

#### the Undergraduate Student

"If I knew all the IT services and resources available to me since freshman year, it would have made my life here at VT a lot easier. "



#### the Graduate Student

"It's the number of passwords... I don't know how anyone would do it without a password manager."



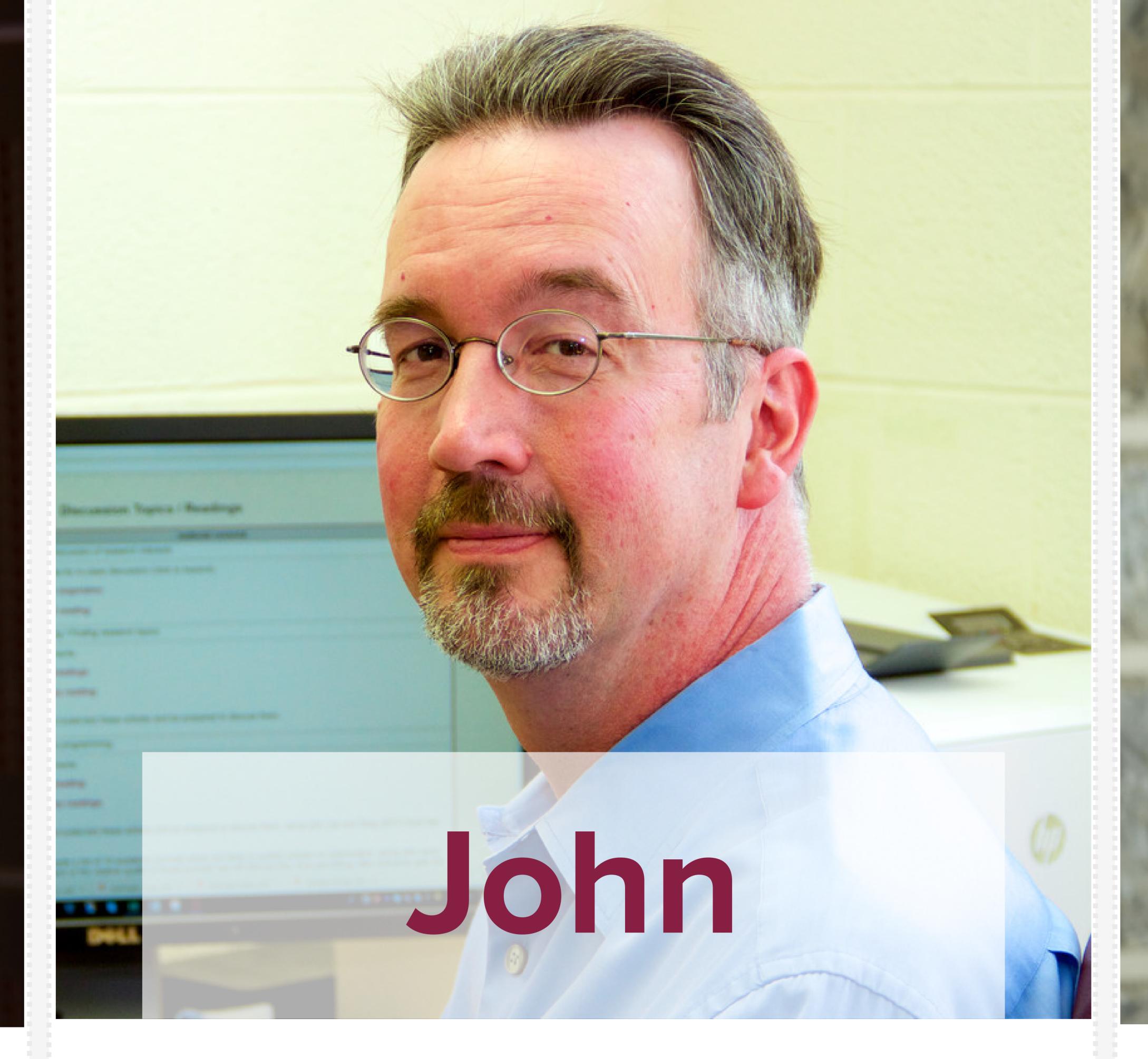
#### the Tenure Track Faculty

Retween teaching, doing research, and all this other stuff, it's very easy for me to get bogged down in terms of where to find information. What ends up happening is I usually just ask without even looking."



#### the Non-tenure Track Faculty

"The Canvas gradebook is not as customizable as I would like it to be. ??



#### the AP Faculty

<sup>ee</sup>When a person at Virginia Tech leaves and someone is hired to fill their place, figuring out what they need access to and how to get them access is a guessing game."



the Staff

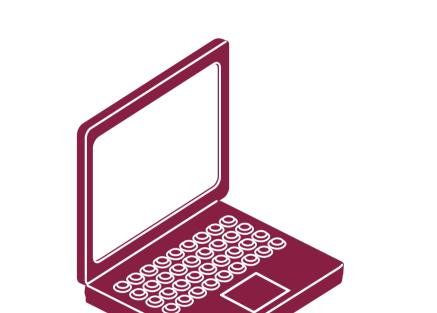
helping others, variety of work

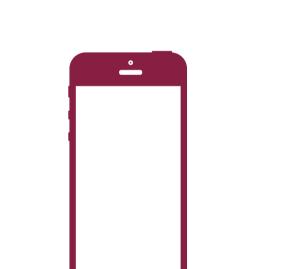
<sup>R</sup> Sometimes I don't know what issues I should go to my IT person for and what issues I should go to 4Help for. "

