Division of Academic Affairs
Technology Fee – Systemic Project Proposal
2016

Proposal Deadline: Friday, January 22, 2016 @ 5:00 pm

Project Proposal Type

Systemic Project

Projects proposed by operational units of the university (e.g., colleges, academic departments, Library, etc.) for instructional technology enhancements of unit-wide or university-wide scope.

All Systemic Project proposals must be acknowledged (signed) by the operational unit head (e.g. Dean, Chair, Director, etc.).

Project Title

Assistive Technology for Students with Disabilities

Total Amount of Funding Requested

$18, 745

Primary Project Coordinator

Vannee Cao-Nguyen, Director, SDRC

Unit Head Acknowledgment

Unit Head Signature: Vannee Cao-Nguyen Date: 1/20/16

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Systemic proposals must provide the following information:

1. **Description of initiative/investment to enhance instructional technology.**

The University of West Florida (UWF) is committed to ensuring that no otherwise qualified student with a disability is excluded from participation in, denied the benefits of, or subjected to discrimination in university programs or activities due to his or her disability. The provision of services to students with documented disabilities at UWF is based on the principle of non-discrimination and accommodation in academic programs set forth in the implementing regulations for Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 as amended by the 2008 Americans with Disabilities Amendments Act (ADAAA).

The Student Disability Resource Center's (SDRC) mission is to deliver innovative and high quality service through collaborative networks that ensure educational access and support for students with disabilities. SDRC's primary role is to coordinate services and accommodations for students with varying types of disabilities. SDRC also leads campus-wide efforts in moving towards universal design for learning (UDL) which includes identifying ways to develop accessible curriculum and programs that are usable by the widest possible range of students, to the greatest extent possible, without the need for specialized modification. By planning in advance for the varying abilities of our student population and incorporating universal design, UWF may be able to reduce the need for individual accommodations and retroactive services.

Assistive technology refers to the use of technological devices and situational modifications for individuals with disabilities to enable them to improve or maintain their functional capabilities. Assistive technology allows students with disabilities to access academic material, communicate their ideas/work, and participate in the educational experience. It enables students to expand their functional repertoires and access to educational environments and activities that, otherwise, would be inaccessible to them. The primary reason students with disabilities use assistive technology is to be able to participate in programs, services, and activities for the purpose of obtaining the same benefits as their peers without disabilities. Assistive technology might include speech-generating devices, assistive listening devices, speech-to-text software, talking calculators, magnifiers or smartpens.

Ensuring accessibility of programs and services on campus is within the purview of SDRC's responsibilities and service to students. SDRC continuously looks for ways to make assistive technology available to all UWF students.

- **Students with visual impairments** rely on SDRC for certain types of academic accommodations. However, students also utilize the library and other campus resources for academic work. Students with visual impairments have specific challenges that make it difficult to read regular print materials such as books and journals. When students need to utilize books, journals, or any print materials that are made available to all students, certain types of technology must be available that will allow them access. Otherwise, they must rely on a personal reader that must be arranged or request alternative formats which can take up to six weeks to convert.

A desktop video magnifier, or closed circuit television (CCTV), is an essential assistive technology that students who have low vision utilize to access print material. The video magnifier provides electronic magnification through the use of video camera that projects the image of what the camera is focused on, on a screen. Video magnifiers have traditionally been used for near viewing, but many video magnifiers now also have distance viewing capabilities. To make tracking and scanning easier, many video magnifiers come with a table (referred to as an xy table) that is movable in different directions. Video magnifiers have a wide range of magnification that can be used for a variety of tasks. They have a wide field of view, so they display more on the screen at a time, which reduces eye fatigue. Adjustable monitors can move in multiple directions to reduce glare. An auto-focus camera will keep the focus, even on books with a deep spine. Video magnifiers can freeze the image for close inspection of small objects or to keep your place.

