## <u>Survey Data Summary - Emotional Trainer</u>

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In November 2011, we sent out a survey to gather data for our system 'Emotional Trainer'. As you might remember, the goal of Emotional Trainer is designed to teach emotional processing to children diagnosed with autism, a mental disorder characterized by impaired communication and social interaction skills.  We hope to encourage the social development of these children by building on their existing emotional associations--what objects or events make them feel a certain way. However, in order to do this, we needed to get an idea of what things strike up certain feelings in children. We asked parents to tell us about what makes their children happy, sad, angry, or afraid. 19 people responded. The respondents' ages ranged between 35 and 55, with an average age of 41. Their children's ages ranged between 5 and 9 years, with an average age of 7 years. About 16% of respondents stated that their child had been diagnosed with an autism spectrum disorder. Because of the small number of responses in this category, we have included their responses in the same data set as the other responses, and cannot draw inferences about children with autism which do not apply to children in general.

**What kinds of things make your child happy?**



Above is a word cloud, generated from survey responses to the question "What kinds of things make your child happy?" Larger words occurred more frequently in the survey data than did the smaller words. Some common words (especially "a", "an", and "the") have been filtered from this set. As you can see, toys and games are a clear trend here: note the mentions of "puzzles" and "board (games)" as well as specific toys like "Legos", "Barbies", and "cards." Outdoor play was also a popular response.
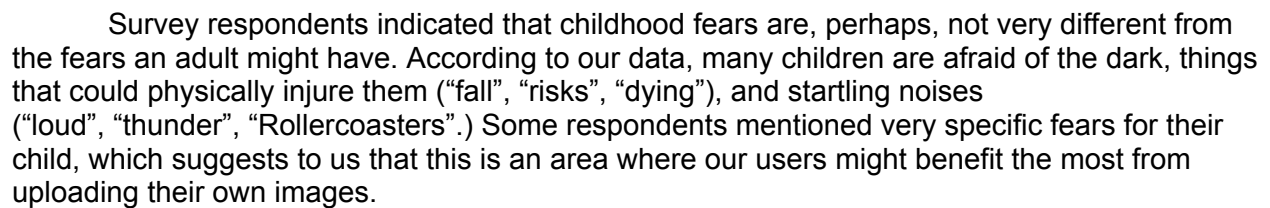
**What kinds of things make your child sad?**



       The responses for sadness are less concrete, with words still clustering around ideas like "play" and "friends." Because these most often occurred in negative phrases like "when her friends can't play with her", their frequency is somewhat misleading. We compensated for the relative lack of concrete responses by including images which are commonly associated with a sad mood, such as spilled milk and rain, as well as an image for "chores."

**What kinds of things make your child angry?**

Like sadness, a lot of responses for anger can't be converted into a concrete image. Many of them dealt with needing to do extra "work" or the child a conflict with siblings. Besides an image of a chair in the corner of a room (representing "timeout" and other disciplinary procedures), our stock image database is still lacking useful images from survey data.

**What is your child afraid of?**

Survey respondents indicated that childhood fears are, perhaps, not very different from the fears an adult might have. According to our data, many children are afraid of the dark, things that could physically injure them ("fall", "risks", "dying"), and startling noises ("loud", "thunder", "Rollercoasters".) Some respondents mentioned very specific fears for their child, which suggests to us that this is an area where our users might benefit the most from uploading their own images.

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Remember, however, that Emotional Trainer isn't just for kids. Because we emphasize the role of the caregiver in creating personalized training for a child, we strive to make sure our interface for parents, guardians, and other adults involved in care for the child is easy to use. To this end, we asked parents a few questions about their technical expertise. Graphs of this data follow.

**How often do you use the following websites or technologies? - Email**



| | | |
|---|---|---|
| Very Rarely or Never | 0 | 0% |
| About once a month | 0 | 0% |
| About once a week | 0 | 0% |
| A few times a week | 2 | 11% |
| Every day | 16 | 84% |

All respondents use email frequently. However, there may be some sampling bias in this

figure because the primary means of survey distribution was electronic.

