

**Media MashUp Formative Report  
Professional Audience Techno-Biographies**

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**Molly Phipps**

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## Introduction

The Media MashUp project is funded by the IMLS to build capacity at libraries for computer-based programs for youth that help build 21<sup>st</sup> Century literacy skills. Twenty first Century literacy skills include interactive engagement with technology, collaboration and team problem solving, taking initiative and managing time and the use of higher level processing skills ([www.21stcenturyskills.org/](http://www.21stcenturyskills.org/)). This project uses the Scratch programming platform (<http://scratch.mit.edu/>) developed at MIT to help foster youth's 21<sup>st</sup> Century literacy skills. The professional audience consists of librarians and program developers from six library systems around the country representing a diversity of geographic and demographic areas, and a variety of types of library systems. The public audience is the youth who participate in the Media MashUp programs at these libraries. This report focuses on the professional audience of library staff from around the country who participated in the initial training workshop.

The workshop took place in Minneapolis, MN Jan 5-8, 2009. The workshop focused on how to use Scratch, networking with other participants, identifying barriers to implementing technology-rich programs for youth and teens, and discussing possible solutions to these barriers. Additionally library staff created techno-biographies that detailed their current relationship with a variety of technologies. The library staff will be asked to revisit their techno-biographies throughout their participation in the program to track changes in their relationships with technology, if any, as a result of participation in the program. Findings from the initial techno-biographies are included in this report.

## Methodology

The library staff were asked to report how often they used a variety of technological devices and how important they find these devices in their personal and professional lives. A number of the survey questions are based upon a study of factors affecting technology use among young adults (Carter Ching, Basham, & Parisi, 2003). In addition to closed ended questions about the frequency and importance of these technologies, participants wrote techno-biographies chronicling their ongoing relationship with technology. These data were collected via an online survey program called surveygizmo at the January workshop in Minneapolis. Unless otherwise noted n=15.

## Project Staff Demographics and Education

The Media MashUp library staff who attended the workshop ranged in age from 25-62 (table 1). All project staff have at least one undergraduate degree (table 2). Thirteen out of 15 project staff have at least one graduate degree, and one person is currently working on a graduate degree (table 3).

**Table 1: Project Staff Ages**

| Age   | Number of Staff |
|-------|-----------------|
| 20-29 | 4               |
| 30-39 | 6               |
| 40-49 | 3               |
| 50-59 | 1               |
| 60-69 | 1               |

**Table 2: Project Undergraduate Majors and Minors**

| <b>Degree</b>         | <b>Major</b> | <b>Minor</b> |
|-----------------------|--------------|--------------|
| English               | 6            | 0            |
| Fine Art/Art History  | 4            | 0            |
| Education             | 2            | 0            |
| Foreign Language      | 2            | 1            |
| Computer Science      | 1            | 0            |
| Biology               | 2            | 1            |
| Library Science       | 0            | 1            |
| International Studies | 1            | 0            |
| Political Science     | 1            | 0            |
| Psychology            | 1            | 0            |
| Music History         | 1            | 0            |
| Rhetoric              | 1            | 0            |

**Table 3: Project Staff Graduate Degrees**

|                               |    |
|-------------------------------|----|
| Library/Information Science   | 10 |
| Education                     | 2  |
| Comparative Politics          | 1  |
| Visual Arts                   | 2  |
| Human Computer Interaction    | 1  |
| Sociology                     | 1  |
| Reading, Writing and Literacy | 1  |
| Community Organizing          | 1  |

## Technological Involvement and Attitudes

The library staff were asked to rate a variety of technologies on their frequency of use, and their perceived importance in personal and professional lives. Technological devices were broken into four broad categories: multi-modal, entertainment, communication, and production technologies. Additionally, they were asked to rate how easy technologies that relate to the grant (web development, image editing, video editing, and computer programming) are to use, and how useful they perceive these technologies to be in work settings.

### *Multi-modal technologies*

The library staff frequently use multi-modal technologies (table 4), and find many of them important, or very important in their personal and professional lives (table 5). There seems to be some level of consensus as to the importance of these technologies for the project staff.

**Table 4: How frequently do you use these MULTI MODAL technologies?**

| <b>Item</b>               | <b>Daily</b> | <b>1-3 x week</b> | <b>1-3 x month</b> | <b>&lt;1 x month</b> | <b>Never</b> |
|---------------------------|--------------|-------------------|--------------------|----------------------|--------------|
| Desktop Computer          | 100%         | 0%                | 0%                 | 0%                   | 0%           |
| Laptop                    | 80%          | 0%                | 7%                 | 13%                  | 0%           |
| Internet                  | 100%         | 0%                | 0%                 | 0%                   | 0%           |
| Search Engine             | 100%         | 0%                | 0%                 | 0%                   | 0%           |
| Social Networking Website | 53%          | 33%               | 0%                 | 7%                   | 7%           |

**Table 5: How important are these MULTI MODAL technologies to your life?**

|                           | Area of Life  | Very Important | Important | Not too important | Not at all important |
|---------------------------|---------------|----------------|-----------|-------------------|----------------------|
| Desktop Computer          | Home/Personal | 33%            | 20%       | 20%               | 27%                  |
|                           | Work/School   | 93%            | 7%        | 0%                | 0%                   |
| Laptop                    | Home/Personal | 80%            | 0%        | 20%               | 0%                   |
|                           | Work/School   | 27%            | 40%       | 33%               | 0%                   |
| Internet Search Engine    | Home/Personal | 87%            | 13%       | 0%                | 0%                   |
|                           | Work/School   | 100%           | 0%        | 0%                | 0%                   |
| Social Networking Website | Home/Personal | 7%             | 67%       | 13%               | 13%                  |
|                           | Work/School   | 7%             | 33%       | 33%               | 27%                  |

*Entertainment Technologies*

Entertainment-based technologies are the least popular type of technology amongst the library staff; there are far fewer daily users, and far more non-users of these technologies than others (Table 6). Film-based technologies (film cameras, film camcorders and VCRs) are not as popular as their digital counterparts (digital cameras, digital camcorders and DVDs). Corresponding with their low levels of use, film technologies (VCR, film camera, film camcorder) are the least important entertainment technologies for the library staff (Table 7). The digital camera is the most important entertainment technology with about half listing it as very important personally, and two fifths listing it as very important in their professional lives. There seems to be less of a consensus as to what is important with regards to entertainment technologies than there was for multi modal technologies.

**Table 6: How frequently do you use these ENTERTAINMENT technologies?**

| Item              | Daily | 1-3 x week | 1-3 x month | <1 x month | Never |
|-------------------|-------|------------|-------------|------------|-------|
| PDA               | 13%   | 13%        | 0%          | 7%         | 67%   |
| Mp3               | 33%   | 40%        | 7%          | 0%         | 20%   |
| CD Player         | 40%   | 33%        | 7%          | 0%         | 13%   |
| Computer game     | 20%   | 20%        | 33%         | 7%         | 20%   |
| Game System       | 7%    | 33%        | 40%         | 7%         | 13%   |
| VCR               | 0%    | 13%        | 13%         | 13%        | 60%   |
| DVD               | 27%   | 60%        | 7%          | 7%         | 0%    |
| Film Camera       | 0%    | 0%         | 0%          | 27%        | 73%   |
| Digital Camera    | 20%   | 33%        | 20%         | 27%        | 0%    |
| Film Camcorder    | 0%    | 0%         | 0%          | 7%         | 93%   |
| Digital Camcorder | 0%    | 27%        | 20%         | 40%        | 13%   |

**Table 7: How important are these ENTERTAINMENT technologies to your life?**

|                   | Area of Life  | Very Important | Important | Not too important | Not at all important |
|-------------------|---------------|----------------|-----------|-------------------|----------------------|
| PDA               | Home/Personal | 7%             | 20%       | 20%               | 53%                  |
|                   | Work/School   | 7%             | 7%        | 33%               | 53%                  |
| Mp3               | Home/Personal | 40%            | 27%       | 27%               | 7%                   |
|                   | Work/School   | 20%            | 20%       | 33%               | 27%                  |
| CD Player         | Home/Personal | 33%            | 40%       | 13%               | 13%                  |
|                   | Work/School   | 13%            | 20%       | 33%               | 33%                  |
| Computer game     | Home/Personal | 20%            | 20%       | 27%               | 33%                  |
|                   | Work/School   | 27%            | 33%       | 13%               | 27%                  |
| Game System       | Home/Personal | 20%            | 33%       | 20%               | 27%                  |
|                   | Work/School   | 33%            | 40%       | 13%               | 13%                  |
| VCR               | Home/Personal | 0%             | 0%        | 47%               | 53%                  |
|                   | Work/School   | 0%             | 7%        | 33%               | 60%                  |
| DVD               | Home/Personal | 33%            | 47%       | 20%               | 0%                   |
|                   | Work/School   | 7%             | 53%       | 33%               | 7%                   |
| Film Camera       | Home/Personal | 0%             | 7%        | 13%               | 80%                  |
|                   | Work/School   | 0%             | 0%        | 13%               | 87%                  |
| Digital Camera    | Home/Personal | 53%            | 33%       | 13%               | 0%                   |
|                   | Work/School   | 40%            | 33%       | 27%               | 0%                   |
| Film Camcorder    | Home/Personal | 0%             | 0%        | 20%               | 80%                  |
|                   | Work/School   | 0%             | 0%        | 20%               | 80%                  |
| Digital Camcorder | Home/Personal | 7%             | 20%       | 53%               | 20%                  |
|                   | Work/School   | 20%            | 27%       | 27%               | 27%                  |

*Communication Technologies*

All of the library staff use cell phones and email every day, and they never use pagers. Few project staff use video conferencing, and those that do use it less than once per month. Use of the other communication technologies are more varied amongst the project staff (Table 8). In terms of perceived importance, project staff find different communication technologies important in their professional lives than they do in their personal lives, with the exception of email (Table 9).

