BRINGING UNTHINKABLE PROJECTS TO LIFE

VOLUME 6 COLORING BOOK
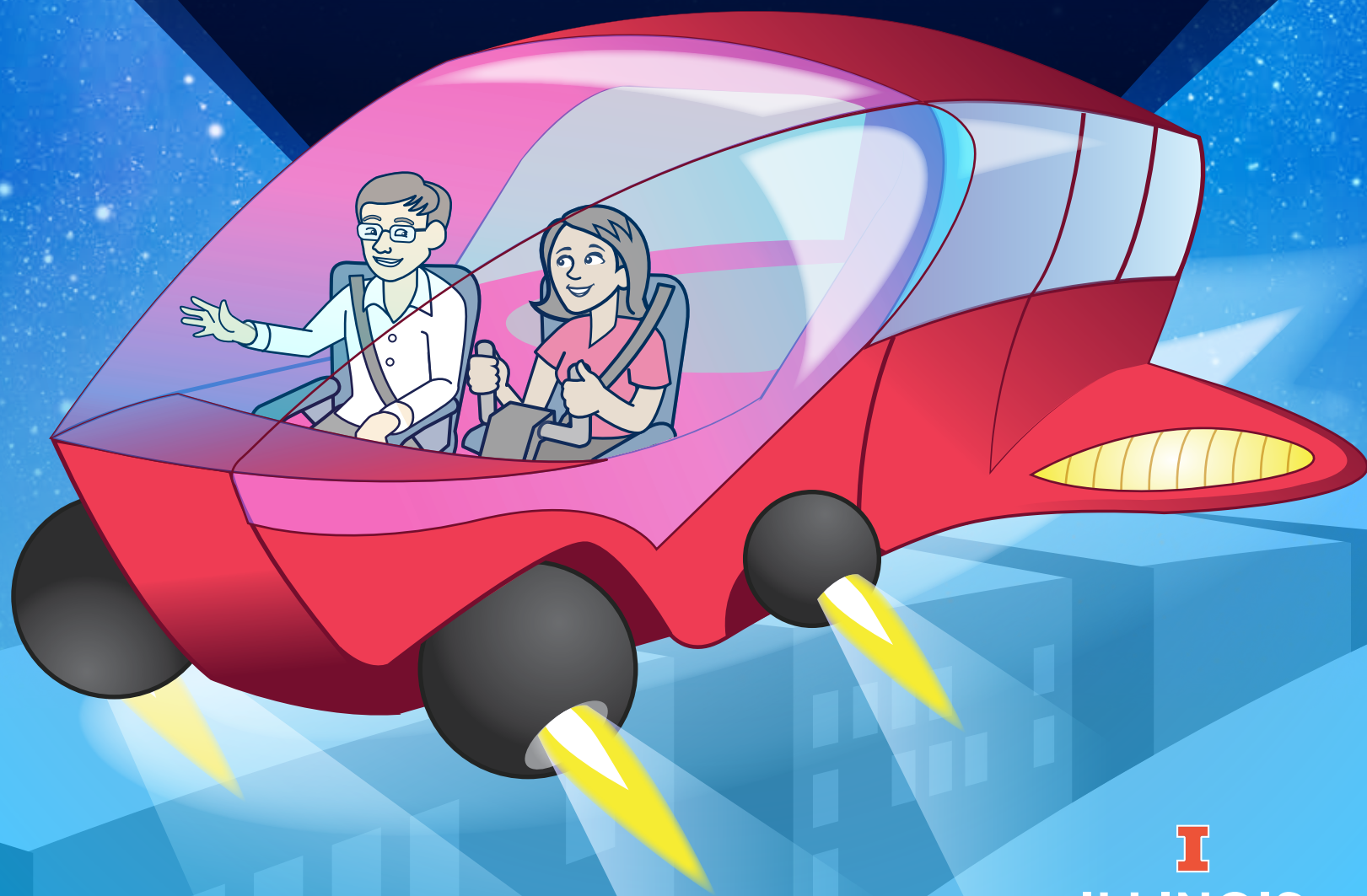
About NCSA: The University of Illinois' National Center for Supercomputing Applications (NCSA) is a national hub for digital inquiry and exploration. NCSA's hundreds of skilled staff provide integrated cyberinfrastructure, like computing, software, data, networking, visualization resources, and domain-specific expertise that help researchers nationwide. NCSA is also an engine of economic impact for the state and the nation, as well as an integral part of the Illinois campus. The National Science Foundation, the state of Illinois, the University of Illinois, industrial partners, and other federal agencies support NCSA.
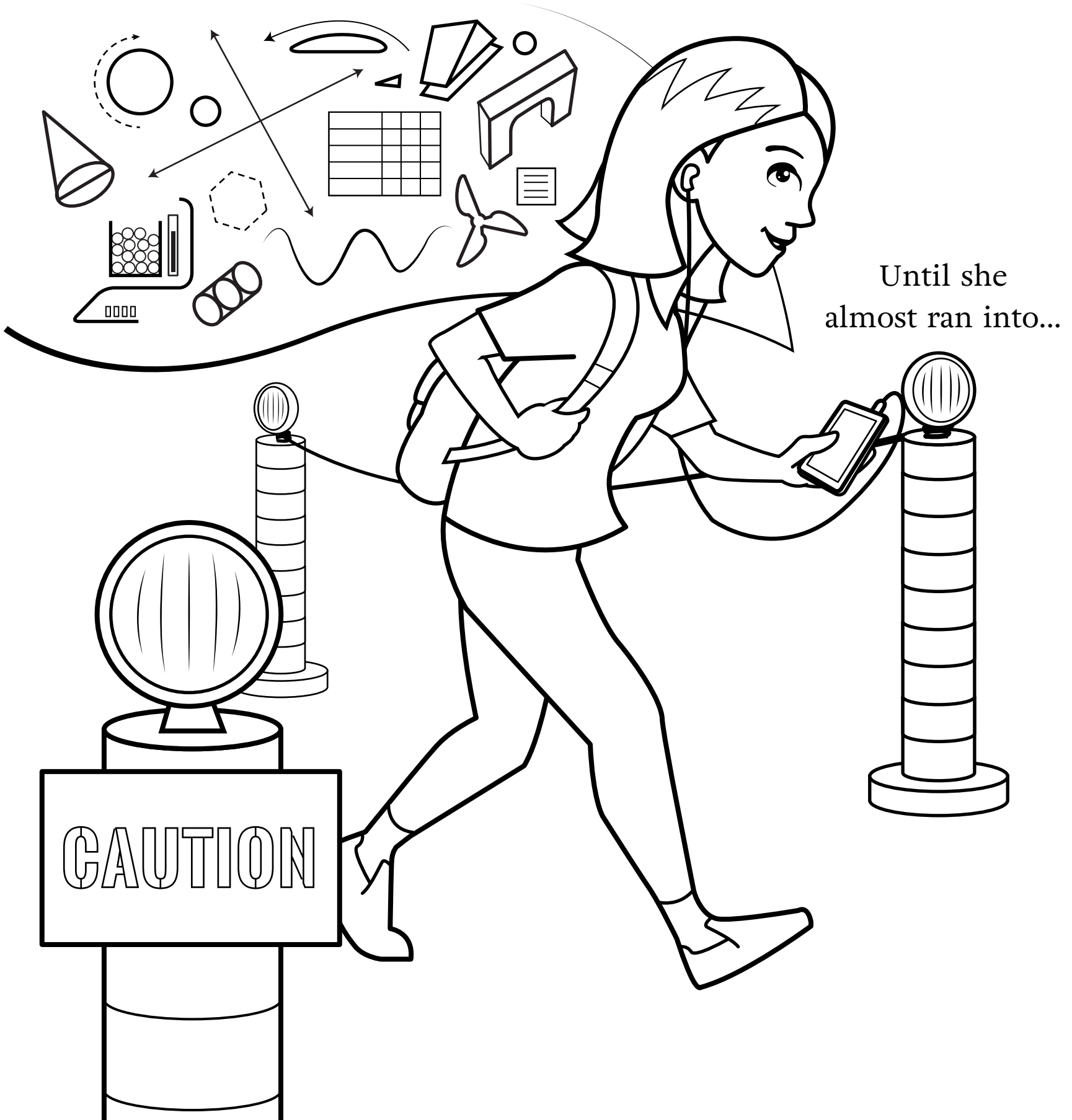
Once upon a time, Ms. Innovation had a wonderful new idea. It was a project so big and so complicated, it was almost unthinkable.