**How often do you use the following websites or technologies? - Video Sharing Websites (YouTube, Vimeo, etc.)**



| | | |
|---|---|---|
| Very Rarely or Never | 3 | 16% |
| About once a month | 1 | 5% |
| About once a week | 5 | 26% |
| A few times a week | 8 | 42% |
| Every day | 1 | 5% |
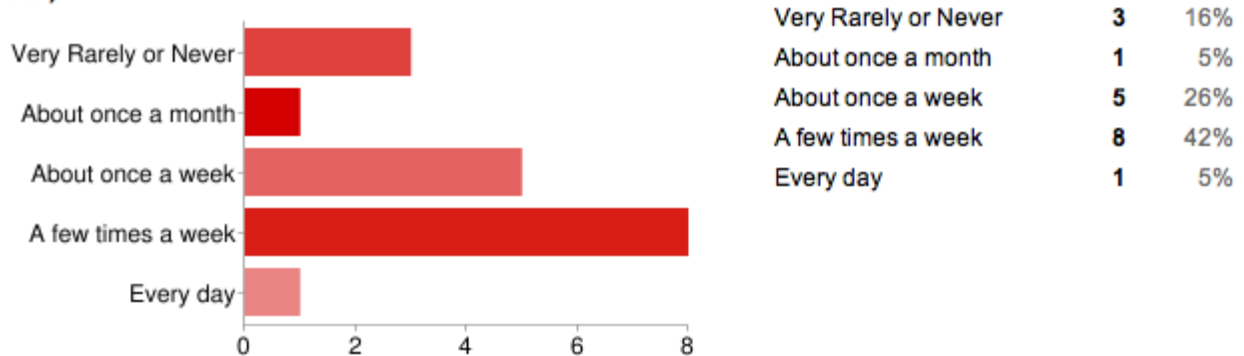
Many, but not all, respondents are comfortable using websites like YouTube. This means a feature such as adding media through a YouTube link would be worthwhile, but we should still pay attention to making this process easy for those who are less familiar with video sharing websites.

**How often do you use the following websites or technologies? - Social Networking Websites (Facebook, Twitter, etc.)**



| | | |
|---|---|---|
| Very Rarely or Never | 2 | 11% |
| About once a month | 1 | 5% |
| About once a week | 4 | 21% |
| A few times a week | 6 | 32% |
| Every day | 5 | 26% |
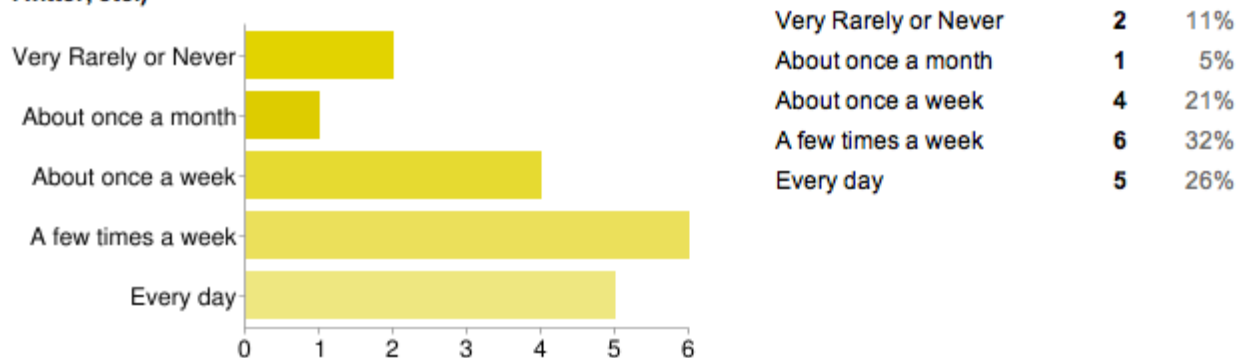
About half of respondents use social networking websites once a week or less. Many social networking websites, such as Facebook, have been heralded as marking the new standard for web applications. However, because some parents choose not to use these websites, we should be careful when assuming that one of our users would understand an interface simply because it is "like Facebook."

