## Welcome

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Have you ever wondered how a cartoon is made? Or maybe how films like *Avatar* look so realistic?

For years, a group of people have been working to bring things to life.

Who are they?

Animators!



This book is going to show you how different types of animation are made. You'll see how animators have moved from the sketchbook to the computer.

You'll even find out how to make your own animations.





## How did it all start?

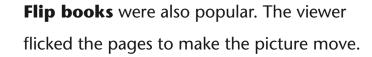
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To make pictures "move", you need two things.

First, you need a series of drawings or photos. To show a person walking, each image would have their legs in a slightly different position.

Second, you need a way of showing these pictures quickly one after another, so it looks like the picture has come alive!

Long before film, there were clever toys that did this. One used a spinning drum with pictures on the inside.



Then, in 1882, a man called Edward Muybridge made the first moving picture, using photos of a racing horse and a player called the **zoopraxiscope**. Film and animation were born!