Students with visual impairment often use the SDRC as a place to study. When they need to use a magnifier, they are sent to the library where one is located. It is located in the library to make it accessible and available to all UWF students regardless of whether they are registered with SDRC or not. Unfortunately, the magnifier located in the library is extremely outdated (15 + years) and is not working properly. There was only one video magnifier available for student use. SDRC is seeking to replace this outdated magnifier as well as enhance the availability of these devices at, both, the SDRC and Library. SDRC is requesting funding support to purchase three video magnifiers. Two video magnifiers will be placed in the library for use by all UWF students with visual impairments who may need access to this technology to read books, journals, or other print materials. SDRC will place the third magnifier in our office for SDRC registered student to use for testing purposes or other accommodation needs.

SDRC would also like to purchase three portable magnifiers. Compact handheld magnifiers are low-tech, portable tools designed for bringing the camera to the material viewed. These devices are portable magnifiers used by students with low vision who have difficulty reading regular print and requires immediate enlargement of texts or graphics in their environment such as signage or wall posters. While these devices have been integrated with the largest screen available, it is still small enough to easily carry from one location to another. Handheld cameras are often on rollers, which make them easier to mover across a flat working surface. These are available in a range of magnification power and compact. Portable magnifiers will allow students to check out the devices to have available for use reviewing books at the library, studying academic materials or use in class. Two magnifiers will be placed in the library so it will be available to all UWF students, and one magnifier will be located at SDRC for students to use at the center for testing and other accommodation needs such as reviewing SDRC documents, etc.

- **Students with notetaking support needs** – Some students with disabilities may have difficulty with processing information, physical limitations with writing, or maintaining attention which can impact their ability to take quality notes during class. SDRC coordinates notetaking accommodations for approximately 50 students averaging 100 classes each semester. Depending on the documented disability of the student, accommodations for notetaking may be provided in one of the following methods: (a) Smartpens (b) In-class notetaker, (c) Notes provided by professor, (d) Digital Recorders. Notetaking staff are paid $8.08/hr. Individual SDRC student averages 12 hours a semester. This results in paying approximately $290 per week for 16 weeks to have a notetaker in class. For some students, a preferred alternative to having an in-class notetaker is a smartpen.

The smartpen is an assistive technology aid that facilitates the notetaking and learning process. The smartpen records and captures everything that is written and spoken. Inside the pen is a camera that takes a picture of the notes as it is written. It also has a built-in microphone that lets the writer record what is being said. Once the pen is turned on, then it will begin taking picture of the notes that are written. It works with special dotted paper. The device syncs the handwritten notes with the audio that can be accessed for review either through the pen itself or with the use of a computer software program. In addition to listening to the audio recording by tapping on the notes, students can transfer the notes to a computer. The notes will appear just as they were written and the audio can be accessed by placing the cursor on the word and the audio playback will begin at that point. This assistive technology is especially beneficial to students who have the physical ability to take their own notes but may have limitations due to the effects of their disability. These limitations could be the inability to filter key information (processing disorder) or missing key information (attention issues). The challenge with this method of accommodation has been students' lack of access to smartpens and special paper ($175-$200). If students do not have the resources to purchase this device, they opt for an in-class notetaker which is costlier for the University. If SDRC provides the smartpens, students will opt for the use of this device in place of a notetaker. It will be a long term cost savings for the University if SDRC can offer this assistive technology in lieu of notetakers. SDRC would like to request support to fund the purchase of 20 smartpens, accessories, and specialized paper.

2. **Description of how initiative has a college/unit-wide or university–wide scope.**

   Academic performance of students at UWF is recognized as one of the major indicators of our University's strengths. If students with disabilities are provided the proper support and resources, they have a chance of being successful regardless of the limitations their disabilities may impose. If these resources are made available to students with disabilities, they are assured that their academic success is important and that UWF makes it a priority to eliminate any barriers to their education.

