

PM&R Assistive Technology Programs

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AT Newsletter Edited by:
Melissa Oliver, MS OTR/L
Richmond AT Program

Richmond AT Program to Host 1st VA Innovation Creation Series Challenge

The Richmond AT Program in collaboration with the Veterans Administration Center for Innovation (VACI) are putting together the 1st VA Innovation Creation Series challenge. This event, in the form of an innovation challenge will bring together staff from across the VA and DoD, veterans and the public to solve challenges related to Assistive Technology and Prosthetics. These challenges will be identified by VA subject matter experts and veterans.

The vision for this event is to help encourage more collaboration among innovative thinkers inside and out of the VA and provide a pathway for new ideas to be recognized and pushed forward. This will facilitate the development of improved services and technologies, increasing access to and quality of the care provided to veterans.

The goals of this VA Innovation Creation Series challenge are to:

- ◆ **Improve Veteran Care and Quality of Life:** Bring together an ecosystem of government employees and the private sector to improve patient experience and quality of life for veterans with disabilities.
- ◆ **Launch an Online Platform for Collaborating:** Develop on an online platform to help facilitate connections internal and external to the VA, bringing together stakeholders to raise challenges and propel forward developments of services and technologies to better support veterans with disabilities.
- ◆ **Create an Ecosystem:** Build a community of stakeholders in the assistive technology and prosthetic space across the VA to allow for sharing of best practices through an online forum to discuss ideas, identify resources,

develop lessons learned and better paths forward. In addition, this can help us identify challenges that impact the organization such as hiring and procurement, to allow the development of policies and processes to combat these challenges.

- ◆ **Provide Shared Repository of Solutions:** Create a shared repository of solutions for prosthetics and assistive technology challenges to help share and build upon existing solutions to accelerate the speed of development, share resources to save time and money, and also lower the barrier for providing these capabilities to veterans.
- ◆ **Spread Awareness:** Spread awareness of the solutions developed through the Innovation Creation Series Challenge to employees and front line clinical staff across the VA, along with marketing these solutions to external stakeholders so that they may contribute to and support these efforts.
- ◆ **Demonstrate Value:** Demonstrate the value of these healthcare solutions by integrating them into everyday healthcare practices and ensuring that they are properly resourced for sustainability moving forward.

If you are interested in participating in this challenge, please contact Andrea Ippolito Andrea.Ippolito@va.gov so she can keep you up to date. The challenge will kick off in May 15, 2015 and consist of 3 months of online collaboration and iteration of ideas, commencing with an in person Make-a-Thon finale event July 28-29, 2015

AT Lab Highlights...Richmond

AT TELEHEALTH

The Richmond Assistive Technology Program has expanded its TeleHealth services to New York, Maine, Salem, Durham and Hampton VA Medical Centers. AT Clinicians and/or Rehab Engineering has provided consultative services to Veterans and Clinicians in areas of AAC, powered mobility, adaptive sports, electronic cognitive devices, environmental control units, mounting and access. In addition, the AT Program has set up clinics to include 3 CBOCs.

AT Professional Development and AT Community Outreach

Ben Salatin presented on the clinical use of 3D printing both internationally and nationally: Korea, CSUN, VA Assistive Technology Conference and upcoming

RESNA.

Melissa Oliver has presented at the Virginia Essential Tremor Workshop, DC/MD/VA ALS Association, 39th Annual Brain Injury Conference and the Virginia Brain Injury Council on various Assistive Technology topics.

The AT Program continues to provide monthly AT inservices to all rehabilitation staff on various topics of Assistive Technology. Topics have included: Low Tech Solutions, Integration of Technology, Vega System, and AAC in everyday settings.

AT Expanding Services

The AT Program is working closely with the Parkinson's

Disease clinic on low-tech solutions for daily activities. 3D printing continues to grow as another tool for clinicians to consider in rehabilitation. All AT staff has completed Jabber training in order to start offering AT TeleHealth services in Veterans' homes.



AT Lab Highlights...Minneapolis

Minneapolis will be hosting **CARF International 14-16 April 2015** for accreditation of inpatient and outpatient TBI, CVA and Amp programs as well as the inpatient Polytrauma Transitional Rehabilitation Program (PTRP) and the Assistive Technology program. Data for the 2014 fiscal year show the AT Program served mostly a male population (90%) with an average length of stay at 66.2 days. Most patients discharged to home (50%) with the remainder moving from inpatient TBI to skilled nursing (30%), transition program (10%) and a subacute setting (10%).