**Table 8: How frequently do you use these COMMUNICATION technologies?**

| Item                      | Daily | 1-3 x week | 1-3 x month | <1 x month | Never |
|---------------------------|-------|------------|-------------|------------|-------|
| Cell Phone                | 100%  | 0%         | 0%          | 0%         | 0%    |
| Pager                     | 0%    | 0%         | 0%          | 0%         | 100%  |
| Email                     | 100%  | 0%         | 0%          | 0%         | 0%    |
| Instant Messaging         | 20%   | 20%        | 13%         | 13%        | 33%   |
| Video Conferencing        | 0%    | 0%         | 27%         | 27%        | 47%   |
| Cell Phone Text Messaging | 60%   | 13%        | 0%          | 20%        | 7%    |

**Table 9: How important are these COMMUNICATION technologies to your life?**

|                           | Area of Life  | Very Important | Important | Not too important | Not at all important |
|---------------------------|---------------|----------------|-----------|-------------------|----------------------|
| Cell Phone                | Home/Personal | 93%            | 7%        | 0%                | 0%                   |
|                           | Work/School   | 20%            | 20%       | 53%               | 7%                   |
| Pager                     | Home/Personal | 0%             | 0%        | 0%                | 100%                 |
|                           | Work/School   | 0%             | 0%        | 0%                | 100%                 |
| Email                     | Home/Personal | 80%            | 13%       | 7%                | 0%                   |
|                           | Work/School   | 87%            | 13%       | 0%                | 0%                   |
| Instant Messaging         | Home/Personal | 20%            | 13%       | 33%               | 33%                  |
|                           | Work/School   | 7%             | 27%       | 27%               | 40%                  |
| Video Conferencing        | Home/Personal | 0%             | 7%        | 27%               | 67%                  |
|                           | Work/School   | 0%             | 20%       | 40%               | 40%                  |
| Cell Phone Text Messaging | Home/Personal | 47%            | 27%       | 13%               | 13%                  |
|                           | Work/School   | 0%             | 7%        | 40%               | 53%                  |

*Production Technologies*

All of the project staff use word processing software more than once a week, and 90% of them use it daily. The other production technologies are used with varying frequency by the project staff (Table 10). As with communication technologies, production technologies are not viewed with the same level of importance in project staff's personal and professional lives (table 11). Although project staff were attending a workshop to learn how to use computer programming software, the majority do not find computer programming technologies at all important in either personal or professional settings.

**Table 10: How frequently do you use these PRODUCTION technologies?**

| Item                    | Daily | 1-3 x week | 1-3 x month | <1 x month | Never |
|-------------------------|-------|------------|-------------|------------|-------|
| Word Processing         | 87%   | 13%        | 0%          | 0%         | 0%    |
| Spreadsheet             | 27%   | 33%        | 33%         | 0%         | 7%    |
| Presentation            | 0%    | 27%        | 40%         | 33%        | 0%    |
| Calculator              | 27%   | 33%        | 27%         | 13%        | 0%    |
| Web Development         | 13%   | 20%        | 13%         | 20%        | 27%   |
| Image Editing           | 20%   | 47%        | 0%          | 20%        | 13%   |
| Video Editing           | 0%    | 7%         | 20%         | 33%        | 40%   |
| Music and Sound Editing | 0%    | 13%        | 27%         | 20%        | 40%   |
| Computer Programming    | 13%   | 0%         | 7%          | 20%        | 60%   |

**Table 11: How important are these PRODUCTION technologies to your life?**

|                      | Area of Life  | Very Important | Important | Not too important | Not at all important |
|----------------------|---------------|----------------|-----------|-------------------|----------------------|
| Word Processing      | Home/Personal | 33%            | 47%       | 13%               | 7%                   |
|                      | Work/School   | 93%            | 7%        | 0%                | 0%                   |
| Spreadsheet          | Home/Personal | 13%            | 33%       | 47%               | 7%                   |
|                      | Work/School   | 40%            | 40%       | 20%               | 0%                   |
| Presentation         | Home/Personal | 7%             | 13%       | 40%               | 40%                  |
|                      | Work/School   | 40%            | 33%       | 27%               | 0%                   |
| Calculator           | Home/Personal | 20%            | 40%       | 33%               | 7%                   |
|                      | Work/School   | 20%            | 40%       | 33%               | 7%                   |
| Web Development      | Home/Personal | 13%            | 7%        | 60%               | 20%                  |
|                      | Work/School   | 20%            | 40%       | 20%               | 20%                  |
| Image Editing        | Home/Personal | 20%            | 47%       | 27%               | 7%                   |
|                      | Work/School   | 13%            | 47%       | 27%               | 13%                  |
|                      | Home/Personal | 7%             | 27%       | 47%               | 20%                  |
| Video Editing        | Work/School   | 13%            | 20%       | 27%               | 40%                  |
|                      | Home/Personal | 7%             | 27%       | 33%               | 33%                  |
| Music/Sound Editing  | Work/School   | 20%            | 20%       | 13%               | 47%                  |
|                      | Home/Personal | 13%            | 7%        | 20%               | 60%                  |
| Computer Programming | Work/School   | 13%            | 27%       | 13%               | 47%                  |

*Reasons for not valuing technologies*

For all technologies deemed ‘not too important’ or ‘not at all important,’ library staff were offered a number of possible reasons for these feelings. Although there are many reasons technologies might not be highly valued by individuals, most indicated that lack of funds, or lack of a perceived need were the most salient reasons. Affordability seems to be the biggest technology barrier; a little more than half of the library staff noted that this was a barrier, with 15% strongly agreeing that cost was a barrier (table 12). This was the only response where the library staff agreed strongly with a statement. Time, interest, lifestyle compatibility, and lack of awareness were not salient reasons for their views on the importance of technologies.

**Table 12: Reasons for deeming certain technologies unimportant**

| <b>Item</b>  | <b>Strongly Agree</b> | <b>Agree</b> | <b>Disagree</b> | <b>Strongly Disagree</b> |
|--|-----------------------|--------------|-----------------|--------------------------|
| I am unaware of the functions of many of the technologies.                         | 0%                    | 20%          | 53%             | 27%                      |
| I am unable to afford many of the technologies                                     | 13%                   | 40%          | 40%             | 7%                       |
| I do not perceive a need for many of the technologies.                             | 0%                    | 60%          | 33%             | 7%                       |
| I don't have time to learn how to use many new technologies.                       | 0%                    | 20%          | 73%             | 7%                       |
| I have no interest in many of the technologies.                                    | 0%                    | 20%          | 60%             | 20%                      |
| I find many of the technologies incompatible with my life or approach to learning. | 0%                    | 20%          | 73%             | 7%                       |

**Technology Opinions**

Library staff were asked to rank the perceived ease of use and usefulness at work for Scratch-related technologies. They were also offered space to write their own comments about their feelings toward each of these technologies.

*Web Development*

Although some reported not having to do web development in their jobs because it fell under the jurisdiction of another department, almost 90% find it useful or very useful in their jobs. Fewer, three fifths of the library staff, find web development easy or very easy, and one third find web development not too easy.

*Image Editing*

Most (90%) find image editing useful, and two thirds find it a useful or very useful skill to have in their jobs. The library staff use image editing skills for blog posts, working with youth, and for making last minute fliers. However, as with web development, some do not get a chance to use these skills at work either because another department takes care of this, or because there is insufficient software at work.

*Video Editing*

Although two thirds find video editing easy, about half find it not too useful, or not at all useful in their work environment. None of the library staff find video editing very easy, and about 10% find video editing not at all easy. Some commented that they have never done video editing before. Others mentioned only using it in conjunction with youth programs.

### *Music and Sound Editing*

Library staff find music and sound editing harder than video editing. About half find music and sound editing easy, none find it very easy, and the other half find it not too easy. About half think these skills are not too useful in their jobs, and one fifth find no use for these skills in their professional lives. Some find music and sound editing tedious. Others mentioned using these skills with youth, or that youth use these skills all the time.

### *Computer Programming*

As with video and sound editing, none of the library staff find computer programming very easy. Only one fifth find computer programming easy, and one fifth do not find computer programming easy at all. The remaining three fifths find computer programming not too easy. Although library staff do not find computer programming easy, a little less than half of them believe it is a useful, or very useful, skill to have in their professional lives. About one quarter sees little use in having computer programming skills, and the remaining quarter see no usefulness in knowing how to program computers for their jobs. This finding is intriguing because Scratch is a computer programming language, so to some extent all of the library staff will not only know how to do some programming as a result of their participation in this project; they will use it in their jobs.

The comments on computer programming were varied. Some mentioned that they do not have the chance to program in their jobs. Others mentioned that the ease of use all depends on the programming language in question. Others mentioned that it is useful for game design, and data base programming. One library staff indicated that s/he is not allowed to program at work, yet s/he was attending a Scratch workshop where s/he had been given permission by supervisors to learn to use a graphical programming system.

## **Personal Interest in the Project**

Library staff were asked to report their personal interest in the project, and the response was wholly positive. Because of the potentially sensitive nature of this question, confidentiality around this question was specifically mentioned, even though the entire survey is confidential. All library staff reported a positive interest, and three quarters were very interested. The high level of buy-in on this project is striking.

## **Techno-Biographies**

Library staff were asked to write a 'techno-biography' describing their relationship with technology from childhood through the present. These biographies were coded iteratively: codes were developed from the data, and then coded by an independent evaluator. The codes are not mutually exclusive, and some passages can be coded as representing multiple ideas. Each code is listed in bold and followed by a brief description and examples from the biographies.

**Computers – owning and purchasing:** Buying new computers, both in general and naming specific models and brands.

- Bought first generation IBM portable pc in 1986
- My dad bought an Acer desktop system that seemed to take up the entire desk.

**Computers – tools:** Using computers and software as a tool to accomplish a task. Includes mention of specific programs and operating systems on computers, printers, but not internet related uses.

