

ACAT YEAR IN REVIEW



“Improving The Quality of Life For All”



 College of
Health Sciences

 Center of Excellence
in Rural Health



OUR MISSION

Established in 2008, our collaborative team is dedicated to advocating for and empowering communities affected by disabilities.

Through a range of impactful programs, we provide essential assistive technology and resources.

Our mission is to enhance accessibility, promote inclusion, and improve the quality of life for individuals facing disabilities, fostering a more equitable and supportive society.

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MESSAGE

FROM OUR DIRECTOR



Dr Patrick Kitzman PT PhD

“Well, 2023 was another busy year for us. Over the past year, KARRN and what it was originally designed to do has been absorbed into ACAT.

We continued to develop and grow programs, develop new collaborations, and begin the steps to create even more collaborations as we continue to focus on supporting Kentuckians of all abilities.

Our work this year ranged from providing almost record amounts of refurbished medical equipment to those who could not otherwise afford it in Eastern KY, to training scores of students (high school and university) about inclusion and accessibility through adapting toys. We officially became a pre-employment training program and established ourselves as the Assistive Technology Resources Center for eastern KY.“

“Each of our programs have grown both individually as well as together. They all interconnect and this year we finally began to show the impact and possibilities that can occur when these programs work together.

However, we all know that programs are only as strong as the people who support them. I would like to give my sincerest thank you to everyone who has been part of our work in 2023. I especially want to give a large thank you to Keisha Wells, Crystal Hignite, and Autumn Willsey who are the true forces that keep each of the programs moving along. Finally, I would like to give a big thank you to Dr. Fran Feltner the Director of the UK Center of Excellence in Rural Health for all her continued support.”

“I am excited to see where we grow in 2024.”



Appalachian Center for Assistive Technology

The Appalachian Center for Assistive Technology (ACAT) is the assistive technology resource center serving Eastern Kentucky and is a part of the **Kentucky Assistive Technology Service (KATS) Network**.

ACAT provides assistive technology (AT) demonstrations and consultations, short term AT loan locker, maker space, workforce training, and refurbishing.

In 2023, ACAT staff attended **77** events, engaging with **2,585** individuals to promote public awareness.



Pre-employment transition services, better known as Pre-ETS, is a collaborative effort between the **Education and Workforce Cabinet's Office of Vocational Rehabilitation** and **Kentucky Educational Institutions**, that caters to disabled students aged 14 - 21.

This initiative encompasses students from public or private schools, those who are homeschooled, and those attending postsecondary institutions.

Pre-ETS is committed to addressing the employment requirements of students with disabilities. It achieves this through a range of pre-employment transition services, including:

- Post-Secondary Counseling and Exploration
- Job Exploration Counseling
- Workplace Readiness Training
- Self-Advocacy Instruction
- Work-Based Learning Experiences





These services aim to proactively engage students with disabilities in job exploration activities, easing their transition from secondary to post-secondary education/training and ultimately leading them towards competitive, integrated employment opportunities.

The ACAT Center has initiated services within the **Perry County School District**. Students will participate in weekly activities aimed at enhancing a broad range of skills included from the list above. Additionally, they will visit the center once a month to complement and reinforce their classroom learning. These services are billable services.



