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"There's no right answer"

open-ended discussion and interpersonal skills in computing classrooms

Broadening Participation in Computing

Training TAs in Computing Courses

1. have technical skills

Broadening Participation in Computing

Training TAs in Computing Courses

1. have technical skills
2. will get experience

Broadening Participation in Computing

Training TAs in Computing Courses

1. have technical skills
2. will get experience
3. need interpersonal skill support

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Broadening Participation in Computing

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goal: increase sense of belonging in computing courses for
all students

Broadening Participation in Computing

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goal: increase sense of belonging in computing courses for
all students

Back of the envelope numbers (Fall 2022):

DS 2000 — 480 students, 42 TAs, 2 professors

CS 2500 — 773 students, 90 TAs, 6 professors

Broadening Participation in Computing

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The primary location of one-on-one interaction is happening between students and TAs.

Broadening Participation in Computing

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Computing courses don't typically focus on developing interpersonal skills.

Professors in computing typically teach classes where activities and prompts have a specific, set answer.

Broadening Participation in Computing

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The primary location of one-on-one interaction is happening between students and TAs.

> More welcoming TAs → more welcoming environment → more humanists with technical skills, computer scientists with interpersonal skills

Train the TAs (https://cic.northeastern.edu/ta-training/)

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Khoury hires ~700 TAs a semester

Training program focuses on interpersonal skills with technical grounding

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Initial results:

- computing faculty are less comfortable teaching modules centered around open-ended discussion and topics "outside" of computing

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Introduction to intersectionality

- this is the module that has received the most positive feedback from TAs in the training

Okay, but what does this have to do with ethics and AI?

Integrating Ethics in NLP

Also relies on computing students' "soft" skills

1. Homework with ethics questions

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Integrating Ethics in NLP

Also relies on computing students' "soft" skills

1. Homework with ethics questions
2. Lectures on bias and ethics in NLP

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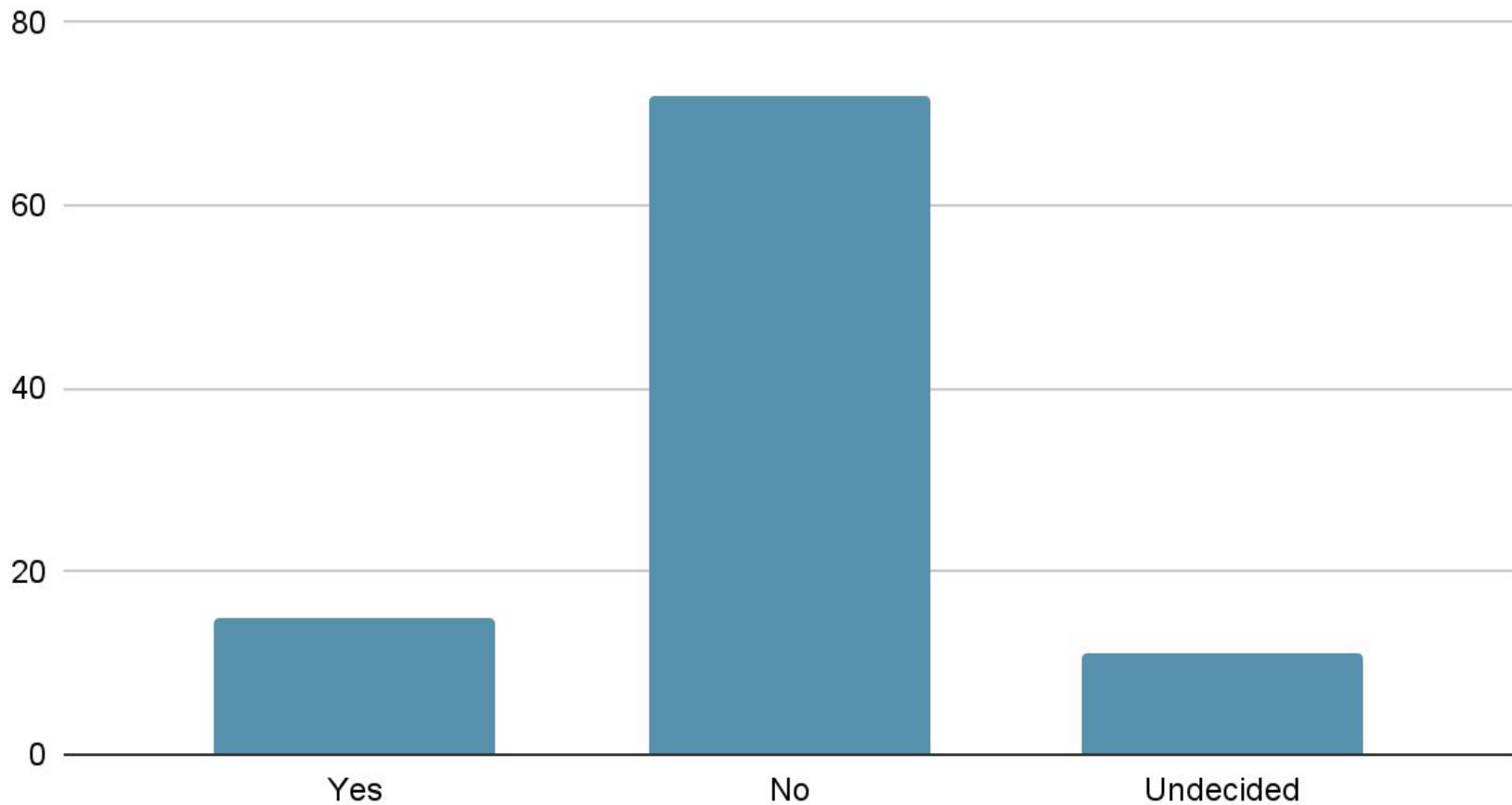# CS 4120: Natural Language Processing (HW 1 - essay)