- True confession time – I don't like teen stuff – the books, the games, the language, the clothes, the social networks like MySpace, the IMing, x the anything. But I really like teens. I feel more like the indulgent grandmother who is amazed by how smart they are and wants to provide them with every tool they are convinced they need. And so I see

"Scratch" as yet another tool that they may take to -- and if it increases their critical thinking skills and their literacy skills and makes them want to come back to the library for more, then I'm happy.

- Like to do online banking, bill paying.

**Computers – programming:** Using computers to program – naming programming languages including 'Scratch' COBOL, BASIC, LOGO, etc.

- I continued my work with the Logo programming language and was able to meet Mitchel as he began to work on a new "programmable Lego brick" - called a Cricket. This relationship has remained to the present with the development of the Scratch program by Mitchel's group.
- I was taught a few rules of programming in Basic; just enough to make the computer print a line of text.

**Computers – gaming:** Playing computer games including gaming systems like Nintendo, Sega, X-box, Wii, etc. and specific games like Oregon Trail, WoW (World of Warcraft), etc.

- As a librarian I have worked with teens for about seven years and grew progressively more interested in using technology particularly gaming and virtual worlds which I play around with
- Those trusty Apple IIe computers let us race down with Speedway Math or brave the wilderness on the Oregon Trail

**Computers – internet:** Using computers for communication with others and searching the web. Includes e-mail, IM, internet searches, BBS.

- I did job searches online.
- I feel like there's only so much I have time for. Blogging and Facebook and whatnot are fun time-sucks, but, again, I need balance in my life. I don't want to spend ALL my time on the computer or lost in my own little iPod.

**Computers – teaching/learning:** This includes learning to use computers, or teaching others to use computers

- I had used multimedia as a word processor, and since this was a software option for the AT, I said that this was what I wanted. [My husband] was in San Francisco when the box arrived. He instructed me how to plug it in, and said I should play with it. When he called back the next day, I exclaimed that the only thing I could get was C> and couldn't figure out how to get it to do anything. When he got home, I said I just wanted him to show me how to get into my word processor, save stuff, and print stuff. I don't think I've changed so much since then. I don't get excited about "playing." I mostly just want things to do what I want with minimum learning curve.

**Games – non-computer:** Games that are not computer games. These include cards, board games, and other games like cops and robbers

- When I was between the ages of 6 - 9 I spent a lot of time with the neighborhood kids playing cowboys and Indians, or combat games (this was during Vietnam) so a lot of my imaginative activity was devoted to making objects to serve as weapons, and to fashion scraps of raw material (cardboard, pieces of lumber, strips of cloth) to make forts and Indian encampments.

**Tools:** Technology as tools for getting jobs done (including computers)

- Recently in a library science class, the professor posed the following question: "What is technology?" Most people called out the typical answers, like computers, iPods, the

internet. The professor reminded us that technology is really any tool that helps achieve a goal. By that definition, technology could be a vehicle or an iron or even a pencil.

- I thought (and still do) that the tech of the guitar was amazing, and it imbued me with the desire to have something like that which I could do to wow others.

**Gadgets:** Technology as gadgets

- He would give me boxes of little electric switches, connectors, buzzers, sockets, etc. just for the heck of it.

**Fixing:** References to fixing things (including computers)

- I worked as an outreach coordinator for a nonprofit, which also meant that I managed our server, built and maintained the organization's website and 'fixed' computer problems.

**Making/Creating:** Making or creating things including art, music, videos, electronic creations, costumes, etc.

- We edited the film manually with a splicer and tape and had to create a soundtrack on cassette tape, timed to match the film.
- On the surface arts and crafts seem far removed from what I automatically associate with technology - plugs and power sources. However, the creation aspect of arts and crafts has translated in to a love of online content creation.

**Feelings/attitudes toward technology:** Any references to peoples' attitudes and feelings toward technology – positive or negative

- My dad taught me to use his power saws when I was in grade school, which felt like a wonderfully dangerous and adult thing to know.
- I distinctly remember writing an editorial for our school paper saying that we shouldn't spend money on more computers and should spend it instead on more books, because that's what my grandpa said. I would never write that now!!!

**Teaching/Learning:** Teaching or learning how to use technology that isn't computer based

- Sewing was always important to my mom who taught me how to use the sewing machine.
- I remember my mother teaching me to make the skirt from tie leaves cut from the yard and going out to find materials for leis and haku to find the best flowers, fern and plants.
- Which is how I probably got roped into working with the Teen Technology Camp where "I" have learned a lot about creating web casts and using simple video and sound editing software to do some pretty incredible things.

**Books:** Books as technology

- I want to see them excited about libraries. Truthfully, I want them to be as excited about books as they are about computers.

**Writing Implements:** Writing implements including typewriters but not printers

- I remember that there was a feeling that we were cheating when in the 4th grade, we were permitted to migrate to a fountain pen that filled from an inkwell. The next year, my fountain pen became obsolete when we were permitted to use pens that took pre-filled ink cartridges.
- I typed stories on a typewriter.

**Telephone:** Telephones - cellular and landlines and telephone related devices/services like call waiting and answering machines

- First answering machine in 1989. First cell phone in 2004. iPhone about 2 months ago.

**Television:** Televisions – including remotes, cable, etc.

- First color TV in 1975!

**Multi-media:** References to tape recorders, DVDs, CDs, VCRs – non TV multi-media.

- I remember thinking that a sign of normalcy in my post-college life was having a VCR.

**Cost:** References to the costs of technology monetary and societal costs

- His colleagues thought he was crazy, and I had to agree when I found out how much one of these toys cost.
- Technology costs money, and being a librarian, this is a barrier for me. I can't afford an iPhone, for instance. I have to eat. Also, I don't really NEED an iPhone.

**Transportation:** Types of transportation – cars, airplanes, etc.

- Thinking back my experience with technology is rooted in hands on boyhood experiences with cars, bikes boats.

**Identity:** People's identities tied to their use of technology

- My bag isn't packed and ready until it has my Blackberry, iPod, digital camera and Macbook inside it.
- My son was born in 1986 with that extra "tech gene." At 3, he managed to delete the entire hard drive - a feat my husband was so amazed by, he couldn't get too angry. He seemed to intuitively know what buttons to push, how to use a mouse, how to get from place to place, and how to retrieve things that seemed to be gone forever.

## **Conclusions**

Overall, the Media MashUp participants are a technologically savvy group. They use many forms of technology and find many of these technologies important to their personal and professional lives. Older technologies like pagers, VCRs and film cameras are less important to the participants in both aspects of their lives than newer technology like cell phones, DVDs and digital cameras.

Over the course of this project, evaluation will monitor how perceptions of computer programming change. At the beginning of the January, 2009 workshop one quarter of the library staff did not think programming was at all useful in their job, and another quarter found programming not too useful. Will running Scratch workshops as a part of their job change impression of the usefulness and/or ease of computer programming? Do they even see Scratch as programming?

## **APPENDICES**

## Appendix I: Tables

### Web Development

| Ease of Use     |     | Perceived Usefulness |     |
|-----------------|-----|----------------------|-----|
| Very easy       | 7%  | Very useful          | 33% |
| Easy            | 53% | Useful               | 53% |
| Not too easy    | 33% | Not too useful       | 7%  |
| Not at all easy | 7%  | Not at all useful    | 7%  |

- I \*wish\* I knew more about this. It's so useful. So far it's been just complicated enough for me to let someone else do it, which is a shame.
- I am on the blog editorial board for Push to Talk the Seattle Public Library Teen blog
- I don't really have a say at all in the Web Development portion of our library system.
- Not too easy to do WELL-
- Our web development is handled by a separate department
- The tools are not the same for web development for personal needs and professional needs - very large difference.
- To share projects
- Useful to teach but we have a dept. that does this in depth. Useful to set up social networking sites.
- We use a simplified platform.

### Image Editing

| Ease of Use     |     | Perceived Usefulness |     |
|-----------------|-----|----------------------|-----|
| Very easy       | 27% | Very useful          | 33% |
| Easy            | 60% | Useful               | 33% |
| Not too easy    | 7%  | Not too useful       | 33% |
| Not at all easy | 7%  | Not at all useful    | 0%  |

- As part of content creation for the blog I sometimes do some image editing.
- Besides last minute design solutions for flyers, I don't get the opportunity.
- I don't get to do it at work / except at Teen Technology Camp
- Not sufficient software at work.
- We use Picasa and PhotoShop at the library
- We've got a graphics department to use for this, if I need it.
- When the need arises, I am happy to edit images. It's pretty easy for me to do minor editing with Photoshop.

### Video Editing

| Ease of Use     |     | Perceived Usefulness |     |
|-----------------|-----|----------------------|-----|
| Very Easy       | 0%  | Very useful          | 20% |
| Easy            | 67% | Useful               | 27% |
| Not too easy    | 20% | Not too useful       | 47% |
| Not at all easy | 13% | Not at all useful    | 7%  |

- I could think of some projects involving video, but so far we haven't done any. I think it would be easy-ish to learn.
- I don't get to do it at work / except at Teen Technology Camp
- I have never done any video editing so, I have no concept of the degree of difficulty
- I only am able to work with this technology during Teen Tech Camp.

- Kids use Pinnacle all the time at the library
- Tedious, and it is only useful to me occasionally at work.