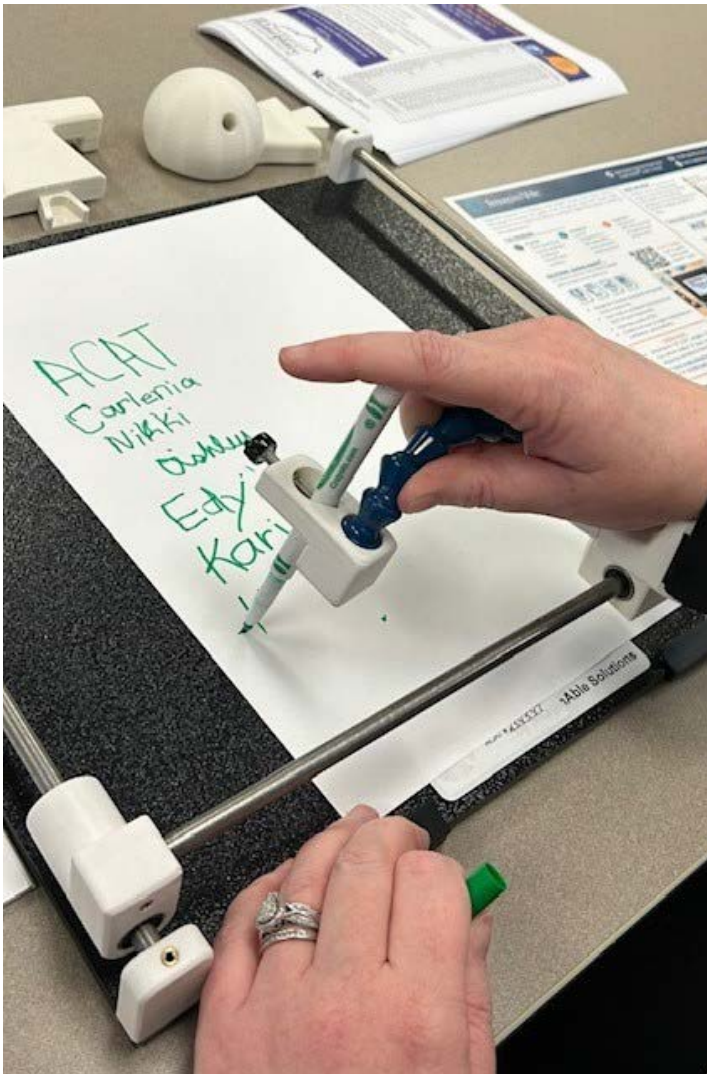
Our goal is to expand the reach of the Pre-ETS program in the upcoming spring, potentially extending it to additional schools and engaging more students.

The Appalachian Center for Assistive Technology (ACAT) has a collaboration with **LKLP Compassionate Hearts Adult Daycare**. Compassionate Hearts is an adult daycare that provides care for individuals for personal hygiene, grooming, and recreational activities on a daily basis. We have collaborated with them to offer a stem and/or interactive activity each month.

We hope to have some of their participants come to the ACAT for field trips and work in our maker space, beginning in the new year.



ACAT also offers demonstrations and consultations for assistive technology and a short-term AT loan locker,



Device Lending

The purpose of a short-term device loan may be to

1. assist in decision-making
2. serve as a loaner while the consumer is waiting for device repair or funding
3. provide an accommodation on a short-term basis
4. for professional development

Four individuals received loaned AT, valued at **\$5,936** and three pieces of 3D printed items were distributed, valued at **\$44**.

Device Demonstration

Device demonstrations compare the features and benefits of a particular AT device or category of devices for an individual or small group of individuals.

The purpose of a device demonstration is to enable an individual to make an informed choice.

Three “Lunch & Learns” were held with **20 DPT** students throughout the year.



Working collaboratively within ACAT, we have three additional programs that work diligently to support local communities: **CARAT, CARAT-TOP, and Toys with a Purpose.**



COORDINATING AND ASSISTING THE REUSE OF ASSISTIVE TECHNOLOGY



Project CARAT is a community outreach, service learning program that aims to make assistive technology and durable medical equipment (DME) more accessible to those who need it in underserved areas of Kentucky through its refurbishing and reutilization.

Our site is located at the University of Kentucky Center of Excellence in Rural Health (UK CERH), which is a service-learning program that involves students in the University of Kentucky Doctorate in Physical Therapy program. Students are trained to clean and refurbish DME to distribute to those in need. Project CARAT has several satellite locations across Kentucky, including a site in collaboration with Kentucky Homeplace, and is overseen by the Kentucky Assistive Technology Service Network (KATS).



