINK =

- 1 shot glass (1.5 oz)
- 1 rum & coke = 2 drinks
- 1 vodka cranberry = 2 drinks
- One 12oz margarita = 2-4 drinks
- One Long Island Tea = 3-5 drinks

## BLOOD ALCOHOL CALCULATOR

Weight:

Gender:  Male  Female

No Blood alcohol Calculator is 100% accurate as Blood alcohol Concentration depends on a number of factors. This tool is meant as a guideline.

# Managing BASICS



- **Utilizing technology allows for increases in efficiency**
- **Automated administrative processes can increase time available to see students**
- **Track communications and record information should a student be non-compliant or need additional support**

# BASICS Tech-Supportive Tools



- **Automated referrals**
- **Self-scheduling & rescheduling by participants**
- **Assessment and auto generation of feedback form**
- **Follow-up surveys on behavior and program satisfaction**

# Important Considerations



- **The use of technology does not replace the value of the two session BASICS model**
- **Data security is paramount**
- **Even auto-generated processes may contain errors - technology does not replace everything**

# Using Social Media



Previous research by the Pew Internet Project has shown that wireless connections are associated with deeper engagement in health-related social media. **Mobile internet users are more likely...to post comments and reviews online about health and health care**, for example. Information is now portable, personalized, and participatory, thanks in part to the growing number of American adults who are leading the wireless pack.



### Go Ask Alice!

- Wall
- Info
- Discussions
- Questions
- +

Share: Status Question Photo Link Video

The post has been marked as spam.

**Go Ask Alice!** [Go Ask Alice!] Females favorite sexual position, prenatal vitamins, and more this week!

**[Go Ask Alice!] Females favorite sexual position, prenatal vitamins, and more this week!**  
 eepurl.com  
 New Q&As for the week of January 7, 2011 Females — Favorite sexual position?  
 Prenatal vitamins

Post insights not yet available, please check back later.

Friday at 11:00 via MailChimp · Unlike · Comment

You and Takamichi 'Taka' Go like this.

Write a comment...

**Go Ask Alice!** [Go Ask Alice!] Ménage à trios, eyeballs massage, and more this week!

**[Go Ask Alice!] Ménage à trios, eyeballs massage, and more this week!**  
 eepurl.com  
 Theme of the Week New Skills for the New Year!Poll of the Week What is your favored "trick" for making goals stick? Alice! at Columbia119 followers73 tweetsfollowing  
 81 peoplefollowLike Go Ask Alice! on Facebook!

1,775 Impressions · 0.11% feedback

31 December 2010 at 10:59 via MailChimp · Unlike · Comment

You and Walt Kempton like this.

Write a comment...

**Go Ask Alice!** [Go Ask Alice!] Ex now jealous, keloid scars, and more this week!

**[Go Ask Alice!] Ex now jealous, keloid scars, and more this week!**  
 eepurl.com  
 Theme of the Week (Some) Parents Just Don't Understand!Poll of the Week My favorite study break activity is... Alice! at Columbia122 followers36 tweetsfollowing  
 81 peoplefollowLike Go Ask Alice! on Facebook!

1,875 Impressions · 0% feedback

24 December 2010 at 10:59 via MailChimp · Like · Comment

- Edit Page
- Promote with an advert
- Add to my page's favourites
- Suggest to friends
- Remove from my page's favourites

Submit questions at www.goaskalice.columbia.edu

Go Ask Alice! is a health Q&A Internet resource that works to provide readers with reliable, accurate, accessible, culturally competent information so that they can make informed decisions.

#### Information

Location: Online New York, NY

#### Insights

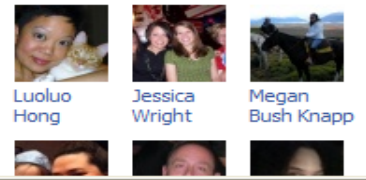
See all

- 918 Monthly Active Users
- 2 Daily New Likes
- 307 Daily Post Views
- 0 Daily Post Feedback

Insights are visible to page admins only.

#### 249 friends like this.

6 of 249 friends See all



Get more connections

Get more people to like your Page with Facebook adverts! Preview below.

**Go Ask Alice!**

Your text here  
 Michael P McNeil likes this.  
 Like

# Tweet, Twit, Twwhat?



- **Twitter can be useful to close the web on other social media and technology-based promotion efforts**
- **A single tweet can auto-update Twitter & Facebook**
- **Can auto-tweet when using mailing software (one e-mail can truly be an e-mail, a tweet, and a FB update)**

# Samples of Evaluation



## Process feedback

- Number of cards sent
- Number of students who visit site
- Number of students completing the assessment
- Clicks on all elements of online card

## Pre- and post-survey responses

- Compare planned versus actual behavior

Process

Impact

Outcome

# Other Evaluation Thoughts



- **Tools like Google Analytics for websites capture a great deal of data**
  - **Number of views**
  - **Average time on site**
  - **Number of clicks on links**
  - **Unique visitors**
- **User feedback (ongoing relationship)**
  - **Periodic focus groups**
  - **Built into post-assessment**
- **IRB approval**
- **PUBLISH!**

# Our future students



**“Generation Z’s short attention spans have made us harder to teach, so teachers turn to more technologically advanced forms of teaching. We’re all adapting to this new form of life alongside technology, because society isn’t going to go backwards.”**

– Brinda Barcelon, HS Senior, March 5, 2010

# Reflective Thoughts



- **How has the digital era impacted student connections to traditional methods of information delivery?**
- **How has the easy access to information impacted students? To what degree should we work to develop health literacy?**
- **How do we get ahead of or keep pace with the technology curve?**

# Reflective Thoughts



- **How can we leverage the influence of technology on students to support our AOD-related goals?**
- **Who can help you develop the rationale for applying technology and evaluating to your efforts?**
- **Which key collaborative partners are needed to successfully leverage technology in support of your AOD programs?**

# Thank You!



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*This presentation will be available on the For Health Promotion Professionals section of the Alice! website next week.*