Minneapolis will also serve as the host site for the **VISN 23 Extended Care and Rehabilitation Conference 12-14 May 2015**. The AT Program is participating in three breakout sessions each day of the conference including:

•AT for Veterans with ALS; Brian

Fay, PhD, ATP, RET & Sonya Tangen, MS, OTR/L, ATP - *Veterans with ALS experience the progressive decline of motor abilities including speech. Often motor abilities commonly used to facilitate communication in the absence of speech are also lost. This session will review identification of the veteran's communicative ability and staging application of assistive technology to facilitate communication and environmental control.*

•AT applications and research; Gary Goldish, MD, Andrew Hansen PhD, John Ferguson, PhD, Sarah Koehler, PhD, Eric Nickel, MS, Brian Fay, PhD, ATP, RET - *Clinical and Research programs concerning Assistive Technology continue to grow at Minneapolis. This session will focus on areas of overlaps between the clinic and research settings including new avenues in eyegaze controlled speech generating devices, design and development of manual wheelchairs, use of wearable*

robotics in SCI and stroke rehabilitation and advances in foot prosthetics.

•Blind Rehabilitation 101; Belinda Hawkins, PhD, Hulrick Baptist, COMS, Jennifer Mulder, CVRT, Brian Fay, PhD, ATP, RET— *Recent literature indicates the effectiveness of vision rehabilitation services for individuals with even seemingly minor vision loss. This session will present information regarding common sources of vision loss in adults, functional implications of each, and resources available throughout the VISN and beyond to address these needs. Included will be a brief overview of Low Vision, Living Skills, Orientation and Mobility and Adaptive Technology for vision loss.*



AT Lab Highlights...Tampa

AT EXPANDING SERVICES

AT will be directly involved in a new smarthome project for Polytrauma aimed at improving the well-being, increasing independence and reducing caregiver burden for Veterans with disabilities stemming from traumatic brain injury, polytrauma and disorders of consciousness. Work is also underway to increase the use of the AT stopcode within rehabilitation across disciplines to better capture AT services. AT is providing services towards and acting as a point of contact for the provision of CVTHm equipment for those Veterans and ADSMs in need.

AT COMMUNITY OUTREACH

AT has provided telerehabilitation to Veterans for improved access to services through the Bradenton and Viera CBOCs. Additionally, AT provides CVTHm (CVT to home) services to include screening, evaluation and treatment for assistive devices as well as caregiver education. AT has completed home visits for Veterans who are homebound within Central Florida including areas such as Zephyrhills, Brandon,

Dunedin, Largo, Palm Harbor, Safety Harbor, Melbourne and St. Cloud. The AT e-consult and inter-facility consults have facilitated the collaboration among providers within VISN 8 to include West Palm Beach, Orlando and St. Petersburg VAs.

AT PROFESSIONAL DEVELOPMENT

AT participated as both planning committee members and faculty for the VHA Technology in Rehabilitation: A Hands-On Course in Assistive Technology Conference in November 2014. AT recently participated in the Prosthetics and Sensory Aids Service Bootcamp to continue collaboration between services, educate to services offered, demonstrate technology and foster improved relationships. AT has led two presentations for the Rehabilitation Assistive Technology Education series to include accessibility for Apple OS and Windows OS.



AT Lab Highlights...Eastern Colorado Health Care System

All members of the Eastern Colorado Health Care System Assistive Technology team are ATP certified with four recently successfully completing their exams along three existing ATP's. In an effort to support the development of additional ATP's within the VA system, we will be hosting our second Assistive Technology Deep Dive in collaboration with the University of Pittsburgh RSTCE in May 2014.

The AT and Wheelchair programs have recently joined forces and are now operating as one team within PMRS affording better oppor-

tunities for collaboration and coordination of care for Veterans.

The AT team is preparing for its fourth CARF certification in the spring of 2016.



AT Lab Highlights...Palo Alto

Collaboration Yields Custom Application to Support Physical Activity, Cognitive Activity, and Social Engagement Among Older Veterans

Over the past year, Jonathan Sills, PhD, Director of Assistive Technology for the VA Palo Alto Health Care System, negotiated with William Satariano, Ph.D., MPH, Professor of Epidemiology and Director of the Health and Social Behavior Program in the School of Public Health at the University of California at Berkeley, and James Mazzone, PhD, Attending Clinical Geriatric Psychologist for the VA Palo Alto Health Care System's Menlo Park campus Community Living Center. The result of the negotiations yielded a customized version of Dr. Satariano's WordWalk application for use on the Menlo Park campus.