***Music and Sound Editing***

| Ease of Use     |     | Perceived Usefulness |     |
|-----------------|-----|----------------------|-----|
| Very Easy       | 0%  | Very useful          | 20% |
| Easy            | 47% | Useful               | 20% |
| Not too easy    | 53% | Not too useful       | 40% |
| Not at all Easy | 0%  | Not at all useful    | 20% |

- Again, this hasn't come up at work yet.
- Also tedious- I understand how to use a couple of gadgets to do this, but I don't need to do it often for work.
- I don't get to do it at work / except at Teen Technology Camp
- I have done music and sound editing in the past and it is very tedious - I don't use it in my daily work functions.
- I only am able to work with this technology during Teen Tech Camp.
- Kids use Garageband all the time at the library

***Computer Programming***

| Ease of Use     |     | Perceived Usefulness |     |
|-----------------|-----|----------------------|-----|
| Very easy       | 0%  | Very useful          | 33% |
| Easy            | 20% | Useful               | 13% |
| Not too easy    | 60% | Not too useful       | 27% |
| Not at all easy | 20% | Not at all useful    | 27% |

- Does HTML count as this category or web dev.? In web services offices I've had plenty of use for HTML programming, but not my current position.
- Especially database programming
- For teaching game design it's useful
- I don't think that I have ever been allowed to work with this technology at my library.
- I teach Java to middle school kids at an enrichment center
- It was fairly easy once upon a time, but I don't do any programming at all anymore, mainly relying on commercially available programs.
- My position does not require content creation beyond the web.
- Seems useful, but it's intimidating.
- This actually depends on the application of the language - some of the tools we use are easy and applicable to our youth programs some are not easy and are applicable to program creation

***Personal Interest***

| Interest Level     | %   |
|--------------------|-----|
| Very interested    | 75% |
| Interested         | 25% |
| Neutral            | 0%  |
| Not too interested | 0%  |

|                       |    |
|-----------------------|----|
| Not interested at all | 0% |
|-----------------------|----|

## Appendix II: Coded Technobiographies

### Books

- I read books a lot (books are a technology) growing up and was taken to the library often.
- I want to see them excited about libraries. Truthfully, I want them to be as excited about books as they are about computers.
- As a child I liked to write and draw and also read. Books were definitely a favorite piece of technology, up until I was about 12.
- So I like to go back to other forms of technology, such as pens, paper, books, and that hard-to-use stove

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### Computers - gaming

- As a librarian I have worked with teens for about seven years and grew progressively more interested in using technology particularly gaming and virtual worlds which I play around with
- Those trusty Apple IIe computers let us race down with Speedway Math or brave the wilderness on the Oregon Trail.
- They say "We think it would be really cool to do Robotics workshops. You need to write a grant to get us laptops and Lego Mindstorms -- we'll do the rest." Or "we want to create movies." or "How about DDR and Guitar Hero -- can't we do that in our library?"
- True confession time -- I don't like teen stuff -- the books, the games, the language, the clothes, the social networks like MySpace, the IMing, x the anything. But I really like teens. I feel more like the indulgent grandmother who is amazed by how smart they are and wants to provide them with every tool they are convinced they need. And so I see "Scratch" as yet another tool that they may take to -- and if it increases their critical thinking skills and their literacy skills and makes them want to come back to the library for more, then I'm happy.
- I mostly used it for playing Space Invaders, Carmen Sandiego, and Tetris. Later on I typed papers for school. My grandpa loved gadgets. Home video cameras, Atari, Nintendo, Sega, and PC games, you name it.
- I used Apple IIe, c, and gs at school and friends' houses. Number Muncher and Letter Muncher were pretty fun, but the highlight was always shooting buffalo and fording the rivers of Oregon Trail.
- Besides writing papers, I played Maniac Mansion, Indiana Jones, and other strategy games.
- I remember programming in LOGO and playing RPG-type games where you are a character and you have to go from person/setting to person/setting to collect information and solve a puzzle (I think they were spy games.)
- I also really liked flight simulators and drawing programs.
- We had Apple IIe computers in my school and at my gifted program, where I learned how to program in Basic and played Oregon Trail. I always died of snakebite.
- I chatted regularly with people on BBSs and in chat rooms in high school, and played games on the Nintendo and Nintendo 64 and Sega Genesis.
- In college I MUDed, and subscribed to Usenet groups, used email for the first time, played Civilization over the school network (totally illegal)
- In college I MUDed, and subscribed to Usenet groups, used email for the first time, played Civilization over the school network (totally illegal)
- This experience got me hooked on computers and (of course) computer games, and so although I was an English major in college, I took as many computer classes as were available - in those ancient command line days of the 1980s.
- That's part of why I think libraries are such a great place for kids/teens to come to use computers, play games, etc. In our public spaces I see them playing games (like RuneScape) and really working with each other to accomplish things.

- Many in my own age group are addicted to WoW, which is also very interactive and connects people with others from all-around the world.
- I just loved to play Dig Dug, as well as a role playing game where the graphics were largely in your own head and you just followed the printed instructions on screen.
- I remain comfy with all sorts of technology, can't travel without my Zen M, and got RockBand2 for my birthday (conveniently the day after its release!) We have a Wii at home, and the yoga lady on WiiFit thinks I have great balance. I'm 70% through with Boom Blox. I have succumbed to the siren song of the Crackberry.
- My mom bought us Sega Genesis when I was about 6. We loved it. I don't remember the games but I remember fighting with my siblings over it not being able to get enough.
- I still remember the games. One we used the keyboard to help the snake (a moving line) catch his food (a dot on the screen), we helped the frog cross the road and we played bricks in which we used a pad at the bottom (and top if you got that far) to keep our ball in play knocking out bricks so we could advance to the next level.
- GameBoy came into my world at around age 10. It was perfect for me because I was the only child in the home and I was sort of an introverted loner

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### **Computers - Internet**

- ...also signed up for twitter
- Started a blog but don't write in it.
- I started using email at my community college in the early 90's.
- On the surface arts and crafts seem far removed from what I automatically associate with technology - plugs and power sources. However, the creation aspect of arts and crafts has translated in to a love of online content creation.
- True confession time – I don't like teen stuff – the books, the games, the language, the clothes, the social networks like MySpace, the IMing, x the anything. But I really like teens. I feel more like the indulgent grandmother who is amazed by how smart they are and wants to provide them with every tool they are convinced they need. And so I see "Scratch" as yet another tool that they may take to -- and if it increases their critical thinking skills and their literacy skills and makes them want to come back to the library for more, then I'm happy.
- Technology made a great step forward when I went to college in 1994. I had my own computer and, for the first time, e-mail. I easily could keep in touch with my parents and friends at other schools.
- By sophomore year, we were using the Internet. I communicated more and more by e-mail, and I did more and more research for classes using the internet.
- It helped me keep in touch with my friends and family all over the world (e-mail and long-distance phone calls).
- I did job searches online.
- I got a job at a publishing company and did much of my research online.
- I feel like there's only so much I have time for. Blogging and Facebook and whatnot are fun time-sucks, but, again, I need balance in my life. I don't want to spend ALL my time on the computer or lost in my own little ipod.
- In around 1994, we got internet and I started using email.
- I chatted regularly with people on BBSs and in chat rooms in high school, and played games on the Nintendo and Nintendo 64 and Sega Genesis.
- In college I MUDed, and subscribed to Usenet groups, used email for the first time, played Civilization over the school network (totally illegal)used Mosaic (precursor to Netscape)
- I have been reading blogs and newspapers online since about 2000, and contributing to discussion boards.
- I have been reading blogs and newspapers online since about 2000, and contributing to discussion boards.
- I had a MySpace and a Facebook and would IM people during really boring classes.

- I learned how to use an IP sniffer so I could eavesdrop on other peoples conversations as well.
- On into high school life the crazy-thing called the "internet" was making a big splash. Again, it wasn't were my interest was.
- I actually enjoyed searching the internet using gopher, veronica, and lynx.
- My sister got married when I was 12 and I was introduced to chat rooms. I would stay on the computer for hours.
- I have a SideKick now and I text like a mad person. I use it as my computer. I can't be without it.

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### **Computers - programming**

- I continued my work with the Logo programming language and was able to meet Mitchel as he began to work on a new "programmable Lego brick" - called a Cricket. This relationship has remained to the present with the development of the Scratch program by Mitchel's group.
- My husband was a database designer for a large corporation and did a lot of mainframe work that seemed very boring to me.
- I remember programming in LOGO and playing RPG-type games where you are a character and you have to go from person/setting to person/setting to collect information and solve a puzzle (I think they were spy games.)
- We had Apple IIe computers in my school and at my gifted program, where I learned how to program in Basic and played Oregon Trail. I always died of snakebite.
- I was taught a few rules of programming in Basic; just enough to make the computer print a line of text.
- A few years later I bought a Vic-20 and then a Commodore computer, and tried creating games in Basic using the code that was printed monthly in Creative Computing magazine.
- Computers used punch cards then, and I helped to put them in order. COBOL was the hot new programming language, and although my major was education, I spent many hours in the computer lab.
- I didn't get involved with computers until high school when I had to take an NBasic class.

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### **Computers - purchasing**

- I bought [a] first generation IBM portable pc in 1986.
- My dad bought an Acer desktop system that seemed to take up the entire desk.
- They say "We think it would be really cool to do Robotics workshops. You need to write a grant to get us laptops and Lego Mindstorms -- we'll do the rest." Or "we want to create movies." or "How about DDR and Guitar Hero -- can't we do that in our library?"
- When I was about 12 or 13, my parents got a computer.
- Technology made a great step forward when I went to college in 1994. I had my own computer and, for the first time, e-mail. I easily could keep in touch with my parents and friends at other schools.
- My family got a PC running on DOS when I was about 10 years old.
- At some point in elementary school my parents got a PC-type computer and dot matrix printer and I typed all my papers on it.
- A few years later I bought a Vic-20 and then a Commodore computer, and tried creating games in Basic using the code that was printed monthly in Creative Computing magazine.
- After I married, we bought an Apple II computer. It had a metal case,
- My grandparents bought me a kid computer around the same time. The screen was just a strip that went across. It resembled a typewriter.

