

JONATHAN GUNNELL, Ed.D.

Director, Center for Educational Innovation | Penn State Erie, The Behrend College
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Higher education learning design leader, in instructional technology since 2008 and directing Penn State Behrend's Center for Educational Innovation since 2019. Co-chair of the Penn State Online Coordinating Council and one of Penn State's two representatives to the ten-university Learning Technology Consortium. Built faculty development programs and web applications now used across Penn State, including the Teaching Online Program, the H5P Portal, and the Behrend Strategic Plan Dashboard. Ships production web applications and AI-assisted workflows that reduce administrative work for instructional design teams.

EDUCATION

Doctor of Education (Ed.D.), Instructional Technology and Leadership 2017

Duquesne University, School of Education

Dissertation: Relevant Versus Extraneous Music in Multimedia Instruction: A Study of the Coherence Principle
DILE Innovation Grant Award recipient

Graduate Certificate in Media Arts and Technology 2012

Duquesne University, McAnulty School of Liberal Arts

Master of Music (M.M.), Digital Pedagogy 2009

Duquesne University, Mary Pappert School of Music

Bachelor of Music (B.M.), Music Technology, Sound Recording 2007

Duquesne University, Mary Pappert School of Music

PROFESSIONAL EXPERIENCE

Penn State Erie, The Behrend College

March 2019 – Present

Director, Center for Educational Innovation

Direct the Center for Educational Innovation (CEI), Penn State Behrend's unit for online and hybrid course development, instructional design, educational technology, and faculty development, serving the college's four academic schools and its World Campus programs. Lead a team of instructional designers and instructional technologists covering course design, web and application development, and multimedia production, and own the center's strategic plan, budget, and project portfolio. Beyond the college, co-chair the Penn State Online Coordinating Council, which coordinates online learning practice across the University's campuses and World Campus, and serve as one of Penn State's two representatives to the Learning Technology Consortium. Programs built at CEI, including the Teaching Online Program, the H5P Portal, and Pathways to Pedagogy, are now in use by faculty and learning design units across Penn State.

Leadership and strategy

- Developed CEI's first formal strategic plan, presented to Behrend's Academic Leadership Team in September 2019, and used it to drive all subsequent improvements to services and processes.
- Revised the online and hybrid course development process and faculty incentive structure; eliminated paid faculty reviewers, saving the college approximately 25% of previously projected eLearning costs.
- Developed Policy Guidelines for Online and Hybrid Courses, approved by the Academic Leadership Team in December 2019.
- Designed, developed, and launched the Behrend Strategic Plan Dashboard, a custom web application college leadership uses to track progress on the college's 2026–2030 strategic plan across its priorities, goals, key initiatives, and KPIs. Built with Next.js, React, and TypeScript on Google Cloud (Cloud Run,

Cloud SQL) with Penn State single sign-on, role-based permissions for executive sponsors and goal team leads, KPI progress rollups, action item tracking, and an administrative audit trail. Launched to executive sponsors and leadership in October 2026.

- Established CEI's shared Google Cloud environment and the psu-cei GitHub organization, including staging and production deployment pipelines and an operations handbook for IT handover, creating the hosting foundation for future CEI web applications.

Faculty development programs

- Designed and launched the Teaching Online Program (TOP) in 2020, a self-paced, multi-level training program for faculty teaching online and hybrid courses. Launched as a Behrend offering, it has since grown into a three-level curriculum open to faculty across all of Penn State.
- Coordinated rapid-response faculty support during the COVID-19 transition to remote learning, including publishing public-facing resources and converting face-to-face trainings to webinars.
- Designed and administered the Behrend Open Lab Grant program (2025), awarding five \$500 grants to faculty redesigning courses around the Open Lab strategy with an external partner, with implementation supported by CEI instructional designers in 2025–26.
- Designed and administered the Behrend AI Integration Microgrant program (2026), awarding seven \$500 grants, including two additional awards funded by the Chancellor, to faculty integrating AI into their courses, with implementation supported by CEI staff through the 2026–27 academic year.
- Oversaw CEI's AI training program for Behrend staff, more than ten sessions in 2025–2026, including a Microsoft-led Copilot Kickstart event, a Basics and Beyond Basics curriculum, and a 10-week asynchronous Staff AI Prompt Challenge.

