

A USPTO inventor trading card activity challenge:

# How does it translate? Luis von Ahn

## Luis von Ahn

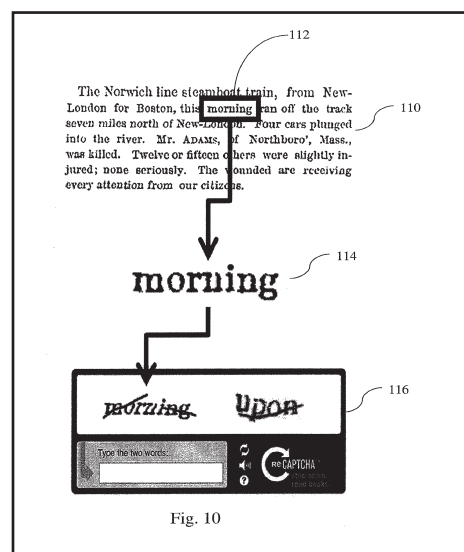
**Computer Scientist and Entrepreneur**  
**Guatemala City, Guatemala**

Luis von Ahn is the inventor of an automated system that helps computers tell the difference between human users and machines. In addition to keeping passwords and bank accounts safe, his work uses human computation to help decode previously untranslated words. Luis von Ahn's system enabled over 13 million books to be digitized. He has been granted multiple U.S. patents and has licensed some of them to major internet companies.

Luis von Ahn created the CAPTCHA, an acronym for "Completely Automated Public Turing test to tell Computers and Humans Apart." A CAPTCHA is a challenge-response test used for security purposes to determine that a user is a human and not a computer bot. Luis von Ahn decided that people were spending a lot of time typing CAPTCHAs.

Luis decided that he wanted to figure out a way to use this human effort for a good cause, so he developed the reCAPTCHA. The reCAPTCHA, as seen in Fig. 10, helps digitize words not recognized by computer systems when users log onto websites.

Luis von Ahn grew up in Guatemala and recognized that he had advantages that others did not. He found that those who did not know the English language were disadvantaged. He was inspired to create a free and equitable language-learning platform. He started with the question: "How can we get 100 million people to translate every major language?" Luis von Ahn created an app called Duolingo®. He used data from his CAPTCHA invention to create a learning platform that motivated people to learn a new language.



## ACTIVITY:

Make a Translation Bracelet

## BACKGROUND:

Luis von Ahn wanted as many people as possible to have the opportunity to learn a new language.

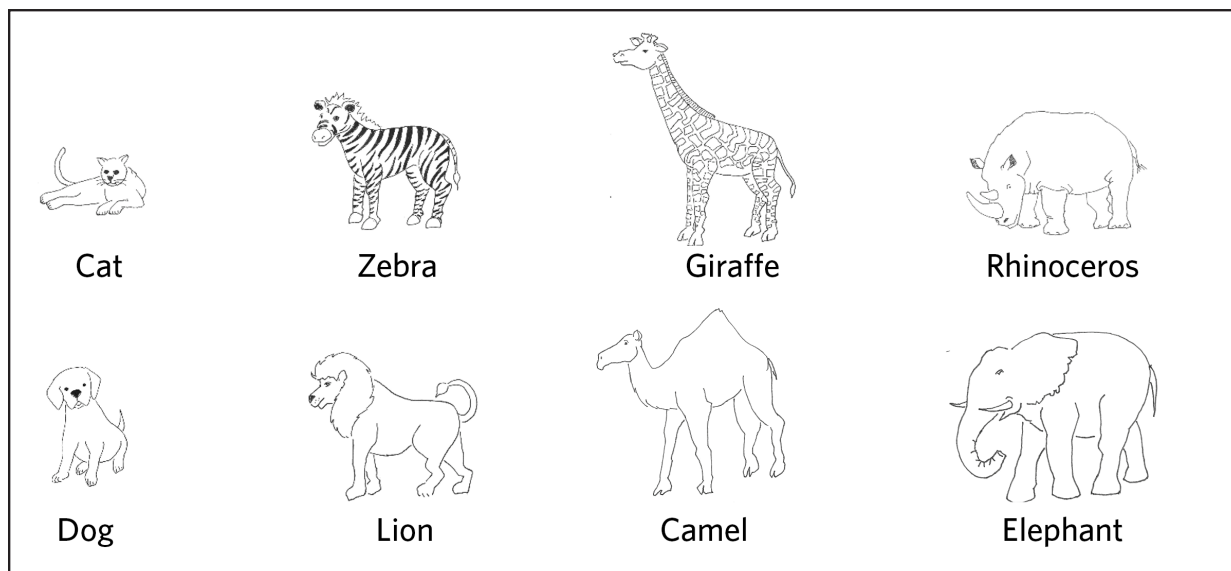
He created a system online that increased online security while at the same time enabling 100 million people to translate the web into different languages. He then made a free app called Duolingo® that anyone can use to learn a new language. It is one of the top ten mobile apps for learning another language while on the go.

