

GTO Partners
in Performance



Human-Computation in Internet



Weiwei Cheng

A Passion to Perform.

Deutsche Bank



Before we start...

- Weiwei Cheng

Computer Science PhD student from Uni. Marburg
Check www.chengweiwei.com for info.



- This talk is NOT about my research, nor yours.

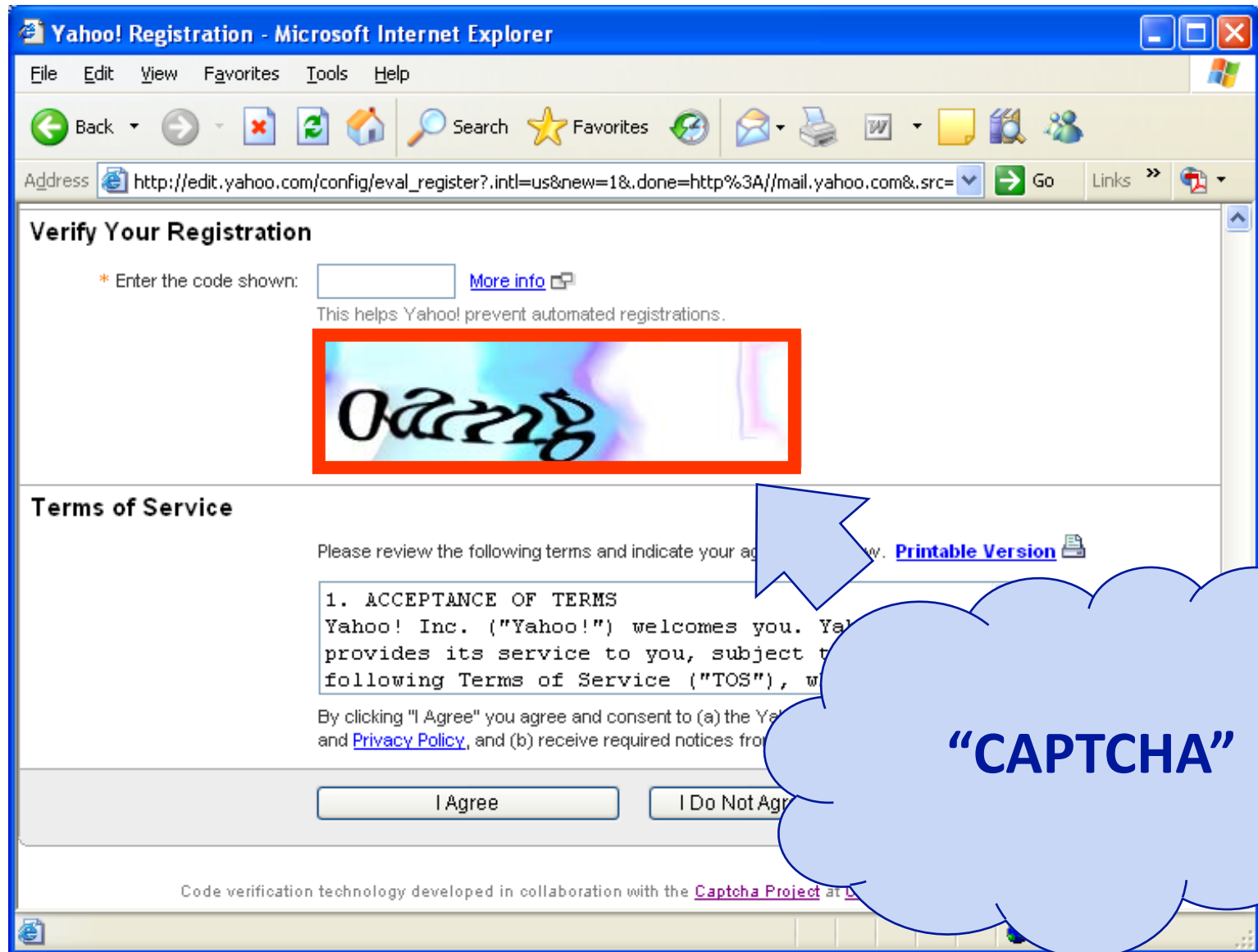
└→ It is actually the opposite of our research.

