

Distributed Human Based Computation

Human-based computation (HBC) is a computer science technique in which **a machine performs its function by outsourcing certain steps to humans**. This approach uses differences in abilities and alternative costs between humans and computer agents to achieve symbiotic **human-computer interaction**.

In traditional computation, a human employs a computer[1] to solve a problem; a human provides a formalized problem description and an algorithm to a computer, and receives a solution to interpret. **Human-based computation frequently reverses the roles; the computer asks a person or a large group of people to solve a problem, then collects, interprets, and integrates their solutions.**

reCAPTCHA™

- WHAT IS reCAPTCHA
- GET reCAPTCHA
- PROTECT YOUR EMAIL
- MY ACCOUNT
- RESOURCES: DOCS & PLUGINS




reCAPTCHA IS A FREE
ANTI-BOT SERVICE THAT
HELPS DIGITIZE BOOKS.

steamboat train, from New
this **morning** ran off the track.
New-London. Four cars plunged



→ LEARN HOW reCAPTCHA WORKS

USE reCAPTCHA ON YOUR SITE

-  **STRONG SECURITY**
-  **ACCESSIBLE TO BLIND USERS**
-  **30+ MILLION SERVED DAILY**

NEW See how accurate reCAPTCHA is at
digitizing content!

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reCAPTCHA

About 200 million CAPTCHAs are solved by humans around the world every day. In each case, roughly ten seconds of human time are being spent. Individually, that's not a lot of time, but in aggregate these little puzzles consume more than 150,000 hours of work each day. What if we could make positive use of this human effort? reCAPTCHA does exactly that by channeling the effort spent solving CAPTCHAs online into “reading” books.

To archive human knowledge and to make information more accessible to the world, multiple projects are currently **digitizing physical books** that were written before the computer age. The book pages are being photographically scanned, and then transformed into text using “Optical Character Recognition” (OCR). The transformation into text is useful because scanning a book produces images, which are difficult to store on small devices, expensive to download, and cannot be searched. The problem is that OCR is not perfect.

reCAPTCHA improves the process of digitizing books by **sending words** that cannot be read by computers to the Web **in the form of CAPTCHAs for humans to decipher**. More specifically, each word that cannot be read correctly by OCR is placed on an image and used as a CAPTCHA. This is possible because most OCR programs alert you when a word cannot be read correctly.



Open Source Human Computation based Search Engine
for images and pictures utilizing a Flash game



The Science Behind Foldit

Foldit is a revolutionary new computer game enabling you to contribute to important scientific research. This page describes the science behind Foldit and how your playing can help.

Page Contents:

[What is protein folding?](#)
[Why is this game important?](#)
[Foldit Scientific Publications](#)
[News Articles about Foldit](#)
[News Articles about Rosetta](#)
[Rosetta@Home Screensaver](#)
[Community Rules](#)
[Let's Foldit Podcast](#)
[Terms of Service and Consent](#)
[Credits](#)

What is protein folding?

What is a protein? Proteins are the workhorses in every cell of every living thing. Your body is made up of trillions of cells, of all different kinds: muscle cells, brain cells, blood cells, and more. Inside those cells, proteins are allowing your body to do what it does: break down food to power your muscles, send signals through your brain that control the body, and transport nutrients through your blood. Proteins come in thousands of different varieties, but they all have a lot in common. For instance, they're made of the same stuff: every protein consists of a long chain of joined-together amino acids.



Folded up Streptococcal Protein Puzzle
(*) [Enlarge This Image](#)

What are amino acids? Amino acids are small molecules made up of atoms of carbon, oxygen, nitrogen, sulfur, and hydrogen. To make a protein, the amino acids are joined in an unbranched chain, like a line of people holding hands. Just as the line of people has their legs and feet "hanging" off the chain, each amino acid has a small group of atoms (called a sidechain) sticking off the main chain (backbone) that connects them all together. There are 20 different kinds of amino acids, which differ from one another based on what atoms are in their sidechains. These 20

GET STARTED: DOWNLOAD



Win Beta

Windows
(XP/Vista/7)



Mac Beta

OSX
(Intel 10.4 or later)



Linux Beta

Linux
(64-bit)