**How often do you use the following websites or technologies? - Web Image Search (Google Images, Flickr Search, etc.)**



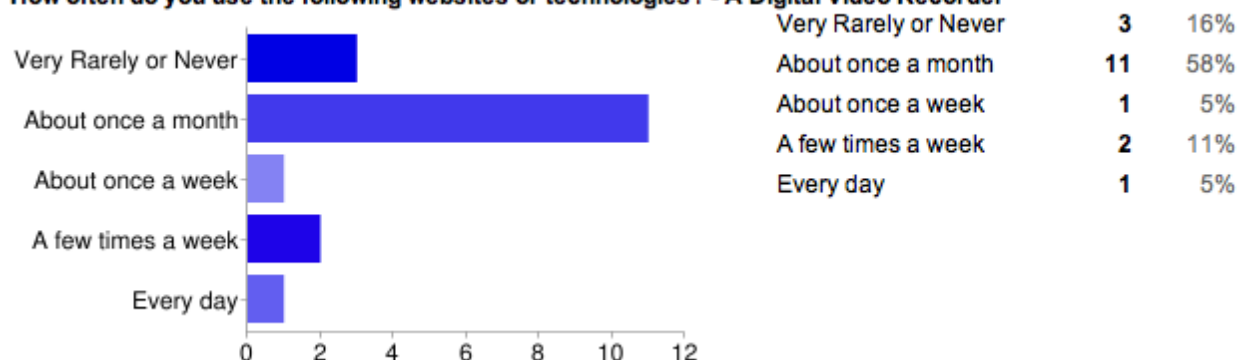| | | |
|---|---|---|
| Very Rarely or Never | 3 | 16% |
| About once a month | 1 | 5% |
| About once a week | 3 | 16% |
| A few times a week | 5 | 26% |
| Every day | 6 | 32% |
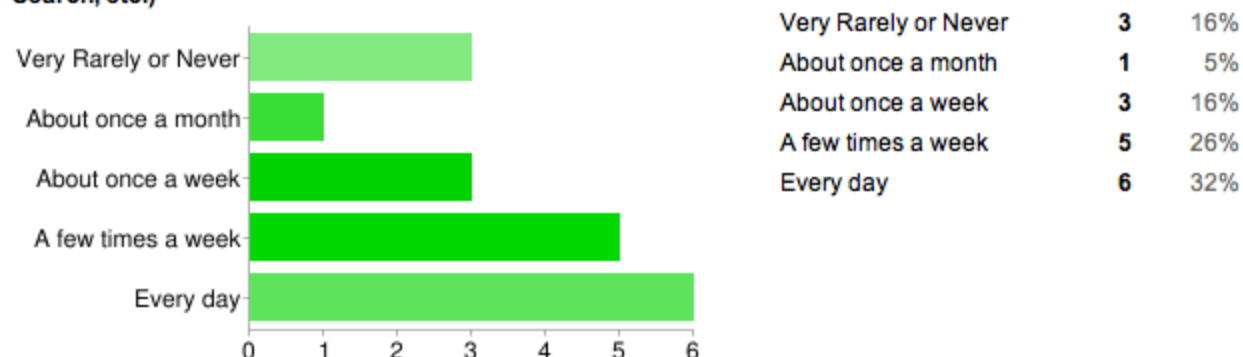
Most respondents appear comfortable using a web image search. This means that the ability to add an image to Emotional Trainer, either by providing a URL to the image or using an inline search tool, would prove valuable to our users.