WordWalk is a tablet based application that utilizes GPS and mobile technologies to motivate players to walk campus paths to arrive at various stations. When arriving at a station location, the application reveals virtual tiles that are saved and later use during the virtual scrabble portion of the game. WordWalk represents is a fun way of engaging individuals and teams. It promotes physical activity through taking walks along novel paths, supports cognitive activities through way-finding tasks and decision-making, and fosters social engagement as veterans can play the game in teams.

To date there two Menlo Park campus pathways that can be used with the WordWalk application. One path is located within the common courtyard area located between the five unites that comprise the Menlo Park campus Community Living Center. The second path is much larger, and travels a broader route that travels between the various

buildings located throughout the Menlo Park campus.

Having the two paths is a solid start and serves to increase accessibility as to the various veteran cohorts that may be able to use the application. By programing a smaller internal path, Veterans who have mobility restrictions can play the game, and by programing the larger path a higher level of physical and cognitive activity can be actualized.

Although additional details as to ongoing development opportunities are being worked out, based on the success achieved already by this partnership, future plans to scale this and other applications for use by veterans are in the works.

VA Palo Alto Assistive Technology Psychology Graduate Student Trainee to be presenting at 2015 Medicine X Conference.

In April of 2015, Mr. Xiaolong Li, Psychology Graduate Student trainee working in the VA Palo Alto's Assistive Technology Center, was contacted by the program committee chair for the 2015 Stanford University's Medicine X conference. Mr. Li was informed that the proposal he submitted along with Dr. Jonathan Sills, Program Director of the Assistive Technology Center, and Dr. Josh McKeever, VA Palo Alto Rehabilitation Psychology Fellow, was very well-received by reviewers and that conference committee members would like to extend the invitation to present at the conference on "Facilitating meaning-making and technological aptitude through the creation of narratives and reminiscence."

The focus of the presentation will be to review and to examine the feasibility of a learning procedure initiated with a WWII combat veteran in his

90's who had a history of TBI, chronic PTSD, and limited prior experience with electronic devices that may help to compensate for declines in cognitive/behavioral functioning.

As part of the work with this veteran, Mr. Li utilized digital storytelling software on an iPad to promote better technological aptitude, to increase patient utilization of current technologies, and to promote an increase in social interaction and wellbeing among the veteran and his family.

By the end the case trial, the veteran demonstrated accurate tapping and dragging of onscreen objects, typing, and self-initiated image searching. Subjectively, the veteran and his family reported that the training was beneficial and that they were appreciative of the veteran's narratives. Through this trial, it was demonstrated that such a procedure is feasible and potentially beneficial for elderly individuals who have limited or no prior experience using computers.

Although the results from the piloting of the procedure are limited, findings suggest that older adults may benefit from enhanced communication and positive reminiscence with friends and family through the use of video storytelling applications. Additionally, the procedure and process of creating narratives through use of technology could serve as a unique method to teach older veterans the transferable skills required to interface with readily available computer-based electronic devices and other applications that could later serve as functional aids to independent living.



Driver Rehabilitation Specialist Professional Certification... by: Elizabeth Green

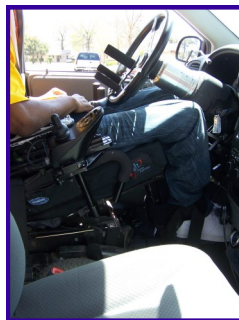
For those working in the field of driver rehabilitation, the Certified Driver Rehabilitation Specialist (CDRS) credential is the benchmark for excellence. A CDRS is an advanced driver rehabilitation specialist who has received certification from ADED: The Association for Driver Rehabilitation Specialists (ADED) upon fulfillment of specialized experience and education requirements and successful completion of the CDRS exam. Driver rehabilitation professionals represent a cross section of allied health professionals including occupational therapy, physical therapy, kinesiotherapy, and speech and language pathology, among others. Other professionals in the field represent the driver education profession, researchers and educators. Many allied health professionals in the VA system have obtained their CDRS credential to ensure that they are providing the highest quality service. The CDRS exam is designed to test a well-defined body of knowledge – representative of professional practice – in the field of driver rehabilitation.

