Finding the Yin-Yang in Faculty Development: Balancing AI-Centered with Student-Centered Learning

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After the Mindful Minute, choose which best describes how you Feel?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slower Breath Rate/Calm</td>
<td>0%</td>
</tr>
<tr>
<td>Improved Sense of Focus/Clarity</td>
<td>0%</td>
</tr>
<tr>
<td>Decreased Muscle Tension/Stress</td>
<td>0%</td>
</tr>
<tr>
<td>All of the Above</td>
<td>0%</td>
</tr>
</tbody>
</table>
Remember that feeling...
A year of explosive growth in Generative AI
Looked like science fiction a year ago

[Another] disruption in education
→ COVID-19 Pandemic → Enrollment Cliff → Generative AI
Waterfall Pressures
All of Higher Education Ecosystem – Impacted

Faculty
Administrators
Students
Instructional Designers
Course Developers
Legal and Student Affairs

IT and Support Staff
Student Support Services
Researchers
Accessibility Services
Marketing & Comms.
Assessment Services
Librarians
Admissions and Enrollment
Drowning... Overwhelmed

New Apps

AI-Integrations

Media / News

Social Media Posts

Credit: Chris Goodall
March Madness

Newness

Uncertainty

Fear
Changing Narrative: March to October 2023

May 2023

THE CHRONICLE OF HIGHER EDUCATION

How Will Artificial Intelligence Change Higher Ed?

ChatGPT is just the beginning. 12 scholars and administrators explain.
EDUCAUSE 2023: How AI Could Impact Student Success in Higher Ed

Artificial intelligence can support adaptive learning, but institutions should be mindful of how data is used.
Prioritize ChatGPT Proficiency to Enhance Teaching and Learning

Educators have a responsibility to think beyond cheat-proof assignments, teaching students to use AI proficiently and creatively in the classroom, writes Amy Kristof-Brown.

By Amy Kristof-Brown
November 2023

ChatGPT

Bing

Bard

Claude

Meet Grok

TECH

Elon Musk debuts ‘Grok’ AI bot to rival ChatGPT, others

PUBLISHED SUN, NOV 5 2023-11:30 AM EST  UPDATED SUN, NOV 5 2023-11:31 AM EST

Rebecca Picciotto  @BECCPICC

KEY POINTS

• xAI, Elon Musk’s new AI venture, launched its first AI chatbot technology named Grok.

• The prototype is in its first two months of training and is only available to a select group of users before a wider release.

• Musk is positioning xAI to compete with OpenAI, Inflection, Anthropic and others.
Remember that feeling...
25 Years: Faculty Success → Student Success

- 25 Years developing university teaching and learning culture for faculty excellence and student success
- Leadership and support function
Faculty Development Stack for Generative AI

**Campus strategy** for designing, implementing, and managing faculty development initiatives in higher education

Towards an AI-Ready Campus!

<table>
<thead>
<tr>
<th>Stack Layers</th>
</tr>
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<tbody>
<tr>
<td>Curriculum Integration</td>
</tr>
<tr>
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</tr>
<tr>
<td>Community Building</td>
</tr>
<tr>
<td>Teaching Toolkits</td>
</tr>
<tr>
<td>Foundations and Skills</td>
</tr>
<tr>
<td>Analysis and Evaluation</td>
</tr>
</tbody>
</table>
Pulse of the Campus on Generative AI

Intake Survey: April 4 to 24, 2023
Pulse of the Campus

April 4 to 24, 2023
149 responses

**Used ChatGPT**
- Yes: 41.1%
- No: 58.9%

**ChatGPT Skills in General**
- Intermediate: 17.0%
- Beginner: 83.0%

**ChatGPT Skills in Teaching**
- Beginner
- Intermediate
- Advanced: 87.2%
What do you want to learn about AI?

- About AI Tools: 70 Most important, 41 Somewhat important, 41 Least important
- How to Use AI Tools: 92 Most important, 40 Somewhat important, 40 Least important
- Students Use of AI: 88 Most important, 45 Somewhat important, 45 Least important
- Use AI in Teaching: 91 Most important, 31 Somewhat important, 31 Least important
- Use AI in Research: 50 Most important, 35 Somewhat important, 35 Least important
- Avoid Issues on Academic Integrity: 85 Most important, 41 Somewhat important, 41 Least important
- Clarity on Campus Policies: 69 Most important, 50 Somewhat important, 50 Least important
- Develop a Community: 58 Most important, 57 Somewhat important, 57 Least important