From the project's initiation of January 2012 to current (October 2023), Project CARAT has served **17,030** individuals and distributed **19,313** pieces of AT and DME items valued at **\$5,769,799** (estimated MRSP) in all five sites statewide.

Specifically, in 2023, the Project CARAT site in Hazard was able to distribute **334** pieces of DME with an estimated MSRP value of **\$34,989**.



Device Reuse

Reutilization program provides for the exchange, repair, recycling, or other reutilization of assistive technology devices for people with disabilities in need of the items (at no cost).

It offers solutions for individuals with disabilities who need items public sources will not pay, who need a device that is no longer manufactured, or who have an acute need for a device while they pursue or wait for funding.

Reutilization program includes

- 1.) Refurbishment programs, where donated devices are cleaned up, sanitized, repaired or otherwise “made ready” for new owners
- 2.) Open-ended loans where the consumer can continue to use the item until no longer needed.

In 2023, **16** DPT students were trained to clean, refurbish, and reutilize DME. The students held 5 cleaning sessions throughout the year.



COORDINATING AND ASSISTING THE REUSE OF ASSISTIVE TECHNOLOGY: TOGETHER ONE PRIORITY

CARAT-TOP



CARAT-TOP is a 10 -week program that brings together students, of all abilities, from local high schools and the community to develop skills in assessing community accessibility, refurbishing used medical equipment, adapting toys and other AT devices, prototype new parts, and develop strategies for engaging community stakeholders (leaders, businesses, faith communities, local media, etc.).



As of Fall 2023, CARAT-TOP has worked with four cohorts of high school students. In Spring 2023, we had 20 students, 10 from both Perry County Central High School and Hazard Independent High School. In Fall 2023, we had 12 students from Hazard Independent HS. This program has proven itself to be wildly successful for not just the students but the community as well.

We also participated in the UK UAccel program to determine the potential for commercializing this program. We would like to give a special thank you to Hannah O'Leary and her help participating in this program.



Additionally, we have ongoing collaboration with the **Commonwealth Council on Developmental Disability** to create a mobile version of the CARAT-TOP Program.

RECENT PROJECTS AND EVENTS



Memorial Gymnasium

In the Spring of 2023, Hazard Independent High School completed their adaption project of the Memorial Gymnasium. Their work included adding signage, installing seats with back support in bleachers, and adapting the bleacher stairs with bright colored tape that is also non-slip.

Perry County Park

In the Spring of 2023, Perry County High School completed their project of adapting the Perry County Park. This included adaption of the miniature golf course for more people to enjoy, installation of non-slip material on stairs by the pool, safety signage by the pool, and installation of a life vest stand.

RECENT PROJECTS AND EVENTS



Student Presentations

The groups of students from both schools, created presentations to pitch their community adaption ideas. The presentations were given to members of the county office to gain approval and funding.

Certificate of Completion Ceremony

In the Spring of 2023, The Certificate of Completion Ceremony was held to recognize the outstanding work of the students of Hazard Independent Schools. In attendance was the Mayor of Hazard, Judge Executive of Perry County, Director of the Chamber of Commerce, both School Superintendents, and the Principal of Hazard Independent HS.



TOYS

· With a Purpose ·

Toys with a Purpose is a collaboration that provides free adapted toys to individual families through an online lending library. This program is also planning to expand its services to provide adapted toys to organizations that work closely with children of all abilities.

Additionally, this program serves as a platform for educating students from multiple levels (high school, community college, and university) about inclusion and accessibility through the process of adapting toys.

We participated with several high school summer camps at UK over the summer of 2023, with the focus on examination of accessibility and inclusion through play, and toy and board game adaption. The following three summer camps hosted a total of 50 high school students:

- 4-H Summer Teen Conference (15 students)
- AHEC Summer Camp (20 students)
- CHS Summer Bridge Program (15 students)

In 2024, we will be expanding our collaboration with the College of Agriculture and their 4-H program.