**How often do you use the following websites or technologies? - A Digital Camera**



| | | |
|---|---|---|
| Very Rarely or Never | 1 | 5% |
| About once a month | 2 | 11% |
| About once a week | 7 | 37% |
| A few times a week | 7 | 37% |
| Every day | 1 | 5% |
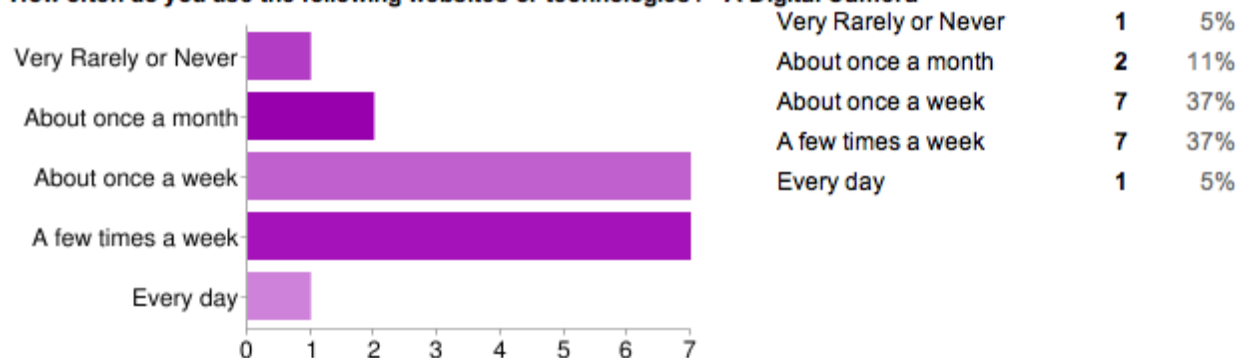
About 80% of respondents use a digital camera once or more a week. This statistic emphasizes the importance of being able to upload an image stored on a local hard drive.

**How often do you use the following websites or technologies? - A Digital Video Recorder**



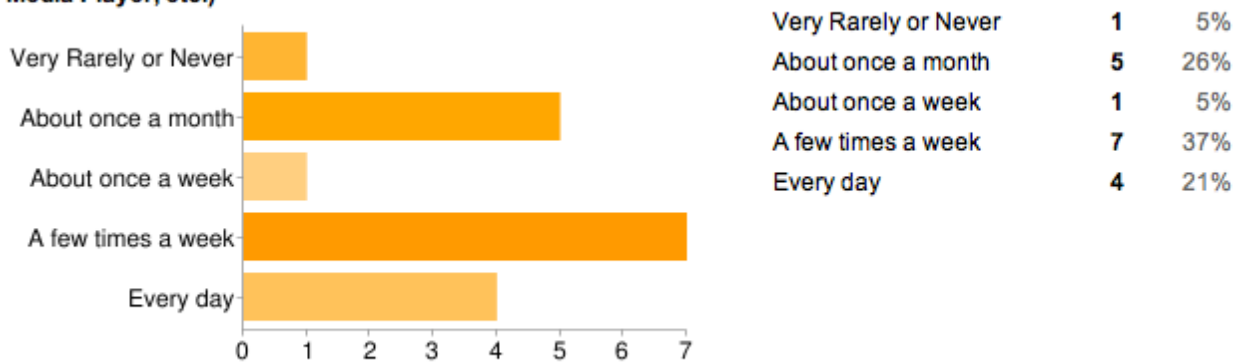| | | |
|---|---|---|
| Very Rarely or Never | 3 | 16% |
| About once a month | 11 | 58% |
| About once a week | 1 | 5% |
| A few times a week | 2 | 11% |
| Every day | 1 | 5% |

Although they are less frequently used, a large portion of respondents use a digital video recorder. This indicates that implementing the ability to upload a video to our site for use in training would be worthwhile to some users.

**How often do you use the following websites or technologies? - Image Organizer/Photo Album Programs (Picasa, Flickr, PhotoVault, etc.)**