April 4 to 24, 2023
149 responses
Connect to Campus Partners

- College Faculty
- Language Resource Center
- Library
- Student Accountability & Conflict Resolution

_Listening, Brainstorming, Planning to Serve Campus Needs_
Teaching Innovation Workshops

- Getting Started with ChatGPT
- Student Study Skills with ChatGPT
- Student Writing Skills with ChatGPT
- Syllabus and Classroom Communication on AI Tools
Study Skills with Generative AI

Generating Study Materials

1. Study Guides for Conceptual Understanding
2. Study Guides that Map to Learning Objectives
3. Vocabulary Review
4. Concept Maps
5. Practice Assessments
6. Case Studies
7. Application Problems

Welcoming A.I. as Study Buddy

1. Concept Explainers
2. Process Explainers
3. Worked Examples
4. Learning Conversations with the A.I.
### Example Prompts

**Example 1:**

*Generate a study guide for a 1000 level psychology course on adolescent brain development. Format as an outline.*

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Context</th>
<th>Input Data</th>
<th>Output Indicator</th>
</tr>
</thead>
</table>

**Example 2:**

*Write directions for a statistics project on hypothesis testing as a table with a check off list of action items.*

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Context</th>
<th>Input Data</th>
<th>Output Indicator</th>
</tr>
</thead>
</table>

### Project Management

#### Generate Project Plans
- Generate a project plan for a project on [INPUT DATA] that is due on [INPUT DATA]. Include the following requirements in the plan [INPUT DATA]: Include a timeline and group roles for [INPUT DATA] students.

#### Manage Progress and Timelines
- Create a timeline for a project on [INPUT DATA] due on [INPUT DATA] with the following requirements [INPUT DATA].

#### Develop Group Roles
- Generate group roles for [INPUT DATA] for a project on [INPUT DATA] with the following requirements [INPUT DATA]. Build group roles based on the following student strengths [INPUT DATA].
  - **ER:** Generate group roles for Jordan, Heidi, Jules, and Aubrey for a project on the effects of AI in education with the following requirements. Build group roles based on the following student strengths.
    - **Requirements:** Literature review, 10-page, double spaced research paper, oral presentation with google slides.
    - **Student strengths:** Jordan: Content Knowledge, Jules: Project management, Heidi: Writing, Aubrey: Technology.
Teaching Guides

Al for Teaching and Learning

1. Opportunities for Teaching with AI
2. Supporting Student Study Skills with AI
3. Supporting Student Writing with AI
4. Classroom Strategies to Promote Responsible Use of A.I.
5. How AI Tools Like ChatGPT Work
6. Syllabus Guidelines for the Use of AI Tools
7. Classroom Communication on the Use of AI Tools
Free Professional Certificate Course (Summer)

Stack Layers
- Curriculum Integration
- Research and Collaboration
- Technology Evaluation
- Community Building
- Teaching Toolkits
- Foundations and Skills
- Analysis and Evaluation

Optional Digital Badge with Capstone ($49)

http://professional.uncc.edu/AICertificate
Online Professional Certificate

1. Prompt Engineering
2. Evolution of Generative AI Tools
3. Self-Directed Learning
4. Project-Based Learning
5. Ethical Implications
One-Stop-Shop Website

Stack Layers

- Curriculum Integration
- Research and Collaboration
- Technology Evaluation
- Community Building
- Teaching Toolkits
- Foundations and Skills
- Analysis and Evaluation

AI ACROSS THE CURRICULUM

SHAPING NEXT-GENERATION LEARNING EXPERIENCES WITH GENERATIVE AI TOOLS THROUGH INNOVATION IN AI LITERACY, DESIGN, AND ETHICS

TOWARDS AN AI-READY CAMPUS!

The Center for Teaching and Learning has launched a stream of programs and resources for faculty and instructional staff to support the increasing role that Generative Artificial Intelligence (AI) is playing in shaping teaching, learning, and classroom learning experiences.

TEACHING INNOVATION WORKSHOPS

Faculty workshops are available for faculty and instructional staff to learn strategies on integrating Generative AI into curriculum while promoting effective and responsible use.

