Supporting and engaging students in an AI-powered, post-pandemic world

How can librarians and instructors better support student learning and research in today’s academic landscape?

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Research team

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KEY QUESTION

How have changes and trends resulting from the pandemic, the emergence of AI, and other factors impacted learning and research workflows for key personas?

Quick stats

- **40** interviews
- **200** survey responses
- **Participants**: faculty instructors, librarians, students
- **Time frame**: December 2023 to February 2024
- **Institutions**: 2 and 4-year colleges and universities including Georgia Institute of Technology, Arizona State, University of Texas, California State University, & many more.
- **Regions**: Primary regions were United States and UK.
ONLINE LEARNING AND TECHNICAL SKILLS

Expectation of online availability

- More robust online library and campus services
- Higher demand for online office hours and recorded lectures
- Increased use of devices in class

“There's like no such thing as a fully in person class anymore”

- Maria, Librarian
Lack of technical and information literacy

Digital native ≠ technology expert

Research remains a key challenge

“They’re so versed on social media yet doing anything academic on their phone or on a computer, it’s like it’s foreign to them… Everybody says they’re the digital natives. That’s not true.”

- Joy, Faculty Instructor, Education
Increased financial pressure

More students are working longer hours alongside their studies*

"It used to be that people had 10 or 20-hour jobs. Now, my students have 30, 40, 50-hour jobs."

- Community College Instructor

** Gallup and the Walton Family Foundation as reported in the New York Times, 05/02/2024

Mental health issues

Many instructors and librarians see a decline in student mental health**

"I've seen a huge decline in student mental health since the pandemic. I've never really seen anything like it."

- Jennifer, Faculty Instructor, Social Sciences

* Georgetown University. 2015. https://cew.georgetown.edu/cew-reports/workinglearners/

** Gallup and the Walton Family Foundation as reported in the New York Times, 05/02/2024
Engagement issues

- Faculty report **increased absenteeism** and distraction during class.

- Lack of engagement may reflect a **lack of passion** for the subject.

- Some students have an increasingly **transactional approach** to higher education.

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**Not all students are disengaged**

Potential follow-up research: Examining the variables affecting engagement

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“There’s an absence, even when they’re physically present. They’re just not really *there* a lot of the time.”

- Scott, Instructor

Communication Studies
Instructors and librarians say students are less prepared, particularly in writing and math skills. Many described a cycle involving the cost of education and knock-on effects.

“More of them are having to take remedial classes...their writing isn’t as strong, their math skills aren’t as strong. They don’t have a strong enough foundation.”

– Jennifer, Faculty instructor
Clinical Social Work

*National Student Clearinghouse Research Center: https://www.bestcolleges.com/research/college-enrollment-decline/*

Less prepared student body

Lower value of degree vs. cost

Decreasing enrollments*

Lower enrollment standards
Entitlement to learning

- Expectation for learning to be delivered by instructor
- More preparation and structure provided by faculty
- Less rigorous work and higher grade expectations

“I do not see it any longer as independent research. There’s an expectation that everything is going to be delivered instead of learned.”

- Margarita, Instructor Education
Factors positively affecting student motivation and engagement

- 16% Collaboration with other students
- 13% Flexible deadlines for assignments/research
- 12% Ability to study remotely / online
- 12% Better access to learning resources

Factors negatively affecting student motivation and engagement

- 23% Anxiety/mental health
- 18% Balance of work/school
- 15% Deadlines for assignments/research
- 14% Financial difficulties

From a survey of 157 students (undergraduate to PhD)
<table>
<thead>
<tr>
<th>Learn about the assignment &amp; topic</th>
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<th>Synthesize and write</th>
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<tbody>
<tr>
<td>5% Planning an assignment / research</td>
<td>Finding sources of information</td>
<td>Understanding or summarizing a source</td>
<td>5% Revision</td>
</tr>
<tr>
<td>6% Learning about the landscape of a subject</td>
<td>Evaluating the quality of information sources</td>
<td>Writing a paper</td>
<td>1% Finding/creating visual material</td>
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<tr>
<td>10% Choosing / learning about a topic</td>
<td>Keeping track of my sources</td>
<td>Help with writing skills e.g. grammar, spelling,</td>
<td>2% Getting suggestions for improvements</td>
</tr>
<tr>
<td></td>
<td>Referencing or citing sources</td>
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<tr>
<td></td>
<td>Collaborating with other students</td>
<td>Data analysis</td>
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From a survey of 157 students (undergraduate to PhD)
What we’re doing to help
How we adapt the design of our products to meet the needs of modern researchers
These provides users with one place to start their research on the most commonly studied and researched areas of the discipline, allowing them to:

• Quickly understand a topic
• Easily scan results by key content types
• Research it more deeply
• Explore it in its wider context
• Understand relationships between different topics.

Research Connection

• Meet expectation for structured information
• Higher engagement with visual approach
• Browsable interface doesn’t require expertise
• Aid in choosing a topic
At the novel's opening, Miss Emma Woodhouse reports that her governess has recently married Mr. Weston and moved away. Although Emma congratulates herself on having brought the two together, she regrets the absence of Miss Taylor and quickly takes on a new companion in Harriet Smith. Emma takes the impressionable girl under her wing and decides to play matchmaker between the handsome Reverend Elton and her new friend. In order to launch her scheme, Emma must first separate Harriet from a young farmer, Mr. Robert Martin, who has made an offer of marriage to Harriet.