Throughout the year we continued collaborating with UK College of Health Sciences undergraduate students in the CHS Rehab Makerspace Program, and UK College of Engineering students to adapt toys as part of their senior capstone projects. Spring of 2023, we had two teams of senior engineering students, and fall of 2023, we had four teams of senior engineering students adapted toys.

We met with several groups across UK campus, including UK Children's hospital, UK College of Arts and Visual Arts, to begin new collaborations and foster more interprofessional student involvement.

On a state level, we were invited to run a workshop on toy adaptations at the KY Assistive Technology Summer Conference in Frankfort, KY. We also began collaborating with the KY Department of Community Based Services (DCBS). We have distributed adapted toys and books from our lending library to six different county offices in Eastern KY, delivering 17 adapted toys.

In the upcoming year we hope to expand to additional counties throughout the KY commonwealth.

The Grace Jones Memorial Fund

The Grace Jones Memorial Fund was established in memory of Grace Jones, who joined the faculty of the Department of Entomology at the University of Kentucky in 1984 and rose to Associate Professor in 1990. She then moved to the University of Kentucky's School of Biological Sciences in 1991, rising to Professor in Molecular and Cellular Biology in 1999 in the renamed Department of Biology. Subsequent to a severe stroke in 2000, she inspired many as she overcame difficult physical challenges, and continued her academic teaching and research in Biology which she so much enjoyed.

The purpose of the Grace Jones Memorial Fund mini-grants is to help persons with physical/stroke disability and their families. Priority would be given to patients and families with physical disability resulting from stroke but people with central nervous system disorders such as traumatic brain injury, spinal cord injury, cerebral palsy, etc., and their families can also qualify.

The Grace Jones Memorial Fund mini-grants can be used to pay for things such as adult day care, medical equipment (lift chairs, wheelchairs, walkers, bath benches, etc.), therapy services (such as Physical Therapy, Occupational Therapy, Speech Therapy, etc.), Caregiver support, transportation costs related to attending disability support services, short-term respite care, education, home modifications (such as ramps, rails, etc.), and assistive technology.



In 2023, we received 14 applications and were able to support 7 of these individuals and their needs.

We would like to give our sincere thank you to **Sara Salles, Keisha Wells, Beth Hunter, Carolyn Wallace, and Loralyn Cecil** for their help reviewing applications, providing their considerable insights, and their continued support.

The following are items we are helping to support this year:

- Batteries for power wheelchairs
- Lift chairs
- Wheelchair replacement
- Participation in the Frazier Community Wellness Program
- Partial support paying for needed therapy sessions
- Provide some basic necessities

PRESENTATIONS OF 2023

Increasing Access for Individuals of All Abilities in Rural Communities

Kitzman P, Wells K, Feltner F.

Kentucky Rural Health Association

Bowling Green, KY. 2023.

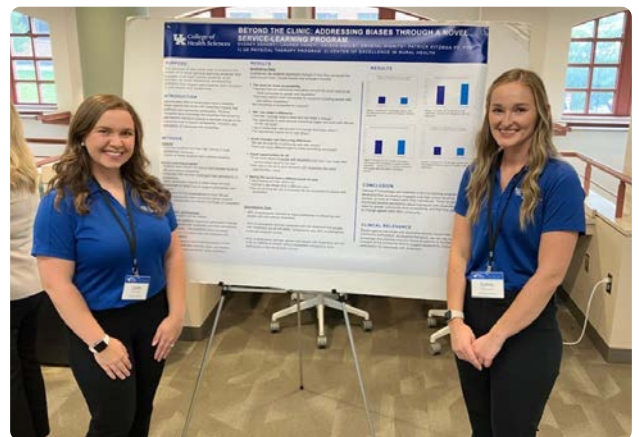


Makerspace: Making AAC Keyguards Switches, and Battery Interrupters

Kielman K, Craig S, Head E, Clayton S, Drake C, Huber G, Simmons M, Cerar M, Deaton S, Dominguez E, Huseman N, Kremer C, Mounkes A, Page J, Kitman P, and Cooley-Hidecker M.

