

2024 Technology Fee Full Proposal

Title: Strengthening UF CALS Student Community with AI-powered Discussion

Proposer:

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Sponsoring Organization: College of Agricultural and Life Sciences, Center for Online Learning & Technology (COLT)

Purpose and Specific Objectives:

The objective of this project is to support the [mission and core values of the College of Agricultural and Life Sciences \(CALS\)](#) through a college-level pilot of the innovative AI-enabled online discussion tool **Packback**. Packback use allows students within online classes to collaborate, which is imperative to better address the world's critical challenges related to agriculture, food systems, human well-being, natural resources, and sustainable communities. Packback is an online platform that allows students to post and respond to open-ended questions, fostering critical thinking and curiosity. This tool creates conditions where inquiry and collaboration can occur, and students can learn from one another directly. Moreover, students can benefit from the preliminary feedback they receive from Packback's AI coach, which helps them improve their writing and reasoning skills. This immediate feedback can improve student scores.

The specific objectives of this project are to:

1. Promote the use of Packback strategically in high-enrollment, online CALS courses that lack a discussion model for learner-learner interaction.
2. Monitor adoption and impact on student learning objectives.

Packback cultivates an exceptional academic environment through the innovative use of technology that solves a real-world challenge. It is difficult for students to feel connected with their classmates and faculty, especially in large classes, and it is challenging for faculty to build a community of learners in online courses. This educational tool reduces the feeling of an impersonal classroom and allows for deeper engagement. Packback offers an improved way for students to interact with the course topics in which they are most interested. Furthermore, faculty can offer students feedback more quickly. Ultimately, Packback will make discussions more enjoyable!

Impact/Benefit:

Benefits to students:

What if course discussion board posts could be more meaningful and focus on what you as a student want to discuss? What if you could know your grade on a discussion post immediately and work to improve your score even before submitting it?

With Packback, students drive the discussion by posing open-ended questions! Even better, AI scoring predicts how well you're matching the instructor's criteria while you write. This gives you time to adjust your post and achieve a higher score.

Watch this short video about Packback to see how this tool goes beyond the capabilities of Discussion boards in Canvas: [How to Write Amazing Posts on Packback, and Why You Should! \(3:44\)](#)

Benefits Packback would provide UF CALS students include:

- **Deep engagement** with topics and fellow students **even in large enrollment courses**
- **Authentic discussions** where students share their perspectives and focus on topics, they find meaningful.
- Friendly modern interface with **more features** compared to Canvas Discussions, including a leaderboard and multiple ways to show agreement or praise.
- AI student-coaching to build critical thinking and writing skills **useful in life and future careers.**
- **Cost savings** for students already using the tool. Currently, 1196 CALS students are paying \$39 per semester to use this tool.

Benefits to instructors:

Packback offers benefits to instructors as well as to students. This tool promotes the use of higher-level skills on Bloom's Taxonomy (evaluate, apply) in discussions, and uses self-determination theory to inspire students' *intrinsic motivation*, helping them to become more self-directed learners. (Learn more: [What is Packback? \(2:05\)](#))

The incorporation of AI feedback and scoring provides substantial time savings, which allows instructors to engage meaningfully with their students, even in larger enrollment courses. This helps instructors meet a variety of UF Quality Standards (UF+QM) for online courses, which are required for all online undergraduate courses by the end of 2025, so adopting this technology would be a proactive step!

- QM 6.2 Course tools promote learner engagement and active learning.
- UF 10.2 Instructor creates an inclusive, supportive, and engaging climate through a variety of methods.
- UF 10.1 Instructor provides space and encouragement for students to develop an online learning community.
- UF 10.5 Students are given the opportunity to relate personal experiences and apply their background knowledge/skills to the coursework.

Faculty within CALS are already finding the tool valuable and effective, and believe it is having a positive effect on student outcomes:

UF CALS Instructor, Michael Moulton Ph.D., Wildlife Ecology and Conservation Department

“I have been teaching my courses, “Wildlife Issues in a Changing World (WIS2040) and Biodiversity Conservation: Global Perspectives (WIS 2552) continually since 1994 and 1998 respectively. Over the years, the course enrollments have increased to several hundred students per term, and sometimes more than 1000 in total.