Course quality and accessibility

- Led development of a comprehensive course review plan including a custom set of research-based quality standards, adopted with buy-in from school directors and academic leadership. The plan has been shared with Learning Design teams across the University and adopted by peer units.
- Oversaw 60+ Quality Matters reviews of World Campus and Behrend courses conducted by CEI staff.
- Launched a Canvas Blueprint system for all Behrend World Campus courses, reducing semester course setup time by 50%.
- Led the accessibility review cycle that reduced CEI-managed courses below the 90% Ally threshold from 54 to 9, and brought all 15 CEI-managed websites into compliance with Penn State accessibility standards.

Digital tools and infrastructure

- Founded and chaired the Collaborative Teaching Server (CTS) Advisory Committee (March 2021–February 2026), which governed a shared server hosting instructional design and faculty development web applications for Commonwealth campuses, including the Commonwealth Campus Faculty Development website, Pathways to Pedagogy, the H5P Portal, and Canvas-integrated course tools.
- Led a multi-campus project team in the design, development, and launch of Pathways to Pedagogy (P2P), a tool linking educational technologies to pedagogical approaches. pathwaystopedagogy.psu.edu
- Co-developed the H5P Portal, CEI's interactive content authoring tool, with CEI's educational programmer; led its 2025 rebuild from Drupal to WordPress, writing the suite of custom plugins behind it, and maintain the platform on Pantheon, adding shared authoring between designers (2026) and a monthly usage analytics dashboard. The portal serves more than 40 instructional designers in learning design units at Behrend, Great Valley, Harrisburg, and Altoona, and its 2,900+ interactive elements average over 22,000 loads per month.
- Oversaw the design and development of the CEI Chrome Browser Extension (CCBE), a private Chrome extension that lets CEI instructional designers insert pre-built, brand-compliant page layouts, block elements (callouts, show/hide boxes, tables), and an icon library directly into the Canvas editor in a few clicks instead of hand-coding the HTML; in team use for course builds since July 2026.

- Developed the Behrend AI Creatorspace in partnership with the AI Task Force and Lilley Library, launched January 2026.
- Compiled 215 Open Lab activities into a centralized, publicly accessible Airtable database with an integrated faculty submission form.
- Co-developed and launched a Career Exploration Website connecting Behrend academic programs to alumni career paths (September 2025); oversaw production of 40+ alumni interview videos; trained Admissions staff to use the site as a recruitment tool; migrated to Penn State Sites in February 2026, saving approximately \$1,300 per year in hosting costs.
- Developed Phase 1 of the Functional Data Analytics recruitment dashboard in partnership with the program lead; handed off project leadership to Behrend IT for scaling to all Behrend programs and connection to the university data warehouse.

Online program and course development

- Oversaw the development of more than 100 new online courses and 80 major revisions of existing online courses, residential and World Campus, since 2019.
- Oversaw online course development for three Behrend World Campus bachelor's programs: Software Engineering (inherited in progress in March 2019 and completed in 2021), Project and Supply Chain Management, and Functional Data Analytics. Contributed five courses to the Master of Computer Science program shared with Penn State Great Valley.
- Co-produced 360-degree virtual tours of the Metco Industries and Stan's NoTubes facilities for use in QMM 593.

University service and representation

- Chair, College Advisory Committee, Penn State Behrend, August 2025–present (member since March 2019).
- Chair, Academic Advisory Committee, Center for Emerging Technologies and AI (CETAI), Penn State Behrend, October 2026–present.
- Co-chair, Penn State Online Coordinating Council (PSOCC), August 2022–present (member since March 2019).
- Chair, Collaborative Teaching Server Advisory Committee, March 2021–February 2026.
- Team Lead, Support Implementation of Applied Learning, Open Lab, and Emerging Technology Experiences Across All Programs, Behrend Strategic Plan implementation team, September 2026–present.
- Co-chair, Design, Media, and Technology (DMT) Subcommittee of PSOCC, August 2020–August 2022 (member since March 2019).
- Institutional representative, Learning Technology Consortium (LTC), 2014–present: Penn State, March 2019–present; University of Pittsburgh, 2014–March 2019.
The LTC is a consortium of ten universities whose representatives meet for three days twice a year to benchmark services, policies, and organizational structures and to collaborate on learning technology, instructional design, and faculty development.
- Member, Canvas Advisory Group, March 2019–present.
- Member, Accessibility Users Group, March 2019–present.
- Member, Behrend AI Task Force, November 2024–May 2026 (succeeded by the Academic Advisory Committee for the Center for Emerging Technologies and AI).
- Member, planning team, Commonwealth Campus Instructor Days (held each fall and spring), August 2021–present.
- Member, COVID Response Team G (charge: ensure a robust portfolio of online and remote delivery courses), March 2020–August 2021.
- Member, Learning Design Clearinghouse Planning Committee, Penn State, 2020.
- Member, Software Awareness Committee, April 2021–July 2022.