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### **Computers - teaching or learning**

- ...and teach on a regular basis.
- Over the past 18 months I've lead a "technology infusion" to move our department into the 21st century.
- I had used multimedia as a word processor, and since this was a software option for the AT, I said that this was what I wanted. Victor was in San Francisco when the box arrived. He instructed me how to plug it in, and said I should play with it. When he called back the next day, I exclaimed that the only thing I could get was C> and couldn't figure out how to get it to do anything. When he got home, I said I just wanted him to show me how to get into my word processor, save stuff, and print stuff. I don't think I've changed so much since then. I don't get excited about "playing." I mostly just want things to do what I want with minimum learning curve.
- I found more and more technology, mostly involving computers, in library school.
- In college I MUDed, and subscribed to Usenet groups, used email for the first time, played Civilization over the school network (totally illegal) used Mosaic (precursor to Netscape) and chatted with people over the VAX system, and learned to use MATHLAB, a graphing program we used for our calculus classes.
- I also worked as a UC – one of the help desk/computer labs staff that helped people with their computer problems.
- I learned how to use an IP sniffer so I could eavesdrop on other people's conversations as well.
- I built a website and backend database for a local nonprofit as part of a class.
- I taught myself Dreamweaver and Photoshop, sort of, so I could teach workshops to teens as part of a summer internship.
- I was taught a few rules of programming in Basic; just enough to make the computer print a line of text.
- This was a fun and valuable and formative experience for me because there were always typos in the code each month, which had to be debugged in order to make the games work. It was a challenge to find and correct the typos before the next month's magazine arrived with the corrections printed in an errata section.
- This experience got me hooked on computers and (of course) computer games, and so although I was an English major in college, I took as many computer classes as were available - in those ancient command line days of the 1980s.
- Fast forward again to my second teaching job, when I was conscripted to instruct junior high school students in Tennessee's statewide project "Computer Skills Next" (that was after "Basic Skills First," devised by then Governor Lamar Alexander.)
- I've taught teachers in a remote mountain village in India how to use a Microsoft Excel to organize their school library, and used a digital camera with the kids to help them write their autobiographies.
- Starting in the third grade, my class went to computer class once a week. We learned basic programming and played games.

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### **Computers - tools**

- Used kaypro in college c. 1983
- I didn't use computers for a lot more than school work and typing papers.
- I learned to type using a very basic word processing program and proudly completed school assignments that came roaring out of our dot matrix printer.
- While in undergraduate school I was introduced to computers for graphic imaging and print output (though not photo imaging). Once I started grad school I changed my focus from

traditional chemical photographic imaging to digital through the access to the topology imaging lab at Syracuse University.

- Mitchel's approach to valuing art and science together as they fit into developing tools to teach creativity has inspired me to continue to see technology tools as integrated with the creative process.
- Things I remember...Alphie the Eight track player, cartridge Disney projectors, VCR's, cassette tapes, Cricket, the Apple IIe, Atari, Nintendo, electric Brother typewriters, my grandmother's pedal fueled Singer sewing machine, crazy gyrating pens, spin art, dot matrix printers, Sega game gear and Sonic the Hedgehog, John Deere tractors, my grandmother's kiln, and Light Bright.
- Photoshop, Illustrator, and In Design have opened up huge possibilities for unlimited (by physical space or fiscal limitations) creative potential with ideas that play themselves out in my studio.
- Then in the early '80s he got incredibly excited about this new microcomputer called the IBM AT (for Advanced Technology).
- I had used multimedia as a word processor, and since this was a software option for the AT, I said that this was what I wanted. Victor was in San Francisco when the box arrived. He instructed me how to plug it in, and said I should play with it. When he called back the next day, I exclaimed that the only thing I could get was C> and couldn't figure out how to get it to do anything. When he got home, I said I just wanted him to show me how to get into my word processor, save stuff, and print stuff. I don't think I've changed so much since then. I don't get excited about "playing." I mostly just want things to do what I want with minimum learning curve.
- They say "We think it would be really cool to do Robotics workshops. You need to write a grant to get us laptops and Lego Mindstorms -- we'll do the rest." Or "we want to create movies." or "How about DDR and Guitar Hero -- can't we do that in our library?"
- True confession time --I don't like teen stuff -- the books, the games, the language, the clothes, the social networks like MySpace, the IMing, x the anything. But I really like teens. I feel more like the indulgent grandmother who is amazed by how smart they are and wants to provide them with every tool they are convinced they need. And so I see "Scratch" as yet another tool that they may take to -- and if it increases their critical thinking skills and their literacy skills and makes them want to come back to the library for more, then I'm happy.
- I used Apple IIe, c, and gs at school and friends' houses. Number Muncher and Letter Muncher were pretty fun, but the highlight was always shooting buffalo and fording the rivers of Oregon Trail.
- I've been using a computer since I was about 4--we had a TRS-80 Color Computer from Radio Shack, connected to a black and white TV with a cassette tape player used as a disk drive.
- We had Apple IIe computers in my school and at my gifted program, where I learned how to program in Basic and played Oregon Trail. I always died of snakebite.
- At some point in elementary school my parents got a PC-type computer and dot matrix printer and I typed all my papers on it.
- We used Apples and big clunky PCs in junior high and high school
- In college I MUDed, and subscribed to Usenet groups, used email for the first time, played Civilization over the school network (totally illegal) used Mosaic (precursor to Netscape) and chatted with people over the VAX system, and learned to use MATHLAB, a graphing program we used for our calculus classes.
- I have been using MSOffice since my freshman year in college.
- After college I worked for the Park Service and learned about GPS and used ArcView and ArcInfo as part of boundary surveys and endangered species surveys.
- In library school we lived and died by the course management software (C-Tools, developed by Sakai.)

- My social work professor was freaked out by C-Tools so I took care of all loading all the readings and coursework onto his C-Tools sites.
- I taught myself Dreamweaver and Photoshop, sort of, so I could teach workshops to teens as part of a summer internship.
- After I left that job, I moved to a Mac environment and learned to love formatting documents.
- I finally lost the coin toss at home, though, and we became a PC only household. When I went to work at the library, it was PC, so I was comfortable with DOS already.
- I've taught teachers in a remote mountain village in India how to use a Microsoft Excel to organize their school library, and used a digital camera with the kids to help them write their autobiographies.
- Windows was just being developed so I still got to learn how to do a lot of things with DOS.
- My university used VAX, silverplatter software, BRS and Dialog, Widows and DOS.
- I had an internship with a school that used UNIX.
- I learned PowerPoint, Excel and FrontPage during my 3rd year of college.

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### **Cost**

- His colleagues thought he was crazy, and I had to agree when I found out how much one of these toys cost.
- Mostly I just feel like the parent who pays the bill. They say "We think it would be really cool to do Robotics workshops. You need to write a grant to get us laptops and Lego Mindstorms - - we'll do the rest." Or "we want to create movies." or "How about DDR and Guitar Hero -- can't we do that in our library?"
- I'm no trail-blazer these days, but I'm open to new things, especially if they are free or cheap and online.
- Technology costs money, and being a librarian, this is a barrier for me. I can't afford an iphone, for instance. I have to eat. Also, I don't really NEED an iphone.

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### **Feelings and Attitudes toward technology**

- It is hard for me to think of technology through that filter.
- I remember kindergarten class trips to the computer lab down the hall. For an elementary school child in the 1980s this was a huge adventure!
- As I grew up the computer moved from being a novelty to being essential tools for projects and schoolwork.
- By this point using the computer was a part of almost every day. It provided tools and entertainment. This is a theme that I still see in my adult life.
- Working with staff who were completely adverse to any technology beyond Word or Excel made me reflect on my present technology.
- Here's what I discovered: I love gadgets.
- That's what appeals to me most. (And sometimes, after learning the basics of a new system or tool, I'm ready to move on.) I learn just enough to become proficiency when I have to. Then I dive in full speed ahead if it's something that personally interests me. Technology allows for so many different avenues and methods of exploration. My current relationship with technology embraces this.
- Mitchel's approach to valuing art and science together as they fit into developing tools to teach creativity has inspired me to continue to see technology tools as integrated with the creative process.
- After finishing high school, art and design became my major focus. I love the feel of tradition art media, but also rely heavily on technology.

- When I got older, I attended a summer camp for Hawaiian children and we learned to make ipu (a gourd instrument) and nose flutes. A note on nose flutes - in Hawaiian and generally Polynesian culture, the breath of your nose, your ha, is sacred and pure. Thus, a nose flute is a pure form of music that is the most beautiful.
- On the surface arts and crafts seem far removed from what I automatically associate with technology - plugs and power sources. However, the creation aspect of arts and crafts has translated in to a love of online content creation.
- Growing up, I don't think I ever thought in terms of "technology." Things were just "tools" that got a job done.
- My father encouraged all of us (6 kids) to do science projects, and I can remember how excited I was when he brought home a "scribe" that had an alphabet template and pen that allowed one to enlarge letters to make posters. I guess that was maybe my first encounter with a tool beyond household appliances.
- My husband was a database designer for a large corporation and did a lot of mainframe work that seemed very boring to me.
- His colleagues thought he was crazy, and I had to agree when I found out how much one of these toys cost.
- I had used multimedia as a word processor, and since this was a software option for the AT, I said that this was what I wanted. Victor was in San Francisco when the box arrived. He instructed me how to plug it in, and said I should play with it. When he called back the next day, I exclaimed that the only thing I could get was C> and couldn't figure out how to get it to do anything. When he got home, I said I just wanted him to show me how to get into my word processor, save stuff, and print stuff. I don't think I've changed so much since then. I don't get excited about "playing." I mostly just want things to do what I want with minimum learning curve.
- I came to rely on him. "Here's what I want to do." Now make this computer/cell phone/television/ thermostat/ camera "do it." I'm still that way - although now I'm lucky to be surrounded by high school and college kids who can do really cool and creative things.
- I want to see them excited about libraries. Truthfully, I want them to be as excited about books as they are about computers.
- True confession time -- I don't like teen stuff -- the books, the games, the language, the clothes, the social networks like MySpace, the IMing, x the anything. But I really like teens. I feel more like the indulgent grandmother who is amazed by how smart they are and wants to provide them with every tool they are convinced they need. And so I see "Scratch" as yet another tool that they may take to -- and if it increases their critical thinking skills and their literacy skills and makes them want to come back to the library for more, then I'm happy.
- The phone was a big deal when I was a teenager.
- I was so excited when we got an answering machine.
- It was also a huge deal when we got call waiting--when you were on the phone and someone else called, you had to pick which friend you wanted to talk to most, which caused some strife.
- The phone was the cause of many arguments between my mother and me. She always wanted me to get off the phone and do my homework, while I wanted to chat all evening. Because of this situation, I never had a phone in my room. Imagine what I could have done with a cell phone!
- I remember thinking that a sign of normalcy in my post-college life was having a VCR.
- Eventually, I got sick of sitting alone in an office in front of a computer all day. I wanted more contact with people, so I went to library school.
- I'm no trail-blazer these days, but I'm open to new things, especially if they are free or cheap and online.