In 2023 both courses went through a total redesign – I updated the content and re-did the quizzes, and I started using Packback. Packback has revolutionized both courses. Before Packback, my enrollments had grown large, and I had no ability to interact on a more personal basis with the students except on rare office hours visits. Moreover, the students also had little chance to share their thoughts and ideas with me or their classmates. With Packback I can interact with many more students individually and by placing them into groups of roughly 20 students, they can also interact with each other more easily.

As far as my workload is concerned, I no longer must spend hours poring over spreadsheets of assignment grades. In short, Packback has freed me to teach and not simply solve computer glitches. I strongly believe that using Packback will be a boon to my fellow faculty, and I recommend it with the greatest enthusiasm.”

UF CALS Instructor, Elizabeth Diehl R.M., Environmental Horticulture

“After integrating Packback into my course I immediately saw that students were writing longer posts, incorporating their own experiences and philosophies more fully, and including images and references to strengthen their ideas and opinions.

Students have reported that Packback has enhanced their curiosity and learning. Students who responded to a Packback survey in PLS 3080 and PLS 4081 reported:

- 1) being more curious about the course subject compared to when the course first started
- 2) feeling more confident about formulating and asking open-ended questions
- 3) being more comfortable with self-guided learning outside of class
- 4) learning course material more effectively and retaining the concepts better.

Additionally, the same students reported that Packback has challenged their critical thinking and writing skills and that they find themselves thinking about questions they could ask while reading assignments or listening to lectures. They also reported that they are participating more in class as compared to participation in previous classes.”

Sustainability:

If funded, Packback would be enabled within CALS online Canvas courses as soon as a contract is in place because this LTI has already been risk assessed and approved for use. An accessibility review has already been completed, and Packback complies with UF’s accessibility policy (see attached Tier 2 review and VPAT).

We estimate it will take about one year to design and implement a communications campaign to roll out the tool within CALS and prepare training materials. It would take another semester to review and report on the tool's adoption.

In terms of one-on-one support, Packback support is available and can be contacted directly by both faculty and students. Faculty are paired with a specific Packback representative who reaches out before each semester to assist faculty with setup and answer questions. Students also have access to a support button for live support during the use of the tool.

In terms of cost sustainability, we are requesting funds for **2 years** to evaluate whether the benefits of the tool are worth funding further. If the pilot for adoption in CALS is successful after two years, we would request that UFIT consider funding the tool to all UF going forward.

Timeline:

We propose free access for all students enrolled in CALS courses during Fall 2024-Summer 2026. During the summer of 2024, UFIT eLearning will collaborate with the vendor to install the Packback LTI to make it available for CALS students. CALS instructors will learn of this new tool through listserv emails, department meetings, and their instructional design unit. Data will be gathered annually from both students and faculty to determine how the tool impacts learning outcomes and student satisfaction. At the end of the grant period, this data will be analyzed to determine if the pilot was successful, and whether a proposal for expanded central funding is appropriate.

Budget:

This pilot project would widen access and use of this tool without cost to CALS students. **During the Spring 2024 semester alone 1,196 CALS students paid \$39 each to use Packback, which totals \$46,644.** Currently, CALS students represent 31% of the current UF users of Packback. Several CALS professors have expressed interest in the tool but have chosen not to implement it, due to the cost to the student.

Within the 2023-2024 school year, there were 51,916 total student enrollments in CALS online classes. Of the students, 6,091 were at the graduate level and 22,592 were undergraduate level. Even though the quote below is for 10,000 students, there would not be a charge for overages.

With this funding request, we are proposing a 2-year CALS college-wide pilot program beginning in Fall 2024.

	Year 1	Year 2
Base Cost (10,000+ students)	\$90,000	\$90,000
Base \$/student	\$9	\$9
Rollout Discount	45%	28%
Cost Savings	\$40,500	\$25,200
Effective \$/student	\$4.95	\$6.48
Total Per Year Investment	\$49,500	\$64,800
TOTAL REQUESTED AMOUNT: \$114,300		

Technology Fee Full Proposal Template Sponsor Signature Form

Title:

Strengthening UF CALS Student Community with AI-powered Discussion

Proposer's Name:

Michael Moulton, Kathryn Rush, Allyson Haskell, Margeaux Johnson

Note: By signing this form the sponsor is making a commitment to support the project. This may include providing startup, recurring or equipment replacement resources as presented in the attached budget.