- Member, ICMS RFP Committee, March 2021–October 2022.

Point Park University, School of Education

2022 – Present

Adjunct Instructor

Teach graduate-level courses in the School of Education's Learning Design and Technology programs. Courses taught are listed under Teaching below.

Course development

- Co-developed EDUC 568: AI Contemporary Issues and Applications, a new graduate course, with Dr. Barbara Frey (launched Summer 2026).
- Revised EDUC 581: Innovative Instruction and Leadership (launched Fall 2025)
- Revised EDUC 543: Learning Technologies for Educators (launched Spring 2026).

University of Pittsburgh, University Center for Teaching and Learning

June 2014 – March 2019

Manager, Online Programs

January 2017 – March 2019

Led personnel, project, and operations management for all Pitt Online programs institution-wide, covering the School of Nursing, School of Education, School of Computing and Information, School of Law, Graduate School of Public and International Affairs, and University Center for Social and Urban Research. Managed all Pitt MOOCs on the Coursera platform, developed and managed marketing plans for online programs, evaluated and integrated instructional technologies, and facilitated meetings between instructional design staff, faculty, and administrative stakeholders throughout the course development lifecycle.

Instructional Technology Manager

December 2015 – January 2017

Managed and mentored Instructional Technologists within Pitt Online. Developed resources for best practices and operational processes.

Instructional Technologist

June 2014 – December 2015

Collaborated with faculty and departmental staff to develop online courses. Oversaw development and publishing of all MOOC content. Built courses on Blackboard and Coursera platforms. Produced, recorded, and edited instructional video content.

Service

- Quality Matters Coordinator, 2018–March 2019.
- EDUCAUSE ELI 2019 Conference Proposal Reviewer.
- Member, Learning Management System Assessment Committee, 2017–2018.

Carnegie Mellon University, Human-Computer Interaction Institute

December 2018 – May 2019

Learning Engineer (part-time)

Provided instructional technology and design support to faculty in the Master of Educational Technology and Applied Learning Sciences (METALS) program.

Duquesne University, Mary Pappert School of Music

January 2008 – May 2019

Adjunct Professor of Music Technology

Assisted with curriculum development for music technology courses. Taught all levels of undergraduate and graduate music technology, multimedia, and guitar courses, both online and hybrid. Courses taught are listed under Teaching below.

Instructional Technology Consultant

Consulted with teaching faculty, researched emerging instructional technologies, and developed training materials under the direction of Dr. Kim J. Hyatt.

Gunner Status LLC

November 2010 – Present

Owner

Audio production and engineering services. Since October 2016, the business has operated My so-called 90s Band, a Pittsburgh-based cover band, with responsibility for guitar and vocals, booking, business operations, and marketing: more than 400 performances to date, roughly 40 per year. The business also serves as a working testbed for the web development and AI practices applied at CEI. The applications, data systems, and automations below run the band's day-to-day operations and were built with the same tools and workflow (Next.js, Supabase, GitHub, Airtable, AI-assisted development with Claude Code) used for the Behrend Strategic Plan Dashboard and the H5P Portal.

- Designed, built, and deployed two production Next.js applications for the business: the public site at mysocalled90sband.com (Vercel, Supabase/PostgreSQL with row-level security, admin content management, transactional email, GA4, Event structured data and Search Console management), which replaced a Squarespace site in 2026, and tvandsnacks.com, an internal tools app with an audience song-request form, a live request queue, and a setlist-planning board with a rotation-weighted generator, integrated with Airtable and the Google Docs API.
- Maintain a 600-song Airtable database with formula-driven rotation scoring, per-member eligibility, and automated setlist generation.
- Built AI-assisted automations for recurring operations, including social media caption generation through Airtable automations and API calls, and custom Claude skills that produce gig-day forScore setlist files and lyric caption files for video.

