It Takes a Village: Digital Citizenship for Parents/Guardians

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LTEC 690
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Agenda

- Background
- Design
- Results
- Discussion
- Conclusion

http://i.huffpost.com/gen/2264624/thumbs/o-PARENTS-TALKING-TO-CHILD-facebook.jpg
Have you ever been at dinner and noticed a family fully engaged in their smartphones or other devices and completely ignoring each other?

**Poll**

- Mobile: 30%
- Desktop: 50%
- Tablet: 20%

10 votes
Poll

- Results

Yes  No
The purpose of this instructional design project was to develop and evaluate the impact of a web and mobile instructional module on digital citizenship for parents and guardians of K-12 students in Hawaii public schools to ensure the proper use of technology at home and in the classroom.
What is Digital Citizenship?
What is Digital Citizenship?
Why is it important?
Project Background

- What is Digital Citizenship?
- Why is it important?
- Who needs to know it?
How will they learn it?
Project Background

- How will they learn it?
How will they learn it?
Project Design

Nine Elements of Digital Citizenship

- Digital Access: full electronic participation in society
- Digital Commerce: electronic buying & selling of goods
- Digital Literacy: teaching & learning about technology & its use
- Digital Communication: electronic exchange of information
- Digital Rights & Responsibilities: those freedoms extended to everyone in a digital world
- Digital Health & Wellness: physical & psychological well-being in a digital world
- Digital Security: electronic precautions to guarantee safety
- Digital Etiquette: electronic standards of conduct or procedure
- Digital Law: electronic responsibility for actions & deeds

Project Design

Home & School Area

- 1) Digital Literacy
- 2) Digital Etiquette
- 3) Digital Security
Project Design

Home & School Area

- Unit 1: Intro to Digital Citizenship

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Step 4d - Nine Key Elements of Digital Citizenship

The nine key elements of digital citizenship are:

4. Digital Literacy: process of teaching and learning about technology and the use of technology.
5. Digital Etiquette: electronic standards of conduct or procedure.

View this short video on digital citizenship and its nine elements. [https://youtu.be/KA_ye8eS71g](https://youtu.be/KA_ye8eS71g)
Home & School Area of Focus
• Unit 2: Digital Literacy

“Use Technology Competently, Interpret and Understand Digital Content, Assess its Credibility, Create, Research, and Communicate with Appropriate Tools.” (Common Sense Media White Paper)
Home & School Area of Focus
• Unit 2: Digital Literacy

Web Literacy Map

- **Exploring**
  - Navigation
  - Web Mechanics
  - Search
  - Credibility
  - Security

- **Building**
  - Composing for the Web
  - Remaking
  - Design & Accessibility
  - Coding/Scripting
  - Infrastructure

- **Connecting**
  - Sharing
  - Collaborating
  - Community Participation
  - Privacy
  - Open Practices

[Webmaker logo]

APPROPRIATE BEHAVIOR

RESPONSIBILITY
Home & School Area of Focus
• Unit 3: Digital Etiquette

Is the standards of conduct expected by other digital technology users. It is sometimes referred to as Netiquette.
Project Design

Home & School Area of Focus
- Unit 4: Digital Security

It is the precautions that all technology users must take to guarantee their personal safety and the security of their network.
Project Design

- Instructional Module
  - Wrote text
  - Various visual
  - Located video
Instructional Goals

1) Parents and guardians will be able to define and identify digital citizenship and its nine key elements, recognize examples and non examples of each element of the Home and School Area of Focus.

2) Correctly demonstrate the connections to the effective, ethical and safe use of technology.
Project Design

Constructivist and Adult Learning Theory

- **Self directed** learners
- **Active** learning environments
- **New** knowledge based on **prior** knowledge
- **Relevance** to learner
Project Design

- Constructivist and Adult Learning Theory
  - Google +
  - Asynchronous Learning
  - Multi-modal Delivery
Project Design

- Screenshot of Google + Site

It Takes a Village: Digital Citizenship for Parents

Moderate

Search Community

Filter

All posts

Help! (Tips and Other Useful Tidbits)

Discussion

Step 1

Step 2

By participating on this site, you acknowledge that you were provided a copy of the Consent Form and have read and understand the information provided about being in the research project, It Takes a Village: Digital Citizenship for Parents/Guardians. Please follow the instructions on the consent form as well as on this post.
Project Design

- Screenshot of Mobile Based Application
Gagne’s Nine Events of Learning

- To gain attention

Eye Opening Statistics

- Teens, not children, are most likely to receive online sexual solicitations.
- Online solicitors rarely target younger kids. This happens more frequently to younger teens (ages 14 to 17).
- People who solicit online are often upfront about their intentions.
Gagne’s Nine Events of Learning

- Objectives
- Definitions
- Examples
- Non-Examples
Gagne’s Nine Events of Learning

- Recall prior knowledge
Gagne’s Nine Events of Learning

- **Elicit performance**

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Comment Feature

Plus One Feature
Project Design

- Course outline
- Instructional steps
- Online help section
- Text, phone and one-on-one meetings
Project Design

Demographic and Attitudinal Surveys

- Age
- Education
- Comfort and knowledge
- Frequency of use
- Type of device

Google Forms
Project Design

Post Module Attitudinal Survey

- Ease of use
- Clarity
- Content
- Delivery methods

1. The instructional module (Google site) was easy to use.
   - Strongly Disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree

2. The instructions for the module were clear and easy to follow.
   - Strongly Disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree

3. Quizzes were clear and easy to complete.
   - Strongly Disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree

4. The learning objectives were clear.
   - Strongly Disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree
Pre, Embedded and Post Test

- Multiple choice test questions

Define digital security.