Signature of sponsor: College Dean, or Unit Director, or VP for Student Affairs.

Allen Wysocki

3/15/2024 | 12:45 PM EDT

Associate Dean Allen Wysocki, UF IFAS CALS

Date

Note: By signing this form the UF IT unit is making a commitment to manage the project if selected for submission of a full proposal. This may include providing startup, recurring or equipment replacement resources as presented in the attached budget.

Signature of unit UFIT Director of a core unit:

Mark McCallister

3/18/2024 | 9:22 AM EDT

Mark McCallister, Director, Academic Technology, UFIT

Date

Certificate Of Completion

Envelope Id: 390B93A70DDD44A8A56C81F9F677E71B	Status: Completed
Subject: Complete with DocuSign: Packback Tech Fee Grant Proposal - CALS Level Request.docx	
Process:	
Source Envelope:	
Document Pages: 5	Signatures: 2
Certificate Pages: 5	Initials: 0
AutoNav: Enabled	Envelope Originator:
Envelopeld Stamping: Enabled	Allyson Haskell
Time Zone: (UTC-05:00) Eastern Time (US & Canada)	971 Elmore Drive, Rm 102
	PO Box 115250
	Gainesville, FL 32611
	ahaskell@ufl.edu
	IP Address: 132.170.253.214

Record Tracking

Status: Original	Holder: Allyson Haskell	Location: DocuSign
3/15/2024 11:16:49 AM	ahaskell@ufl.edu	

Signer Events

Signature	Timestamp
<p>Allen Wysocki wysocki@ufl.edu Associate Dean University of Florida - College of Agricultural and Life Sciences Security Level: Email, Account Authentication (None)</p> <p>Electronic Record and Signature Disclosure: Not Offered via DocuSign</p>	<p>Sent: 3/15/2024 11:23:19 AM Viewed: 3/15/2024 12:44:22 PM Signed: 3/15/2024 12:45:37 PM</p>
<p>Mark McCallister markm@ufl.edu Director, Academic Technology University of Florida Information Technology Security Level: Email, Account Authentication (None)</p> <p>Electronic Record and Signature Disclosure: Not Offered via DocuSign</p>	<p>Sent: 3/15/2024 12:45:38 PM Viewed: 3/18/2024 9:21:56 AM Signed: 3/18/2024 9:22:03 AM</p>

In Person Signer Events

Editor Delivery Events

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Signature	Timestamp
<p>Allen Wysocki <i>Allen Wysocki</i> Signature Adoption: Pre-selected Style Using IP Address: 128.227.126.57</p>	<p>Sent: 3/15/2024 11:23:19 AM Viewed: 3/15/2024 12:44:22 PM Signed: 3/15/2024 12:45:37 PM</p>
<p>Mark McCallister <i>Mark McCallister</i> Signature Adoption: Pre-selected Style Using IP Address: 128.227.239.216</p>	<p>Sent: 3/15/2024 12:45:38 PM Viewed: 3/18/2024 9:21:56 AM Signed: 3/18/2024 9:22:03 AM</p>
<p>Kathryn Rush krush@ufl.edu Security Level: Email, Account Authentication (None)</p> <p>Electronic Record and Signature Disclosure: Not Offered via DocuSign</p>	<p>Sent: 3/18/2024 9:22:04 AM Viewed: 3/18/2024 9:49:10 AM</p>

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Michael Moulton moultonm@ufl.edu University of Florida Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered via DocuSign	COPIED	Sent: 3/18/2024 9:22:05 AM

Margeaux Johnson margeaux@ufl.edu UF - CFR 21 Part 11 Account Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 4/3/2023 4:27:16 PM ID: ccf8a776-426b-4de5-a0cf-052c1e971120	COPIED	Sent: 3/18/2024 9:22:05 AM
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Witness Events	Signature	Timestamp
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Envelope Summary Events	Status	Timestamps
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Envelope Sent	Hashed/Encrypted	3/15/2024 11:23:19 AM
Certified Delivered	Security Checked	3/18/2024 9:21:56 AM
Signing Complete	Security Checked	3/18/2024 9:22:03 AM
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