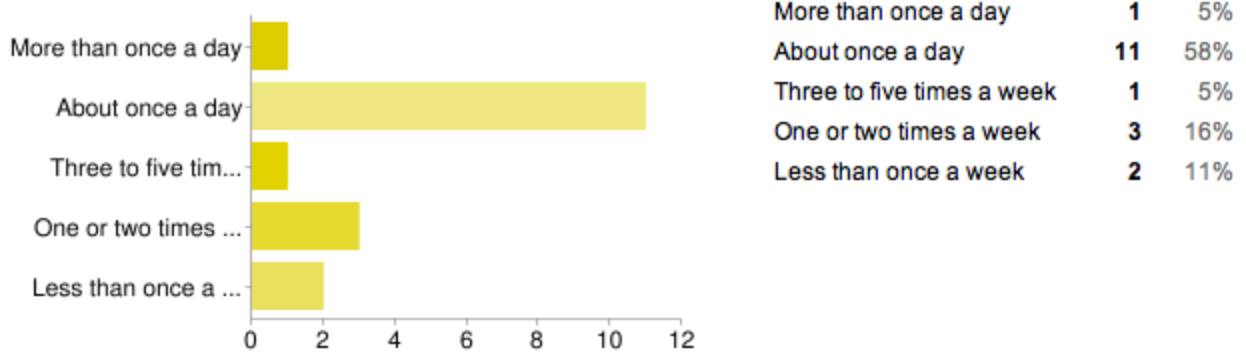| | | |
|---|---|---|
| Very Rarely or Never | **3** | 16% |
| About once a month | **8** | 42% |
| About once a week | **4** | 21% |
| A few times a week | **3** | 16% |
| Every day | **0** | 0% |
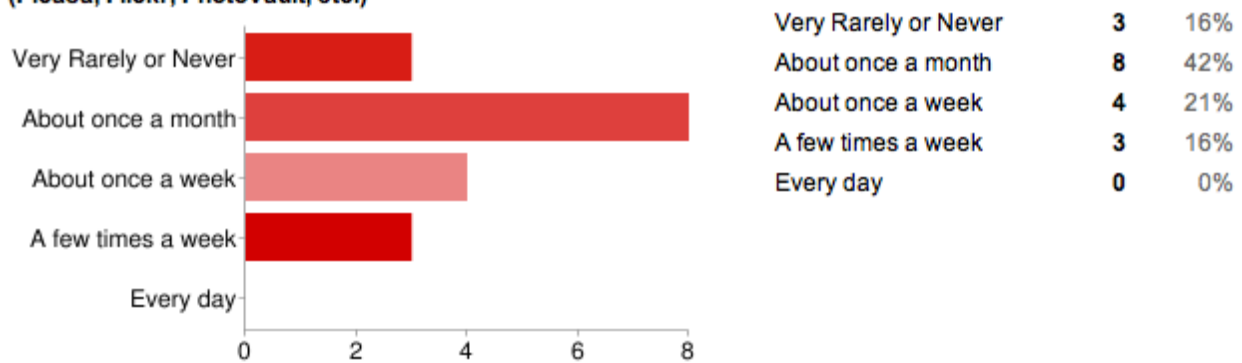
A reasonable number of respondents use image organizing programs to manage their digital photos. Because of this existing familiarity, we might look to these programs to evaluate the conventions of their interfaces to make our own media management system more usable.

**How often do you use the following websites or technologies? - Media Player Programs (iTunes, Windows Media Player, etc.)**



| | | |
|---|---|---|
| Very Rarely or Never | **1** | 5% |
| About once a month | **5** | 26% |
| About once a week | **1** | 5% |
| A few times a week | **7** | 37% |
| Every day | **4** | 21% |

The shape of these responses indicate that parents may fall into two groups: those who use media player programs very frequently and those who use them rarely. As a result, this is probably a less reliable resource for evaluating media management interface conventions than photo managers would be.

**How often does your child use a desktop or laptop computer?**



| | | |
|---|---|---|
| More than once a day | 1 | 5% |
| About once a day | 11 | 58% |
| Three to five times a week | 1 | 5% |
| One or two times a week | 3 | 16% |
| Less than once a week | 2 | 11% |

About half of respondents' children use a computer on a daily basis, with others using it less frequently. Although this provides some support for our assumption that a website is an effective platform for Emotional Trainer because of a child's comfort in using a computer, it also indicates that a significant number of the children who would need a system like this might be unfamiliar with a computer. As the Emotional Trainer team goes forward in designing the child interface, we will be sure to emphasize controls which are intuitive even for a child who rarely uses a computer.

*Word cloud images created using [www.wordle.net](www.wordle.net).*