American Speech-Language Hearing Association

Boston, MA. 2023.

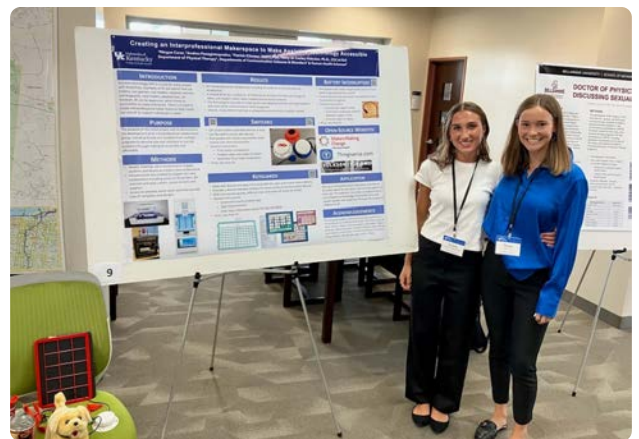


Beyond the Clinic: Addressing Biases Through a Novel Service-Learning Program

Dehart S, Haney L, Wells K, Hignite C, Kitman P.

APTA-Kentucky Conference

Louisville, KY. 2023.



Creating an Interprofessional Makerspace to Make Assistive Technology Accessible

Cerar M, Panagiotopoulos A, Kitman P, Cooley-Hidecker M.

APTA-Kentucky Conference

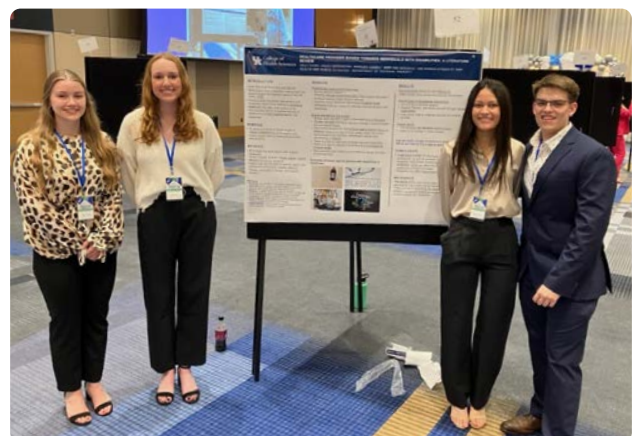
Louisville, KY. 2023.

Healthcare Provider Biases Towards Individuals with Disabilities: A Literature Review

Chism K, Herrington H, Lassell M, Nerswick MA, Kitman P.

Uk Undergraduate Research Day

Lexington, KY. 2023.



Toy Adapting

Kitzman P, Wells K, Hignite C.

Assistive Technology Workshop

Frankfort, KY. 2023.

OTHER ACTIVITIES OF 2023

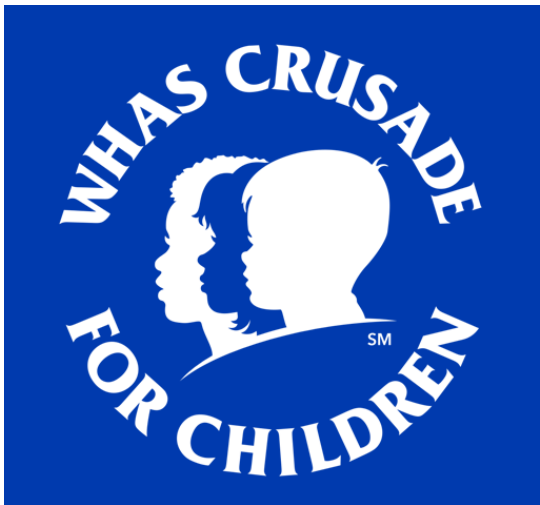
In addition to all the events, projects, and teams we had in 2023, we also had two teams of senior engineering students who worked on adapting wheelchairs to protect them during air travel. We would like to give special thanks to Julie Pfeiffer for helping to mentor these two teams, and engineering faculty members Charles Lu and Hari Ghimire.