The best food is



ask500people.com

The information is reliable only if there is no **SPAM!**



CAPTCHA

A program that can generate and grade tests that:

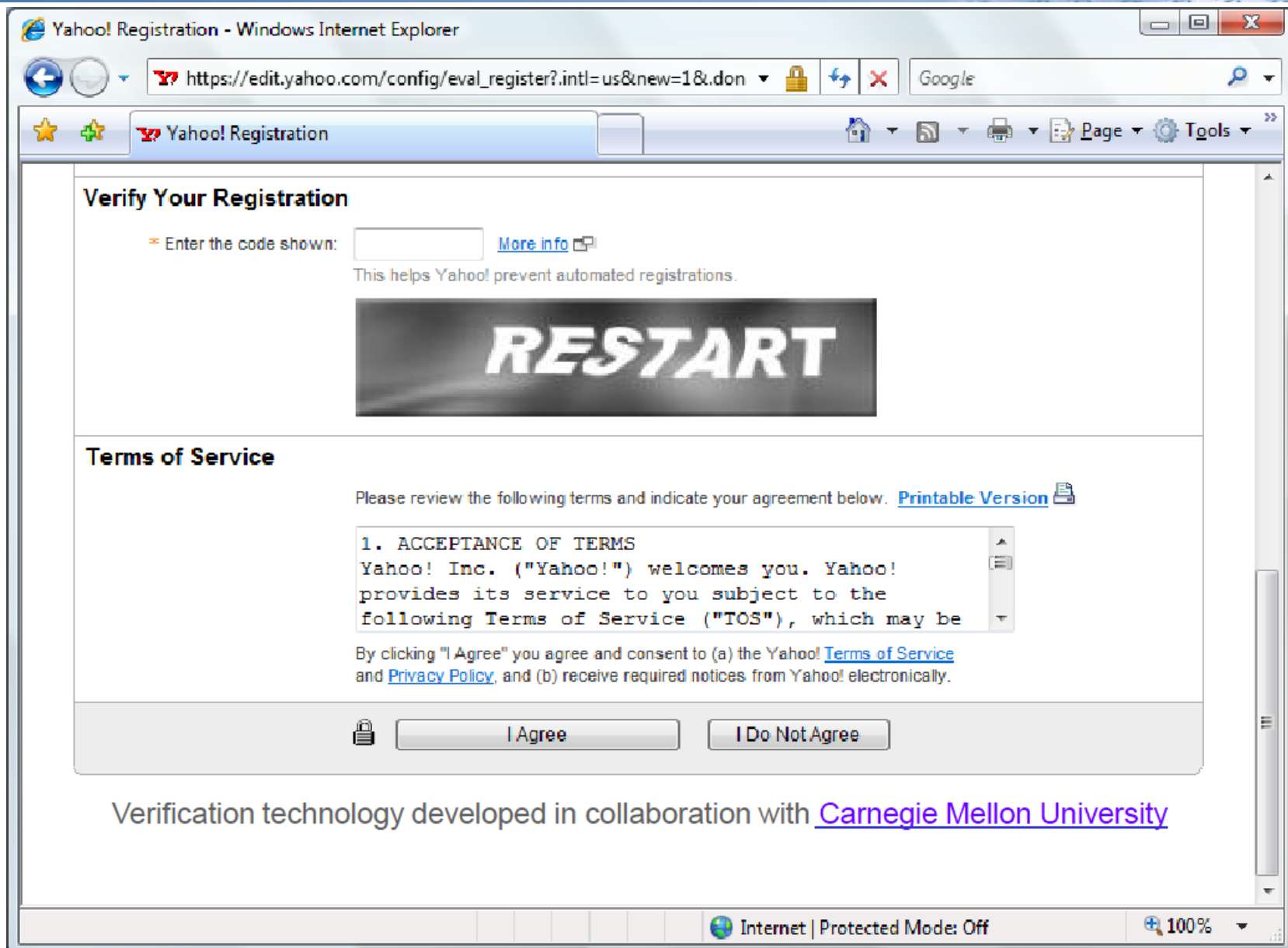
- Most humans can pass
- Current computer programs cannot pass



Prof. Luis von Ahn
from CMU

“Help! I’ve been waiting for 20 minutes, and nothing happens.”



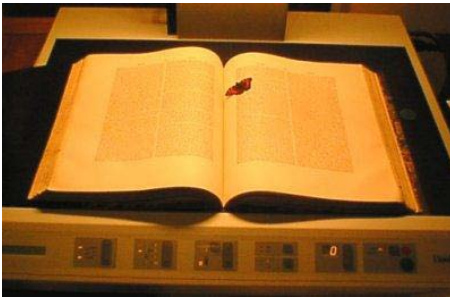


Roughly 200 million CAPTCHAs are typed every day
10s of human time per CAPTCHA
That is: **500,000** hours every day!