Registration in workshops is required for all participants to attend and receive professional development credit. View all workshops now available and open for registration.

Getting Started with ChatGPT
Faculty Development Workshop

Overview AI Tools
Faculty Development Workshop

Student Study Skills with ChatGPT
Faculty Development Workshop
One-Day AI institute for UNC Charlotte faculty, staff, and administrators!

Stack Layers
- Curriculum Integration
- Research and Collaboration
- Technology Evaluation
- Community Building
- Teaching Toolkits
- Foundations and Skills
- Analysis and Evaluation

CHARLOTTE
AI INSTITUTE FOR SMARTER LEARNING
SHAPING NEXT-GENERATION LEARNING EXPERIENCES WITH GENERATIVE ARTIFICIAL INTELLIGENCE (AI) TOOLS

MAY 18, 2023 | 8:00 AM - 4:00 PM | DUBOIS CENTER
Institute Goals

1. **Build awareness and knowledge** to comfortably navigate the rapid wave of generative AI tools

2. **Convene as a community of educators** to explore how AI can help meet student success goals

3. **Hands-on practice** with generative AI tools

4. **“Listen” to the campus**: Stories, experiences, challenges, solutions

5. **Engage in bold discussions** to pave the way forward for the campus
## Faculty Development Stack for Generative AI

**Campus strategy** for designing, implementing, and managing faculty development initiatives in higher education

### Stack Layers

<table>
<thead>
<tr>
<th>Stack Layers</th>
<th>Faculty Development Programs, Support, and Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum Integration</td>
<td>• Project-Based Learning</td>
</tr>
<tr>
<td>Research and Collaboration</td>
<td>• SOTL Grant Support</td>
</tr>
<tr>
<td>Technology Evaluation</td>
<td>• Student Technology Council</td>
</tr>
<tr>
<td></td>
<td>• Learning Technology Incubation Hub</td>
</tr>
<tr>
<td>Community Building</td>
<td>• Faculty Institute</td>
</tr>
<tr>
<td></td>
<td>• Faculty Fellow</td>
</tr>
<tr>
<td></td>
<td>• Faculty Affinity Groups</td>
</tr>
<tr>
<td>Teaching Toolkits</td>
<td>• Resource Website</td>
</tr>
<tr>
<td></td>
<td>• Prompt Cards</td>
</tr>
<tr>
<td></td>
<td>• Syllabus Language</td>
</tr>
<tr>
<td>Foundations and Skills</td>
<td>• Faculty Workshops</td>
</tr>
<tr>
<td></td>
<td>• Online Teaching Guides</td>
</tr>
<tr>
<td></td>
<td>• Professional Certificate</td>
</tr>
<tr>
<td>Analysis and Evaluation</td>
<td>• Campus Advisory Committee</td>
</tr>
<tr>
<td></td>
<td>• Listening Sessions</td>
</tr>
<tr>
<td></td>
<td>• Data Analysis</td>
</tr>
</tbody>
</table>

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![Stack Diagram](image-url)
Taking the Lead as a Center for Teaching and Learning

Lead the change

Shape what’s next for your campus
Education 4.0 ➔ Generative AI
➔ Hyper-Personalized Learning
➔ Adaptive Learning Pathways
➔ AI-Integrated Systems
➔ AI-Powered Student Support Tutors

AI-Centered Curriculum
Towards social generative AI for education: theory, practices and ethics

Mike Sharples

Institute of Educational Technology, The Open University, Milton Keynes, UK

ABSTRACT
This opinion paper explores educational interactions involving humans and artificial intelligences not as sequences of prompts and responses, but as a social process of conversation and exploration. In this conception, learners continually converse with AI language models and other human learners within a dynamic computational medium of internet tools and resources. Learning happens when this distributed human-AI system sets goals, builds meaning from data, consolidates understanding, reconciles differences, and transfers knowledge to new domains. Building social generative AI for education will require development of powerful AI
### Table 1. Some roles for generative AI in cooperative and social learning.

