

CPTS 443 Early Data Gathering Report

Team Snapchat

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## ***Abstract***

The purpose of this study was to learn about how various types of users use the Snapchat app. A contextual inquiry was performed on three participants who were observed using the app in controlled conditions. Based on empirical data, users agree that Snapchat is intended to be minimal and once they become familiar with it. It is easy to use but the first experience is a bit confusing. Improvements will be welcomed but must not interfere with the minimalist nature of the app.

## ***Design Project Focus and research questions***

### *a. The problem we seek to address*

We hope to create a tech solution for social media newcomers who want to send and receive pictures and view other people's picture feeds.

### *b. Proposed solution*

#### *Tutorial/Getting Started Tips*

Currently Snapchat does not offer any guidance through the various functionalities of the app. We plan to add brief tutorials whenever a user tries a functionality for the first time. For example, when the user swipes to the stories tab for the first time, a splash screen will appear with some quick pointers and tips.

#### *Appropriate Signifiers*

A major problem in Snapchat's design is its ambiguous signifiers. We want to replace these with clear and communicative signifiers.

#### *Sort by options for story feed*

Snapchat's current page for stories sorts itself according to an algorithm which determines the friend's relevance to the user. Many users do not understand the reasoning in the relevance algorithm. We want to provide alternative options for sorting alphabetically, chronologically, and popularity.

### *c. Proposed software's prospective users*

Through our contextual inquiries, we learned that medium to heavy users have no problem with the app. However, light users and newcomers can struggle to learn the basic functions. Our software would aim to maintain the experienced users while also being more inviting to new users.

### *d. The key research questions that the contextual inquiry set out to answer*

RQ1: Are problems using the software exclusive to new and light users?

RQ2: How long does it take a user to learn a new function?

RQ3: Where are the major pain points in using the software?

RQ4: Could "Getting Started Tips" help guide new users without being intrusive?

RQ5: How much does each user know about all of the features of Snapchat?

## ***Participants***

Participant 1 is a Mechanical Engineering student at Washington State University. Participant 1 identifies as Agender. They are 22 years old and identify as a light Snapchat user, using the app less than thirty minutes per day. They use the app mostly daily and admit that they use fewer options in Pullman than they would in their native California, specifically the map option because “Pullman is sparse” and it is more useful in a larger city with a larger population.

Participant 2 is a Business Administration undergraduate student at Washington State University. Participant 2 is American and identifies as female. She is 21 years old and considers herself a medium user of Snapchat while using the application for about 30 minutes each day.

Participant 3 is a Women’s Studies student at Washington State University who graduates this year. Participant 3 is 22 years old and identifies as a female. Participant 3 is a very heavy Snapchat user, using it at any chance they can throughout the whole day. Participant 3 uses almost every single feature on Snapchat; the only one not being used is Discovery.

## ***Contextual Inquiry Sessions***

### ***Process and environment***

Our contextual inquiries were conducted separately by volunteering group members with their acquaintances who fit in the category of either heavy, medium, or light user.

One of the contextual inquiries was conducted in the Chinook Library on the WSU campus. We had a cubicle area to ourselves where we were able to easily speak. We were able to watch her closely as the participant performed tasks on the application.

Another contextual inquiry was conducted in the Dana 3 Robotics Lab. We were able to observe the participant using snapchat in a quiet environment.

### ***Common tasks and themes***

A typical use of Snapchat begins by the user checking his/her messages and story page. Here the usage can turn to responding to stories and messages via text, video, or picture. Afterwards, the user may add a picture or video to their story or send a picture, video, or message to another user.

Occasionally, a user may view the discover page. Here they can find news topics and articles on current trends in fashion, pop culture, etc.

Users also access the SnapMap, which is a GPS driven map showing the locations of the users’ contacts. Their locations are marked by each user’s BitMoji. The user can also see activities on the map where there is a high volume of story posting.