- I feel like there's only so much I have time for. Blogging and Facebook and whatnot are fun time-sucks, but, again, I need balance in my life. I don't want to spend ALL my time on the computer or lost in my own little ipod.
- My dad taught me to use his power saws when I was in grade school, which felt like a wonderfully dangerous and adult thing to know.
- But honestly, when I think "techno-biography," I think computers.
- Then came VCRs and cassette tapes, which led to various home tapes and movies that are for the most part lost in the storage closets of time. But the process of making them was fun. It's not until the past few years, with the ready accessibility of digital audio/video recording and editing, that I feel like I'm coming back around to creating content again.
- I feel like I was born at a good time for tech proficiency. I'm familiar and comfortable with older technologies, but adapting to new formats has been the story of the western world in my lifetime, and it's not a challenge in and of itself.
- Deciding how best to use new tech in my life can be another question.
- and I enjoyed helping him look at diagrams and instructions and figuring out how to put things back together.
- I distinctly remember writing an editorial for our school paper saying that we shouldn't spend money on more computers and should spend it instead on more books, because that's what my grandpa said. I would never write that now!!!
- In library school we lived and died by the course management software (C-Tools, developed by Sakai.)
- My social work professor was freaked out by C-Tools so I took care of all loading all the readings and coursework onto his C-Tools sites.
- I don't care about stuff like nice TVs or home theater systems. I'm more interested in the newest social networking gadget, or the software the djs use when they're spinning at clubs. I don't want to own it, but I want to know how it all works, and to see how it affects how people live, and especially how they do their jobs.
- This was a fun and valuable and formative experience for me because there were always typos in the code each month, which had to be debugged in order to make the games work. It was a challenge to find and correct the typos before the next month's magazine arrived with the corrections printed in an errata section.
- Like to do online banking, bill paying
- When I was in elementary school, there were already computers around. I knew what they were & there were limited things we could do with them. Of course, it was a black screen with green letters and ridiculously long command strings. The coolest part was the big ol' floppy disk we had to hold with both hands. So, my experience with traditional "technology" goes back to my earliest school days.
- The second experience, much simpler and more enjoyable, was my guitar-playing first-grade teacher. She accompanied us while we sang and dance every afternoon, as long as we had a good day. I thought the guitar was a magical device and completely foreign.
- I thought (and still do) that the tech of the guitar was amazing, and it imbued me with the desire to have something like that which I could do to wow others.
- On into high school life the crazy-thing called the "internet" was making a big splash. Again, it wasn't were my interest was.
- It's probably required for students now (who are typing on keyboards before they can read), but it wasn't then and I can't imagine how much harder my college life would have been, not to mention grad school & the "real world" without these skills.
- I have a love/hate relationship with technology. I think it allows for amazing things to be done and unheard of worldwide communication. At the same time, I feel that we are becoming more isolated and having more in depth relationships with our laptops than with our friends.

- That's part of why I think libraries are such a great place for kids/teens to come to use computers, play games, etc. In our public spaces I see them playing games (like RuneScape) and really working with each other to accomplish things.
- Many in my own age group are addicted to WoW [World of Warcraft], which is also very interactive and connects people with others from all-around the world.
- I still think technology, the web, computers, etc are all just tools to help people and shouldn't be raised up and hailed. That's part of why I'm excited about Scratch as a tool that will help teens express themselves.
- I remember that there was a feeling that we were cheating when in the 4th grade, we were permitted to migrate to a fountain pen that filled from an inkwell. The next year, my fountain pen became obsolete when we were permitted to use pens that took pre-filled ink cartridges.
- I remain comfy with all sorts of technology, can't travel without my Zen M, and got RockBand2 for my birthday (conveniently the day after its release!) We have a Wii at home, and the yoga lady on WiiFit thinks I have great balance. I'm 70% through with Boom Blox. I have succumbed to the siren song of the Crackberry.
- If it's broken, I can generally fix it, except for the electronics in my Volvo, which is possessed by demons.
- Technology may be like mud, but it is also a lot like a pencil. Very useful, but you've got to keep it sharp.
- I guess my first interest in technology was with cameras and projectors. I liked running and setting up simple slide and film projectors in grade school and luckily I had teachers who were willing to let me help (although I suspect they didn't want to do it themselves).
- Actually working different systems outdated or unique for the location has really helped me with current systems.
- I never mastered these different formats and systems but it did make it so that I am not afraid to press the keys and try things out.
- When I was about 6 I memorized my first phone numbers, my grandparent's and my friend Ramadan's. It was special to me that I could just pick up the phone and call them without my mom's help.
- My mom bought us Sega Genesis when I was about 6. We loved it. I don't remember the games but I remember fighting with my siblings over it not being able to get enough.
- I really enjoyed the educational games and impressing my family with my knowledge.
- I got an electronic typewriter from my grandparents in 4th or 5th grade. I wanted my reports to look more appropriate.
- My sister, my cousin and I got a sewing teacher. The teacher came to our house and it was nice structured bonding and creative time.

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### **Fixing**

- ...all things mechanical that needed to be tinkered with and repaired.
- I worked as an outreach coordinator for a nonprofit, which also meant that I managed our server, built and maintained the organization's website and 'fixed' computer problems.
- Although my early formal schooling was pretty short on technology, my dad was a gadget kind of guy, and he let me help fiddle with the TV when a tube blew, help fix the car and iron, and use the soldering iron, but I was only allowed to watch when he took apart his "electric piano" in the early 1960's .
- If it's broken, I can generally fix it, except for the electronics in my Volvo, which is possessed by demons.

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### **Gadgets**

- Each new device allows an opportunity to learn a new interface or command system.

- My grandpa loved gadgets. Home video cameras, Atari, Nintendo, Sega, and PC games, you name it.
- We used graphing calculators in math.
- After college I worked for the Park Service and learned about GPS
- I spent a lot of time with matchbox cars, using odds and ends to create "pretend" environments where the cars could travel; I also built wooden tracks on a slope so that the cars could be raced from one end to the other.
- I remember making a telephone using two cans connected by a length of string,
- I also remember putting my ear against a drinking glass, and placing the glass against the wall to eavesdrop on conversations in the next room.
- Although my early formal schooling was pretty short on technology, my dad was a gadget kind of guy, and he let me help fiddle with the TV when a tube blew, help fix the car and iron, and use the soldering iron, but I was only allowed to watch when he took apart his "electric piano" in the early 1960's .
- To be fair, he would give me boxes of little electric switches, connectors, buzzers, sockets, etc. just for the heck of it.
- I remain comfy with all sorts of technology, can't travel without my Zen M, and got RockBand2 for my birthday (conveniently the day after its release!) We have a Wii at home, and the yoga lady on WiiFit thinks I have great balance. I'm 70% through with Boom Blox. I have succumbed to the siren song of the Crackberry.
- I have a SideKick now and I text like a mad person. I use it as my computer. I can't be without it.

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### **Games - non-computer**

- I didn't play a lot of computer games at the library or growing up-mostly board and card games.
- When I was between the ages of 6 - 9 I spent a lot of time with the neighborhood kids playing cowboys and Indians, or combat games (this was during Vietnam) so a lot of my imaginative activity was devoted to making objects to serve as weapons, and to fashion scraps of raw material (cardboard, pieces of lumber, strips of cloth) to make forts and Indian encampments.

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### **Identity**

- Had home computer ever since.
- started using facebook about then as well. Well. sort of using facebook,
- I practiced a lot at my mom's insistence and was one of the best in the class. I'm thankful for this skill as I've had to use it all thru college and now of course as a professional.
- My generation literally grew up with computers in their hands.
- My bag isn't packed and ready until it has my Blackberry, iPod, digital camera and Macbook inside it.
- I'm a child of the eighties, but also grew up on a rural Louisiana sugar cane farm.
- I can create 3D models before ever building them with Google Sketch-up, and then share and get feedback from peers across the globe at Nice Paper Toys, an ning community. Without even showing at a physical gallery space, my work is posted on MySpace and Deviant Art.
- but on further thought my technology roots lie in making hula costumes. Many little girls in Hawaii dance hula instead of ballet (or in my case, both) and a huge part of hula is the costume you wear when you dance in "recitals". As a dancer, you are required to make your own costume. Generally, only the top is made from fabric and thus reusable while the rest of the costume - skirt, leis (garlands) for ankles, wrists, neck (sometimes) and haku (head wreath) are made from plants and flowers.

