DAISY
and her
AI FRIENDS
AI for Kids®
Daisy is a special computer. She is a computer that can go wherever she likes, zipping around on her little wheels. Daisy speaks in a language called binary code.

When she gets instructions in code, she can do many wonderful things such as create documents, perform calculations or buy things online.

Ai Wen and Ai Ling are inseparable twins who work as one. Like Aishwarya who can recognise different objects after scanning lots and lots of images, Ai Wen and Ai Ling can recognise and speak different languages after training with many different types of sound and text data.

Do you think they will be able to understand Daisy’s binary code?

Aidah is like an explorer. When it goes to a place for the first time, it moves carefully to get to know the space. After it has gone around the same space many times, it remembers the way, and can move easily and quickly within the space.
**Aishwarya** is an AI app with computer vision and an amazing memory. Once it has seen something once, it never forgets. It can see different colours and shapes, and remember all of them. After Aishwarya has seen many pictures of the same thing, it will recognise what it is the next time it sees it again.

**Aiman** is the most sensitive AI app of them all. It can feel differences in the air or the objects around it, whether it is hot or cold, wet or dry, soft or hard.

**Miss Ai** is the form teacher. She is always cheerful and loves to talk to her students.
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Foreword

Artificial Intelligence (AI) is arguably one of the most important general-purpose technologies (GPTs) in this decade. Our future generation will grow up in a world where products and services, powered by AI, will pervade their work and lives.

Our children will benefit from comprehending AI early, from knowing its basics and implications to how it affects their future.

This book presents AI in a fun and simple to understand way, and we hope it piques your child’s interest in learning more about AI as they grow up.

Happy reading!

Koo Sengmeng
Talent Programmes, AI Innovation
AI Singapore
Daisy is starting on a new adventure – she is going to a new school! What will the new place be like? She will need help from her new schoolmates to find her way around. Will they be able to understand binary code too?
Pretty leaves in different shades of green line the metal bars of the school gates that are wide open in welcome.

Daisy walks through the gates into the school grounds with excitement.

It is her first day at her new school.
As she rolls smoothly on her little wheels into the new and unfamiliar building, she stops suddenly.
She realises she does not know where her classroom is!

She will have to ask someone for help. But she does not know anyone here!
Gathering her courage, Daisy goes up to a couple of students in the corridor and asks them for help. But they look at her blankly. They do not understand what she is saying. They do not understand binary code.

Daisy feels very lonely. She casts her eyes to the floor, and sighs heavily.
Class has not even started, and things are already looking bad on her first day of school.

Suddenly, she hears a friendly voice pipe up. “Excuse me, are you lost?”
Looking up in surprise, Daisy finds herself face-to-face with an AI (Artificial Intelligence) app.

It can speak her language! Feeling hopeful, Daisy asks, “010100100, 1010010100010010110?”
The helpful AI app replies, “No, we don’t, but we can help you find it by asking around.

We can understand and speak the human language. By the way, we are Ai Wen and Ai Ling.”

Opening a compartment in its arm, Ai Wen and Ai Ling take out a small gadget.

“This is a translator,” say Ai Wen and Ai Ling. “If you plug it in, it will help to translate what you say into human language.”
Daisy nods her head, and Ai Wen and Ai Ling plug the translator into a socket on her shoulder.

“Wow, this is great,” says Daisy.
As they chat away happily, another AI app comes up to them and asks if they need any help.

Daisy pops the question, “Do you know where my classroom is?”
The newcomer responds, “I am Aishwarya, a Computer Vision app. I can identify and recognise objects. Each classroom here has a QR code.

Can you show me the QR code for your classroom?”
Daisy turns on her display panel to show Aishwarya her classroom symbol. Aishwarya scans the symbol, and nods its head.
The team moves along in search of the classroom. Along the way, they see an unfamiliar creature.
They are too frightened to move forward as they cannot identify the creature. Timidly, Daisy and her friends stand at a distance and stare at the creature.

Aishwarya says, "I have seen many different creatures before, and once I have seen them, I can identify them. But I have not seen this creature before. I don't know what it is."
“Let me see if I can identify it,” booms a loud voice. The group of friends turn around to see another AI app approaching.
“Hello everyone, I am Aiman. With my sensors, I can feel differences in the air, whether it is hot or cold, if surfaces are wet or dry. I can feel if something is soft or hard.”

Aiman moves confidently forward, and strokes the creature.
Then Aiman says, “Its body is warm, it is covered with short, fine, soft hair, and long, soft whiskers at its mouth.

It has a long and flexible tail. Its ears are pointed. I know what it is. This is a cat!”
All the others look at Aiman with admiration. With the mystery solved, they all stand up.

Daisy sees the time on a clock nearby. “Oh, no,” she says. “Class will be starting soon. We have to hurry.”
As they speed along the plaza, they bump into another AI app. Seeing the worried look on their faces, the friendly app knows something is wrong.
“Do you need help?” it asks gently.

“Oh, yes, please. We are looking for my classroom. Do you know where it is?” asks Daisy in a worried voice.

The app replies warmly, “No, I do not, but I know this school inside out. I can help you find where you need to be! Just hop onto my back! Call me Aidah.” They thank it, and take up its kind offer.
As they race towards the classroom on board Aidah, Daisy is so happy that she is with her new friends.
With each of their special powers, they have helped her find the way. The big school building isn't frightening anymore.
She makes it! They reach the classroom just as class is about to start. Daisy is full of smiles.
She thanks her new friends for their help, and they plan to meet during recess to play together.
Daisy enters her classroom and a tall figure stands at the front of the classroom.
“Hello everyone, I am Miss Ai and welcome to your first class! I hope you will learn from me as much as I will learn from you!” says Miss Ai.
Daisy smiles at her new friends and looks forward to embarking on new adventures with them.
THE END
**Artificial intelligence (AI):**
AI is the ability for computers to do things that are considered attributes of intelligence.

**Artificial intelligence Applications (AI apps):**
AI apps are the computer programs for performing AI related tasks.

**Binary code**
Binary code is how computers talk and represent information.

**Computer vision (CV):**
Computer vision is how computers can understand features from digital images or videos.

**Data**
Data is a collection of facts, such as numbers, words, measurements, observations or just descriptions of things.

**Machine learning (ML):**
Machine learning is when we give machines access to data and let them use that data to learn for themselves.
Al is everywhere and the goal of this book is to expose children aged 7 - 8 years old about various AI concepts.

Here are some concepts that were touched upon but was not discussed in depth in the story which you may wish to explore further with your child -

Edge detection: Edge detection is an image processing technique for finding the boundaries of objects within images.

Object detection/recognition: Object detection is a computer vision technique that works to identify and locate objects within an image or video.

Resources

AI for Kids programme (https://learn.aisingapore.org/ai4k)
Teachable Machines by Google (https://teachablemachine.withgoogle.com/)
Machine Learning for Kids (https://machinelearningforkids.co.uk/)