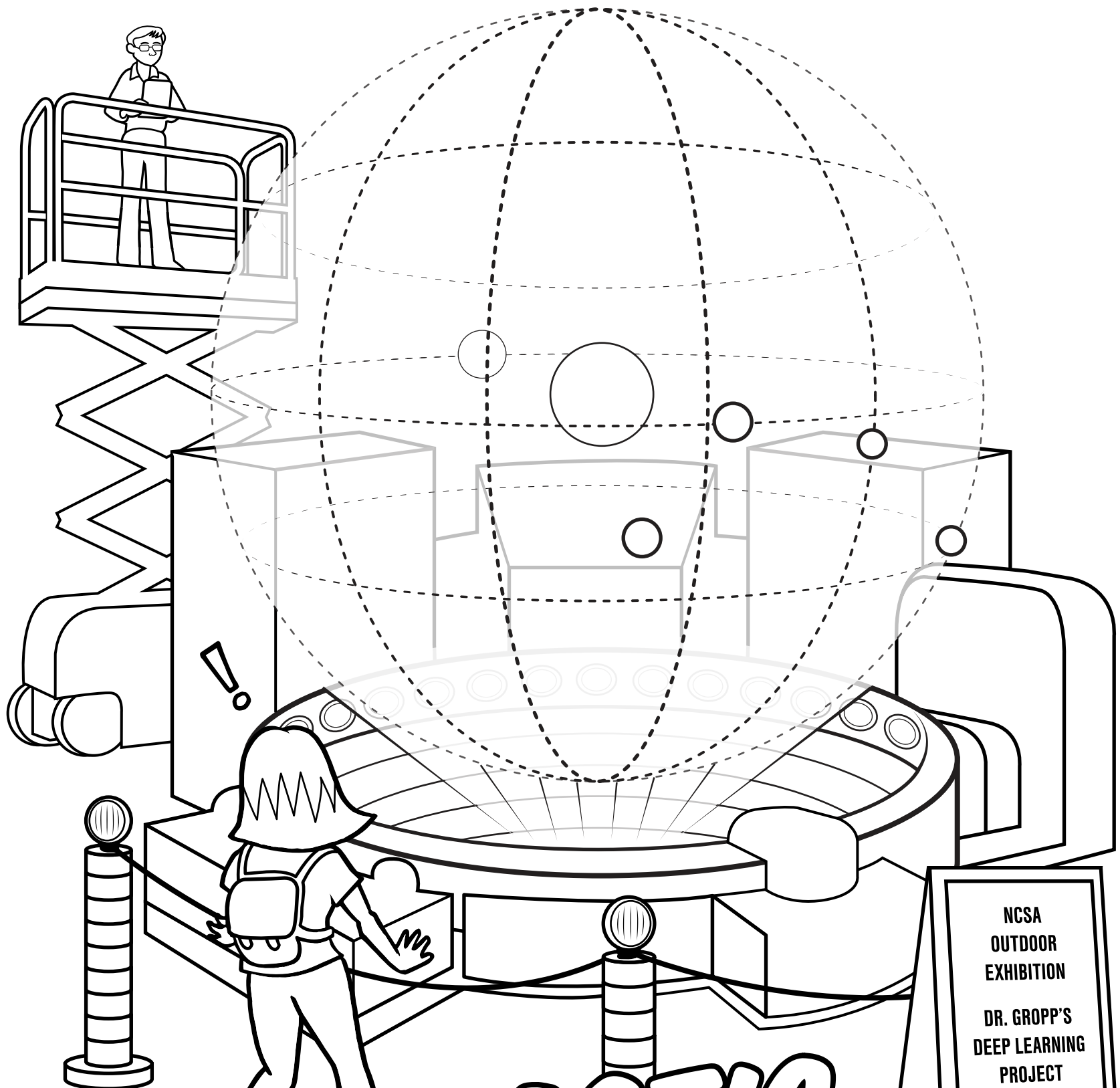But think she did, day and night, all around the University of Illinois campus.

Thinking, thinking, thinking...what could it be?

