

Pay to Win:

Copyright Infringement and Academic Integrity Violation in Document-Sharing Ecosystems



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The Problem: A \$3.6B Business Built on Educators' Work

The Pay-to-Win Model

1

Students upload course materials

Exams, assignments, labs — theirs or not

2

Platform sells access

\$39–\$119/yr; 30 unlocks per subscription

3

Educators bear the burden

File DMCA takedowns one doc at a time



Course Hero

200M+

documents hosted on Course Hero

\$3.6B

valuation
(2021)

3M+

paying
subscribers

The catch:

Platforms disclaim responsibility via Terms of Service. If educators want copyrighted content removed, they must file DMCA takedowns — one document at a time.

Research Questions & Methodology

RQ1

What kinds of documents are hosted/ how fast do these platforms grow?

Measurement

- Crawled 227K docs from Course Hero, Docsity & StuDocu across 22 U.S. universities (CS & ECE)

RQ2

Why are faculty affiliated with Course Hero as 'Verified Educators'?

Survey 1

- Verified Educators Survey — N = 153 educators sampled from Course Hero's own directory

RQ3

How much of what's on Course Hero violates instructor copyright?

Survey 2

- Rights & Integrity Survey — N = 56 educators reviewed their own documents

RQ4

How much of it gives students an unfair academic advantage?

Survey 2

- Same survey — educators judged each document for academic integrity risk

RQ1: Course Hero Has Grown Exponentially Since 2007

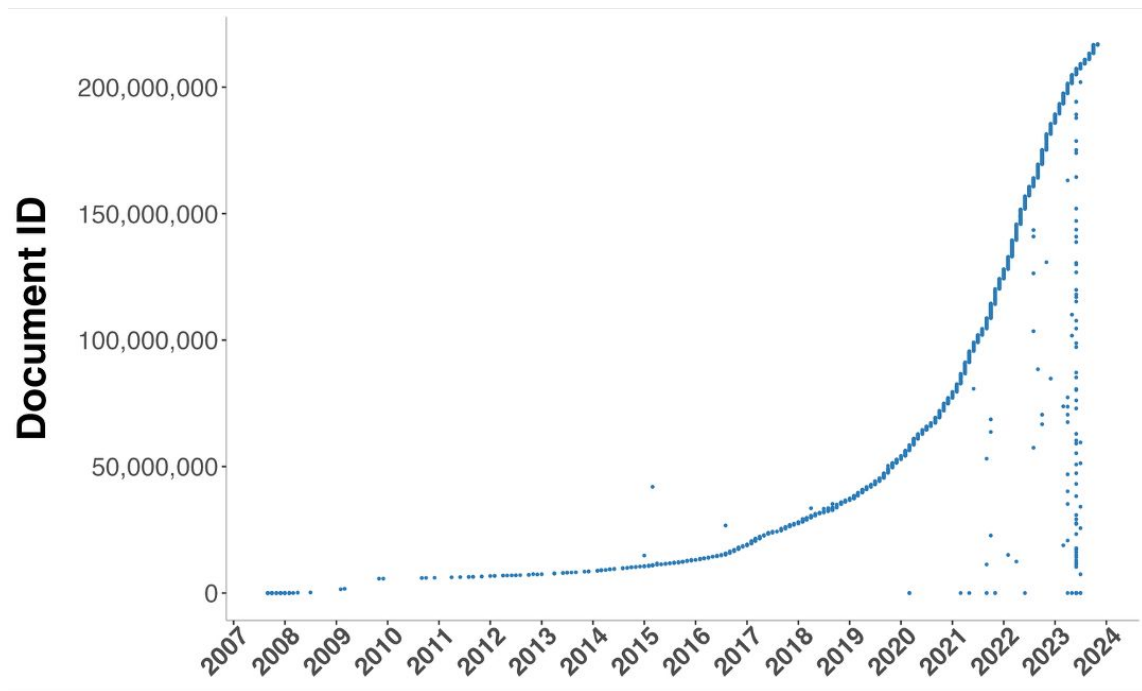


Figure 1: Document IDs spanning Course Hero's inception in 2007 to 2024 (millions)

200M+

Total documents estimated
(2024)

225K

CS/ECE docs collected across
22 universities, 3 platforms

75.6%

Documents accessible
(rest removed via DMCA or policy)

RQ2: 'Verified Educator' Profiles ≠ Endorsement – 153 Surveyed Educators

Did you create a faculty account on
Course Hero?

48.37%

Yes

51.63%

No/I'm not sure

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Why did you make a profile?

56.16%

41

Check for
Illegitimate
Use

15.07%

11

Mix

28.77%

21

Instructional
Use

N = 73 participant responses

What educators actually said:

Created profiles to check for cheating

"I think it's a cheater's resource and I wanted to see what was there. I'm thinking about uploading bogus solutions to see if I can catch students abusing the site."

Created profiles to file DMCA takedowns

"I created an account to view what is available so I could prove students were plagiarizing from Course Hero."

