OUR Project

Step by step

The problem statement

- We have approximately 608 scientific papers from NASA on life and biology in space.

- The problem is that the number of studies is so large, its certainly difficult t read them al

The solution

- The web application aims to summarize and enable researchers, students, and even NASA to explore the 608 studies.

- These studies are available in the Online Repository.

- We need to summarize the studies using AI, organize and link them, and present them.

What will the site look like?

Suppose we open the website...

You will find:

- A simple home page

- In a search box, type "bones," for example.

You will see:

1. A short summary

2. A chart showing any research papers related to the topic

3. A timeline showing when the papers were created

Ok, what about AI, brother?

Very simple.

- Will reads the research instead of us.

- Will summarizes each research in a few words (what they did / what the results were).

- Will collects similar ideas.

For example, if there are 20 research papers on bones, they can discuss what they agree on and what is still unclear.
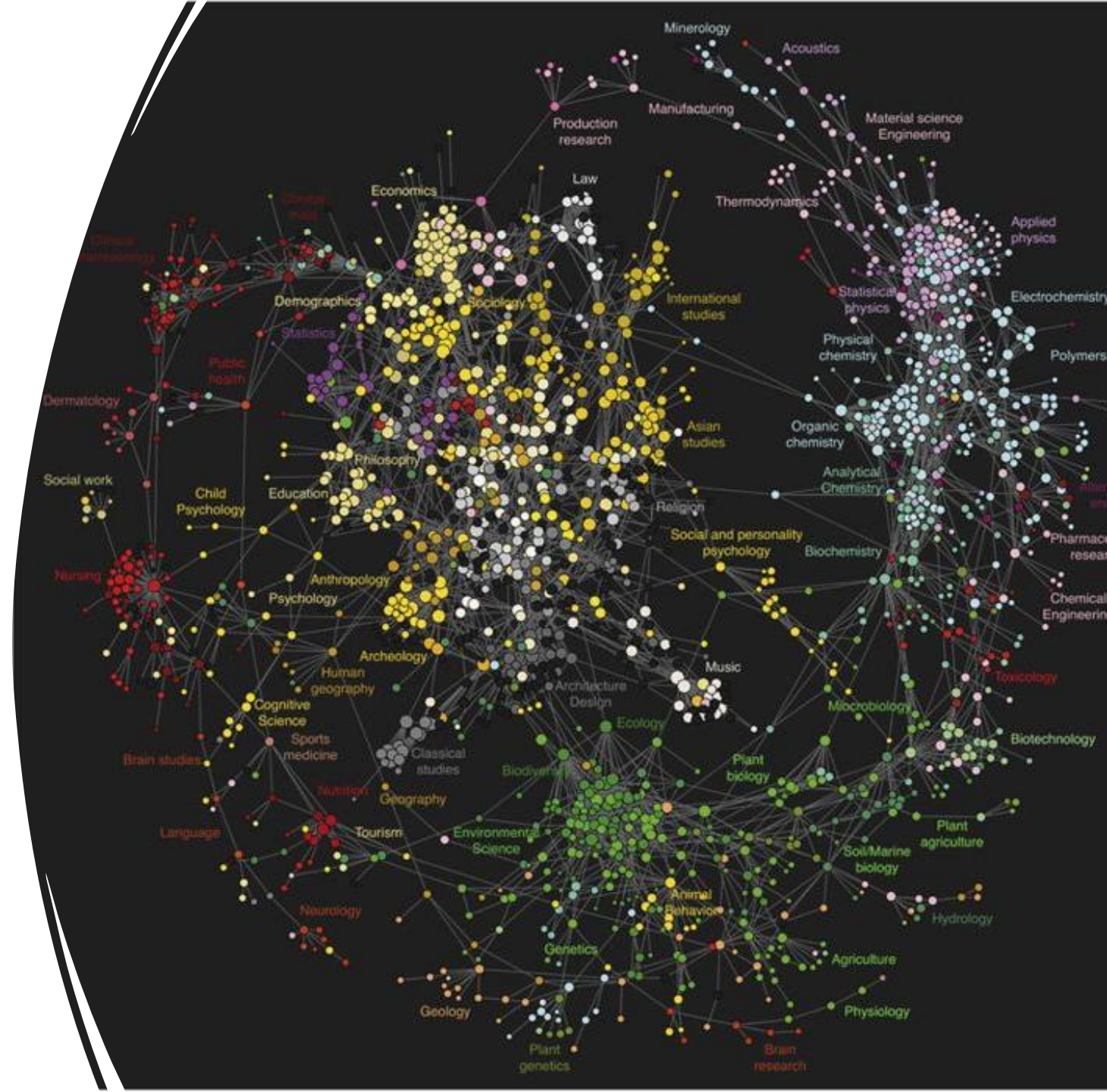
What does Knowledge Graph mean?

Imagine you have a map with circles and lines!!

- Each circle = a piece of research or an idea.

- The lines = connect the circles together (meaning this research is related to the next topic).

We didn't understand!!!!? ..... OK:

- A circle = "Bones weaken in space."

- A second circle = "Exercise maintains bones."

- The line between them = "A proposed solution."

Ok, let's apply

- We collect research (from the original site).

- We let artificial intelligence read it and generate a structured summary.

- We build a database so we can link ideas together.

- We design a simple website:

1. A search box.

2. A results page.

3. Graphics and maps.

- We add cool features like filtering by topic or by year.

Live the situation with me please

You open the website and type bone loss

- You get this: Studies show that astronauts lose 1–2% of their bone mass each month. Exercise and supplements help reduce the problem

- You see a timeline: the first study in 1975 → the latest study in 2024

- You see a map: circles linking bones to "exercise" "medication" and "nutrition"