The CDRS Examination consists of 100 multiple-choice questions. The content of the CDRS Examination has been defined by a national role-delineation study. The study involved surveying practitioners in the field of driver rehabilitation to identify tasks that were per-



formed routinely and considered important to competent practice. The examination has been developed through a combined effort of qualified subject-matter experts and testing professionals who have constructed the examination in accordance with the CDRS Examination content outline. ADED is the only organization in the United States to offer the multi-disciplinary CDRS certification and has been conducting the exam since 1996.

The 2015 CDRS examination will be offered at over 200 testing centers across the US. The computer-based test will occur during the month of August while the paper/pencil version of the exam will continue to be held on-site at ADED's annual conference.



ADED will be conducting the 2015 CDRS paper/pencil exam on Tuesday, August 4 at the ADED Annual Conference, being held in Louisville, Kentucky, at the Hyatt Regency Louisville. For those examinees unable to travel to Louisville, the computer-based exam will be offered at testing centers throughout the month of August. The 200+ computer-based testing centers are located in all 50 states and the District of Columbia.

To find out more about the CDRS designation, examination appli-

cation criteria, and exam details, contact ADED at (866) 672-9466, visit www.aded.net, or e-mail info@aded.net. Applicants ready to take the exam are invited to visit www.goamp.com and submit their application on-line.

ABOUT ADED: The Association for Driver Rehabilitation Specialists, or ADED, is a non-profit organization made up of members dedicated to promoting safe, independent community mobility for persons with disabilities and the aging.

The group provides education, research, and support to professionals working in the fields of driver education, driver training, and transportation equipment modifications for those with disabilities. ADED is the only organization in North America to offer the Certified Driver Rehabilitation Specialist (CDRS) designation. The first CDRS exam was conducted in 1996. In 2014, ADED members numbered almost 900 worldwide. There are currently 350 active CDRS professionals. ADED is registered as a 501 (c) (3) corporation. For more information, visit www.aded.net.

Contact Information:
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ADED, The Association for Driver Rehabilitation Specialists
Phone: (828) 855-1623
E-mail: Elizabeth.green@driver-ed.org



Veteran's Story...Michael Hladky

“The power wheelchair changed my life one hundred percent! Now I'll be able to go to the dinner table to eat dinner with my family...”

Mr. Michael Hladky is a 59 year old United States Army Veteran who served from 1982 – 1997. During his enlistment he was a watercraft operator. After his enlistment, Mr. Hladky reports that he had multiple medical issues, which ultimately led to him becoming very weak, unable to walk and eventually bed bound. In the summer of 2014, he was referred to the Assistive Technology (AT) program, for evaluation for powered mobility. When he was asked about his experience about the AT program, this is what he had to say:

Tell us about your experience with the Assistive Technology Program?

The program was great. I received very good training for the power wheelchair. The wheelchair gave me a feeling of independence. Alicia Sullivan (Occupational Therapist) was very knowledgeable about the power wheelchair. I felt very comfortable with her. She was very supportive and patient with me, while learning to drive the chair safely.

What challenges were you having that resulted in you being referred to the program?

My legs and upper body were weak and I was bed bound without a wheelchair.

Who did you see?

Alicia Sullivan in the Community Living Center and Susi Warne from Home Based Primary Care (HBPC)

What device did you get?

A brand new power wheelchair. The Quantum Q6 Edge HD.

How has the device changed your life or impacted your life?

The power wheelchair changed my life one hundred percent! Now I'll be able to go to the dinner table to eat dinner with my family, which I haven't done in years. I'll be able to do things that I haven't been able to do.

What activities are you doing now that

you were not able to do before?

I can eat dinner with my family. I can go outside of the house or go to the store, or even go up the street for a ride.

Would you say your quality of life has improved?

Yes! One hundred percent!

Is there anything we have not covered that you would like to include?