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"what is a word" and "how big is my vocabulary?"

1. Students write their answers
2. Students read the essay answer that ChatGPT produced given the same prompt
3. Students critique ChatGPT's response
4. Students make an argument for whether or not ChatGPT should be allowed as a citable resource
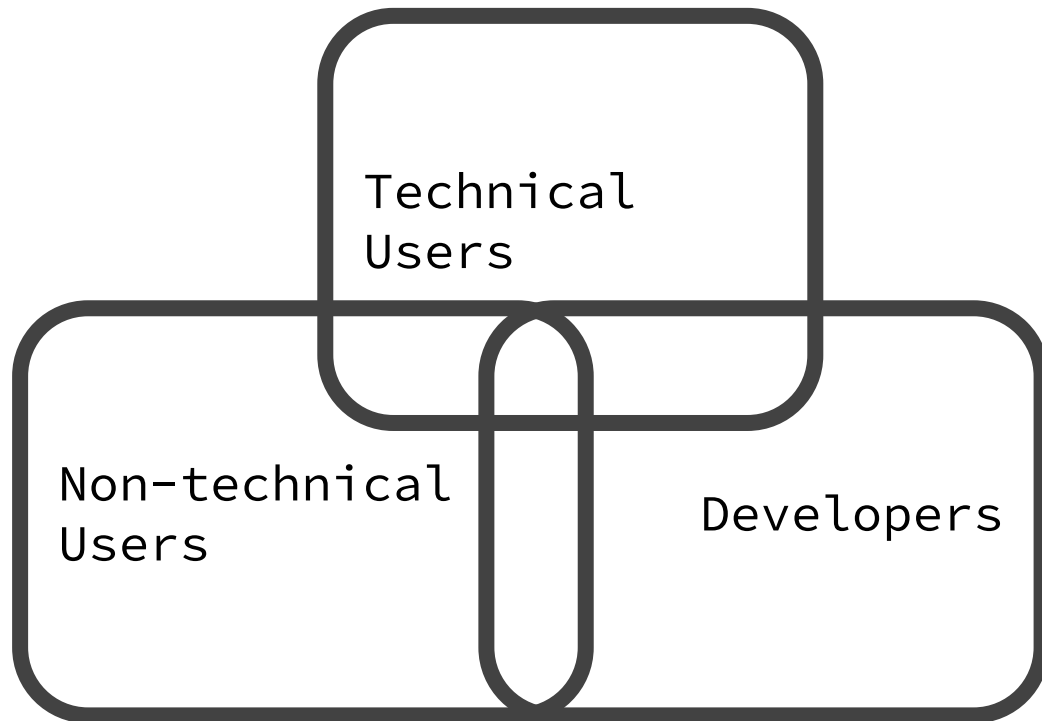
Should ChatGPT be allowed as a citable resource?