- a. The ability to buy and sell goods online.
- b. The privileges and freedoms extended to all digital technology users.
- c. The ability to participate in electronic society.
- d. The precautions that all technology users must take to guarantee their personal safety and the security of their network.

Feedback for incorrect answers

- a. Incorrect: This more accurately defines digital commerce.
- b. Incorrect: This more accurately defines digital rights.
- c. Incorrect: This more accurately defines digital access.
Project Design

- Pre, Embedded and Post Test
- Point scores to each question
Project Design

- Pre, Embedded and Post Test
  - Answer key with feedback

Define digital security.

- a. The ability to buy and sell goods online.
- b. The privileges and freedoms extended to all digital technology users.
- c. The ability to participate in electronic society.
- d. The precautions that all technology users must take to guarantee their personal safety and the security of their network.

Feedback for incorrect answers

a. Incorrect. This more accurately defines digital commerce.
b. Incorrect. This more accurately defines digital rights.
c. Incorrect. This more accurately defines digital access.
Project Design

- Pre, Embedded and Post Test
  - Immediate Feedback
Project Results

- One-on-One Interview
Project Results

- Small Group Testing

n=10
### Participant Demographics

<table>
<thead>
<tr>
<th>Age</th>
<th>Education</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-34 years old</td>
<td>3 Some College No Degree</td>
<td>5</td>
</tr>
<tr>
<td>35-44 years old</td>
<td>5 Associate’s Degree</td>
<td>1</td>
</tr>
<tr>
<td>55-64 years old</td>
<td>2 Bachelor’s Degree</td>
<td>2</td>
</tr>
<tr>
<td>Master’s Degree or higher</td>
<td>20%</td>
<td>2</td>
</tr>
</tbody>
</table>
## Project Results

### Participant Technology Usage

<table>
<thead>
<tr>
<th>Part.</th>
<th>Technology Ownership*</th>
<th>Use Computer/Tablet</th>
<th>Use Smartphone</th>
<th>Internet Use Weekly</th>
<th>Access Internet</th>
<th>Social Media Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DC, LC, T, SP</td>
<td>Daily</td>
<td>Daily</td>
<td>11+ hours</td>
<td>Smartphone</td>
<td>Facebook, Instagram, Pinterest</td>
</tr>
<tr>
<td>2</td>
<td>LC, T,SP</td>
<td>Weekly</td>
<td>Daily</td>
<td>6-10 hours</td>
<td>Smartphone</td>
<td>Instagram</td>
</tr>
<tr>
<td>3</td>
<td>LC, T,SP</td>
<td>Daily</td>
<td>Daily</td>
<td>11+ hours</td>
<td>DC, LC, T,SP</td>
<td>Facebook, Instagram, Snapchat, Pinterest</td>
</tr>
<tr>
<td>4</td>
<td>DC, LC, T, SP</td>
<td>Daily</td>
<td>Daily</td>
<td>6-10 hours</td>
<td>Smartphone</td>
<td>Facebook, Instagram, Pinterest</td>
</tr>
<tr>
<td>5</td>
<td>LC, T,SP</td>
<td>Daily</td>
<td>Daily</td>
<td>11+ hours</td>
<td>Smartphone</td>
<td>Facebook, Instagram, Pinterest</td>
</tr>
<tr>
<td>6</td>
<td>SP</td>
<td>Daily</td>
<td>Daily</td>
<td>6-10 hours</td>
<td>Tablet</td>
<td>No, I do not use social media</td>
</tr>
<tr>
<td>7</td>
<td>DC, LC, T, SP</td>
<td>Daily</td>
<td>Daily</td>
<td>6-10 hours</td>
<td>Smartphone</td>
<td>Facebook, Instagram, Pinterest</td>
</tr>
<tr>
<td>8</td>
<td>DC, LC, T, SP</td>
<td>Weekly</td>
<td>Daily</td>
<td>1-5 hours</td>
<td>Tablet</td>
<td>Facebook, Pinterest</td>
</tr>
<tr>
<td>9</td>
<td>DC, LC, T, SP</td>
<td>Daily</td>
<td>Daily</td>
<td>11+ hours</td>
<td>Smartphone</td>
<td>Facebook, Instagram, Pinterest</td>
</tr>
<tr>
<td>10</td>
<td>LC, T,SP</td>
<td>Daily</td>
<td>Daily</td>
<td>6-10 hours</td>
<td>DC, LC, T,SP</td>
<td>Facebook</td>
</tr>
</tbody>
</table>

*Desktop Computer (DC) Laptop (LC), Tablet (T), and Smartphone (SP)
Participant Technology Usage

- Sixty percent use smartphones
Project Results

- Participant Technology Usage
  - Ninety percent use social media
Project Results

- Ability to Use Computers

Bar chart showing:
- Neutral: 2 participants
- Some Knowledge: 3 participants
- Very knowledgeable: 5 participants

Legend:
- Participants n=10
Project Results

- Ability to Use Computers

![Bar Chart]

How would you rate your ability to use a computer?