Ms. Innovation was so deep in thought, she hadn't been paying much attention to where she was going.
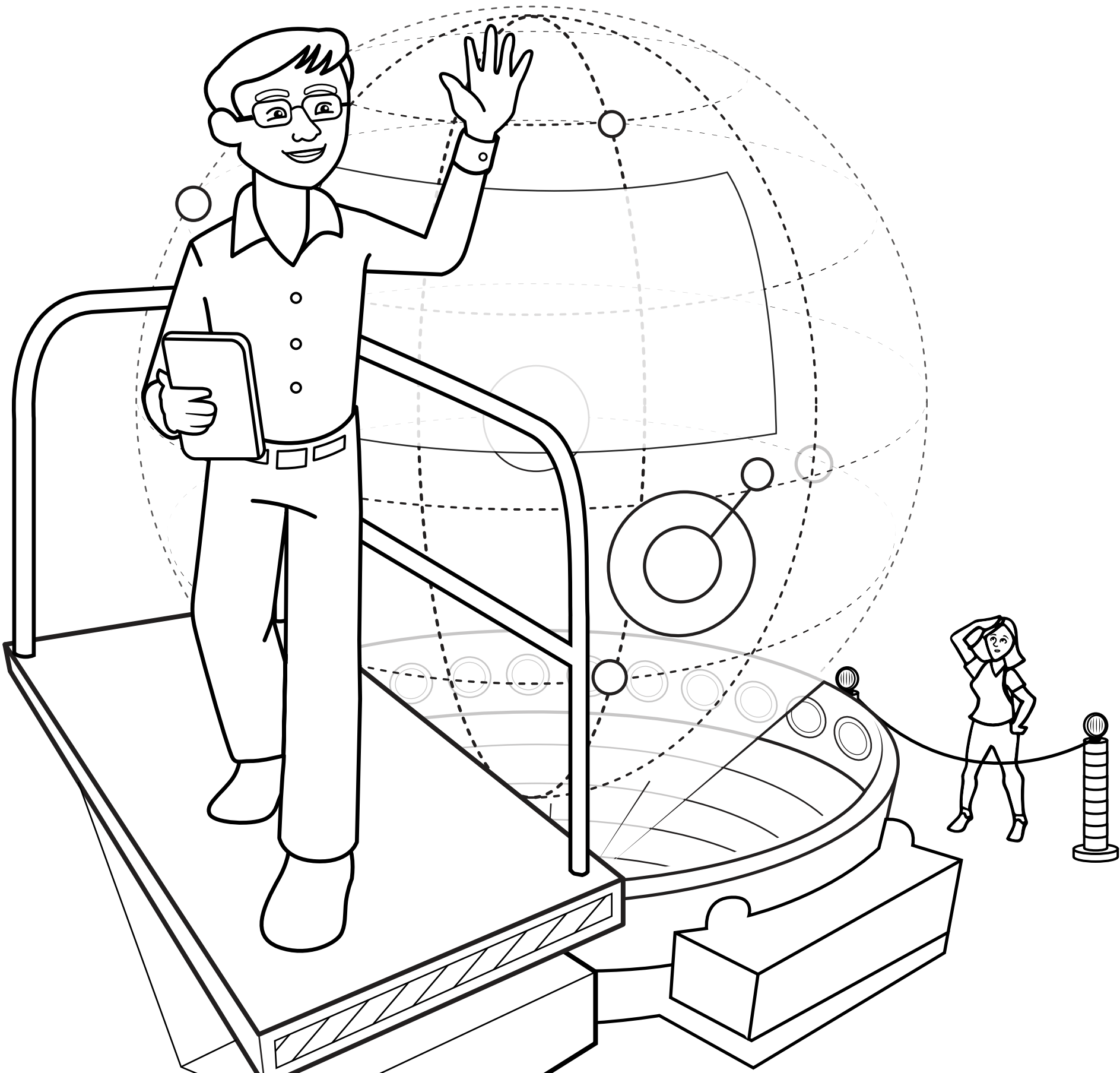
Until she almost ran into...

CAUTION

NCSA
OUTDOOR
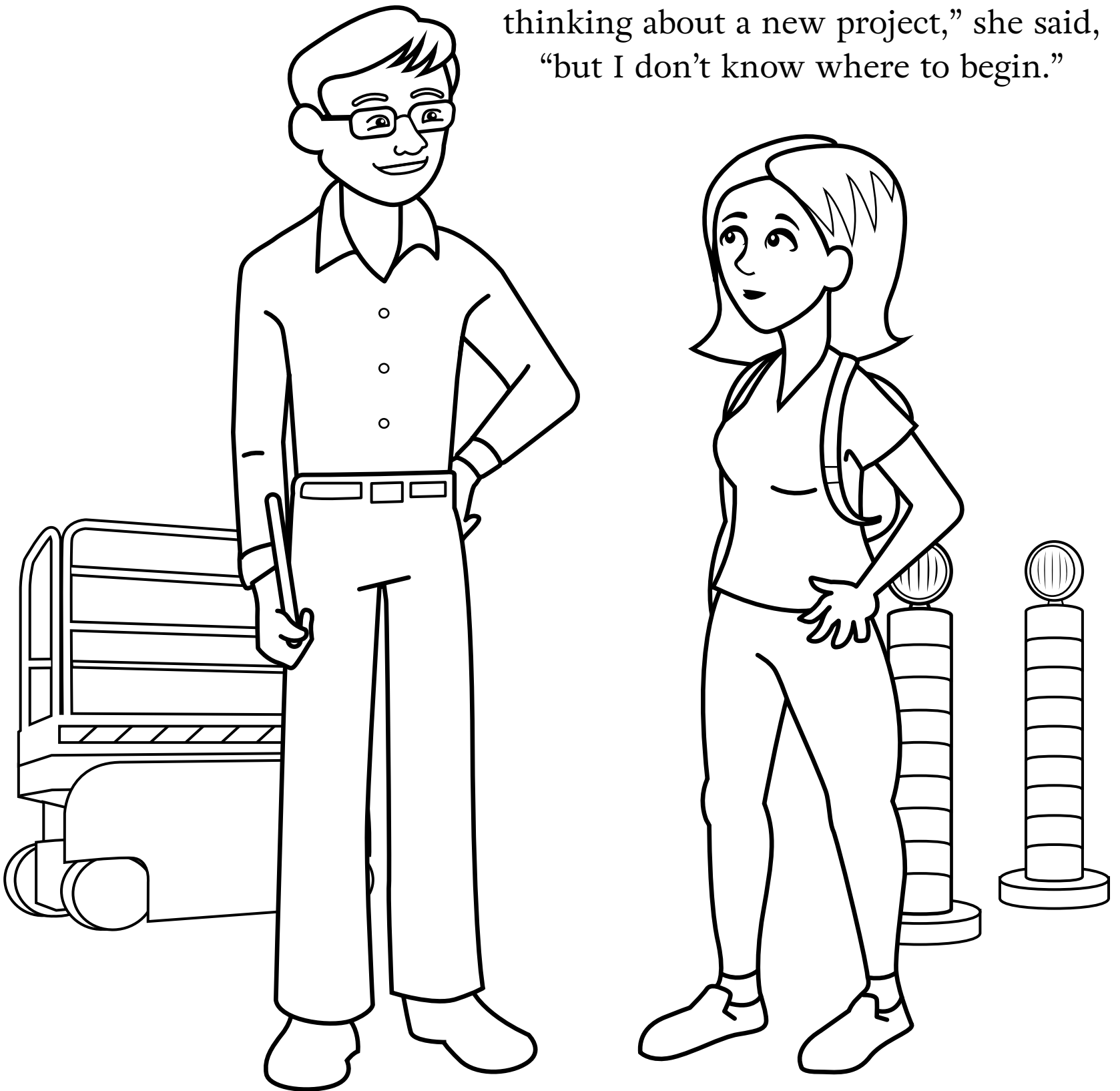EXHIBITION

DR. GROPP'S
DEEP LEARNING
PROJECT

A FANTASTIC MACHINE!