TEACHING

Point Park University, School of Education (graduate)

- 2026** EDUC 581 Innovative Instruction and Leadership (Fall II, Summer I); EDUC 543 Learning Technologies for Educators (Fall I, Spring II; independent study, Fall II); EDUC 534 Online Teaching: Design and Delivery (Summer II); EDUC 580 Instructional Technology Administration and Management (Spring II)
- 2025** EDUC 581 Innovative Instruction and Leadership (Fall II, Summer I); EDUC 580 Instructional Technology Administration and Management (Fall I, Spring II); EDUC 534 Online Teaching: Design and Delivery (Summer II); EDUC 543 Learning Technologies for Educators (Spring II)
- 2024** EDUC 581 Innovative Instruction and Leadership (Fall II, Summer I); EDUC 580 Instructional Technology Administration and Management (Fall I); EDUC 534 Online Teaching: Design and Delivery (Summer II); EDUC 543 Learning Technologies for Educators (Spring II)
- 2023** EDUC 581 Innovative Instruction and Leadership (Fall II); EDUC 534 Online Teaching: Design and Delivery (Summer II); EDUC 535 Technology Applications Across the Curriculum (Summer II)
- 2022** EDUC 535 Technology Applications Across the Curriculum (Fall I)

Duquesne University, Mary Pappert School of Music

- 2019** MUTK 205 Music Technology III (Spring)
- 2018** MUTK 101 Computers for Musicians, 2 sections (Fall); MUTK 205 Music Technology III (Spring)
- 2017** MUTK 101 Computers for Musicians, 2 sections (Fall); MUTK 205 Music Technology III (Spring); GMTK 619 Fundamentals of Computer Music Programming (Spring)
- 2016** MUTK 101 Computers for Musicians, 2 sections (Fall); MUTK 205 Music Technology III (Spring)

- 2015** MUTK 101 Computers for Musicians, 2 sections (Fall); MUTK 205 Music Technology III (Spring); GMTK 619 Fundamentals of Computer Music Programming (Spring)
- 2014** MUTK 101 Computers for Musicians (Fall); MUTK 201 Music Technology II, 2 sections (Fall); MUTK 205 / GMTK 706 Music Technology III (Spring); MUTK 115W Music Technology I, 2 sections (Spring)
- 2013** MUTK 101 Computers for Musicians (Fall); MUTK 201 / GMTK 505 Music Technology II, 2 sections (Fall); MUNM 160 Discovering Music with Guitar (Fall); MUEN 118 Electronic Ensemble (Fall); MUTK 205 Music Technology III, 2 sections (Spring); MUTK 115W Music Technology I, 2 sections (Spring)
- 2012** MUTK 101 Computers for Musicians, 3 sections (Fall); MUTK 201 / GMTK 505 Music Technology II (Fall); MUNM 160 Discovering Music with Guitar (Fall); MUTK 205 Music Technology III, 2 sections (Spring); MUTK 115W Music Technology I, 2 sections (Spring); MUTK 410 Computers for Musicians II (Spring)
- 2011** MUTK 101 Computers for Musicians, 3 sections (Fall); MUTK 201 Music Technology II (Fall); GSUM 604 TI:ME 1A Basic Skills: Electronic Instruments, Production, and Notation (Summer); GSUM 608 TI:ME 2C Integrating Technology into the Music Curriculum (Summer); MUTK 205 Music Technology III, 2 sections (Spring); MUTK 115W Music Technology I, 2 sections (Spring)
- 2010** MUTK 101 Computers for Musicians, 3 sections (Fall); MUTK 205 Music Technology III, 2 sections (Spring); MUTK 410 Computers for Musicians II (Spring)
- 2009** MUTK 101 Computers for Musicians, 2 sections (Fall); MUTK 201 Music Technology II (Fall); MUTK 205 Music Technology III (Spring); MUTK 410 Computers for Musicians II (Spring)
- 2008** MUTK 101 Computers for Musicians (Fall); MUTK 205 Music Technology III (Spring); MUTK 410 Computers for Musicians II (Spring)

PUBLICATIONS

- Gunnell, J. (2017). Relevant versus extraneous music in multimedia instruction: A study of the coherence principle. Doctoral dissertation, Duquesne University.
- Hyatt, K. J., Gunnell, J., Roberts, C., & Smith, H. (2013). Integrating technology throughout the writing process. *International HETL Review*, 3(7).