### *Unique features of individual CI sessions*

### *Synthesis of findings*

### *Requirements*

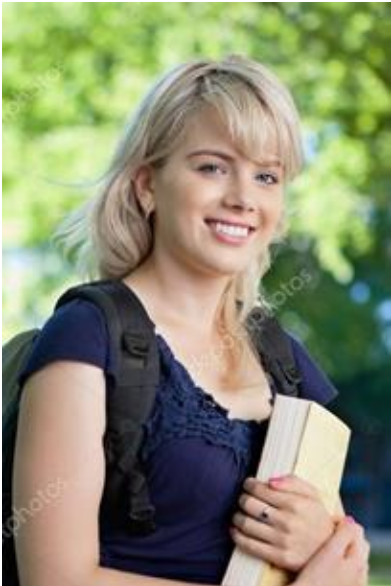
<b>Functional Requirement</b>	<b>Associated Usability Target(s)</b>	<b>Empirical Source/Rationale</b>
Users must be able to take and edit photos and videos.	Users must be able to take a photo or video, edit it, and send it to their distribution list within 5 seconds.	The ability to quickly capture a moment, customize it, and share it is the nature of the app.
Users must be able to communicate with friends via a chat function that allows them to also send photos, videos, and messages.	Users must be able to access the chat function from the snap page as well as access photos/videos from the chat page.	The chat feature gives users another option for sending and receiving messages.
Users must be able to send photos and videos to friends.	Users must be able to send photos and videos to people within 4 seconds.	The ability to quickly send photos and videos to contacts is one of the primary functionalities of Snapchat.
Users must be able to sort stories by multiple criteria.	Users must be able to choose how they want to sort stories (alphabetically, most recent, most popular, etc).	Users appreciate having the ability to personalize their experiences while using Snapchat.
Users must be able to send photos and videos to their story.	Users must be able to send photos and videos to their story within 3 seconds.	The story feature of Snapchat is essential as it brings its community of users closer.
Users must be able to receive relevant tips on how to use functions.	User should not ever have to go to an outside source to learn how to do things. User should be able to learn a desired function within 30 seconds.	Two out of three users go to Google for questions on how to use the app.
Users must be able to replay their friends stories as many times as they want within the story's time period.	Users must be able to replay their friends stories as many times as they want within 5 seconds.	Being able to replay friends' stories is a convenient feature.
Users must be able to access the map by pinching in the screen.	Users must be able to access the map within 3 seconds.	The SnapMap is a fun additional feature that allows the community of users to connect.
User must be able to voice	Users must be able to receive a	This would provide a very

activate support, e.g. “Hey SnapChat, how do I view the map?”	reply to the query within 3 seconds.	accessible interface to discover and learn features. It would also provide data to SnapChat on what people do not know how to use.
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User Experience Requirement	Empirical Source/Rationale
Users must rate the app at least 4 out of 5 on a scale of 1 - 5 for ease of use.	SnapChat is intended to be as easy to use possible.
Users must rate the app at least 4 out of 5 on a scale of 1 - 5 for simplicity.	SnapChat is intended to be simple to use.
Users must rate the app at least 4 out of 5 on a scale of 1 - 5 for fun.	Snapchat is intended to be fun to use.
User must rate the responsiveness of the Snapchat voice activation at least 4 out of 5 on a scale of 1 - 5 for fun.	The voice activation must be responsive or else it will only cause frustration.

Usability Requirement	Empirical Source/Rationale
User must be able to get to their messages from the 'snap' function.	All participants agree that this is essential; messages should be located in a spot that is easy to find and access.
User must be able to see who has sent them snaps.	All participants agree that this is essential.
User must be able to see who has seen their snaps.	Participant 3 mentioned that this feature was one of her favorites.
User must be able to determine how many times a snap can be viewed before disappearing.	Participant 3 does not think this feature is necessary however, participant 1 thinks this feature could be valuable.
User must be able to navigate to sort the stories in the desired order within 1 second.	This was mentioned as a common, desired feature.
User must be able to ask SnapChat how to use any feature.	This avoids cluttering the interface while enhancing discoverability and learnability of new features.