No



VA Pulse: A Great Collaboration Tool for VA Staff

The VA Pulse provides a collaborative environment for discussing best practices, discovering expertise, and connecting with colleagues at VA. This is a great new resource for VA employees to encourage increased collaboration and knowledge sharing across the giant organization that is the VA. Just to be clear, this is for VA staff only so it is open to anyone with a VA.gov email address only. The main uses for it I see are:

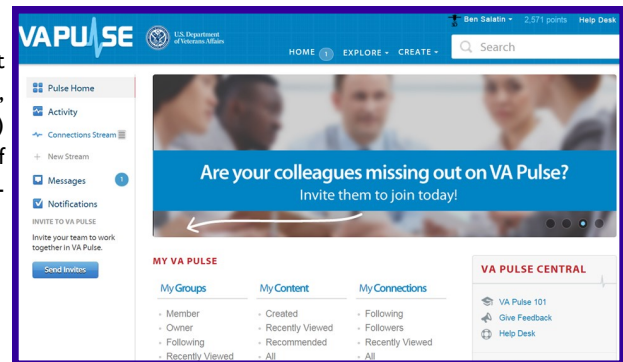
- ◆ Connecting with colleagues to solve problems
- ◆ Sharing best practices
- ◆ Streamlining your workflow

You can think of VA Pulse as sort of a combination of Facebook and LinkedIn specifically built for and fully supported by VA Central Office. Things you can do to create content in the software are:

- ◆ Start a conversation or ask a question
- ◆ Upload a file or video to share
- ◆ Collaborate on a document
- ◆ Create an idea for others to see and vote on
- ◆ Share your thoughts
- ◆ Take a poll to gather community opinion on the topic
- ◆ Status Updates
- ◆ Private messaging similar to Facebook

One of the really useful things I see coming out of using VA Pulse is the ability to reduce (or in a

perfect world, eliminate) our use of email com-



munications internally within the VA. Here's how this can happen:

- ◆ Avoid duplicating effort
 - ◆ Past work, docs, discussions easily searched
 - ◆ Prevents email thread fragmentation & lost or misfiled emails
- ◆ Create group conversations
 - ◆ Collaborate openly
 - ◆ Recall earlier discussions easily
 - ◆ Add new voices to the conversation
- ◆ Other experts and engaged users will be able to find information and participate, learning from your experience and adding new perspectives to the conversation

Instructions for signing up with VA Pulse:

1. Visit www.VAPulse.net (You don't need to be using a VA computer.)
2. Enter your VA email address under "New Users."
3. Check your VA email inbox for a confirmation message with a link and instructions for completing your registration and profile.

After signing up, please join the Assistive Technology Group. If you are interested in 3D printing, you can also join the 3D Printing for Healthcare Group.

ASSISTIVE TECHNOLOGY EDUCATIONAL OPPORTUNITIES through EES

Program Description: This live – meeting program is designed for Rehabilitation Services physicians and rehabilitation clinicians to address the knowledge gap in providing assistive technology that addresses current health care requirements of Veterans with specific rehabilitative needs. This course will cross many areas of disability including, Polytrauma, Visual impairments, Physical limitations, Cognitive and communication deficits that may limit Activities of Daily Living. There are 5 Assistive Technology (AT) labs located at the Polytrauma Rehabilitation Centers; however, this training would expand that knowledge and skills of providers beyond those 5 AT centers. The training will assist in increasing Veterans' level of function, independence and safety while providing consistency and care across the VHA system.

Audience: Health care professionals including physicians, speech-language pathologists, occupational therapists and other clinical staff such as physical therapists, recreation therapists, blind rehabilitation specialists and kinesiologists.

Topics:

Adaptive Driving

May 1, 2015

Adaptive Seating

June 5, 2015

Communication

July 10, 2015

Technology Devices for the

Deaf & Heard of Hearing

August 7, 2015

Low vision Driving

September 4, 2015



Rehabilitation Assistive Technology Training Recordings

The rehabilitation assistive technology training recordings are jointly offered by the Office of Rehabilitation and Prosthetic Services and the Veterans Health Administration Employee Education System. The University of Pittsburgh is only housing the recordings until they are moved onto the official VA EES website. The Veterans Health Administration Employee Education System partners with clients in VHA's program offices, Veterans Integrated Service Networks and facilities to provide quality workforce education and training that facilitates excellence in health care for our nation's Veterans. To learn more about EES and its programs, products and services, visit vawww.ees.lrn.va.gov (VA Intranet) or call the EES Customer Service Center at 1-877-EES-1331. Please forward this website to other VHA employees who might also be interested in this learning opportunity. Please contact the following personnel for any and all questions related to the material.