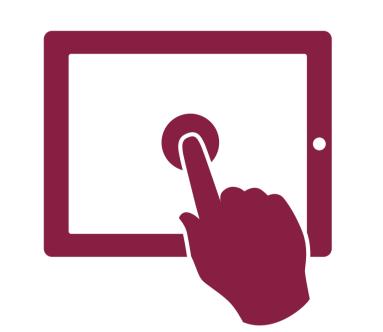
#### (E) Enjoys

problem solving, meeting a lot of people

#### Devices Devices

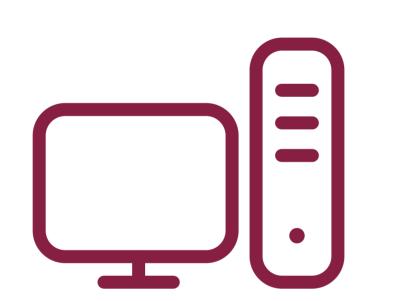








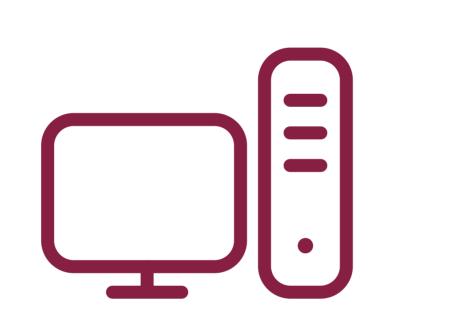
(Enjoys



Frequently Used Services

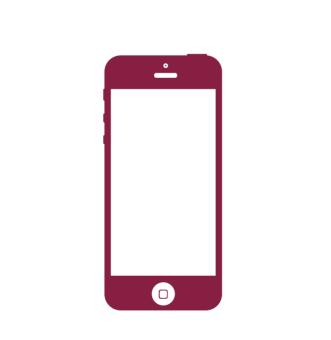
doing research, teaching



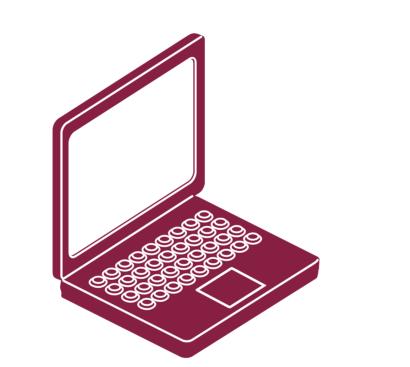


training the next generation

of scientists and researchers

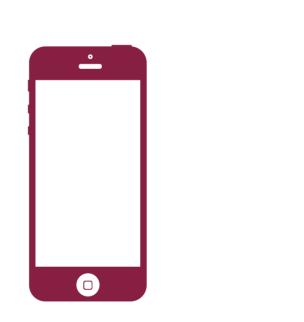


# Devices



(Enjoys

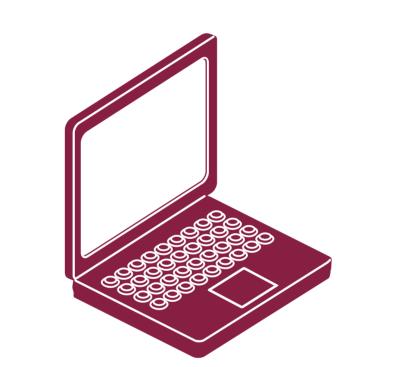
with students

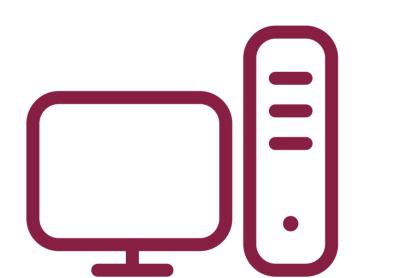


problem solving, interacting

#### Devices

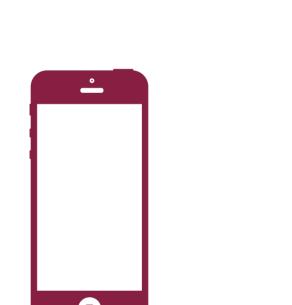
(E) Enjoys





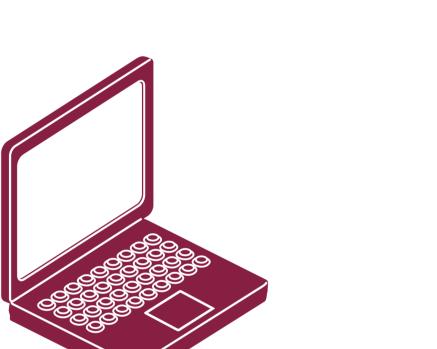
Frequently Used Services

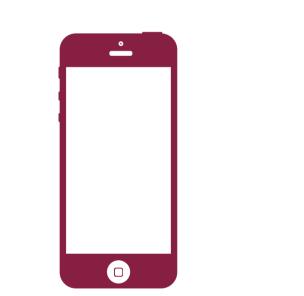
professional development



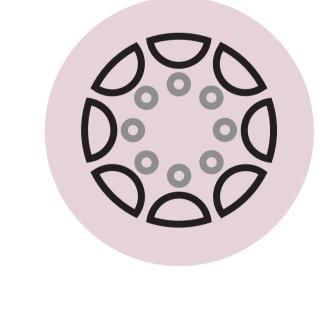
## Devices

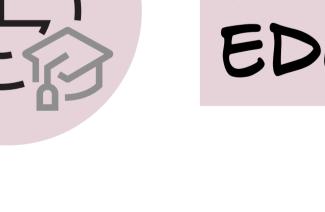
(E) Enjoys





## Frequently Used Services

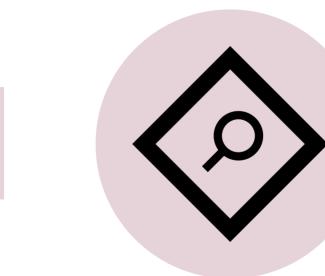






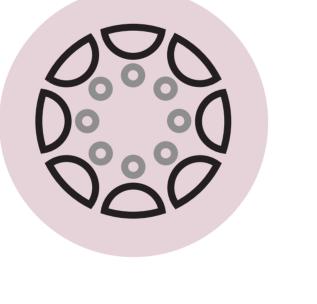






ONECAMPUS

# Frequently Used Services



ZOOM

(E) Enjoys

Devices

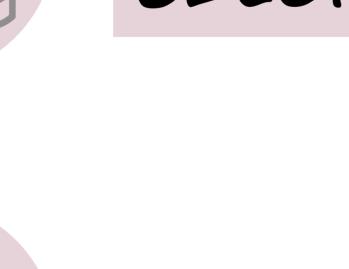






SUMMIT

# CANVAS GOOGLE FOR EDUCATION





Frequently Used Services

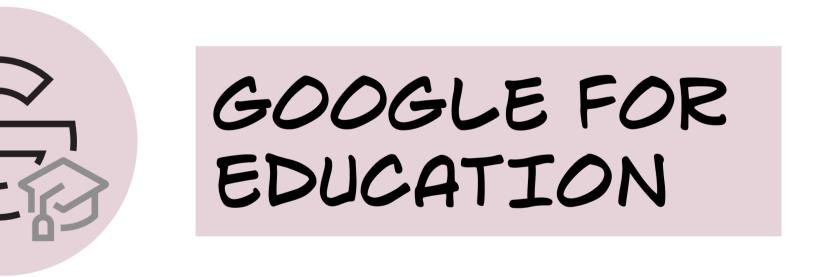
VPN





BANNER

## Frequently Used Services







### (2) Pain Points

- X It is difficult to find anything on VT websites.
- X Unstable wireless connections at outdoor places on campus.

#### (2) Pain Points

- X VT domains require login with PID and a password different than PID password.
- X The process for ordering software is complicated.

#### (2) Pain Points

- X Lack of quiz and grade customization and integragtion with teaching apps in Canvas.
- X Software license agreements take too long.

#### (2) Pain Points

- X Canvas issues take several days and multiple escalations to resolve.
- X Services are difficult to navigate and find information (OneCampus, 4Help, HokieSPA).

#### (2) Pain Points

- X Figuring out how to get access to systems I need for my role or when changing roles.
- X One task to perform involves accessing and doing work in multiple, disparate portals for approvals and creates lots of extra manual work.

#### (2) Pain Points

- X Lack of tutorials on Administrative Banner, Banner UI is difficult to learn.
- X Lack of financial systems integration / synchronization (MicroStrategy, grants, and others).



"If I knew all the IT services and resources available to me since freshman year, it would have made my life here at VT a lot easier."