### *Personas*

	<p>Sarah Miller</p> <p>White American Female 21 years old Business Administration Undergraduate Student Medium Snapchat user</p>	<p>“Snapchat is fun to use”</p>
<p>Goals</p> <ul style="list-style-type: none"> <li>-Communicating</li> <li>-Current Events</li> </ul>	<p>Her Story</p> <p>Sarah is an undergrad student that enjoys communicating with her friends and family with her smartphone. She also likes to stay up to date on current events.</p>	<p>Tech Profile</p> <p>Sarah is comfortable with technology as she uses her laptop daily for school work and organization. She uses Snapchat for about a half hour each day, so she is familiar with most of the functionality. She would like to have the ability to save videos that are sent to her.</p>
<p>Pain Points</p> <ul style="list-style-type: none"> <li>-Not being able to save videos</li> </ul>		

\* Photo courtesy of <http://www.realstockphotos.com/photo/11495/smiling-college-girl-with-book-and-bag.html>

 <p>*</p>	<p>Rashid Moore African American Male 24 years old Software Engineer Light user</p>	<p>“I use Snapchat to maintain my personal relationships with my peer groups.”</p>
<p>Goals:</p> <ul style="list-style-type: none"> <li>- Share moments from his life and career with friends and family</li> <li>- Keep up with friends and family</li> </ul>	<p>Story:</p> <p>Rashid is just starting out in his career and is busy adjusting to his new post-education life. He has just moved to a new city to start a new job. He has new places to discover, new people to meet, new experiences to enjoy and wants to maintain contact with his current friends and family while also building new relationships. As a career-minded young professional, Rashid is conscious to post content that will let people know what he’s up to without becoming mundane.</p>	<p>Tech Profile:</p> <p>Rashid is a digital native who has grown up with technology so it is natural to him. He is a software engineer and is knowledgeable about software development and user requirements. He utilizes his computer, smartphone, and a variety of online tools to manage his day to day life and quickly adapts to new technologies.</p>
<p>Pain points:</p> <ul style="list-style-type: none"> <li>-</li> </ul>		

\* Photo courtesy of <https://www.rashidahdevore.com/nyc-actor-headshots.html>

	<p>Ash Ketchum Japanese American Female 22 years old Women's Studies Major Heavy user</p>	<p>"Snapchat is a great way to communicate with my friends"</p>
<p>Goals: -Keep up with friends and family/maintain relationships</p>	<p>Story: Ash is an undergrad student who is getting ready to graduate by the end of this year. Friends and family are the most important thing to Ash. She enjoys staying educated on current events and loves trying new things.</p>	<p>Tech Profile: Ash uses technology on a daily basis. She uses her laptop for class work and other daily activities. She uses Snapchat all day, every day. She loves almost every feature on Snapchat, and uses Snapchat as main way of communicating with her friends and family. She loves the ability to easily edit her pictures and videos.</p>
<p>Pain Points: -Too many ads</p>		

\* Photo courtesy of <https://www.rashidahdevore.com/nyc-actor-headshots.html>

## Scenarios

### Scenario 1:

Sarah is a Business Administration undergraduate student at Washington State University. She uses Snapchat to conveniently chat with her best friend, boyfriend, and her brother. She enjoys sending ugly or funny snaps to them! Typically, she is on her phone for an average of about three hours each day while using Snapchat for about a half hour during that time. It's a Monday afternoon around 2:30 pm and Sarah has just finished running a couple miles at the Chinook Gym. Her entire workout, which also includes stretching and light weight lifting, has taken her a little over an hour to complete. In this amount of time, she has been listening to music and has not checked her Snapchat for any chats or stories. Sarah is interested in chatting with her boyfriend from California and wants to do so in a quick and concise manner. She'd also like to have the ability to send either a picture or a video depending on how she feels. She needs to be able to immediately know how to perform these tasks.



Sarah is comfortable using technology such as Facebook Messenger, iMessage, or text messages to connect with her boyfriend. However, Snapchat allows its users to easily add fun filters and stickers to messages. This is a huge appeal to Sarah, so she prefers to use Snapchat.

She takes out her iPhone, opens Snapchat, applies a filter, and composes a “snapsterpiece” to send to her boyfriend: a picture of herself with dog ears and a dog snout. It’s brilliant. She saves the Snap to her archive and sends the snap to her boyfriend.

#### *Scenario 2:*

It is Monday morning and Rashid is ready to begin his day. He leaves his apartment to go to work. As an eco-conscious young professional, Rashid takes the bus as part of his daily thirty five minute commute. As he gets on the bus, he sits next to an elderly woman who is crocheting a <thing>. He strikes up a conversation with her and tells her that his grandmother also crochets and asks if he can take a photo of her work to pass on. She approves and he takes a pic and adds the text <clever phrase relevant to relationship>. Once he gets to work, Rashid is busy with his days activities. After work, on the bus ride home, he sees a billboard for a popular musician who is doing a show locally that week. He snaps the ad, adds a party filter and sends it to his girlfriend. He gets a prompt reply as a chat message saying “I’m down for that”. He uses his phone to purchase tickets and screenshots the receipt and messages her back adding the receipt photo. He now has plans for Friday night!