- Neutral
- Some Knowledge
- Very knowledgeable

Participants n=10
Internet for Learning

How do you feel about using the internet for learning?

- Comfortable
- Somewhat Comfortable
- Very Comfortable

Participants n=10
Research Questions

1) To determine whether the content developed and delivered in the module was effective in achieving the intended learner outcomes.

2) To evaluate if the methods of delivery and instruction were effective and engaging for the target audience.
Project Results

- Pre and Posttest Analysis
Pre and Posttest Analysis

- 13% lower post test scores
- Defining Digital Citizenship
- Digital Literacy

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>63%</td>
<td>88%</td>
<td>100%</td>
<td>88%</td>
<td>100%</td>
<td>88%</td>
<td>75%</td>
<td>75%</td>
<td>88%</td>
<td>88%</td>
<td>85%</td>
</tr>
<tr>
<td>2</td>
<td>88%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>88%</td>
<td>75%</td>
<td>75%</td>
<td>100%</td>
<td>88%</td>
<td>75%</td>
<td>89%</td>
</tr>
</tbody>
</table>
Pre and Posttest Analysis
• Embedded practice test

The image below is a representation of people practicing good digital citizenship.

Which item below is an example of poor digital etiquette?

- a. An email with a subject line.
- b. An email that uses all capital letters.
- c. An email that uses proper punctuation.
- d. An email that uses bcc when sending to multiple recipients.

(Claire 2010)
Post Module Survey Response

- Ease of use

<table>
<thead>
<tr>
<th>Question</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The instructional module (Google + site) was easy to use.</td>
<td>10%</td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
</tr>
</tbody>
</table>
## Project Results

- **Post Module Survey Response**
  - Clarity
  - Content

<table>
<thead>
<tr>
<th>Statement</th>
<th>10%</th>
<th>60%</th>
<th>30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. The instructions for the module was clear and easy to follow.</td>
<td>10%</td>
<td>60%</td>
<td>30%</td>
</tr>
<tr>
<td>3. Quizzes were clear and easy to complete.</td>
<td>10%</td>
<td>20%</td>
<td>70%</td>
</tr>
</tbody>
</table>
Post Module Survey Response

- Clear learning objectives
- Relevance and engaging
- Usefulness of content

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree</th>
<th>Neither Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. The learning objectives were clear.</td>
<td>20%</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>5. This instructional materials were relevant and engaging.</td>
<td>30%</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>6. The length of the units were appropriate (not too long or too short).</td>
<td>20%</td>
<td>10%</td>
<td>70%</td>
</tr>
<tr>
<td>7. The content of the instructional module was useful.</td>
<td>20%</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>8. The content has empowered me to communicate with my children on digital citizenship.</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. The videos and other resources were useful and helpful.</td>
<td>20%</td>
<td>80%</td>
<td></td>
</tr>
</tbody>
</table>
Project Results

- Post Module Survey Response
  - Confidence in appropriate use of technology

10. I am more confident in my understanding of appropriate use of technology for my child.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>10%</th>
<th>40%</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Post Module Open Ended Response

- What worked well
  - Video Delivery
  - Use of Mobile Application
  - Digital Etiquette
Project Results

Post Module Open Ended Response

- What needs improvement
  - Google + Site
  - Tests
Project Discussion

- Limitations
- Challenges
Project Discussion

What’s Next?

9 Elements of Digital Citizenship

Digital Access: full electronic participation in society
Digital Commerce: electronic buying and selling of goods
Digital Communication: electronic exchange of information
Digital Literacy: teaching and learning about technology and its use
Digital Etiquette: electronic standards of conduct or procedure
Digital Law: electronic responsibility for actions and deeds
Digital Rights & Responsibilities: those freedoms extended to everyone in a digital world
Digital Health & Wellness: physical & psychological well-being in a digital world
Digital Security: electronic precautions to guarantee safety

#bitesizePD
Project Conclusion

HI SWEETIE, HOW WAS SCHOOL TODAY?

YOU CAN READ ALL ABOUT IT ON MY BLOG, DAD.
Thank You, Arigato, Gracias

- Dr. Lin, Dr. Fulford and Dr. Ho
- Critical Friends (Kristel, Jami and Robin)
- UHM LTEC Faculty and Staff
- Fellow LTECers
- Study Participants
- Subject Matter Expert
- Family and Friends
Questions

- https://goo.gl/PRa4Bm
- hondam@hawaii.edu

Thank you!