"Oh, hello!" A voice said.
It was Dr. Bill Gropp. He stepped down and introduced himself.
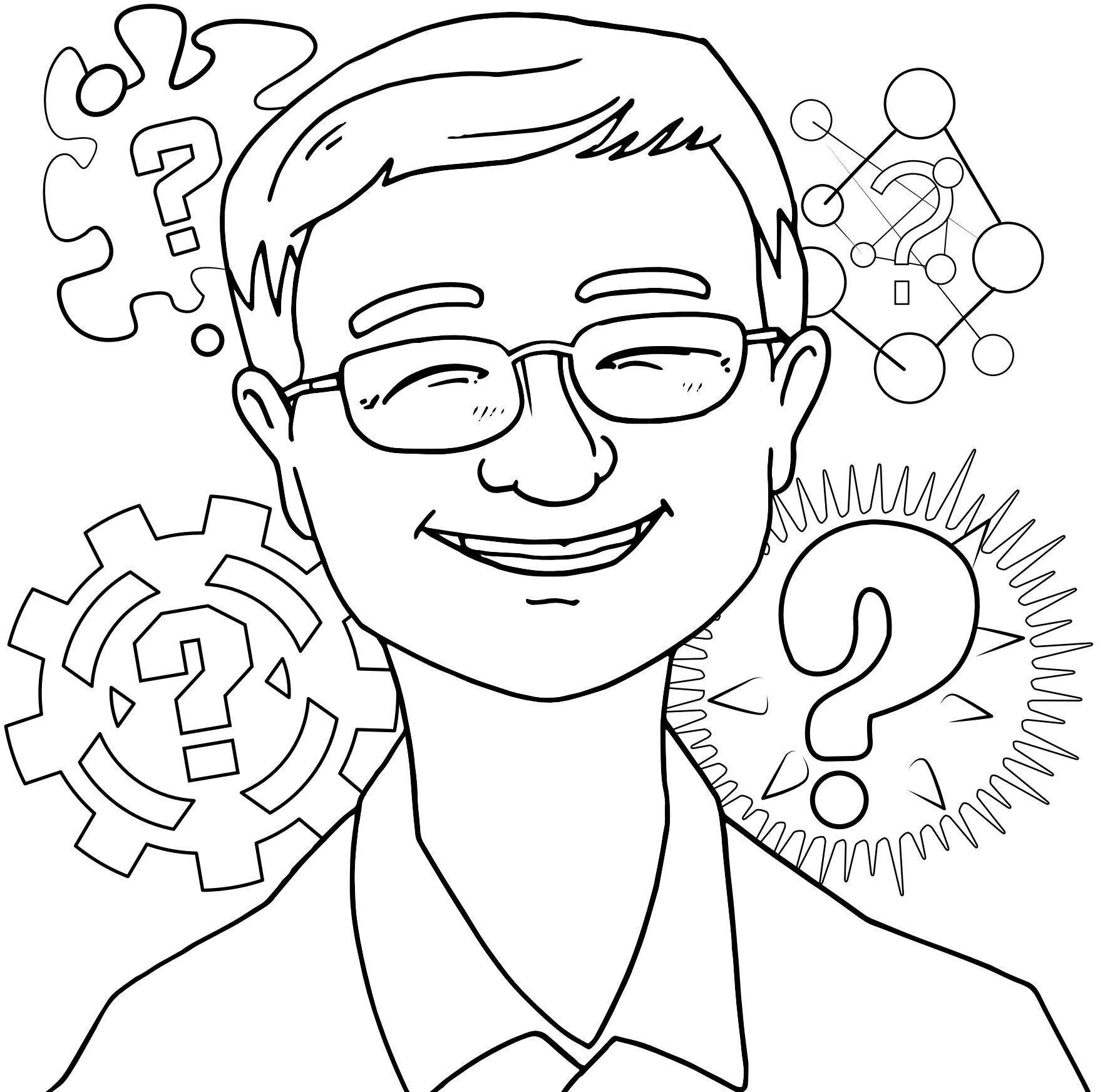
Dr. Gropp saw that Ms. Innovation was in deep thought.
"Is something on your mind?" He asked.

"Oh, I've just been thinking and
thinking about a new project," she said,
"but I don't know where to begin."

"*An unthinkable project?*"

"You've come to the right place! Follow me!"

"This is NCSA, the National Center for Supercomputing Applications!
I'm the Director here!"

The people here are experts of many different disciplines, ready to work together to help you figure out how to complete your project.

We've got programmers and software engineers who can help create a way for you to run your data on our supercomputers.

We've got scientists who can help you learn all about a given field and engineers who can make sure you have the best computer system possible.

We've even got business people who can make sure your project gets done on time and marketed to the right people!

PROGRAMMER

SOFTWARE ENGINEER

SCIENTIST

ACCOUNTANT
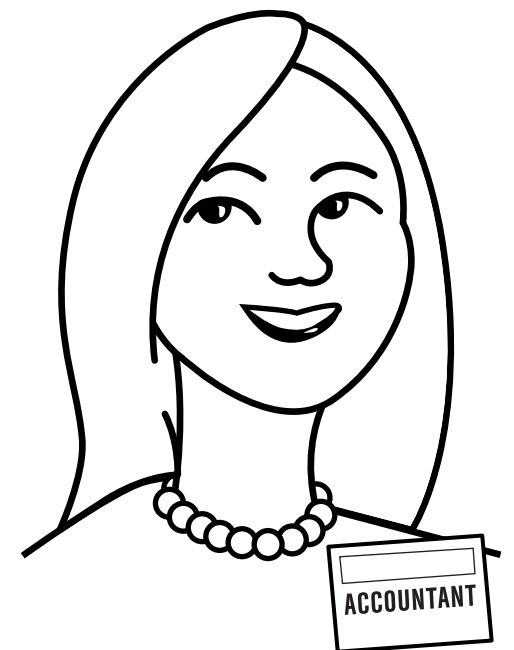
And just like that, Ms. Innovation's idea started to come into focus.
Each conversation led to a big development!