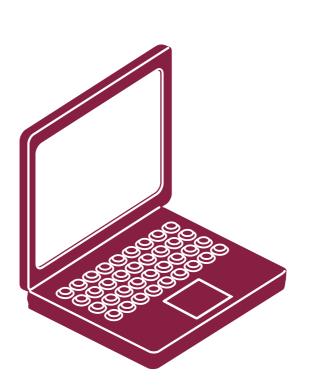
# About Dylan

- 18 to 22 years
- Blacksburg (on-campus, off campus)
- Fitness and sports, socializing, trying and exploring new things, playing music, extracurricular activities such as student clubs
- Likes most about Virginia Tech
  - Academic and growth opportunities VT provides
  - VT prestige
  - Meeting a lot of people

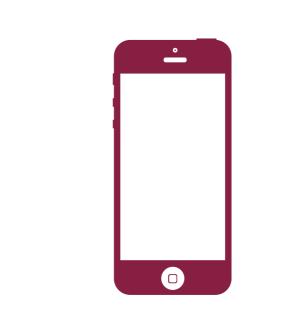
# Dylan the Undergraduate Student



#### ED DEVICES



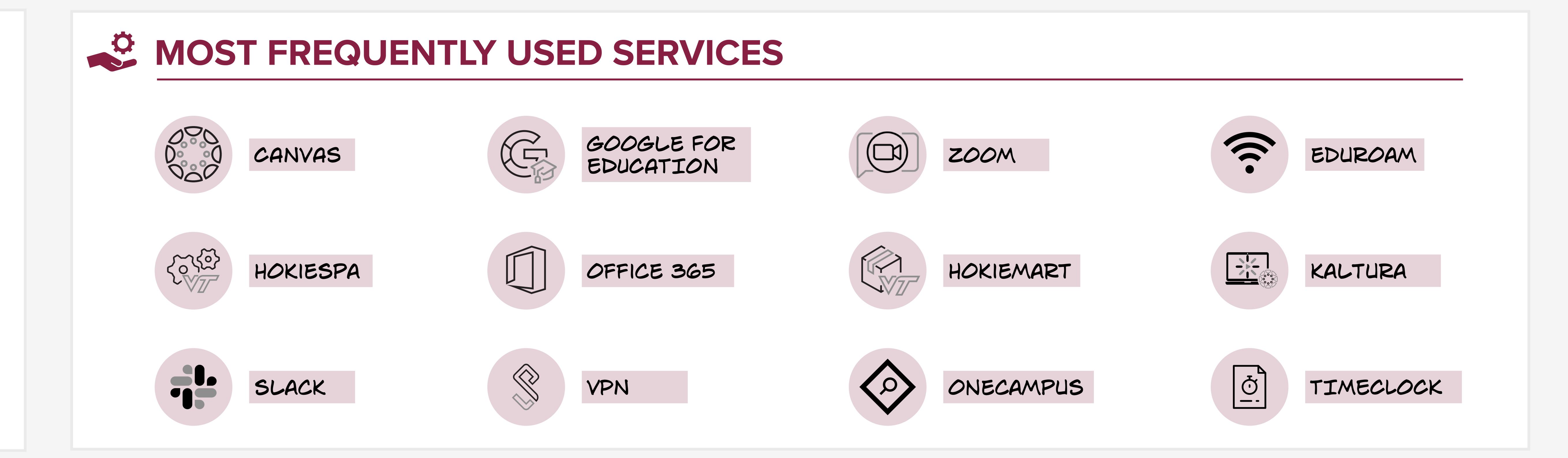
**Laptop:** Schoolwork (Canvas, Google for Education, Zoom, etc.)



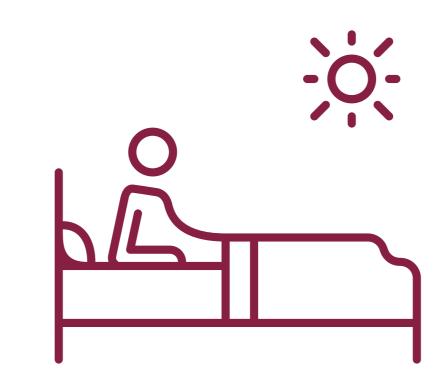
Smartphone: Duo, texting, voice calls, checking emails.