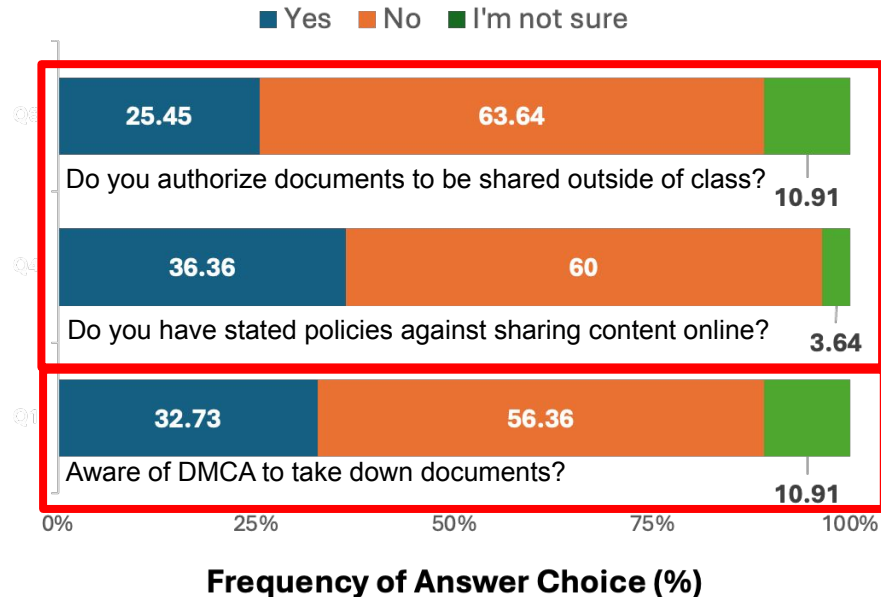
Created profiles for instructional use

"I use Course Hero to review syllabi of courses to verify articulation requirements for my programs."

RQ3 & RQ4: Educators Reflect on Their Own Course Policies and Awareness

N = 56 educators answered several general questions that focus on course practices and DMCA awareness

Copyright (RQ3)



Awareness gaps among the 55 educators:

56% didn't know they could file a DMCA

60% had no syllabus policy against sharing

21% didn't know their content was on CH

62% would use an automated DMCA tool if it existed

Figure 2: Educator responses to general questions from the Rights and Integrity Survey.

RQ3 & RQ4: Educators Confirmed Copyright Violations — But Face a DMCA Trap

N = 56 educators reviewed 280 documents from their own courses on Course Hero (5 docs each, highest-viewed by category).

Copyright (RQ3)



37.2% instructor copyright | 62.8% undetermined or student-owned

Educators confirmed 37% of documents carry instructor copyright — **uploaded without permission.**

Academic Integrity (RQ4)

12.86%

Instructor
copyright +
unfair advantage

15.36%

Unfair advantage,
but NO instructor
copyright claim

24.29%

Instructor
copyright, no
unfair advantage

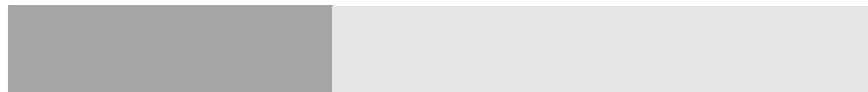
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No copyright
claim, no unfair
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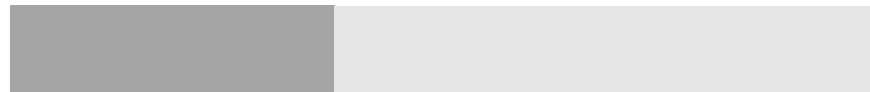
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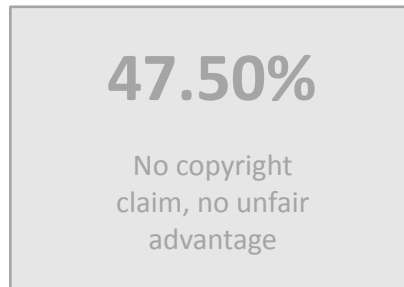
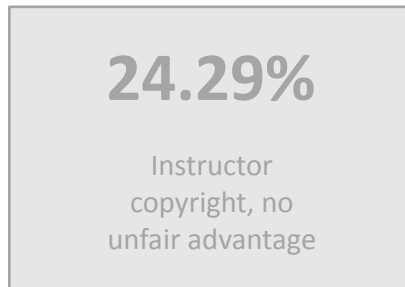
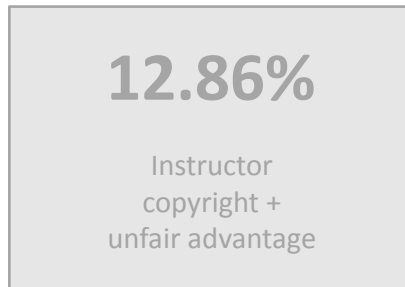
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What educators actually said:

“I was not aware of this, and I do believe this is a clear violation of copyright material. Although we do not state it directly in our syllabus, we offer a link to what constitutes academic integrity”

Academic Integrity (RQ4)



15.36% of docs give students an unfair advantage — but educators can't DMCA them.

Takeaways & Implications

01

Course Hero has grown exponentially — now a de facto monopoly

200M+ documents, \$3.6B valuation, 3M+ subscribers. No comparable enforcement mechanism exists at this scale.

02

'Verified Educator' profiles are not endorsements

56% of enrolled educators joined to catch cheating or file takedowns — the opposite of endorsement.

03

37% of documents infringe instructor copyright; 28% facilitate cheating

Educators confirmed this using their own documents — the most ecologically valid evidence to date.

04

The DMCA burden falls entirely on educators — and the process is broken

Educators are willing to act, but the current system is too slow and complex. Automated tools would help.

Thank You

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Supplementary Materials



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