3. **Description of project alignment with UWF Strategic Plan.**

   Strategic Direction 1: Enhanced Student Access, Progression, and Learning and Development – UWF Priority 1.3. Improve student persistence and timely progression to degree attainment

   Otherwise qualified students with disabilities have unique challenges that they experience daily which impact their timely progress toward graduation. These challenges are often imposed by barriers in their academic environment. An example is when a visually impaired student conducts research at the library but does not have a reader with him or the proper assistive technology to allow him to read the materials he needs to do his research. To minimize the barriers faced daily by students with disabilities, we must be proactive with building accessible learning environment from the get-go. If the appropriate assistive technology is available to all students, it will enhance their academic success despite the limitations of a disability. These resources will minimize barriers and make a positive impact on persistence, retention, and completion rates by students with disabilities.

   Strategic Direction 4: Sustainable Institutional Excellence - UWF Priority 4.1. Support and sustain the high-quality services and infrastructure needed to achieve identified UWF priorities.

   One of the most amazing developments in education over the years is the way that technology has created possibilities for students with disabilities. While technology makes tasks **easier** for all students, assistive technology makes tasks **possible** for students with disabilities. It gives them access to academic materials, helps with communicating their work, and allows them to participate in the educational experience. Incorporating assistive technology in our programs and making these resources available to all our students makes UWF a leader in making a positive impact on the lives of individuals with disabilities. It shows that UWF is a high-quality university that understands, support and incorporates new technological resources that exist for people with disabilities. Additionally, as UWF makes an effort to move towards Universal Design for Learning (UDL), assistive technology can support UDL by offering multiple options for any students, regardless of ability, to access information and demonstrate what they have learned.

4. **Description of benefits provided.**

   Students with disabilities will benefit most from this project because the assistive technology is a support resource for them in the educational setting. Availability of assistive technology is critical for students' persistence toward graduation because it minimizes the functional impact their disability has on their academic performance.

   With the availability of the magnifying devices at the library and at SDRC, any UWF student with a visual impairment can access it at any given time. This alleviates the need for students to make third

party arrangements for a specialized reader or to have the material converted to an alternative format. The timeframe for alternative format conversations delays access to the academic material the student may need. The students will be able to work independently at their own convenience as they conduct academic research or study.

Magnifiers will result in long term cost savings for the University. Providing accessible/alternative formats are costlier.

The smartpens are also a long term cost savings for the University. It is costlier to employ staff to provide notetaking support.

Students using smartpens will learn to take better notes and take a more active role in their learning.

5. **Description of how success/impact will be measured.**

   Magnifiers: Impact will be measured by the decrease in students with visual impairments requesting individualized readers or alternative formats to access library or academic content. If these devices are available at the library and at SDRC, students can access them anytime. Prior arrangements do not have to be made for specialized reader to be available for students with visual impairment.

   Smartpens: Impact will be measured by the decrease in number of staff being assigned for notetaking support. Impact will also be measured by the decrease in amount of funds used to pay notetakers.

6. **Detailed description of resources required including hardware and software requirements and personnel costs (faculty compensation is not an allowed cost).**

   a. **Multiview HD Desktop Magnifier**:
      i. 24 Inch desktop magnifier reads printed documents aloud. Features include
         - High definition camera for live-viewing distant and close-up objects with focus lock/flexible camera head that tilts and swivel for near, self, or distance viewing
         - HD touch screen speech monitor quickly and accurately scan and reads documents
         - Continuous magnification of 2.4X – 8X
         - Over 60 reading voices in 30 languages
         - Saves and opens documents on a SD card or USB stick
         - Includes SD card slot/USB port/Headphone connector
         - Transportable design.
      ii. Need to include two year limited warranty

   b. **Portable HD handheld magnifier**: 7-inch widescreen portable handheld magnifier with the following features:
      - high definition auto-focus camera for superior images and intuitive reading
      - full color widescreen displays with high contrast viewing modes for easier reading
      - tilting screen position for comfortable viewing
      - designed to move smoothly over reading materials
      - snapshot function with audio indication of sound
      - large icon settings and information menu
      - rechargeable battery with over 4 hours of continuous use