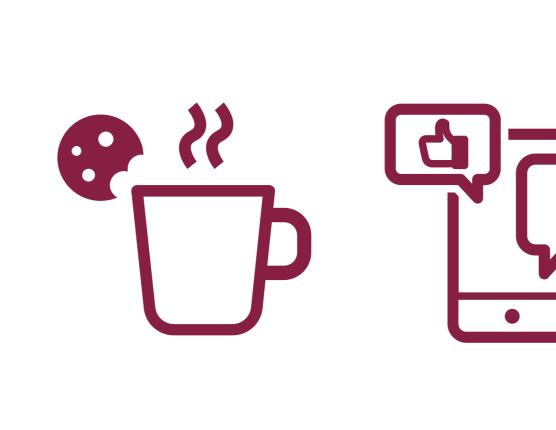
Tablet: Taking notes



## THE TYPICAL SCHOOL DAY



wakes up

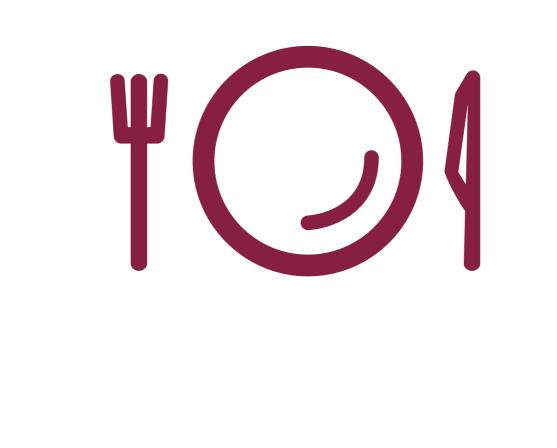


has breakfast,

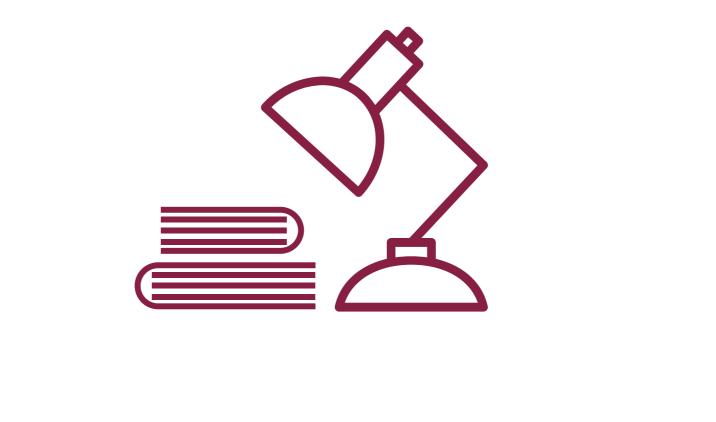
checks social media



attends classes



has lunch



studies at student

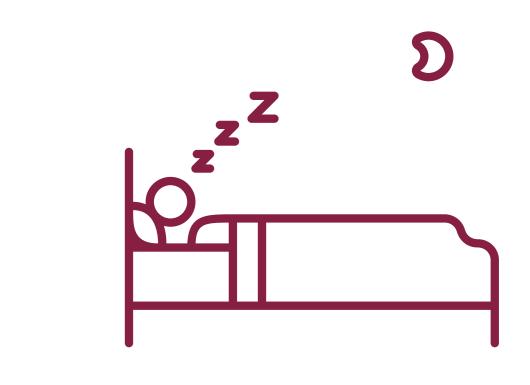
lounges/ library











goes to sleep

socializes with friends works on assignment

## (2) PAIN POINTS

- It is difficult to find anything (any information) on VT websites (outdated pages, broken links, redundant information).
- X It is unclear which IT services and software packages are available because information is scattered.
- X HokieSPA user interface is not user friendly.
- X Weak and unstable wireless connections at outdoor places on campus, especially residential area.
- X Canvas outage or degradation during critical times such as exams, assignment submissions.
- X Canvas mobile interface is not user friendly.
- X Faculty members inconsistent use of Canvas for their classes.

# (4) DESIRED FEATURES

- One-stop-shop for all technology needs
- Free software packages
- Integration of services to support efficient time management: Canvas integration / sync with Google Calendar and Zoom
- Subscription to service outage/degradation status
- 24/7 IT support service
- IT chat support
- Tutorials on using IT services
- Short how-to articles on how to troubleshoot common problems
- More printing centers across the campus

# (i) MORE ABOUT DYLAN



When I need IT support, I...



Perfect IT support for me is...



My preferred communication channels



I could be ADHD/Autistic



"Its the number of passwords... I don't know how anyone would do it without a password manager."

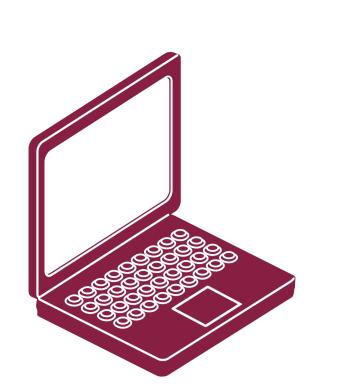
# About Jessica

- 24 to 28 years
- Blacksburg (off campus)
- Cooking, reading, usually does not have time for other hobbies.
- Likes most about Virginia Tech
  - Research opportunities VT provides
  - Influential professors
- Enjoys teaching, doing research