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility</td>
<td>AI generates alternative ways of expressing an</td>
<td>Students write prompts in ChatGPT and submit each prompt multiple times</td>
</tr>
<tr>
<td>engine</td>
<td>idea.</td>
<td>to examine alternative responses.</td>
</tr>
<tr>
<td>Socratic</td>
<td>AI acts as a respondent to develop an argument.</td>
<td>Students enter prompts into ChatGPT to converse or debate. Teachers</td>
</tr>
<tr>
<td>Opponent</td>
<td></td>
<td>can ask students to use ChatGPT to prepare for discussions.</td>
</tr>
<tr>
<td>Collaboration</td>
<td>AI helps groups to research and solve problems</td>
<td>Working in groups, students use ChatGPT to discover information to</td>
</tr>
<tr>
<td>coach</td>
<td>together.</td>
<td>complete assignments.</td>
</tr>
<tr>
<td>Co-designer</td>
<td>AI assists throughout the design process.</td>
<td>Students ask ChatGPT for ideas about designing or updating a website,</td>
</tr>
<tr>
<td>Exploratorium</td>
<td>AI provides tools to play with, explore and</td>
<td>Students use ChatGPT to explore different ways to visualize and explain</td>
</tr>
<tr>
<td></td>
<td>interpret data.</td>
<td>a large database, such as census data.</td>
</tr>
<tr>
<td>Storyteller</td>
<td>AI creates stories that include diverse views,</td>
<td>Students take it in turn to ask to ChatGPT continue a story, prompting</td>
</tr>
<tr>
<td></td>
<td>abilities and experiences.</td>
<td>it to include a diversity of characters.</td>
</tr>
</tbody>
</table>
Realizeit: Adaptive Learning Pathways

Adaptive Content
- zyBooks: Linear Search
  - zyBooks: Linear Search
  - zyBooks: Binary Search (non-recursive)
- zyBooks: Bubble Sort
  - zyBooks: Bubble Sort
  - zyBooks: Insertion Sort
- zyBooks: Comparable Interface
  - Comparable Interface
  - Sorting Intro & Selection Sort
- Realizeit: Comparable Interface
  - Realizeit: Comparable Interface
  - Realizeit: Sorting Intro & Selection Sort

Adaptive Assessments
- CodeWorkout: Bubble Sort
  - CodeWorkout: Binary Search (non-recursive)
  - CodeWorkout: Binary Search (non-recursive)
- Insertion Sort
  - Insertion Sort
  - Insertion Sort

Adaptive Learning Sequence
- CodeWorkout: Comparable Interface
  - CodeWorkout: Sorting Intro & Selection Sort
- Completed
  - Completed
  - Completed
- Available
  - Available
  - Available
- Locked
  - Locked
  - Locked
- Beginner
  - Beginner
  - Beginner
- Improving
  - Improving
  - Improving
- Competent
  - Competent
  - Competent
- Expert
  - Expert
  - Expert
- Master
  - Master
  - Master
Adaptive Learning Pathways

Linear Learning
- One-Size-Fits-All learning
- Single, linear learning sequence

Flexible, Personalized Learning
- Learners have options
- Multi-directional learning sequences

(Deloitte, Benko & Anderson, 2011)
Smart Systems offer Descriptive and Predictive Analytics

<table>
<thead>
<tr>
<th>Last work</th>
<th>Access key</th>
<th>Time spent</th>
<th>Est Time left</th>
<th>State status</th>
<th>Lesson covered</th>
<th>Learning progress</th>
<th>Composite score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 17</td>
<td></td>
<td>5 hrs 12 mins</td>
<td></td>
<td>Enthusiastic</td>
<td>3/3</td>
<td>Master: 93%</td>
<td>93%</td>
</tr>
<tr>
<td>Feb 17</td>
<td></td>
<td>6 hrs 16 mins</td>
<td></td>
<td>Frustrated</td>
<td>3/3</td>
<td>Competent: 78%</td>
<td>83%</td>
</tr>
<tr>
<td>Feb 17</td>
<td></td>
<td>5 hrs</td>
<td></td>
<td>Unhappy</td>
<td>3/3</td>
<td>Competent: 82%</td>
<td>82%</td>
</tr>
<tr>
<td>Feb 17</td>
<td></td>
<td>1 hr 17 mins</td>
<td></td>
<td>Unhappy</td>
<td>3/3</td>
<td>Competent: 88%</td>
<td>89%</td>
</tr>
<tr>
<td>Apr 29</td>
<td></td>
<td>3 hrs 29 mins</td>
<td></td>
<td>Enthusiastic</td>
<td>3/3</td>
<td>Master: 96%</td>
<td>96%</td>
</tr>
</tbody>
</table>
AI-Powered Student Support Tutors and Communities

- InScribe: Tutoring and Semantic Analysis
What to Expect: Coming Soon

The LMS is changing...