- I have never been the type of person that could take apart a machine or item and put it back together in the right way - I always end up with spare parts. My interest lies in crafting and creation.
- My son was born in 1986 with that extra "tech gene." At 3, he managed to delete the entire hard drive - a feat my husband was so amazed by, he couldn't get too angry. He seemed to intuitively know what buttons to push, how to use a mouse, how to get from place to place, and how to retrieve things that seemed to be gone forever.
- As a result, my 80's childhood was peppered with a running familiarity with whatever was new and had lots of buttons.
- I feel like I was born at a good time for tech proficiency. I'm familiar and comfortable with older technologies, but adapting to new formats has been the story of the western world in my lifetime, and it's not a challenge in and of itself.
- My dad was not mechanically inclined, and I remember times during which the garbage disposal, dishwasher and stove were disassembled all over the kitchen floor and he was swearing a lot
- I had a MySpace and a Facebook and would IM people during really boring classes.
- After writing all this, I realize that there's been technology in every part of my life since...forever. I have always accepted that's it's just there, and I'm always looking for new things to play with.
- This experience got me hooked on computers and (of course) computer games, and so although I was an English major in college, I took as many computer classes as were available - in those ancient command line days of the 1980s.
- But, there are two other experiences that have really stuck with me and pretty much formed my responses to most stimuli. The first, and biggest, is the technology and process of moving. My father was a Methodist preacher and the practice of that church is to have "itinerant" ministers who move every couple of years. It was always quite a sight to see my mother start the process. We had a cataloging system, that changed slightly from move-to-move, color-coded tags, mandatory weeding of our belongings with the threat of "lost" items if we did not comply with all standards. My parents were a preacher and a teacher, and as such, were probably over-educated and more exacting than most, but we probably had the smoothest moves of anyone outside the military. To this day, I can pack and unpack to beat the band. And I find myself cataloging things (ideas, etc) constantly, evaluating, discarding and saving as needed based off those early experiences. The second experience, much simpler and more enjoyable, was my guitar-playing first-grade teacher. She accompanied us while we sang and dance every afternoon, as long as we had a good day. I thought the guitar was a magical device and completely foreign.
- Although my early formal schooling was pretty short on technology, my dad was a gadget kind of guy, and he let me help fiddle with the TV when a tube blew, help fix the car and iron, and use the soldering iron, but I was only allowed to watch when he took apart his "electric piano" in the early 1960's .
- GameBoy came into my world at around age 10. It was perfect for me because I was the only child in the home and I was sort of an introverted loner.
- I got my first cell phone at 19 because all my friends had one and I was tired of being left out.
- I have a SideKick now and I text like a mad person. I use it as my computer. I can't be without it.

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### **Making and Creating**

- I started as a design student then transferred into sculpture once I had met a professor, Cork Marcheski who's medium of art was electricity and light. This inspired me to work with electro mechanical materials for
- ...but on further thought my technology roots lie in making hula costumes. Many little girls in Hawaii dance hula instead of ballet (or in my case, both) and a huge part of hula is the

costume you wear when you dance in "recitals". As a dancer, you are required to make your own costume. Generally, only the top is made from fabric and thus reusable while the rest of the costume - skirt, leis (garlands) for ankles, wrists, neck (sometimes) and haku (head wreath) are made from plants and flowers.

- As I grew older, I did well in art, craft and dance classes. As an adult I learned to knit and crochet and enjoy craft type activities.
- Although the world of online content creation doesn't produce an item to hold in your hand I still get the satisfaction at the end of a project like I did as a child making a hula skirt. I still look at my creation and think, "Look what I made!"
- My father encouraged all of us (6 kids) to do science projects, and I can remember how excited I was when he brought home a "scribe" that had an alphabet template and pen that allowed one to enlarge letters to make posters. I guess that was maybe my first encounter with a tool beyond household appliances.
- They say "We think it would be really cool to do Robotics workshops. You need to write a grant to get us laptops and Lego Mindstorms -- we'll do the rest." Or "we want to create movies." or "How about DDR and Guitar Hero -- can't we do that in our library?"
- As a child I liked to write and draw and also read. Books were definitely a favorite piece of technology, up until I was about 12.
- I typed stories on a typewriter.
- For my grandmother's part, my mother inherited her organ. The endless combination of buttons and the sounds they produced kept me occupied for hours of "musical" entertainment even before I actually learned to play.
- Then came VCRs and cassette tapes, which led to various home tapes and movies that are for the most part lost in the storage closets of time. But the process of making them was fun. It's not until the past few years, with the ready accessibility of digital audio/video recording and editing, that I feel like I'm coming back around to creating content again.
- I also really liked flight simulators and drawing programs.
- This may not count, but I started playing the piano when I was 4, and for a while we didn't have a real piano so I practiced on an electric keyboard.
- My grandpa is a woodworker and taught me how to join pieces of wood together and use the jigsaw.
- In gifted class in 3rd-8th grade we also made stop motion animated films with clay and Super 8 mm cameras.
- We edited the film manually with a splicer and tape and had to create a soundtrack on cassette tape, timed to match the film.
- We also used VHS cameras and did film and sound editing to create PSAs for a local cable access station.
- I worked as an outreach coordinator for a nonprofit, which also meant that I managed our server, built and maintained the organization's website and 'fixed' computer problems.
- When I was between the ages of 6 - 9 I spent a lot of time with the neighborhood kids playing cowboys and Indians, or combat games (this was during Vietnam) so a lot of my imaginative activity was devoted to making objects to serve as weapons, and to fashion scraps of raw material (cardboard, pieces of lumber, strips of cloth) to make forts and Indian encampments.
- I spent a lot of time with matchbox cars, using odds and ends to create "pretend" environments where the cars could travel; I also built wooden tracks on a slope so that the cars could be raced from one end to the other.
- I remember making a telephone using two cans connected by a length of string,
- ...and remember using glass bottles with liquid in them to produce musical tones.
- The first truly "tech" project I worked on was the creation of a working traffic light with green, yellow and red lights. A friend of mine in the 3rd grade - John Ozinga - was killed when run over by our school bus, and my father, an electrician, made the traffic light with me

and we took it to our school and demonstrated it to my classmates. I think that this was his way of helping me to cope and of teaching all the kids in school about traffic signals.

- The second experience, much simpler and more enjoyable, was my guitar-playing first-grade teacher. She accompanied us while we sang and dance every afternoon, as long as we had a good day. I thought the guitar was a magical device and completely foreign.
- One birthday, I got quite a bit of wire in beautiful colors to do with whatever I pleased. I regularly read Popular Mechanics and Popular Science, and learned just recently that my grade school science teachers were highly amused by the projects I'd submit. None worked well, and many didn't work at all, but it was fun to try and I was sure I was on the verge of a breakthrough.
- Which is how I probably got roped into working with the Teen Technology Camp where "I" have learned a lot about creating web casts and using simple video and sound editing software to do some pretty incredible things.
- One of my girlfriends in high school was really artsy and she introduced me to sewing. I got my own sewing machine and she showed me how to use it. I never learned how to use measurements but did make functional and cute things.

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### **Multi-media**

- I had a red tape recorder I remember bringing to the playground in grade school to play music and record my friends.
- I became interested in media technology with my experiences at the Minneapolis College of Art and Design.
- Things I remember...Alphie the Eight track player, cartridge Disney projectors, VCR's, cassette tapes, Cricket, the Apple IIe, Atari, Nintendo, electric Brother typewriters, my grandmother's pedal fueled Singer sewing machine, crazy gyrating pens, spin art, dot matrix printers, Sega game gear and Sonic the Hedgehog, John Deere tractors, my grandmother's kiln, and Light Bright.
- I remember thinking that a sign of normalcy in my post-college life was having a VCR.
- I feel like there's only so much I have time for. Blogging and Facebook and whatnot are fun time-sucks, but, again, I need balance in my life. I don't want to spend ALL my time on the computer or lost in my own little ipod.
- My grandpa loved gadgets. Home video cameras, Atari, Nintendo, Sega, and PC games, you name it.
- In the audio/visual realm, I started with broadcast TV, always with at least one color TV in the house, and a record player.
- Then came VCRs and cassette tapes, which led to various home tapes and movies that are for the most part lost in the storage closets of time. But the process of making them was fun. It's not until the past few years, with the ready accessibility of digital audio/video recording and editing, that I feel like I'm coming back around to creating content again.
- I've been using a computer since I was about 4--we had a TRS-80 Color Computer from Radio Shack, connected to a black and white TV with a cassette tape player used as a disk drive.
- In gifted class in 3rd-8th grade we also made stop motion animated films with clay and Super 8 mm cameras.
- We edited the film manually with a splicer and tape and had to create a soundtrack on cassette tape, timed to match the film.
- We also used VHS cameras and did film and sound editing to create PSAs for a local cable access station.
- I don't care about stuff like nice TVs or home theater systems. I'm more interested in the newest social networking gadget, or the software the djs use when they're spinning at clubs. I

don't want to own it, but I want to know how it all works, and to see how it affects how people live, and especially how they do their jobs.

- Which is how I probably got roped into working with the Teen Technology Camp where "I" have learned a lot about creating web casts and using simple video and sound editing software to do some pretty incredible things.
- Then came digital cameras and camcorders.

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### **Teaching or Learning**

- Sewing was always important to my mom who taught me how to use the sewing machine.
- I learned keyboarding skills in high school
- From this experience I diverged into two directions: imaging - video and photography, and machine control - electrical and computational control and sensing devices ( to give my work senses and movement)
- I remember my mother teaching me to make the skirt from ti leaves cut from the yard and going out to find materials for leis and haku to find the best flowers, fern and plants.
- When I got older, I attended a summer camp for Hawaiian children and we learned to make ipu (a gourd instrument) and nose flutes.
- I found more and more technology, mostly involving computers, in library school.
- I like working in a library now because I think there's a good balance between using/teaching technology and interacting with people.
- We moved to be near my grandparents when I was 8, and my grandma taught me how to sew using the Singer sewing machine she received as a wedding gift.
- She also taught me about cooking, using the oven, the microwave, the electric mixer, etc.
- My grandpa is a woodworker and taught me how to join pieces of wood together and use the jigsaw.
- ...and I enjoyed helping him look at diagrams and instructions and figuring out how to put things back together.
- ...and I learned to use to work the sound and light board in the junior high and high school theaters.
- After college I worked for the Park Service and learned about GPS
- The nonprofit dealt with sustainable building, so if that counts, I know a lot about solar panels, composting, and HVAC technology as well.
- She spent time showing those of us who were interested chords, letting us strum and playing basic songs over and over so we could see the mechanics of the thing.
- I've taught teachers in a remote mountain village in India how to use a Microsoft Excel to organize their school library, and used a digital camera with the kids to help them write their autobiographies.
- One of my girlfriends in high school was really artsy and she introduced me to sewing. I got my own sewing machine and she showed me how to use it. I never learned how to use measurements but did make functional and cute things.
- My sister, my cousin and I got a sewing teacher. The teacher came to our house and it was nice structured bonding and creative time.