# Jessica the Graduate Student



#### 后 DEVICES



Laptop: Schoolwork (Canvas, Google for Education,



Desktop: at office for research work and teaching work



Smartphone: Duo, texting, voice calls, checking emails



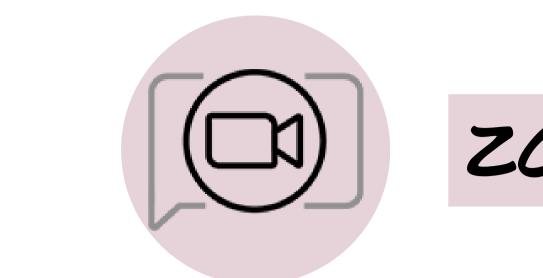




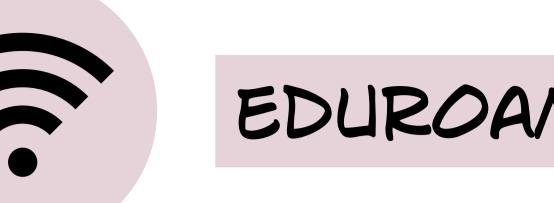
HOKIESPA

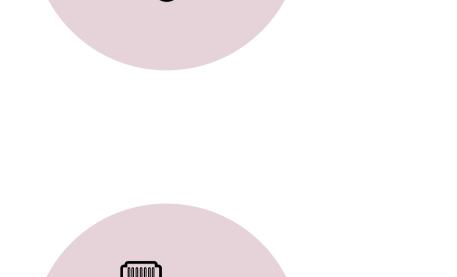


OFFICE 365

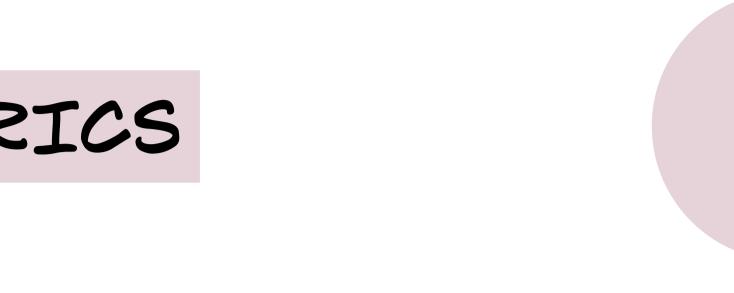


















# TYPICAL SCHOOL DAY



wakes up



has breakfast,

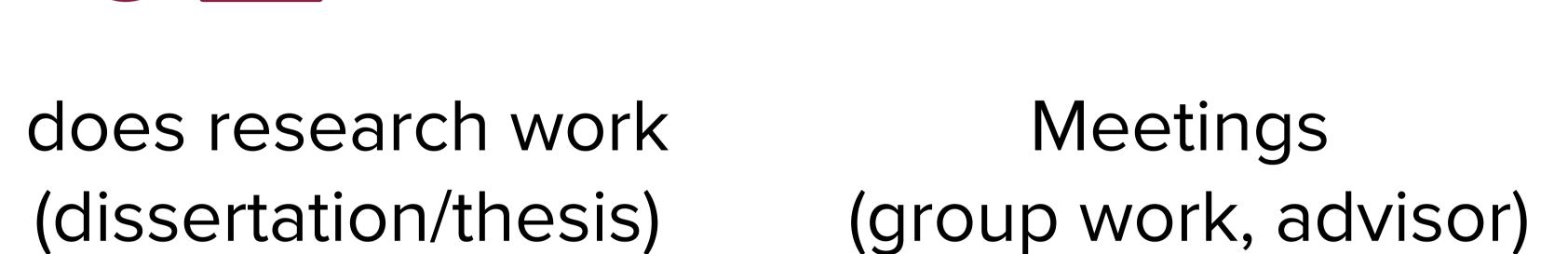
checks news



attends classes

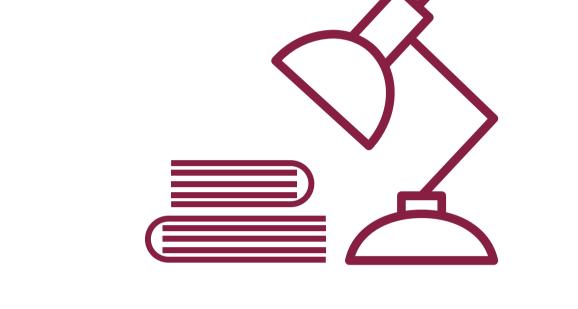


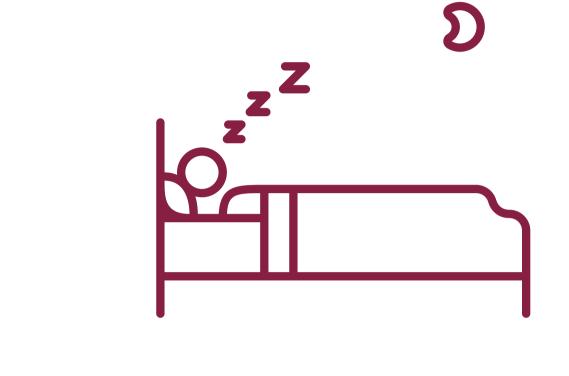












reads articles

goes to sleep

# (2) PAIN POINTS

- X VT domains require login with VT PID and a password different than PID password (git lab, pressbooks, WordPress, VT work archives).
- x It is unclear which IT services and software packages are available to graduate students.
- X The process for ordering software is complicated (where to find information, where to submit a request, where to download the software, installation instructions are on different websites, portals).
- X It is difficult to guess on which site to find what I need (HokieSPA, HokieMart, OneCampus, 4Help).
- X Setting up eduroam connection is difficult.
- X Low speed VPN connection.
- X Advertising for participants for research studies is done manually via social media which results in many bots responding.

# (4) DESIRED FEATURES

IT chat support

duties (teaching /

grading / research)

- Self -service IT support (short videos and troubleshooting articles to known problems)
- Tutorials for TAs on Canvas
- Easier access to VT accounts and services when travelling internationally
- Mobile-friendly interfaces (Canvas, HokieSPA)
- More free software (MatLab, AdobeSuite)
- Being able to download Zoom auto transcriptions after the Zoom session (to increase engagement during the session and make it easier to take notes)
- Pre-assigning participants to Zoom breakout rooms
- Research participant recruitment tool

### (i) MORE ABOUT JESSICA



When I need IT support, I...



Perfect IT support for me is





I could be Color blind



"Between teaching, doing research, and all this other stuff, it's very easy for me to get bogged down in terms of where to find information. What ends up happening is I usually just ask without even looking."

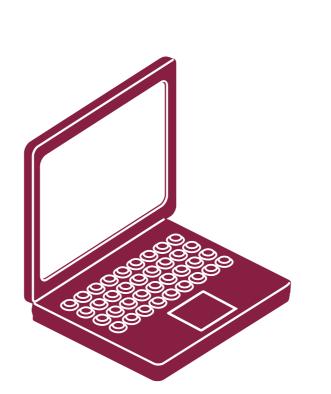
# About Deborah

- 40 to 60 years
- Works in Blacksburg and lives in Blacksburg or Christiansburg
- Doctoral degree
- Hiking, riding horses, gardening, traveling
- Likes most about Virginia Tech
  - Interacting with students
  - Research opportunities
  - Community service opportunities

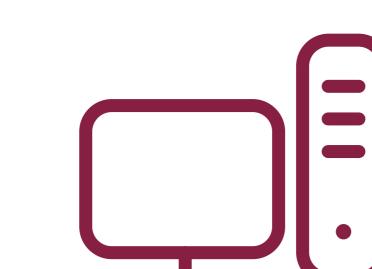
# Deborah the Tenure Track Faculty

Overall IT Experience (\*\*) IT Support Experience (\*\*\*)

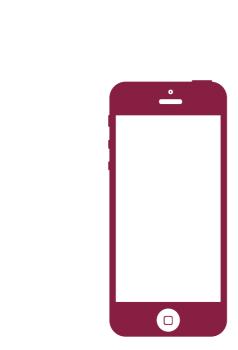




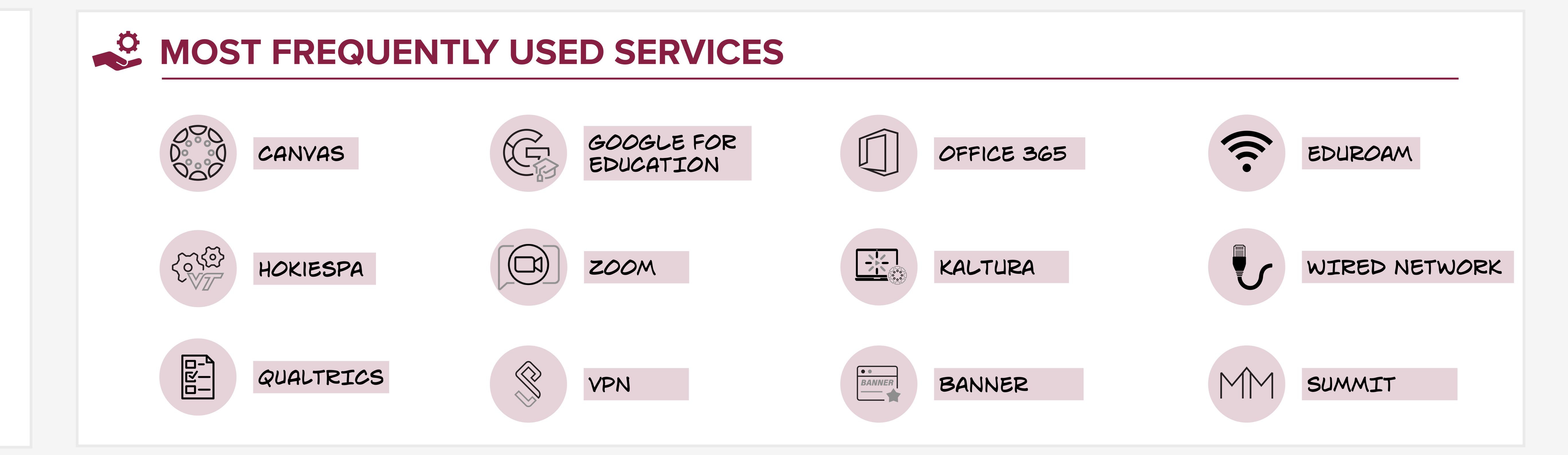
Laptop: Teaching, departmental meetings (office/home)



Desktop: Research (office)