PRESENTATIONS

- Gunnell, J., & Pron, A. (2026, July 15). Welcome address (invited). Learning Design Summer Camp, Penn State University, State College, PA.
- Gunnell, J., Gallo, J., & Tran, H. (2024, March 23). 360-degree audit: An adventure in virtual tour design. Teaching and Learning with Technology Symposium, Penn State University, State College, PA.
- Gunnell, J., & Hyatt, B. (2023). Panel discussion: Improving efficiency in conducting a QM review. Penn State Quality Matters Users Conference, virtual.
- Gunnell, J., & McCauley, D. (2023). The Teaching Online Program at Penn State: Developing a multi-level, self-paced professional development program for cross-campus use. 48th Annual POD Network Conference, Pittsburgh, PA.
- Gunnell, J., Price, A., & Gallo, J. (2022). Pathways to Pedagogy: Linking educational technologies and teaching activities. Learning Design Summer Camp, State College, PA.
- Gunnell, J., & McCauley, D. (2022). Improving efficiency and consistency in an instructional design office. Learning Design Summer Camp, State College, PA.
- Shelton, C., Gunnell, J., & McCauley, D. (2022). Integrating immersive reality into the classroom at Penn State Behrend. Teaching and Learning with Technology Symposium, State College, PA.
- Gunnell, J., & McCauley, D. (2021). Using QM for course improvements. Penn State Quality Matters Users Conference, virtual.

- Gunnell, J. (2020). Shifting the mission from assisting to empowering online faculty. EDUCAUSE Learning Initiative Annual Conference, Bellevue, WA (presented virtually).
- Mancilla, R., Frey, B., & Gunnell, J. (2019). Applying QM standards: The process and product of a program review. Quality Matters Regional Conference East, New York, NY.
- Gunnell, J., & Piccolini, A. (2016). Pitt Online Toolbox: Building a centralized staff resource depot. Online Learning Consortium (OLC) Innovate 2016, New Orleans, LA.
- Gunnell, J. (2012). Teaching with Max/MSP. Technology Institute for Music Educators (TI:ME) and Jazz Education Network (JEN) 2012 National Conference, Louisville, KY.
- Mroziak, J., & Gunnell, J. (2012). Music 2.0: Webtools for creative pedagogy. Association for Technology in Music Instruction (ATMI) National Conference, Richmond, VA.
- Gunnell, J. (2011). Mashup the music classroom. Technology Institute for Music Educators (TI:ME) and Ohio Music Educators Association (OMEA) 2011 National Conference, Cincinnati, OH.

AWARDS AND RECOGNITION

- Behrend's Best Supervisor, Penn State Erie, The Behrend College, 2024
- Department of Instruction and Leadership in Education (DILE) Innovation Grant Award, Duquesne University School of Education (doctoral research)

TECHNICAL EXPERTISE

AI and automation. Build and deploy production web applications through AI-assisted development (Claude Code), including the Behrend Strategic Plan Dashboard (Next.js, TypeScript, Google Cloud) and the custom WordPress plugins behind the H5P Portal. That work covers writing requirements, directing and reviewing generated code, testing, and managing deployment through GitHub and Google Cloud. Design multi-step AI agent workflows, built as custom Claude skills connected to Airtable and Notion through the Model Context Protocol (MCP), that automate administrative work such as meeting notes processing, project tracking, and goal and metrics reporting.

Instructional design and LMS platforms. Canvas, Blackboard, Coursera, OLI, CTAT, Articulate, Captivate, Camtasia, Respondus, Panopto, Kaltura, MediaSite, H5P, VoiceThread.