Wednesday, at the gym, Rashid manages an impressive seven miles in one hour on the treadmill. He snaps the display and adds a gold star sticker and adds it to his story.

#### *Scenario 3:*

Waking up early on Tuesday, Ash immediately turns over to grab her phone and check Snapchat. She lays in bed for about fifteen minutes, catching up to people who have messaged her throughout the night. As she lays in bed on her phone, her cat decides to snuggle up to her, so she decides to take a cute picture of her and her cat. She sends the picture to her boyfriend and her group chat that is made up of her two best friends. Ash looks over at the time and realizes she needs to get ready so she can catch the bus on time. On her way to campus, she messages her group chat and asks when they should all hang out this weekend.

Ash tries her hardest not to go on her phone during class, but she usually ends up going on her phone at least a couple times. She is ahead on her class work for her classes so it is not a big deal. After one of her classes, she sees a strange individual, yelling about something to the crowd around him. Ash decides to record a short video of the guy talking and post it to her Snapchat story. She gets a few replies from what she posted, which makes her feel like the video she posted was a good one.

After school, she checks her group messages on Snapchat and reads a message from her boyfriend that says he cannot hang out tonight because he has a test to study for. So, she messages her group chat and asks if anyone wants to come over and watch anime, to which her friends say yes.

Later that evening, both of her best friends come over and they decide to rewatch One Punch Man for a second time. Of course during it, Ash takes a picture of the tv with One Punch Man playing and adds a “Tuesday” sticker at the bottom of the picture and sends it to her Snapchat story.

## Appendix A: Informed Consent

### Informed Consent Agreement to Participate In Contextual Inquiry

Marcus Blaisdell  
Joseph Crissey  
Carly Ott  
Brendan Lauck  
Tim Rice

School of Electrical Engineering and Computer Science  
Washington State University

Description of Study: I understand that I, \_\_\_\_\_ have been asked to participate in a contextual inquiry to inform the design of a new software application being created as part of the above persons' (henceforth, "the designers") course project for CptS 443/543 at Washington State University. My participation in this activity will help the designers to better understand the needs of prospective users of the software. I have been asked to spend about 60 minutes participating in this test. This will involve my engaging in using SnapChat while the designers observe, ask questions, and take notes.

By initialling below, I agree to allow the designers to record the session on videotape and audiotape. My name will not be on the videotape or audiotape. When the designers describe their work to other people in class (which may entail showing segments of the videotape), they will not use my name.

Initials: \_\_\_\_\_ I do not consent to video or audio recording: \_\_\_\_\_

Risks and Benefits Expected: The contextual inquiry will not do me any harm. It is not expected to help me directly. The results may help inform the design of the designers' software.

Confidentiality: I understand that any information about me that is obtained from this contextual inquiry, including what I say, will be confidential. My real name will be kept in a locked file and only the researchers will have access to it. Only my code name will be associated with data collected on me. Reports and presentations involving those data will not use my real name and will not present other data that could be used to identify me. Any recordings made within this contextual inquiry will be destroyed within two years.

Right to Refuse or End Participation: I understand that I may refuse to participate in this study or stop participating at any time.

Certification: I certify that I have read and that I understand the foregoing, that I have been given satisfactory answers to my inquiries concerning this contextual inquiry, and that I have been advised that I am free to withdraw my consent and to discontinue participation in the project or activity at any time.

I herewith give my consent to participate in this activity with the understanding that such consent does not waive any of my legal rights, nor does it release the researchers or any agent thereof from liability for negligence. I understand that I shall remain anonymous in all written and verbal reports of this study. If I am recorded, I agree to allow the designers to present to their instructor and classmates excerpts of any recordings taken during the study for educational purposes. I understand that I may request a copy of this form to keep.