Personal Smartphone: Duo, texting, voice calls, checking



TYPICAL WORK DAY varies heavily day-to-day

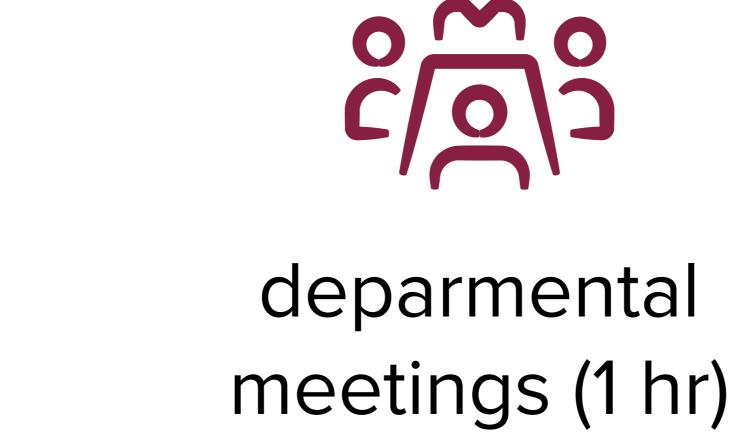
9 am - 7 pm

works between



reads and replies

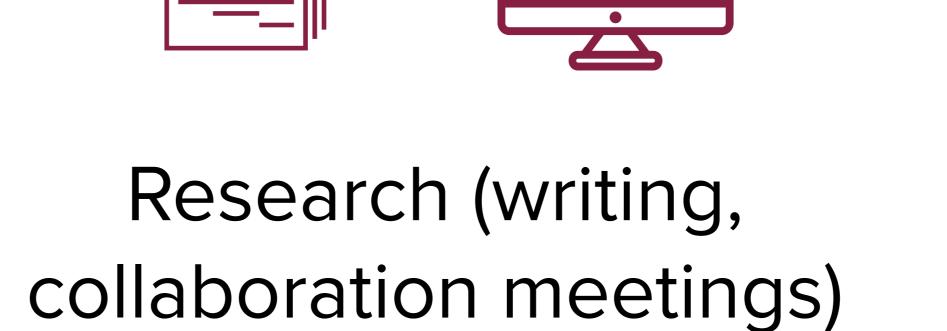
to emails (1 hr)

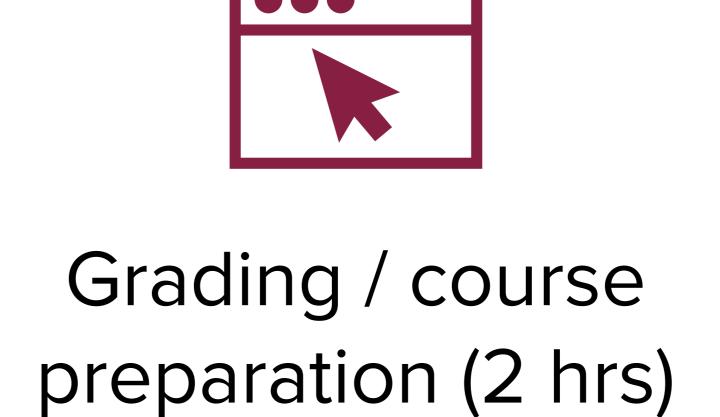


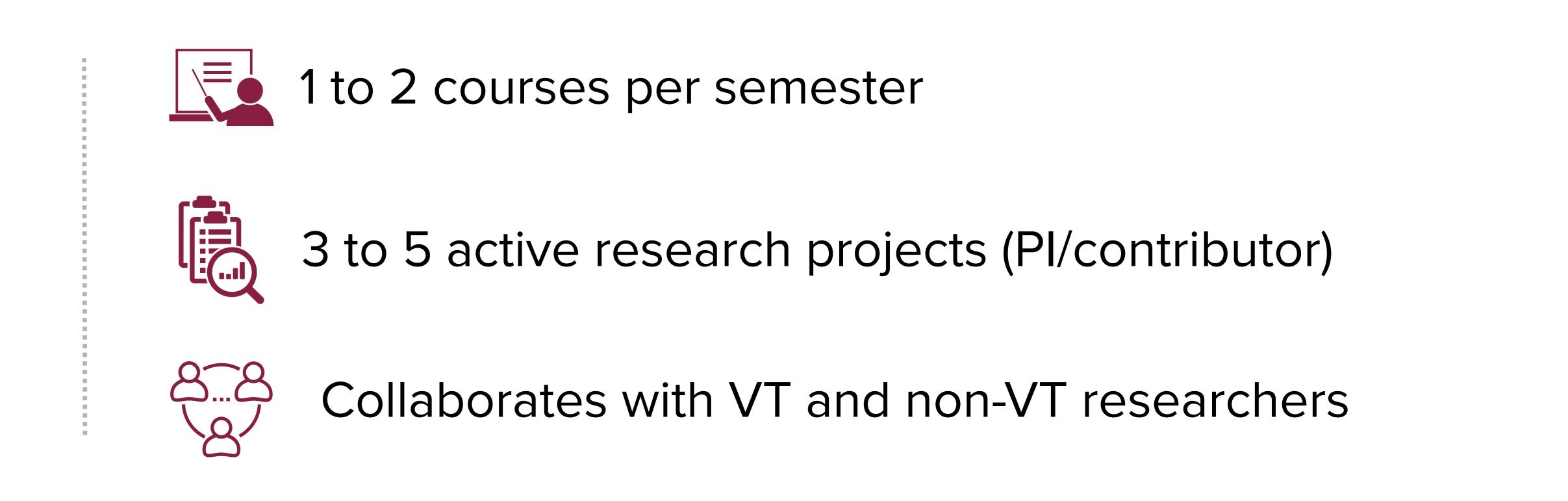


advising (2 hrs)









### (2) PAIN POINTS

x Canvas

Lack of quiz and grade customization

Lack of integration with teaching apps

Lack of gamification features

Video quizzes are not reliably connected to the gradebook

- X Software license agreements take too long (particularly for research: there is a limited amount of time and software is needed to conduct the research).
- X Software license agreement process is not transparent: users do not know what is going on, no update, opaque box.
- X Learning to use new IT services due to migrations to new IT services: Blackboard → Scholar → Canvas / File Box → Google Drive → SharePoint
- X Multiple research management tools: difficulty knowing or remembering where to look for different pieces of information.

# (4) DESIRED FEATURES

- In-person desktop support
- Provide trainings on value of IT services (security tools, new tools): why should I use this tool? What is it for?
- Provide a database for software agreements
- Provide more software to faculty (teaching tools, research tools)
- More collaboration tools for VT and non-VT researchers: likes and wants to keep using Google Drive, Zoom (research tools)
- Increase accuracy of Zoom auto transcription
- Improve usability of Kaltura

# (i) MORE ABOUT DEBORAH



When I need IT support, I...



Perfect IT support for me is...



My preferred communication channels



I could be Partially sighted



"The Canvas gradebook is not as customizable as I would like it to be."

# & About Eric

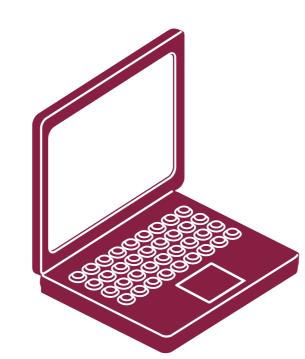
- 30 to 50 years
- Works in Blacksburg and lives in Christiansburg
- Master's degree to Doctoral degree
- Reading, playing games, yoga
  - Likes most about Virginia Tech
    - Teaching
    - Interacting with students
- Enjoys problem solving