AI Tools → AI-Integrated Systems
AI Integrated Systems

Blackboard

AI Design Assistant
AI Integrated Systems

Canvas
Emerging
AI Marketplace

Copyleaks Detection
Our exclusive AI-powered text analysis can identify potential plagiarism, recognize AI-generated content, verify ownership, and empower error-free writing.

Join Waitlist  Learn More ➔

IdeA11y
IdeA11y Writing Companion (IWC) is an AI-enabled non-invasive companion that helps you proofread and optimize for accessibility and DEI as you write.

Join Waitlist  Learn More ➔

Khanmigo
Say hello to Khanmigo, Khan Academy’s AI-powered guide. Tutor for learners. Assistant for teachers.

Join Waitlist  Learn More ➔

NOLEJ
NOLEJ AI
NOLEJ AI for Canvas can convert any suitable material you add to your course into interactive eLearning modules, in minutes!

Join Waitlist  Learn More ➔

Noodle Factory
Our AI teaching assistant helps educators create no-code AI tutors effortlessly. Streamline tasks. Boost student engagement.

Join Waitlist  Learn More ➔

Outcomes Insights
The learning outcome quality checker will identify common errors in learning outcome authoring and recommend an improved version of the outcome for instructional designers and faculty.

Join Waitlist  Learn More ➔
Education 4.0

Use [AI] technology safely and effectively to deliver education that prepares students to contribute to society and workplace.

Education 5.0

Student-Centered Curriculum

→ Enhance Human Super Strengths
→ Experiential Curriculum
→ Humanity-Centered Learning
→ Pedagogies of Care

AI-Centered Curriculum

→ Generative AI
→ Hyper-Personalized Learning
→ Adaptive Learning Pathways
→ AI-Integrated Systems
→ AI-Powered Student Support Tutors
Develop Human Super Strengths

- Analytical judgment
- Flexibility
- Emotional intelligence
- Intellectual curiosity
- Bias detection and handling
- AI delegation (prompts)

Colette Stallbaumer
MICROSOFT
Re-Connect Learning with Society

Extending Learning Outcomes

What you Love
Passion
What you are good at
What you can be paid for
Ikigai
Mission
Profession
Vocation
What the World needs
What the world needs…

Support student outcomes that focus on what the world needs.

Support student outcomes that aim for social good.
UN Sustainable Development Goals (SDGs) 2015-2030

1. NO POVERTY
2. ZERO HUNGER
3. GOOD HEALTH AND WELL-BEING
4. QUALITY EDUCATION
5. GENDER EQUALITY
6. CLEAN WATER AND SANITATION
7. AFFORDABLE AND CLEAN ENERGY
8. DECENT WORK AND ECONOMIC GROWTH
9. INDUSTRY, INNOVATION AND INFRASTRUCTURE
10. REduced INEQUALITIES
11. SUSTAINABLE CITIES AND COMMUNITIES
12. RESPONSIBLE CONSUMPTION AND PRODUCTION
13. CLIMATE ACTION
14. LIFE BELOW WATER
15. LIFE ON LAND
16. PEACE, JUSTICE AND STRONG INSTITUTIONS
17. PARTNERSHIPS FOR THE GOALS

Build Humanity-Centered Curriculum

- **Look** “outside”
- **Feel** the community
- **Analyze** the society we live in
- **Apply** technology to solve worldly problems
Explore New Theories and Curriculum

- Sense of Responsibility
- Pedagogies of Care
- Challenge-Based Learning
- Socio-Technical Skills
- Futurist Literacies
- Participatory Learning & Partnerships
Use [AI] technology safely and effectively to deliver education that prepares students to contribute to society and workplace.

Student-Centered Curriculum
- Enhance Human Super Strengths
- Experiential Curriculum
- Humanity-Centered Learning
- Pedagogies of Care

Education 4.0

Education 5.0

Lead and Support Faculty Development

AI-Centered Curriculum
- Generative AI
- Hyper-Personalized Learning
- Adaptive Learning Pathways
- AI-Integrated Systems
- AI-Powered Student Support Tutors
Remember that feeling...
Thank you!
Questions?

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