<p>Mona Wright, MEd Project Manager Email: Ra-mona.Wright@va.gov Phone: (314) 894-6462</p>	<p>Lashon Taylor Program Support Assistant Email: Lashon.Taylor@va.gov Ph: 314-894-6648 x 66374</p>
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LISTING OF RECORDINGS

September 2013

Title: Learning Technology: Supporting Veterans and Active Duty Service Members in their Academic Pursuits

Presenter: Telina Caudill

December 2013

Title: Drivers Rehabilitation Program

Presenter: Bill Wenninger

January 2014

Title: Adaptive Sports and Recreation Technologies

Presenters: Kendra Betz and Bill Wenninger

April 2014

Title: Assistive Technology for Cognition: Process and Product

Presenter: Don MacLennan

May 2014

Title: Augmentative-Alternative Communication (AAC): Mobile Device Apps

Presenters: Telina Caudill, Brian Fay, & Evi Klein

June 2014

Title: Apps: Environmental Controls

Presenter: Brian Burkhardt

July 2014

Title: Applications for Visually Impaired Veterans

Presenters: Kimberly O'Connell & Charles Brancheau

August 2014

Title: Mastering the Macintosh with VoiceOver

Presenter: Tim Sniffen

September 2014

Title: The SETT Framework

Presenters: Sonya Tangen & Brian Fay

October 2014

Title: Challenges & Strategies When Training ECU Use

Presenters: Brian T. Fay & Sonya Tangen

December 2014

Title: Assistive Technology Integration Finding the Right Mix

Presenters: Brian Burkhardt & Ben Salatin



Assistive Technology Program Mission

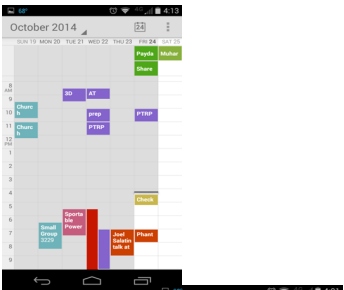
To enhance the ability of Veterans and Active Duty members with disabilities to fulfill life goals through the coordination and provision of appropriate interdisciplinary assistive technology services.

To serve as an expert resource to support the application of assistive technology within the VA health care system

Nuts and Bolts of Rehab Engineering.... App Trio for Organization (Calendar, Remember the Milk & Evernote)

...Ben Salatin, AT Rehab Engineering

A few months ago, I came to the conclusion that I needed to update the way I was using my smartphone for organization. I was not taking full advantage of the ability to have copies of everything on all my devices (smartphone, tablet, home & work computers). I looked for the top rated organizational apps. This led me to a task app called Remember the Milk (RTM) and a note taking app called Evernote. Since I was already a big user of Google Calendar, I decided to see how easy it would be to integrate RTM and Evernote into my daily life. I was pleasantly surprised. After a little bit of setup the benefit has been worth the learning curve.



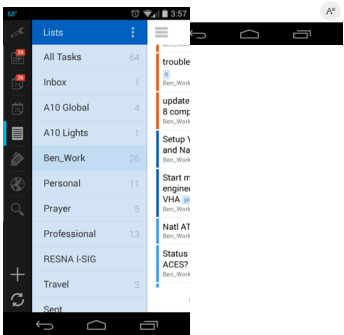
Google or iOS Calendar: Used to record appointments or events that are date specific. I have multiple calendars for every aspect of my life and from multiple Gmail accounts. I can view all of them layered on one calendar on any of my devices.



Remember the Milk: Used to store specific tasks aka a to-do list. I can also add notes to each task and group tasks into lists. I have multiple lists which I can view in a variety of ways to help me understand what is the top priority. I can even set tasks that repeat automatically.



Evernote: Used to capture any thought or bit of information that I want to remember. I can create notes through typing, taking a picture, handwriting, voice dictation or audio recording. Through a simple add-on to my computer's web browser, I can "clip" any webpage content I want to save for later. I have multiple "notebooks" to organize my thoughts.



One of the features I have used the most is the ability to share control of calendars, lists and notebooks with other people to allow for better collaboration. I use all three apps personally and professionally. By sharing calendars, lists and notebooks, I can separate the areas of my life and give specific people the ability to collaborate with me in individual areas but maintain privacy in others. For example, my boss can add tasks to my work task list. My coworkers and I can all add idea notes to a work notebook. I give my roommate access to a calendar event so he can add information.

The ability to use any device (smartphone, tablet, home & work computers) to access any of these apps increases the chance that I will remember to capture a thought or an upcoming task. By breaking my responsibilities down into smaller pieces and organizing my thoughts (through lists and notebooks), it has made managing them easier.