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Signature of individual participant

Date

(If you cannot obtain satisfactory answers to your questions or have comments or complaints about your treatment in this activity, please contact instructor Daniel Olivares, Washington State University, daniel.olivares@wsu.edu)

## Appendix B: Raw Data

*Notes for Participant 1:*

Questions:

SnapChat user Questionnaire:

1. Name: Brandon Townsend
2. Age: 22
3. Gender: Male \_\_\_ Female \_\_\_ Other Agender
4. Major: (Please circle one) (Technical) non-Technical
5. What level of SnapChat user are you? (Please circle one) Heavy Medium (Light)
6. How many hours a day do you use your phone in general? 4
  - a. SnapChat in particular? 0.5
7. What do you use SnapChat for? Chatting with Friends
8. Do you plan your SnapChat activities? No
  - a. How? N/A
9. Do you monitor your SnapChat activities? Yes
  - a. How? By seeing how many people have seen my story
10. Do you analyze your SnapChat activities? No
  - a. How? N/A
11. Do you share your SnapChat activities with others, i.e. do you show them Snaps on your phone?  
Yes
12. What is your motivation to use SnapChat? It is convenient
13. Do you use any resources to assist you in using SnapChat? No
  - a. Which resources? N/A
  - b. How do you use them? N/A

## **Interview:**

Video Link:

[https://drive.google.com/open?id=1EqAczJY009\\_7zm-spCWNZtC6ZnrLPcq4](https://drive.google.com/open?id=1EqAczJY009_7zm-spCWNZtC6ZnrLPcq4)

Please show us how you would edit and send a snap

If i wanted to take a picture, Hold it up, focus it, press the button, generally I don't use a lot of the filters, if i wanted to i would just swipe I use this one <temperature> in the summer, haven't used that one before, guess i should <altimeter>, generally I save it if i want to have an unedited version

Wait for their response generally

Please show us an example of how you use stories

Use stories, Just take a picture of something and add to stories, personally I don't use our story, my story

Please show us how you use messaging

If i want to chat with somebody, i would go over to my contacts, this person, say, or if i wanted to attach something from my camera, use that icon, generally don't use call or the like facetime function

If you have a question on how to perform a task or action in SnapChat, how do you find that information?

"Just Google it, it usually takes me to the Snapchat FAQ but it's easier to just Google it"

If you use Bitmoji, please show us an example of how you use it

Don't use

If you use the map, please show us an example of how you use it

Map is cool during events usually when back in california, i go to the city, kinda cool to see where people are, what people are doing, not much use in Pullman, it's pretty sparse

Do you know about any alternatives to Snapchat and have you used any of them?

None, doesn't use any alternatives, aware of Instagram and Facebook but doesn't use them for this type of activity

## *Notes for Participant 2:*

1.

-Informed User that this info will not be disseminated

-informed User of reason for interview

-Conducted traditional interview:

Name: Marisa Lauck

Age: 21

Gender: Female

Major: B.A. in Business Administration focus in Management Operations

Ethnicity: Latina / German / Caucasian

Hours of phone use per day: ~3 hours

Hours of SC use per day: ~0.5 hour

Technical background:

+uses apple macbook for school work, job applications, email, daily

Uses SC for:

+ to send ugly or funny pics to her best friend, boyfriend, and brother

+ to see certain news stories

+ to view certain users stories

2.

### **Basic Interview:**

-Please show us how you would edit and send a snap

+ User performed all possible edits of a snap and then sent the snap

-Please show us an example of how you use stories

+ User viewed public stories and friend's stories. User performed all functionalities of stories including posting, deleting, and saving a story.

-Please show us how you use messaging

+ User composed a message and sent it. User opened a message. User used emojis and stickers while messaging

-If you have a question on how to perform a task or action in SnapChat, how do you find that information?