She could definitely picture it now.
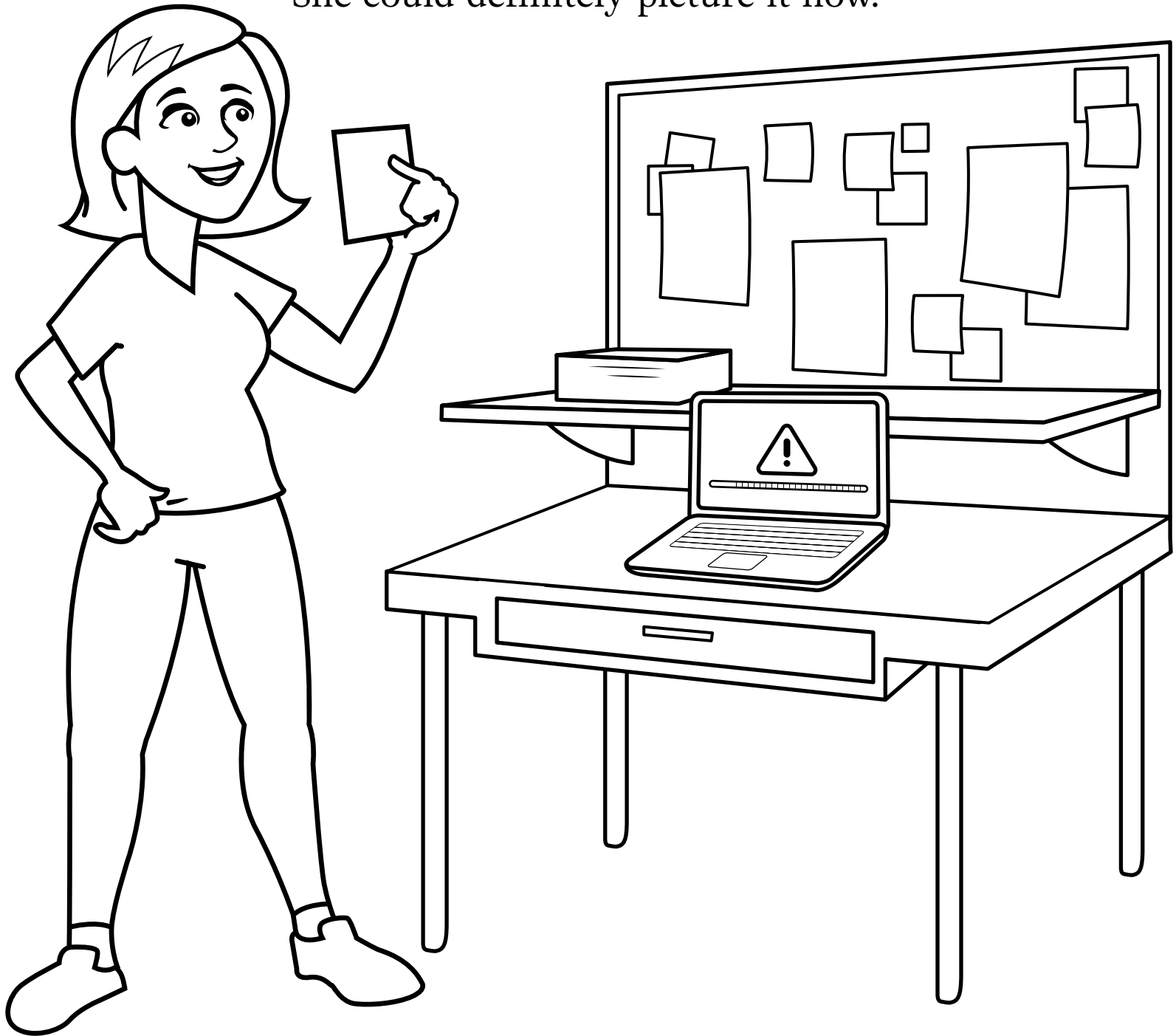
Ms. Innovation also began collecting raw data on the project
she wanted to build. Soon, she had so much data it would
take years to analyze on her laptop!

Dr. Gropp led her to a huge building called the National Petascale Computing Facility. Inside there were several supercomputers.

Dr. Gropp walked up to the largest one and fed it all of Ms. Innovation's data!

Hi!

"This is Blue Waters," he said, "it can perform quadrillions of calculations every second, so we'll be done in only a few hours— or maybe even minutes!"

Dr. Gropp explained that NCSA's cybersecurity experts block malicious intruders to keep all of Blue Waters' information safe and secure.

START
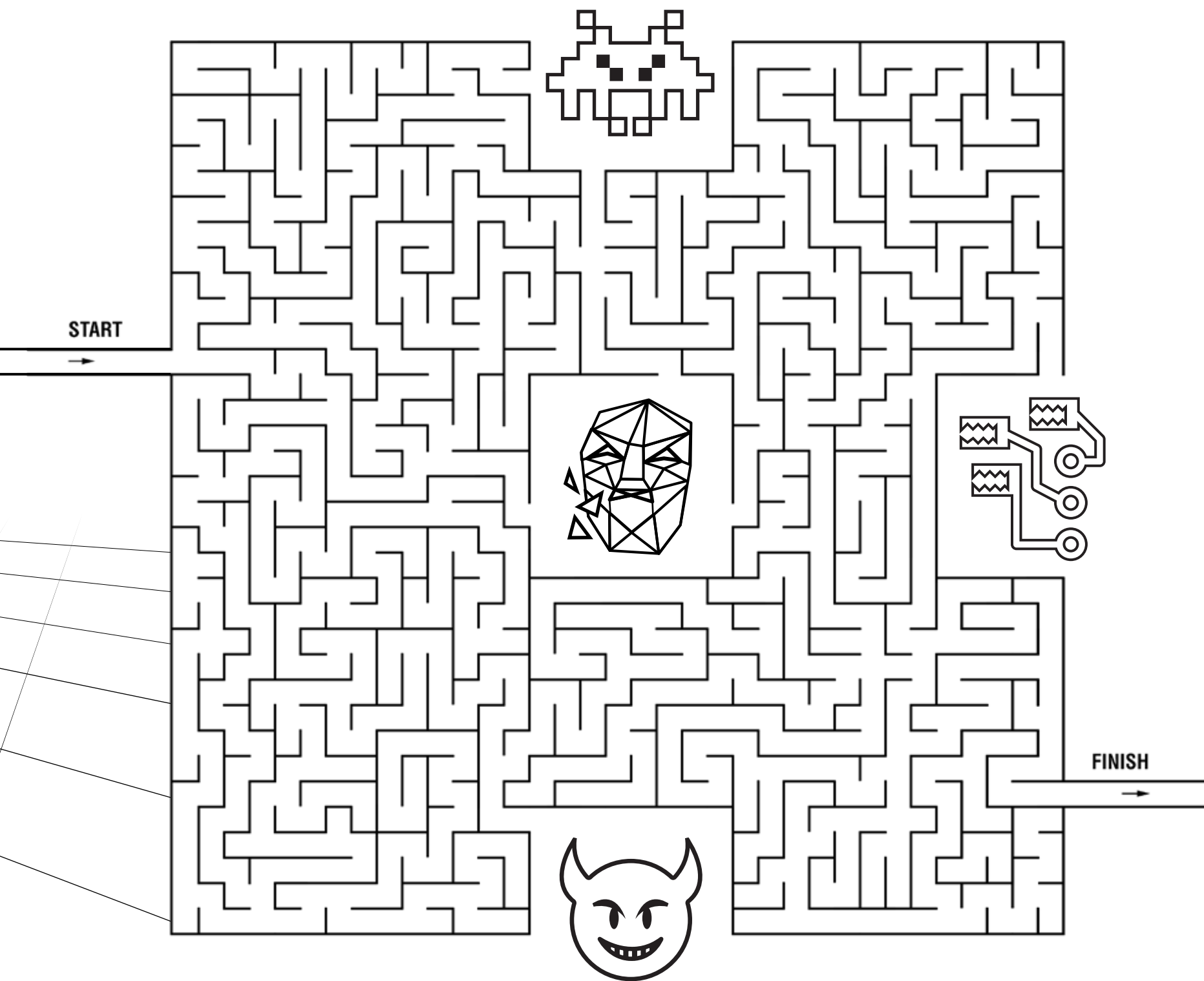
FINISH

Cybersecurity Maze: Find the finish without running into bugs and malicious code!