Can we use the
effort for good?



Digitizing Books

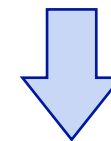


→
Scan

DENMARK.

COPENHAGEN, Dec. 17—Noon.

The royal palace at Friederichsberg took fire last night. The King himself directed the operations for extinguishing the fire. The whole structure was, however, destroyed.



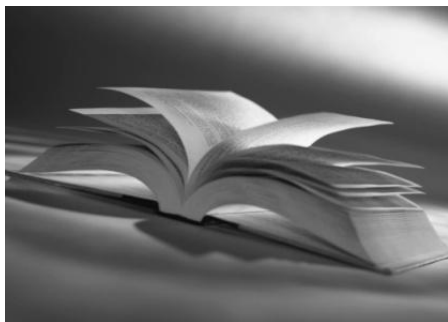
OCR optical character recognition

DE xi li ARIi..

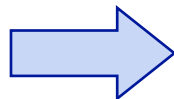
COPBCTRAGE\, DeC. 11 1 QOn.

Tlie royal palace at Frieclerichsberg took fire last night. The li.ing himself directed the operations fns extinguishing the lire. The whole structure

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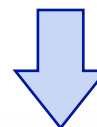


scanned book



between

word that OCR can't read



between

randomly distorted
image of word



upon between

Type the two words:

reCAPTCHA™
stop spam.
read books.

Facebook | Sign Up for Facebook - Windows Internet Explorer

https://register.facebook.com/r.php?r=102

Facebook | Sign Up for Facebook

login sign up tour

facebook

Email:
lav@andrew.cmu.edu

Password:

Login

Forgot Password?

Sign Up and Start Using Facebook

Join Facebook to **connect with your friends, share photos, and create your own profile.** Fill out the form below to get started (all fields are required to sign up).

Full Name:

I am:

Email:

Password:

Date of Birth: Month: Day: Year:

Security Check:

Enter **both** words below, separated by a **space**. What's This?
Can't read this? Try another.

1700 incapacity

Text in the box:

☐ I have read and agree to the Terms of Use and Privacy Policy.

Twitter / Create an Account - Windows Internet Explorer

https://twitter.com/signup

Twitter / Create an Account

Find folks to follow! search or [Login / Join Twitter!](#)

Create a Free Twitter Account

Username: Your URL: <http://twitter.com/USERNAME>
No spaces, please.

Password: 6 characters or more (be tricky!)


Confirm Password:

Email Address: In case you forget something

Humanness:

O'Neill's *absurdly*

Type the two words:

 stop spam. read books.

☐ I want the inside scoop—please send me email updates!

By clicking on 'I accept' below, you confirm that you are over 13 years of age and accept the [Terms of Service](#).

Done

Internet | Protected Mode: Off

100%

Security Check

Type both words separated by a space below

excellent yes

Type both words:



[Get a new word](#)



[Vision Impaired](#)



[Help](#)

The Security Check allows us to:

Ensure Fair Access to Tickets

Automated programs known as "Bots" cannot read distorted text as well as humans. The Security Check helps prevent automated programs from blocking other customers from getting tickets.

Digitize Books One Word at a Time

By entering the words in the box, you are also helping to digitize books from the Internet Archive and preserve literature that was written before the computer age.

Provide an Audio Option for Visually Impaired Customers

An audio option allows visually impaired customers to hear a set of 8 digits that can be entered instead of the word challenge.

You do not have permission to access this website if you are using an automated program.

[Continue](#)

Security Check provided by [reCAPTCHA](#). © Carnegie Mellon University, all rights reserved.



JEFP House Parties - Sign up for an account - Windows Internet Explorer

http://party.johnedwards.com/signup.php

JEFP House Parties - Sign up for an account

JOHNEDWARDS.COM
Party for Change

Search events: Enter your ZIP code
 Go

Host A Party Find A Party Resources Log in Sign up

Sign Up to Party for Change

Sign up to host your own Party for Change or sign up to attend one in your area.

Username

Password

Password (again)

Zip Code

Email Address

Damn liberal

Type the two words:

reCAPTCHA™
stop spam.
read books.

Internet | Protected Mode: Off 100%



The New York Times

Years 1851-1980 is completed in 11 months.

400,000,000
(6% of the world's population)

Take home message

- The concept of human-computation
- CAPTCHA fights with internet spam
- reCAPTCHA fights with spam & helps digitizing books

Think differently!!