We also worked with UK's KARRN undergraduate student club, who assessed three buildings on UK's campus for accessibility. This group wrote up their findings and presented them to central administration. We would also like to thank the KARRN club leaders Clara Bonds, Savannah Hayes, and Hope Tschosik.

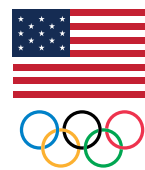


DEAR FUNDERS,

We want to express our sincere appreciation for your invaluable support and commitment to our causes. Your generosity has been instrumental in fueling our projects and initiatives. Thanks to your belief in our mission, we've been able to make a meaningful impact and create positive change in our communities throughout the Kentucky Commonwealth. We are truly grateful for the impactful partnership we have with you and are excited to continue it and see where the new year will take us.



TOYOTA



DEAR COLLABORATORS,

We extend our heartfelt thanks for the outstanding collaboration we have experienced. Your expertise, shared dedication, and commitment to our common goals have significantly contributed to the success of our endeavors.

The synergy created by our collaboration has been truly remarkable. We appreciate the collective effort and look forward to continuing this positive and impactful journey together.

We eagerly anticipate the continued success of our joint efforts into the new year.

Project CARAT Collaborators

- UK Center of Excellence in Rural Health
 - Dr. Fran Feltner, Center Director
- UK College of Health Sciences
 - Doctorate in Physical Therapy Program
- Kentucky Office of Vocational Rehabilitation, Kentucky Assistive Technology Service Network
 - Carol Weber & Lisa Staub
- Kentucky Homeplace
 - Mace Baker, Program Director

Toys with a Purpose Collaborators

- University of Kentucky - College of Health Sciences
 - Mary Jo Cooley-Hidecker and the CHS undergraduate students in the Rehab Makerspace program.
 - CHS Ambassadors for allowing us to serve as a high school student Summer Bridge summer camp program site.
 - Will Hieronymus for his website development and support.
- Center for Interprofessional and Community Health Education
 - Shelley Ferrin and Lisa Hatton for helping us serve as a high school student summer camp site.
- College of Engineering
 - Regina Hannemann and the senior engineering students
- College of Fine Arts. School of Arts and Visual Arts
 - Dima Strakovsky, Hannah Smith, and their design students
- College of Agriculture
 - Charles Stamper and the 4-H program for allowing us to serve as a summer camp site for their high school students and for additional project development.
- University of Kentucky Children's Hospital
 - Jennifer Guilliams and Cody Dean
- UK KARRN undergraduate club
 - Clara Bonds, Savannah Hayes, and Hope Tschosik

CARAT-TOP Collaborators

- Commonwealth Council on Developmental Disabilities
 - Provided support towards the student projects
- AARP
 - Funded equipment that is located in the makerspace, which is used by all our programs
- University of Kentucky Center of Excellence in Rural Health
 - Dr. Fran Feltner, Center Director
- Perry County Central High School
 - April Napier
- Hazard Independent High School
 - Corey Martin
- Hazard Chamber of Commerce
 - Betsy Clemens, Executive Director
- City of Hazard Mayor
 - Happy Mobelini
- Perry County Judge Executive
 - Scott Alexander

Community Collaborators

- WHAS Crusade for Children's Foundation
 - Provided funding for our 3D printer and Glowforge laser cutter.
- Commonwealth Council on Developmental Disabilities
 - Provided overall funding towards the CARAT-TOP program and this program.
- Dunbar High School
 - Elizabeth Pelphrey and students, thank you for holding a toy drive in April.
- Kentucky Department of Community Based Services
 - LC Dobson, Joyce Mills
- Estill County Schools
 - Amanda Bryant, Chelsea Clark
- Hazard Independent High School
 - Corey Martin
- Perry County Central High School
 - April Napier

**LINKS TO WEBSITES
AND VIDEOS**