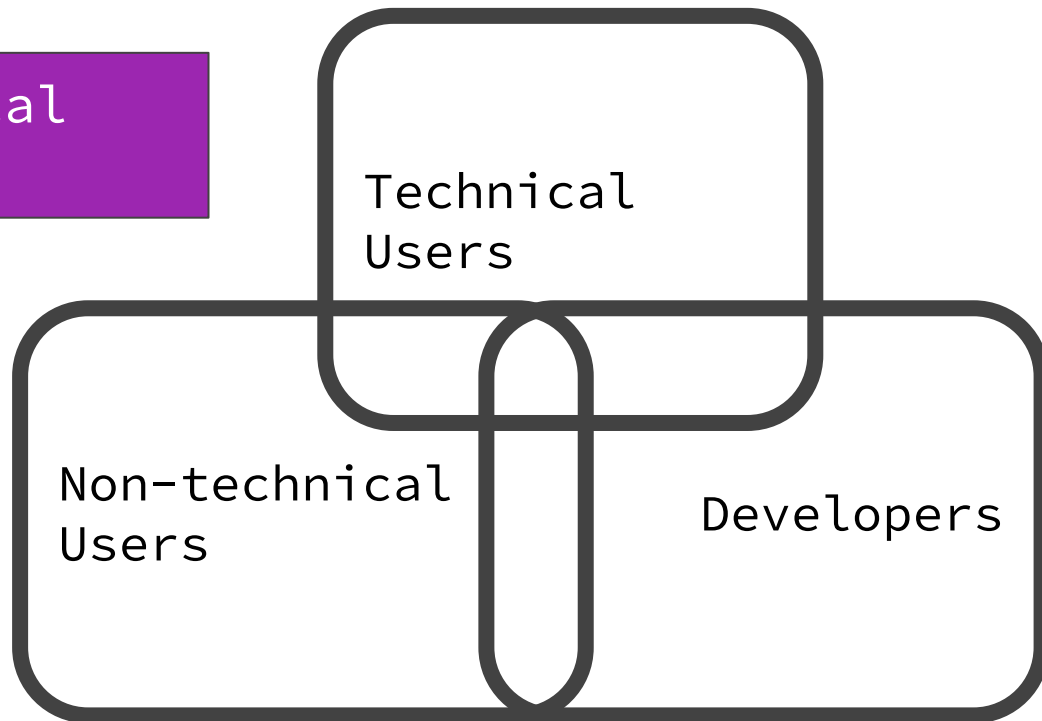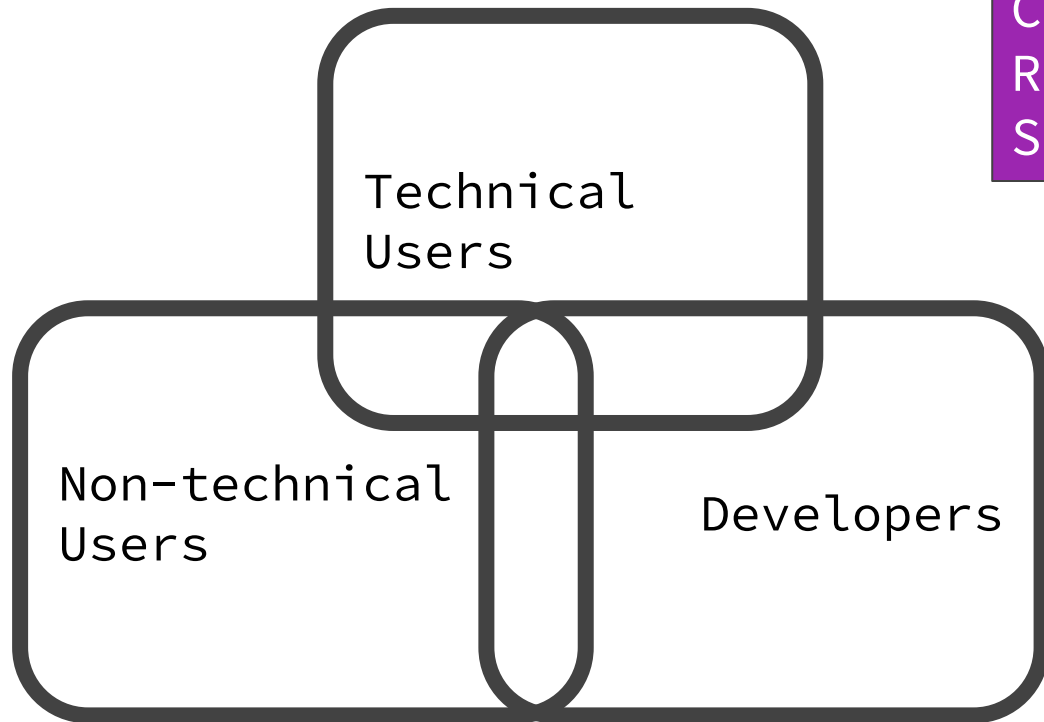# Pedagogy of Large Language Models

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Technical Users

Non-technical Users

Developers

Pedagogy of Large Language Models

Technical Skills

Technical Users

Non-technical Users

Developers

Pedagogy of Large Language Models

Technical Users

Non-technical Users

Developers

Critical Reasoning and Soft Skills