Ms. Innovation was certainly impressed,
but her data was still just a bunch of numbers.

"Let's take it over to our Advanced Visualization Lab," Dr. Gropp said.
"They can create 3D visualizations from really large and complex
data sets to help people better understand these numbers."

START

FINISH

Connect the Dots: What is Ms. Innovation's project?
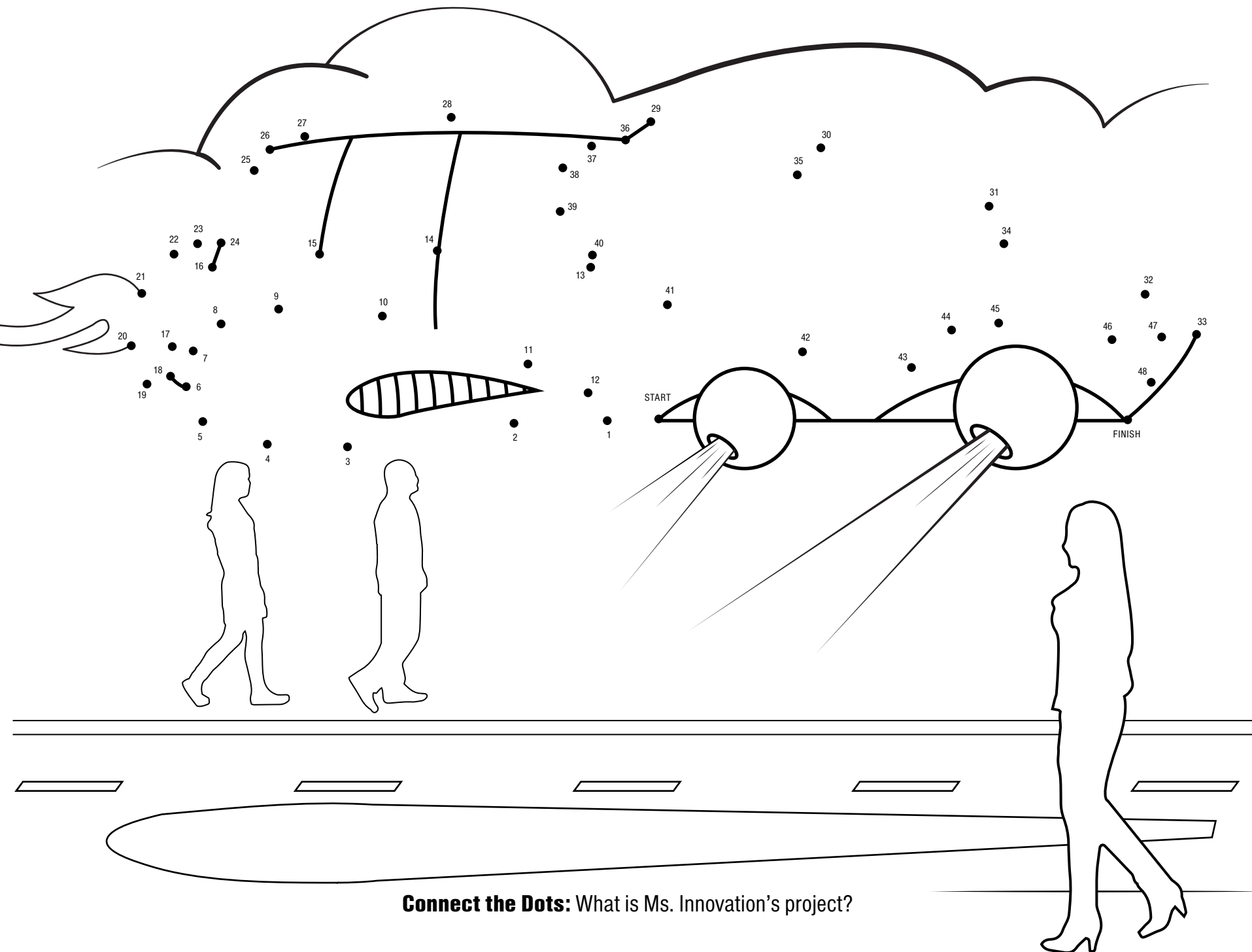
Ms. Innovation saw her data become an awesome video! Now it was time to meet another group of experts—the NCSA Industry team.

This group is made up of domain-experts from all areas of science and computing to help private-sector partners develop and execute serious computational data analysis. This helps them design and improve their day-to-day business operations and products, from airplanes to the spouts on ketchup bottles.
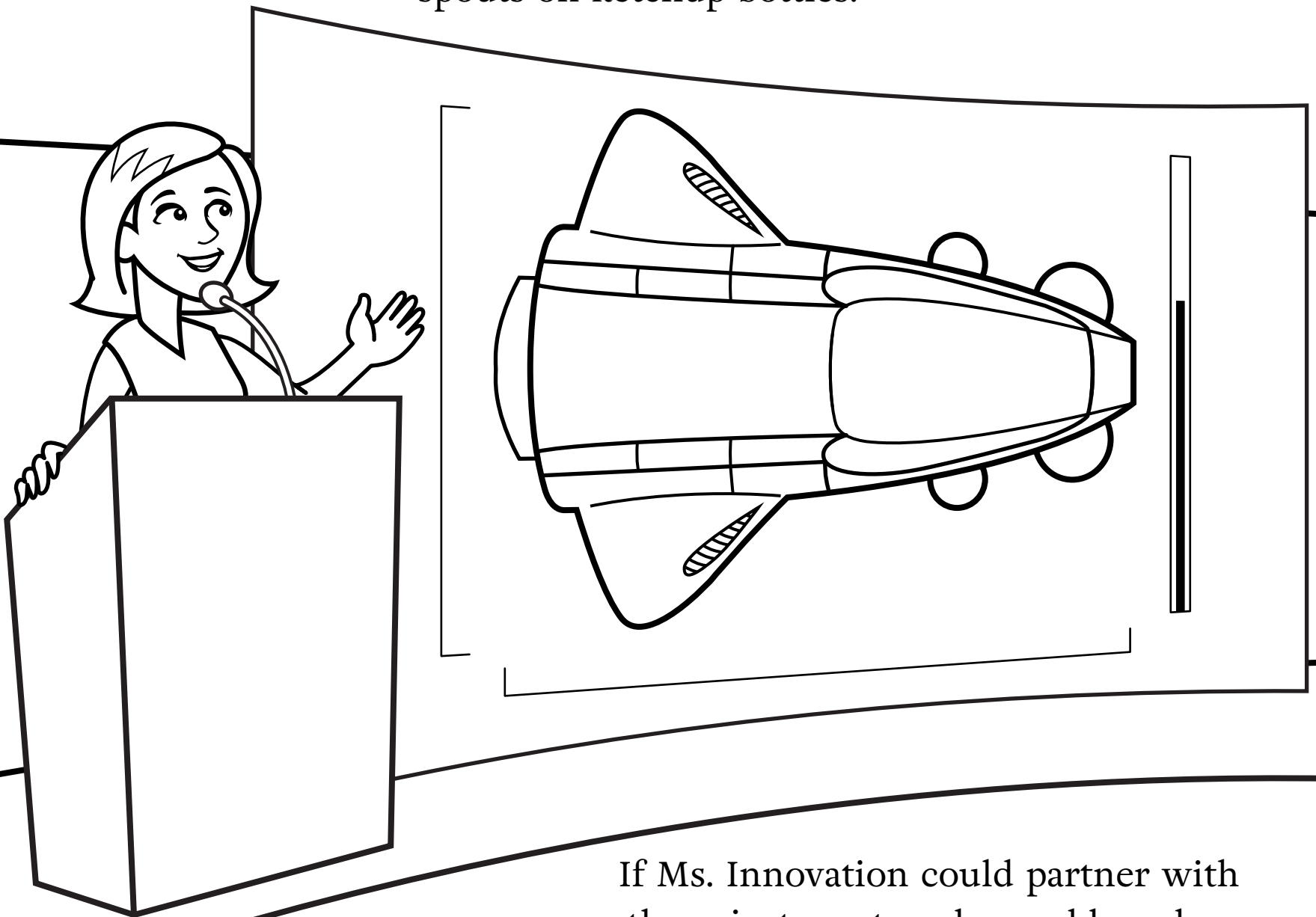
If Ms. Innovation could partner with the private sector, she could see her big project come to life—flying cars!