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### **Telephone**

- First answering machine in 1989.
- First cell phone in 2004.
- Iphone about two months ago,
- The phone was a big deal when I was a teenager.
- I was so excited when we got an answering machine.

- It was also a huge deal when we got call waiting--when you were on the phone and someone else called, you had to pick which friend you wanted to talk to most, which caused some strife.
- The phone was the cause of many arguments between my mother and me. She always wanted me to get off the phone and do my homework, while I wanted to chat all evening. Because of this situation, I never had a phone in my room. Imagine what I could have done with a cell phone!
- It helped me keep in touch with my friends and family all over the world (e-mail and long-distance phone calls).
- I got a cell phone and ditched my landline.
- Technology costs money, and being a librarian, this is a barrier for me. I can't afford an iphone, for instance. I have to eat. Also, I don't really NEED an iphone.
- I also got my first cell phone in 2000.
- I remember playing on the phone as a toddler while my mom slept.
- I got my first cell phone at 19 because all my friends had one and I was tired of being left out.

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### Television

- First tech awareness – color tv in 1975!
- We had (my parents still have it) a TV without a remote. I watched some, but not a lot, of TV.
- In the audio/visual realm, I started with broadcast TV, always with at least one color TV in the house, and a record player.
- I've been using a computer since I was about 4--we had a TRS-80 Color Computer from Radio Shack, connected to a black and white TV with a cassette tape player used as a disk drive.
- I don't care about stuff like nice TVs or home theater systems. I'm more interested in the newest social networking gadget, or the software the djs use when they're spinning at clubs. I don't want to own it, but I want to know how it all works, and to see how it affects how people live, and especially how they do their jobs.
- Although my early formal schooling was pretty short on technology, my dad was a gadget kind of guy, and he let me help fiddle with the TV when a tube blew, help fix the car and iron, and use the soldering iron, but I was only allowed to watch when he took apart his “electric piano” in the early 1960's .

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### Tools

- Moved to wireless from modem in 2007.
- They grew more computerized so I learned the concept of technology getting more complex and able to do some exciting things than when I first started learning.
- Recently in a library science class, the professor posed the following question: "What is technology?" Most people called out the typical answers, like computers, iPods, the internet. The professor reminded us that technology is really any tool that helps achieve a goal. By that definition, technology could be a vehicle or an iron or even a pencil.
- all things mechanical that needed to be tinkered with and repaired.
- From this experience I diverged into two directions: imaging - video and photography, and machine control - electrical and computational control and sensing devices ( to give my work senses and movement)
- Things I remember...Alphie the Eight track player, cartridge Disney projectors, VCR's, cassette tapes, Cricket, the Apple IIe, Atari, Nintendo, electric Brother typewriters, my grandmother's pedal fueled Singer sewing machine, crazy gyrating pens, spin art, dot matrix printers, Sega game gear and Sonic the Hedgehog, John Deere tractors, my grandmother's kiln, and Light Bright.

- A variety of things come to mind when I think of the roots of my relationship with technology. Things with plugs and power sources come to mind initially
- I remember my mother teaching me to make the skirt from ti leaves cut from the yard and going out to find materials for leis and haku to find the best flowers, fern and plants.
- Growing up, I don't think I ever thought in terms of "technology." Things were just "tools" that got a job done.
- I came to rely on him. "Here's what I want to do." Now make this computer/cell phone/television/ thermostat/ camera "do it." I'm still that way - although now I'm lucky to be surrounded by high school and college kids who can do really cool and creative things.
- The first piece of technology I remember was my pacifier.
- I tangled unsuccessfully with stoves and ovens (unbaked baked apples, popcorn made with corn syrup instead of corn oil).
- I mostly used it for playing Space Invaders, Carmen Sandiego, and Tetris. Later on I typed papers for school.
- So I like to go back to other forms of technology, such as pens, paper, books, and that hard-to-use stove.
- For my grandmother's part, my mother inherited her organ. The endless combination of buttons and the sounds they produced kept me occupied for hours of "musical" entertainment even before I actually learned to play.
- My dad taught me to use his power saws when I was in grade school, which felt like a wonderfully dangerous and adult thing to know.
- But honestly, when I think "techno-biography," I think computers.
- Besides writing papers, I played Maniac Mansion, Indiana Jones, and other strategy games.
- I also remember having a Speak and Spell that I used lot.
- This may not count, but I started playing the piano when I was 4, and for a while we didn't have a real piano so I practiced on an electric keyboard.
- She also taught me about cooking, using the oven, the microwave, the electric mixer, etc.
- My grandpa is a woodworker and taught me how to join pieces of wood together and use the jigsaw.
- My dad was not mechanically inclined, and I remember times during which the garbage disposal, dishwasher and stove were disassembled all over the kitchen floor and he was swearing a lot
- We edited the film manually with a splicer and tape and had to create a soundtrack on cassette tape, timed to match the film.
- At some point in elementary school my parents got a PC-type computer and dot matrix printer and I typed all my papers on it.
- I learned to use to work the sound and light board in the junior high and high school theaters.
- I worked as on outreach coordinator for a nonprofit, which also meant that I managed our server, built and maintained the organization's website and 'fixed' computer problems.
- I don't care about stuff like nice TVs or home theater systems. I'm more interested in the newest social networking gadget, or the software the djs use when they're spinning at clubs. I don't want to own it, but I want to know how it all works, and to see how it affects how people live, and especially how they do their jobs.
- When I was a few years older, my brother and I were given BB guns (we lived in a rural area) and we often pretended to be frontier cowboys shooting at game - in reality, our targets were crows, rats and targets made from old cans and bottles.
- I remember using glass bottles with liquid in them to produce musical tones.
- The first truly "tech" project I worked on was the creation of a working traffic light with green, yellow and red lights. A friend of mine in the 3rd grade - John Ozinga - was killed when run over by our school bus, and my father, an electrician, made the traffic light with me

and we took it to our school and demonstrated it to my classmates. I think that this was his way of helping me to cope and of teaching all the kids in school about traffic signals.

- The first time I touched a computer was in 1974 when I was at a school that had a computer with two or three terminals in the math department.
- When I was in elementary school, there were already computers around. I knew what they were & there were limited things we could do with them. Of course, it was a black screen with green letters and ridiculously long command strings. The coolest part was the big ol' floppy disk we had to hold with both hands. So, my experience with traditional "technology" goes back to my earliest school days.
- We had a cataloging system, that changed slightly from move-to-move, color-coded tags, mandatory weeding of our belongings with the threat of "lost" items if we did not comply with all standards.
- I thought (and still do) that the tech of the guitar was amazing, and it imbued me with the desire to have something like that which I could do to wow others.
- So, I found myself as a junior who couldn't type. That year of "Office Skills" has given me more lasting skills (typing and 10-key) that I use on a daily basis than most anything else I've done.
- Although my early formal schooling was pretty short on technology, my dad was a gadget kind of guy, and he let me help fiddle with the TV when a tube blew, help fix the car and iron, and use the soldering iron, but I was only allowed to watch when he took apart his "electric piano" in the early 1960's .
- I've taught teachers in a remote mountain village in India how to use a Microsoft Excel to organize their school library, and used a digital camera with the kids to help them write their autobiographies.
- I guess my first interest in technology was with cameras and projectors. I liked running and setting up simple slide and film projectors in grade school and luckily I had teachers who were willing to let me help (although I suspect they didn't want to do it themselves).

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### **Transportation**

- Thinking back my experience with technology is rooted in hands on boyhood experiences with cars, bikes boats
- John Deere tractors
- Technology (the airplane) got me to study and work in Europe.
- I got a car.
- If it's broken, I can generally fix it, except for the electronics in my Volvo, which is possessed by demons.
- My boyfriend forced me to learn how to drive when I was 20.

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### **Writing Implements**

- Electric Brother typewriters
- I typed stories on a typewriter.
- I did actually use an old school typewriter briefly before my family got an electronic typewriter with a tiny little one-line screen (and memory for \*4 pages\* of text! Wow!).
- So, I found myself as a junior who couldn't type. That year of "Office Skills" has given me more lasting skills (typing and 10-key) that I use on a daily basis than most anything else I've done.
- I cheated in typing class in summer school, and so have never really learned to type with fluency.
- I got an electronic typewriter from my grandparents in 4th or 5th grade. I wanted my reports to look more appropriate.

- Used to love writing with fountain pen, reluctant user of ball point pens.
- My father encouraged all of us (6 kids) to do science projects, and I can remember how excited I was when he brought home a "scribe" that had an alphabet template and pen that allowed one to enlarge letters to make posters. I guess that was maybe my first encounter with a tool beyond household appliances.
- Eventually, I let that go and moved on to other things, such as crayons, pencils, markers, and paper.
- So I like to go back to other forms of technology, such as pens, paper, books, and that hard-to-use stove.
- Once upon a time, I learned to write in cursive with a steel-nibbed pen of the type that the rest of the world uses for pen and ink drawings.
- I remember that there was a feeling that we were cheating when in the 4th grade, we were permitted to migrate to a fountain pen that filled from an inkwell. The next year, my fountain pen became obsolete when we were permitted to use pens that took pre-filled ink cartridges.