+ User explains that they figure out how to perform the task by trial and error

-If you use Bitmoji, please show us an example of how you use it

+ User added a bitmoji sticker to a video and a message

-If you use the map, please show us an example of how you use it

+ User viewed her boyfriend's location on map

### **Detailed Interview:**

-Observe User as they send snap w/o filter

+ User performed task in ~2 seconds and was able to verify that it was sent

-Observe User as they send snap w/ filter

+ User performed task in ~2 seconds and was able to verify that it was sent

-Observe User as they edit a snap w/ screen drawing

+ User performed task in ~2 seconds and was able to verify that it was sent

-Observe User as they edit a snap w/ emoji screen drawing

+ User performed task in ~2 seconds and was able to verify that it was sent

-Observe User as they open a snap

+ User performed task in ~2 seconds and was able to verify that it was sent

- + User is able to tell about how long the snap is available
- Observe User as they send a video
  - + User performed task in ~2 seconds and was able to verify that it was sent
- Observe User as they receive video
  - + User performed task in ~2 seconds and was able to verify that it was sent
- Observe User as they cut out portions of video
  - + User performed task in ~2 seconds and was able to verify that it was sent
- Observe User as they type text and change fonts and move it around screen
  - + User performed task in ~2 seconds and was able to verify that it was sent
- Observe User as they anchor text and stickers
  - + User performed task in ~2 seconds and was able to verify that it was sent
- Observe User as they anchor text
  - + User performed task in ~5 seconds and was able to verify that it was sent
- Observe User as they edit audio
  - + User performed task in ~2 seconds and was able to verify that it was sent
- Observe User as they add and delete story
  - + User performed task in ~5 seconds and was able to verify that it was sent
- Observe User as they navigate to discovery, subscribe/unsubscribe to a channel
  - + User performed task in ~2 seconds and was able to visually verify that it was sent

Favorite things about SC:

1. Stories
2. Discovery

Least favorite things about SC:

1. Nothing

Summary:

User explains that snapchat is generally user friendly e.g. when the user doesn't know how to do something it is easy for them to find out how to do it w/o instructions. User states that snapchat is not their favorite app.

*Notes for Participant 3:*

Carly Ott

CptS 443

Contextual Interview of Raevyn Kagawa-Burke

1.

- Informed User that this info will not be disseminated
- informed User of reason for interview

SnapChat user Questionnaire:

Name: Raevyn Kagawa-Burke

Age: 22

Gender: Female

Major: non-technical (women's studies)

Level of Snapchat user: Heavy

Hours of phone use per day: "all day every day" (all day except when sleeping)

Hours of SC use per day: "all day every day" (all day except when sleeping)

What do you use Snapchat for/favorite things about Snapchat:

- message and send pictures to friends/boyfriend (and sometimes call)
- post pictures to Snapchat story
- look at peoples' locations on the map
- look to see which people viewed my Snapchat story

Least favorite things about SnapChat:

- Discovery
- Ads
- Snapchat changing their layout and forcing me to use that new layout

## 2. Interview:

*Please show us how you would edit and send a snap:*

When I take a picture, I hold up my phone and either tap the screen or wait for the picture to focus on its own. When I take pictures of myself, I usually use some sort of filter. I also tend to edit every single one of my snaps by adding a sticker to it (Bitmoji, time of day, day of week, temperature, text, etc). I usually do not save my pictures, unless it is a picture of my cat.

*Please show us an example of how you use stories:*

Pretty much the same thing as editing/sending a snap. Except I usually do not post pictures of myself on my story. I usually post to my story every single day, at least once.

*Please show us how you use messaging:*

Depending on who I want to message, like if I messaged them somewhat recently, I swipe right and click on the person/group I want to send a message to. Once I click on them, I type my message and send it.

*If you have a question on how to perform a task or action in SnapChat, how do you find that information?:*

Just Google it

*If you use Bitmoji, please show us an example of how you use it:*

Well depending on what I want to do, I usually have to go to the Bitmoji app. Once there I can chose to edit my "selfie", edit my appearance, or change my outfit. When I first created my Bitmoji, I used the feature where you take a picture/selfie of yourself and the app creates a Bitmoji that looks like your picture. I usually have to edit it a bit after that though. I use this feature a lot because I dye my hair a lot so taking a picture of myself gets my hair color right every time.

*If you use the map, please show us an example of how you use it:*



I usually go to where you would go to take a picture, and then pinch in on the screen to access the map. Once there I click on my friend's bitmoji and then I can zoom in to see where they are (and even what building they are in). I also look at how long ago they were there (the last time they were on Snapchat).

*Do you know about any alternatives to Snapchat and have you used any of them?:*

The only one I know of that is super similar to Snapchat is Instagram (the story), which I do use. I do not use it as often as Snapchat, but I do use it every once in awhile.