# **Eric** the Non-tenure Track Faculty

Overall IT Experience

IT Support Experience

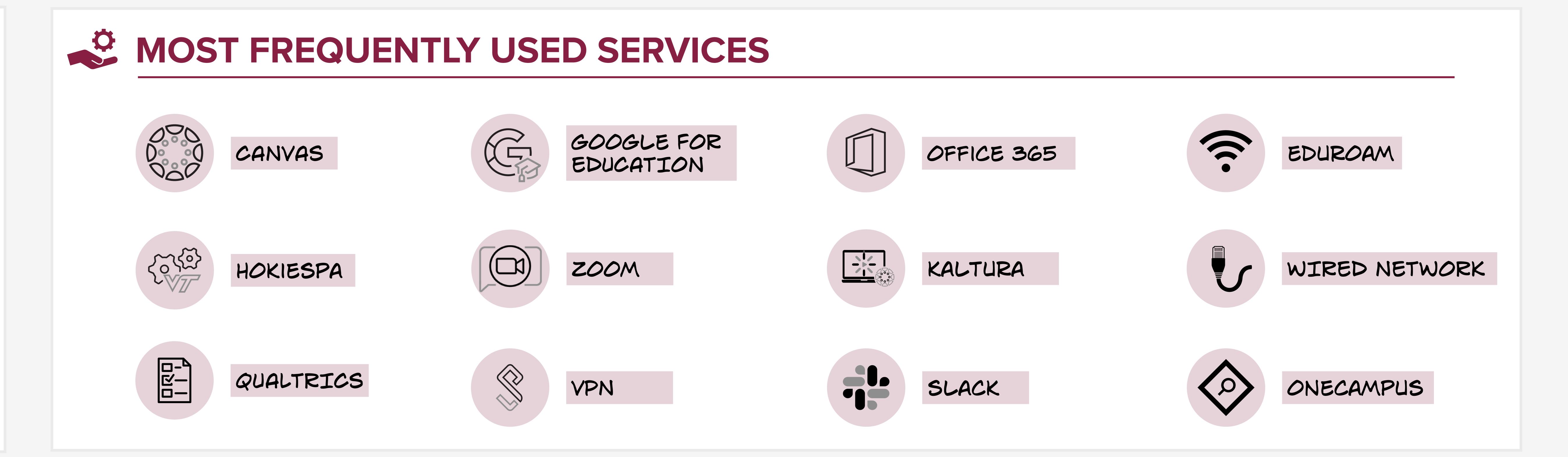
#### Ed DEVICES



Laptop: Teaching, departmental meetings (office/home)



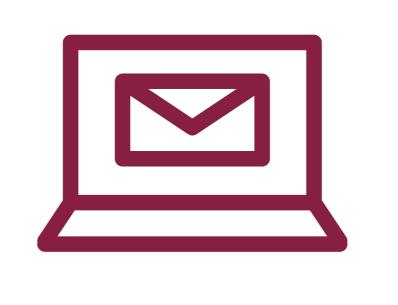
**Personal Smartphone:** Duo, texting, voice calls, checking emails



TYPICAL WORK DAY varies heavily day-to-day

8 am - 5 pm

works between



to emails (1 hr)

reads and replies Course r

Course related activities: preparation, lesson plans, teaching, grading, office hours (4 to 5 hrs)



deparmental meetings (1 hr)





# (2) PAIN POINTS

x Canvas

Canvas issues take several days and multiple escalations to resolve
Building assignments in Canvas is cumbersome and time consuming
VT does not have all features in Canvas that would be beneficial
Canvas gradebook is not customizable

- x iClickers in large class experience time-out problems
- X Services are difficult to navigate and find information (OneCampus, 4Help, HokieSPA)
- X IT support Issue identification takes long time Reduced IT Support for online exams after-hours Some agents don't read what I write to the ticket Information is scattered (hard to find a single web page with all the relevant information)

# (4) DESIRED FEATURES

- Canvas Tier 1 support provided by VT
- Centralized IT services
- List of what software is available to teaching faculty
- List of software that did not pass the legal review
- Services personalized to my role as an instructional faculty member
- ✔ Provide better communication and support around which feature(s) will change or no longer work after a major Canvas upgrade
- Canvas training for students
- Easy to naviagte self-service IT support

## (i) MORE ABOUT ERIC



When I need IT support, I...



Perfect IT support for me is...



My preferred communication channels



I could be Hard of hearing



"When a person at Virginia Tech leaves and someone is hired to fill their place, figuring out what they need access to and how to get them access is a guessing game."

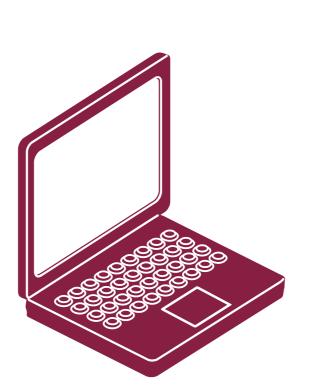
# Residuation About John

- 30 to 50 years
- Works in Blacksburg and lives in Blacksburg or Christiansburg
- 4-year college degree to Master's degree
- Outdoor recreational activities, cooking
- Likes most about Virginia Tech
  - Interactions with students and making a difference in their journey

# John the AP Faculty



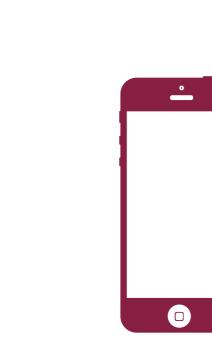




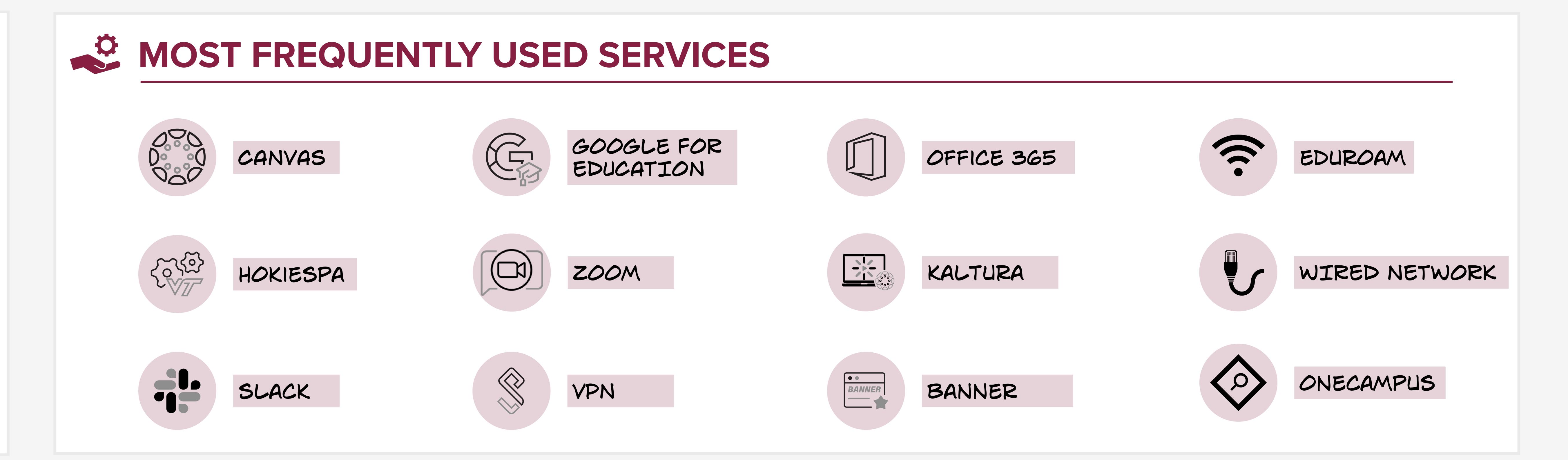
Laptop: Work tasks, meetings (office/home)