> ▪ carrycase, wrist strap and cleaning cloth.

c. **Echo Livescribe Smartpen and Accessories**:
  i. <u>The Echo Livescribe Smartpen 2GB</u> allows writer to capture words, diagrams, scribbles, symbols, and audio – syncing everything one hears to what one writes. Writer can tap anywhere on the special notebook paper to play back what was said at the exact moment the specific notes were taken. Features include
     ▪ 2GB of memory records over 200 hours of audio
     ▪ notes can be transferred to a computer for easy access
     ▪ interactive versions of the notes that users can access by downloading specific apps
     ▪ ability to slow down, speed up, control the volume, and bookmark key information with the Livescribe paper playback controls.
     ▪ includes applications of Livescribe desktop software for Mac or Windows
     ▪ starter notebook, micro USB cable, two ink cartridges, a smartpen cap
  ii. <u>USB cord</u> **–** 3 ft mobile charge sync USB cable for smartphones and tablets – A to micro B M/M. The additional cords are backup for charging and uploading of recordings should the original cord be misplaced
  iii. <u>Livescribe Carrying Case</u> **–** Zippered protective cases are secure and durable to holds the pen and accessories in place. It also includes a side pocket to hold earbuds.
  iv. <u>Livescribe Echo Ink Cartridge Refills</u> **–** includes black, medium point, 5-pack replacement cartridges. SDRC needs 16 packs which will make two refills available for each pen.
  v. <u>Specialized notebooks</u> **–** Students will receive an initial three subject notebook (*Number 1 Notebook*). When additional paper is needed, students will receive single subject notebook *(Number 2 Notebook)*. These are 8.5 X 11 perforated, dotted paper, college ruled, three-hole punched notebooks. There will be four notebooks for each pen that makes total of 80 notebooks.

Item	Cost for each	Total Need
Multiview HD Desktop Magnifier	$3695 X 3	$11, 085
Portable HD Handheld Magnifier	$1295 X 3	$3885
2GB Livescribe Echo Smart Pen	$125 X 20	$2500
3 subject notebooks for Smartpen Number 1 (initial pairing of book and pen)	$8.95 X 40	$358
Single subject notebook for Spartmen, Number 2 (for additional pairing as needed)	$7.00 X 40	$280
3 ft Mobile Charge Sync USB Cable	$5.00 X 5	$25
Livescribe Deluxe Carrying Case	$25.00 X 20	$500
Livescribe Echo Ink Cartridge Refills	$7.00 X 16	$112
Total		$18,745

7. **Proposed timeline.**

    The materials outlined above will be purchased as soon as funds are available. SDRC will work with IT to ensure the proper protocol to format and catalogue the magnifiers and smart pens. SDRC has been in communication with the library regarding this proposal and will work with them to coordinate the set-up of the magnifiers that will be located at the library. SDRC will also work with the library to identify best practices for handling Smartpen devices that circulate among students, including handling issues of data wiping, information security, and resetting the software to fresh states when the units rotate to new users. SDRC will also develop guidelines and training for student users. Smartpens and magnifiers will be ready for use by Fall 2016.

8. **Plan for sustainability beyond conclusion of funding from technology fee, if applicable.**

    SDRC will supply the notebooks and cartridge refills using direct service funds if additional supplies are needed.

9. **Resource matching commitments from other organizations/sources (identify organization and amounts), if applicable.**

    Not applicable

10. **Individual responsible for reporting and accountability, along with contact information.**
    Vannee Cao-Nguyen, Director, SDRC 850.474.2387 vcao@uwf.edu

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ITS Review Comments

GENERAL COMMENTS:
None.

COMPLIANCE WITH STANDARDS:
No comments.

INFRASTRUCTURE ISSUES:
No comments.

PRICING/COST ISSUES:
No comments.

OTHER SUPPORT ISSUES:
No comments.

SUGGESTIONS TO PROPOSER:
No comments.

For questions regarding ITS comments, please contact:
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