Emma is successful in persuading her friend to break things off with Mr. Martin and to fall in love with Mr. Elton instead. Unfortunately, the plan fails when Mr. Elton falls in love with Emma rather than Harriet. Having been rejected by Emma, he leaves town for a brief vacation and returns with a wealthy young fiancée named Augusta Hawkins.
Jane Austen (1775-1817), novelist, was born on 16 December 1775 in Steventon, Hampshire, the seventh child of the Rev. George Austen (1731-1805) and Cassandra Austen, née Leigh (1739-1827). She had an elder sister, Cassandra, and five brothers: James, Edward (later Knight), Henry, a clergyman; Francis, William, or 'Fly'; and Charles. Francis and Charles were in the Navy.

Read full ProQuest Biography...
Romanticism, 1780-1837

A sweeping but indispensable modern term applied to the profound shift in Western attitudes to art and human creativity that dominated much of European culture in the first half of the 19th century, and that has shaped most subsequent developments in literature - even those reacting against it. In its most coherent early form, as it emerged in the 1790s in Germany and Britain, and in the 1820s in France and elsewhere, it is known as the Romantic Movement or Romantic Revival. Its chief emphasis was upon freedom of individual self-expression: sincerity, spontaneity, and originality became the new standards in literature, replacing the decorous imitation of classical models favoured by 18th-century neoclassicism. Rejecting the ordered rationality of the Enlightenment as mechanical, impersonal, and artificial, the Romantics turned to the emotional directness of personal experience and to the boundlessness of individual imagination and aspiration. [...] The restrained balance valued in 18th-century culture was abandoned in favour of emotional intensity, often taken to extremes of rapture, nostalgia (for childhood or the past), horror, melancholy, or sentimentality.

Read more from Concise Oxford Dictionary of Literary Terms ...
Home Pages
Guiding Students

- Helps researchers get a bearing on their area of focus: important companies, industries, journals, etc.
- Guides them to the content that is important for their discipline, such as Wall Street Journal and The Economist
Home Pages
Inspiring Students

Trending topics help students come up with ideas for assignments and choose a topic.
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Discipline Features
For deeper understanding of the field.

Discipline standards built into interface and become second nature to students, e.g.
- NAICS codes in business
- ERIC thesaurus in education
- American Psychological Association (APA) content and databases
The effect of AI on higher education
How faculty and students are adapting to these powerful new tools
How are faculty approaching AI in higher education?

Quotes that represent these attitudes

**Cautious**

“The paper died its last gasping breath when ChatGPT came out... You need to make assignments that have so many moving parts that it's just easier to do it than figure out how to have the robot do it.”

- Steve, Faculty, Education/Social Sciences

**Experimental**

“I built it into an assignment for my 400 level students where I asked them to use [ChatGPT] and then tell me what they found and how it did. Through doing that, they could prove whether they've learned this stuff or not.”

- Scott, Faculty, Communications

**Enthusiastic**

“There's a group of students who see it as a valuable tool. So I have students in my research lab, you know, have ChatGPT up on one screen and then they're coded on the other screen and they're moving back and forth to kind of figure out problems.”

- John, Faculty, Biology
CITE framework: a guide for using AI in higher education based on customer interviews

CREDIBLE  INCLUSIVE  TRANSPARENT  EDUCATIONAL

“[AI] brings in all of the biases that it was trained on, which are plenty, and it accidentally creates a lot of exclusion of content that makes it harder to find content that is outside of the AI highway.”

- Lisa, Media Services Librarian

“I want to know exactly what it's trained on so that I know what I'm recommending because I can't do that right now with ChatGPT or other products.”

- Carrie, Student Success and Engagement Librarian
How are students using AI tools for school and research?

According to 157 current undergraduate and graduate/PhD students

- 31% use AI for school or research
  - 52% are confident when using AI
  - 58% use it often

- 69% don’t use AI for school or research
  - 37% are confident when using AI
  - 29% use it often
In which parts of the research process do students use AI tools?

According to a survey of students that have used AI for school work,

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Our approach to AI
An introduction to ProQuest Research Assistant
ProQuest Research Assistant: AI used strategically to help key researcher tasks

Suggested keywords help researchers build a search, discover terms, and narrow down
The relationship between academic stress and depression among college students during the COVID-19 pandemic: a cross-sectional study from China

Boailing Chen1,*, Weiwai Wang1 and Shanlin Yang1

Abstract

Background: The COVID-19 pandemic is a global public health crisis. During the COVID-19 pandemic, mental health has attracted great attention. However, there is a lack of research on the relationship between academic stress and depression in Chinese college students and its mechanisms. Therefore, this study investigated the mechanisms of coping style, sleep quality, and interpersonal relationship in academic stress and depression among college students.

Methods: The cross-sectional study was conducted from May to June 2022 through face-to-face questionnaires with college students in Anhui Province, China. The questionnaires included sociodemographic information, the Simplified Coping Style Questionnaire, and the Self-Rating Depression Scale. Ordered logistic regression model was used to study the relationship between academic stress and depression of college students during the COVID-19 pandemic through the mechanism analysis of coping style, sleep quality and interpersonal relationship.

Results: Two thousand thirty-three Chinese college students participated in the study, including 1,285 female and 748 male college students, with an average age 19.81 years old (SD=1.22 years old). The results showed that (1) Academic stress had a significant impact on depression in college students under the background of COVID-19.
Thank you

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