Desktop: Work tasks (office)



Personal Smartphone: Duo, texting, voice calls, checking emails



# (2) TYPICAL WORK DAY

8 am - 5 pm

works between



Reads and replies to emails (1 hr)



Zoom/ in-person meetings (2 hrs)



Primary duties for job (programs, projects, assisting students) (4 hrs)



Professional development

# (2) PAIN POINTS

- X Figuring out how to get access to systems I need for my role or when changing roles.
- X One task to perform involves accessing and doing work in multiple, disparate portals for approvals and creates lots of extra manual work.
- X Banner and departmental apps not integrated (e.g., Graduate Contract System).
- X Having to log in to VT portals with Duo several times a day.
- X Canvas support structure (bouncing back and forth between Instructure support and VT support).
- X Lack of broad communication around service outages and degradation.
- X Gmail recipient limit prevents accomplishing job duties (messaging students in large classes, sending recruitment emails, not re-sending messages to people that already read prior messages).

# (4) DESIRED FEATURES

- More tutorials on how to use administrative banner
- More communication around what is coming/ changing in terms of IT services
- Consistent wireless access experience across different campuses (eduroam)
- Slack for all departments at VT
- Easier way to revise live transcription of a virtual meeting before making the video publicly available
- Connecting my current tickets to previous tickets on the same issue for faster resolution
- Self -service IT support (short videos and troubleshooting articles to known problems)

# (i) MORE ABOUT JOHN



When I need IT support, I...

Figure out by mycolf coarch



Perfect IT support for me is...



My preferred communication channels



I could be Arthritic



"Sometimes I don't know what issues
I should go to my IT person for
and what issues I should go to
4Help for."

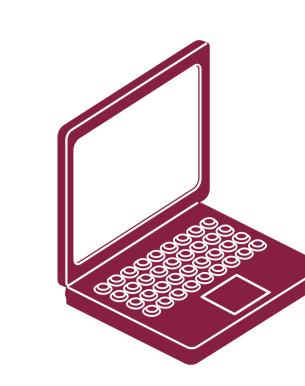
# About Emily

- 30 to 50 years
- Works in Blacksburg and lives in Christiansburg
- 2-year college degree to 4-year college degree
- Hiking, gardening, time with pets
- Likes most about Virginia Tech
  - Interactions with faculty members, students, and coworkers
  - Variety in work

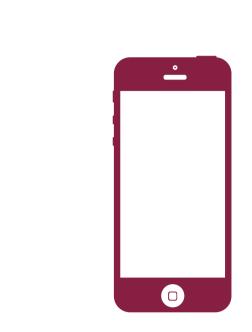
# Emily the Staff



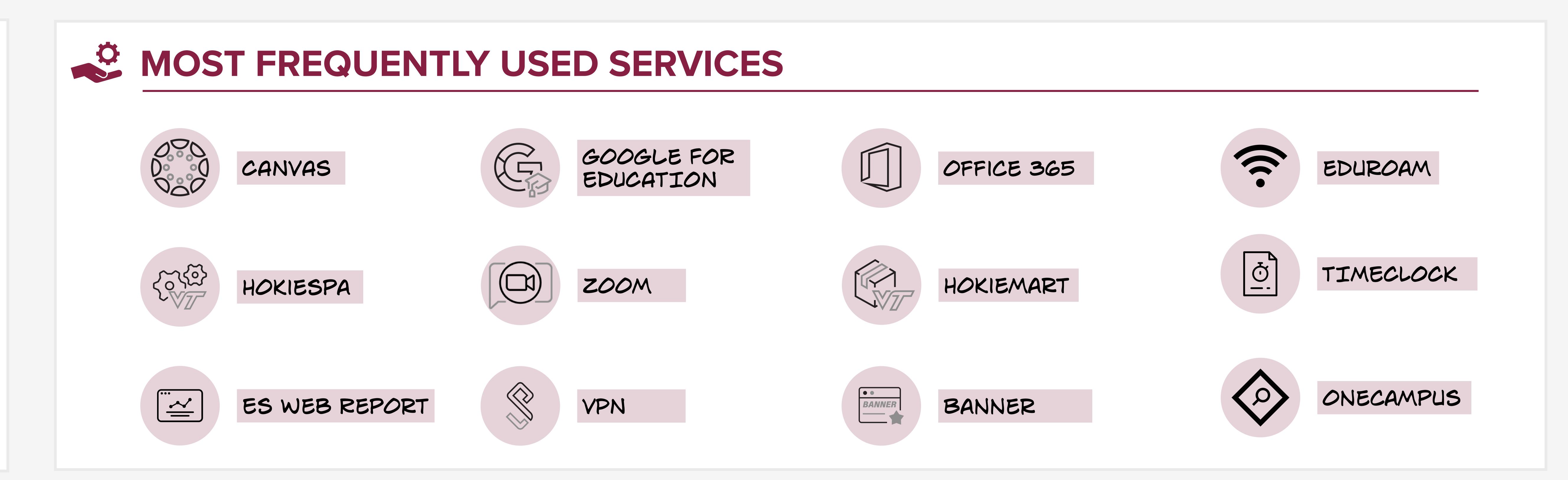




Laptop: Work tasks, meetings (office/home)



**Personal Smartphone:** Duo, texting, voice calls, checking emails



# TYPICAL WORK DAY

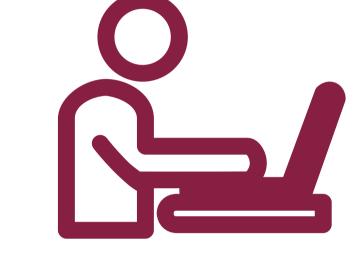
8 am - 5 pm



Reads and replies to emails (1 hr)



Zoom/ in-person meetings (3 hrs)



Primary duties for job (answering requests from faculty and students) (4 hrs)

### (2) PAIN POINTS

- X Lack of tutorials on Administrative Banner, Banner UI is difficult to learn (learning curve is steep).
- X Lack of financial systems integration / synchronization (MicroStrategy, grants, and others): systems show different values for what is supposed to be the same types of data, so manual work is required to identify which data is up-to-date and accurate.
- Number of logins required to use VT systems (Banner, Leave report, Canvas, ServiceNow, HokieMart, sometimes 10-15 times a day).
- X Inconsistent IT support service experience: the experience depends on who is answering the phone.
- X IT support ticket escalations.

# (4) DESIRED FEATURES

- Self -service IT support (short videos and troubleshooting articles to known problems)
- ✓ Better handling of recurring problems (e.g., problem with account access for uncommon university affiliations)
- Personalized IT support (better gauge users computer literacy and offer better tailored solutions)
- ✓ Remote social networking tool that is better for socially connecting with colleagues than Zoom

### (i) MORE ABOUT EMILY



When I need IT support, I...

1 Ack my colleagues







I could have Anxiety