The Industry team used another supercomputer, iForge,
to design and improve Ms. Innovation's project.

"Ms. Innovation, we think you have a great idea.
And now we're ready to help you bring this idea to life!"

Data
Future
Solution
Teamwork
Petascale
Innovation
Design
Compute
Research
Expertise

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B D I R W A P K O S C N A L
L E E M N O T R Y I F S P D
C X V S O N C O M P U T E H
G P C A I R E W B L N Y T D
R E L N T G T M R T U C A O
O R N F U O N A X I P T S K
P T A S L M R E S E A R C H
N I N N O V A T I O N P A T
Y S A I S E B A W D I N L R
M E C N P E R U T U F C E T
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Word Search: Find the keywords to collaboration in the puzzle above!

When the people of NCSA worked together to help Ms. Innovation, they were able to put together all the parts they needed to make a flying car. Ms. Innovation found that with the help of NCSA, she could bring the unthinkable to life.
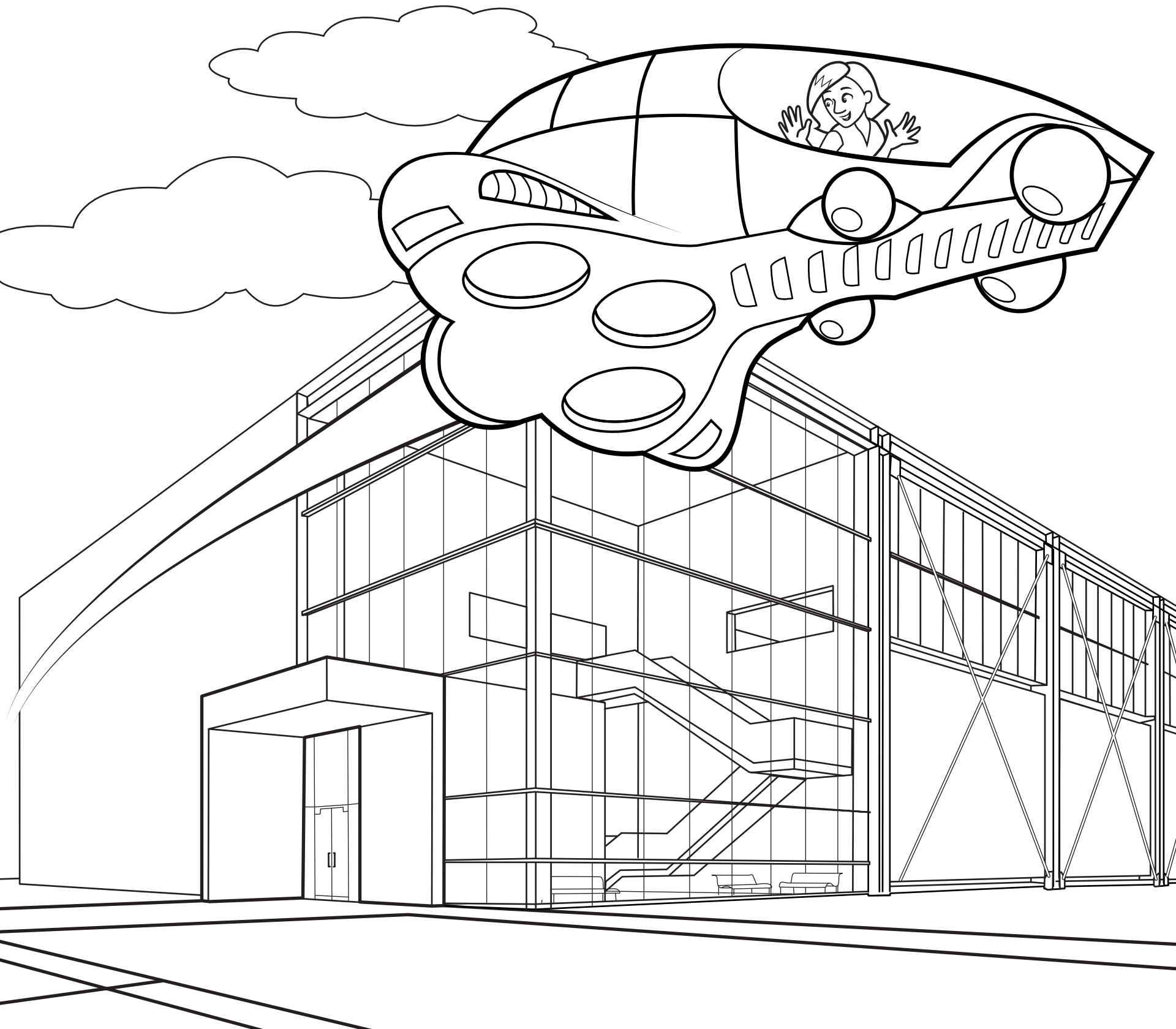
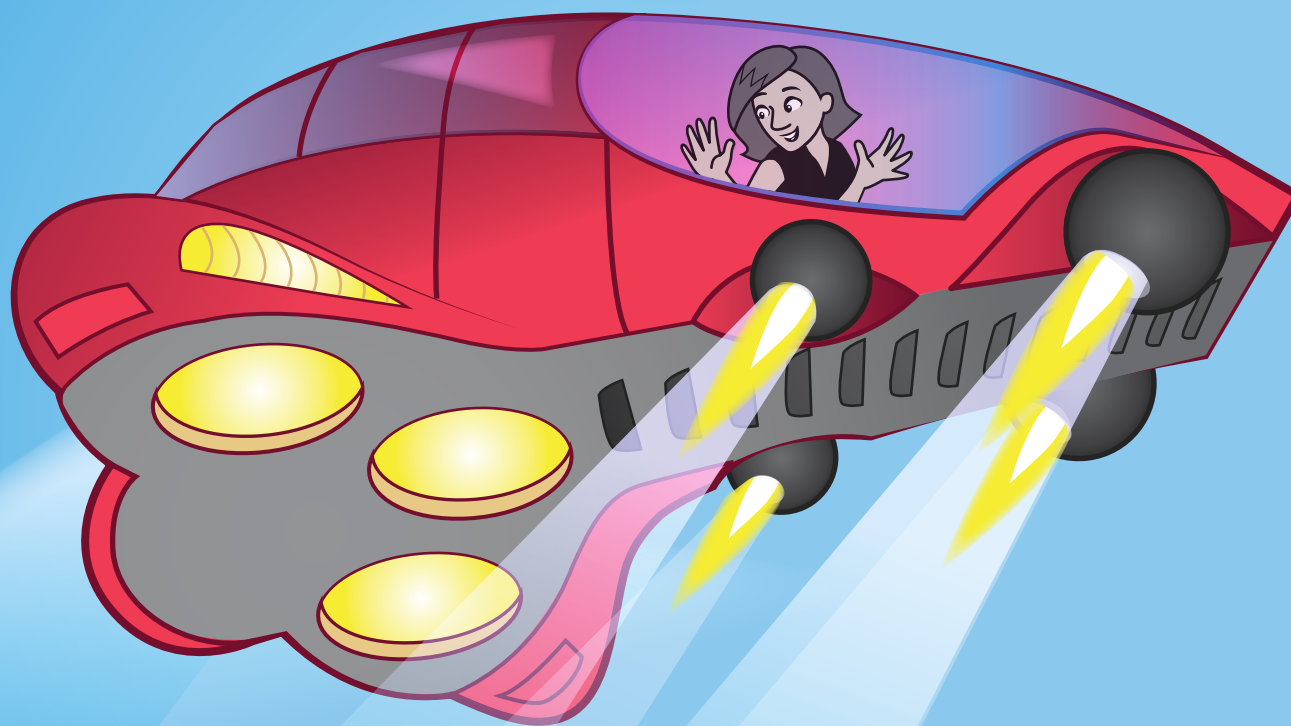But NCSA isn't just available for Ms. Innovation—
we're available to YOU!
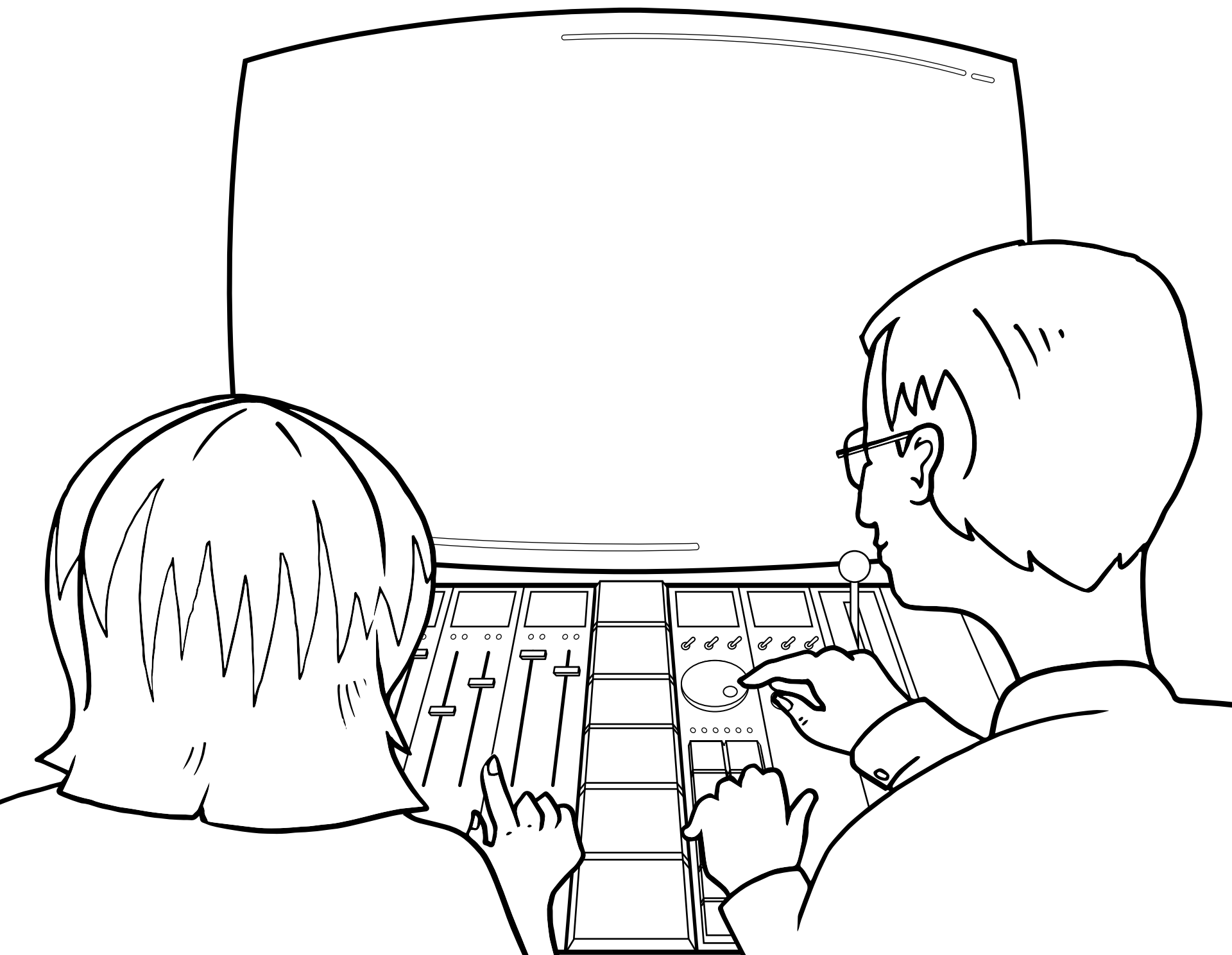
What unthinkable project do you have that we can help bring to life?

Blank Canvas: Draw your next big project on the screen above!

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