## MATERIALS:

- Chenille stems
- Animal beads
- Letter beads

## DIRECTIONS:

1. Select an animal bead that you will use to create a bracelet.  
(Suggestion: grades K-3 Cat or Dog; grades 4-8 Safari Animal).



2. Locate the card that goes with the animal bead you picked. It will have the name of the animal in English and Spanish.



Lion image: "White lions" by monkeywing is licensed under CC BY 2.0

3. Select a colored Chenille Stem (Pipe cleaner).
4. Using the card with the English to other language translation, spell your animal's name, in English, by placing alphabet beads on a chenille stem (pipe cleaner).



5. Next, place the animal bead on the chenille stem. It will be between the English name of the animal you selected and the translated language.



6. Use the letter beads to spell the translated language name of the animal you selected.

## What is Intellectual Property (IP)?

Intellectual property (IP) refers to creations of the mind, such as inventions, literary and artistic works, designs, symbols, names, and images used in commerce. There are four types of intellectual property — patents, trademarks, copyrights, and trade secrets.

**What ideas for an invention, product, or service do you have?**

**How could you express your intellectual property so that it is protected?**

## Luis von Ahn is an inventor. You can be one too!

Inventors are problem solvers. If you have ever solved a problem or thought of a new way to accomplish a task, you are an inventor! When you did this activity, you were an inventor! One day you could invent something new that could benefit society.

**What will you invent?**

## What is a Patent?

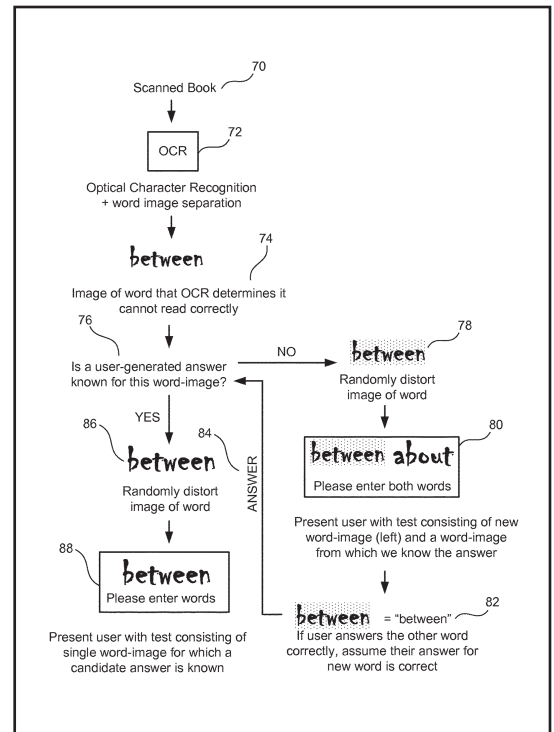
A patent is a property right granted by the government that allows an inventor to stop others from making, using, or selling their invention for a certain amount of time without permission. This right gives the inventor a chance to develop inventions to benefit society further. Patents also allow the public to learn how an invention works so that others can learn from it and develop ways to improve it.

**Do you have an idea for an invention that could be patented?**

## Design Your Trademark

Trademarks help us distinguish between the source of products or services. Trademarks are source identifiers! Trademarks can be words, designs, or a combination of such, but trademarks may take other forms, such as sounds, scents, shapes, and colors, if they distinguish the source of a product or service. Think of a design, name, or symbol you would use to help the world identify and distinguish the brand of your invention. Make sure that it is unique and not easily confused with other trademarks.

**How will you create a trademark that will distinguish your invention or product?**



Patent drawing from Luis von Ahn's Methods and Apparatuses for Controlling Access to Computer Systems and for Annotating Media Files.

Patent No: US 9,600,648 B2