Web development. HTML, CSS, PHP, jQuery, Next.js, React, TypeScript, WordPress, Pantheon, Google Cloud (Cloud Run, Cloud Build, Cloud SQL), Airtable (with custom interfaces and automations).

Audio production. Pro Tools, Audition, Logic, Ableton Live, Reason, Max/MSP, Reaper, MainStage.

Video and visual production. Premiere, Final Cut, Photoshop, Illustrator, Lightroom, Bridge.

Data and analytics. Airtable, SPSS, Cognos.

CERTIFICATIONS AND TRAINING

- Quality Matters, QM Rubric Update, Seventh Edition (2023)
- UPCEA, The Language and Culture of Higher Learning (2022)
- Quality Matters, Applying the QM Rubric (APPQMR), Sixth Edition (2018)
- EDUCAUSE Learning Technology Leadership Institute, Minneapolis, MN (2018)
- Online Learning Consortium, Quality Scorecard Mastery Series (2018)
- EDUCAUSE Management Institute, Long Beach, CA (2017)
- Carnegie Mellon University, Simon Initiative LearnLab Summer School, Intelligent Tutoring Systems track (2016)

RECORDING AND PRODUCTION CREDITS

Deskjobs

- *Web In Front* (single, 2026): Vocals, Mixing
- *Hi Unknown* (album, 2025): Vocals, Guitar, Mixing
- *Boat* (EP, 2025): Vocals, Guitar, Mixing
- *A Light Goes Out* (EP, 2025): Vocals, Guitar, Mixing
- *Wildflowers* (single, 2024): Guitar, Mixing
- *I Could Sleep Tonight* (album, 2024): Vocals, Guitar, Mixing
- *Susanne* (single, 2023): Vocals, Mixing
- *I Guess That's How It's Always Been* (single, 2022): Vocals, Guitar, Mixing
- *Hope for Christmas (If Only in My Dreams)* (album, 2020): Vocals, Mixing

The Red Western

- *Don't Blame Me* (single, 2017): Guitar, Composer, Engineer, Producer
- *Sirens* (EP, 2016): Guitar, Vocals, Composer, Engineer, Mixing, Producer
- *Arrows* (EP, 2016): Guitar, Bass, Vocals, Composer, Engineer, Mixing, Producer
- *There's A Fire* (EP, 2013): Guitar, Keyboards, Percussion, Engineering, Mixing, Producer
- *Loves You* (album, 2010): Guitar, Banjo, Keyboards, Backing Vocals, Engineer, Mixing, Producer

Satin Gum

- *Feeling Nothing Feeling Everything* (album, 2018): Engineer
- *LP2* (album, 2012): Guitar, Engineer, Mixing
- *EP3* (EP, 2011): Guitar, Backing Vocals, Engineer, Mixing
- *EP2* (EP, 2010): Guitar, Backing Vocals, Engineer, Mixing
- *LP* (album, 2009): Guitar, Keyboards, Engineer, Mixing, Mastering

Other artists

- *Liquescence: Music by Zvonimir Nagy*, Various Artists (album, 2018): Music Programming on "Kaleidoscope II"
- *America's America*, Grand Piano (EP, 2013): Engineer, Mixing
- *\$1000*, Grand Piano (EP, 2012): Engineer, Mixing, Artwork
- *0.2 Shadow Party*, Vesta (EP, 2012): Keyboards, Engineer
- *Alright Already*, Alot & Alot (album, 2012): Engineer, Mixing
- *Benefit of the Doubt*, Wilk (album, 2011): Mixing
- *28 B-Sides and Rarities*, The Juliana Theory (album, 2010): Mastering
- *0.1 Daylight's Coming*, Vesta (EP, 2009): Keyboards, Engineer, Mixing
- *Sonic Art*, Bill Purse (album, 2009): Mixing Assistant
- *Derek White and the Monophobics* (album, 2008): Guitar, Keyboards, Vocals, Composer, Engineer, Mixing
- *It's All Happening EP*, The Takeover UK (EP, 2008): Organ on "Lean On It"
- *Christmas at Duquesne*, Various Artists (album, 2008): Mixing Assistant
- *The Sand and the Salt EP*, Winslow (EP, 2005): Guitar, Composer
- *Good Times on Pavement*, Dose For Monday (album, 2002): Guitar, Vocals, Composer