SEARCH

☒ Only search foldit

RECOMMEND FOLDIT

USER LOGIN

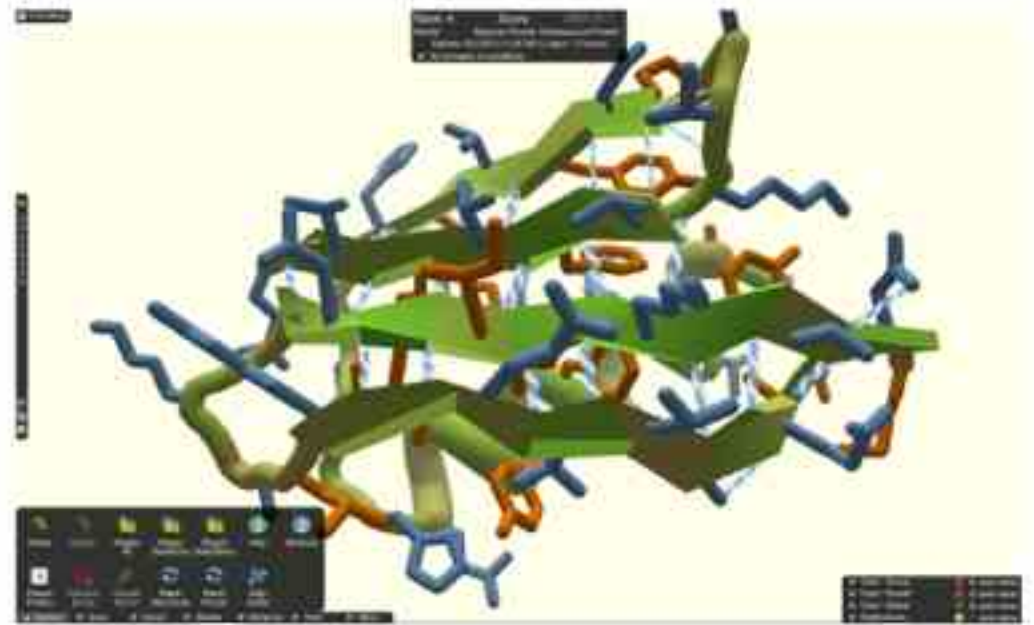
Username: *

Password: *

- [Create new account](#)
- [Request new password](#)

SOLOISTS		EVOLVERS	GROUPS	TOPICS
PLAYER		PUZZLE		SCORE
spdenne	23	21	791: De-novo Fr...und	11,520
mottiger	131	407	Beginner Puzzle...nis	10,178
chh5513136	131	757	Beginner Puzzle...ity	13,110
histon	74	266	Beginner Puzzle...ign	10,719
Puzzle	131	139	Beginner Puzzle...ign	12,167

foldit



Foldit is a revolutionary new computer game enabling you to contribute to important scientific research.

Protein structure prediction Protein design

With all the things proteins do to keep our bodies functioning and healthy, they can be involved in disease in many different ways. The more we know about how certain proteins fold, the better new proteins we can design to combat the disease-related proteins and cure the diseases. Below, we list three diseases that represent different ways that proteins can be involved in disease.

We're collecting data to find out if **humans' pattern-recognition and puzzle-solving abilities make them more efficient than existing computer programs at pattern-folding tasks**. If this turns out to be true, we can then **teach human strategies to computers and fold proteins faster than ever!**

Krabott

Traders vs gamers ! Join the human computation project

Join the research project and help us to prove that gamer's **human brains may help computers to overperform trading strategies** (and overperform real traders)

Krabott allows you to **set up complex financial strategy** without any knowledge

Krabott allows you to **compete with the best trading computing systems**

You will be involved in a unique research project on **human computation and genetic algorithm applied to quantitative finance.**

Contracts

Not yet member? Please sign in with your Google or Facebook Account to join the community

Name	Start	End	Subs. begin	Subs. end	Scope	Level	Subscr. up
COK-2013 MWHR	2013-09-23	2013-10-30	2013-09-28	2013-09-22	All currencies	6	6
COK-2013 EURCHF	2013-09-23	2013-10-30	2013-09-28	2013-09-22	EUR-CHF	6	6
COK-2013 EURGBP	2013-09-23	2013-10-30	2013-09-28	2013-09-22	EUR-GBP	6	6
COK-2013 EURJPY	2013-09-23	2013-10-30	2013-09-28	2013-09-22	EUR-JPY	6	6
COK-2013 EURUSD	2013-09-23	2013-10-30	2013-09-28	2013-09-22	EUR-USD	6	6

Last orders

Rutledge	Books	BabyLisp	Coach	Fish	Books	Zlib	Books	ID42101	Books
									
10/02/2013	10/02/2013	10/02/2013	10/02/2013	10/02/2013	10/02/2013	10/02/2013	10/02/2013	10/02/2013	10/02/2013
EURCHF-EURGBP-EURJPY-EURUSD	EURCHF-EURGBP-EURJPY-EURUSD	EURCHF-EURGBP-EURJPY-EURUSD	EURCHF-EURGBP-EURJPY-EURUSD	EURCHF-EURGBP-EURJPY-EURUSD	EURCHF-EURGBP-EURJPY-EURUSD	EURCHF-EURGBP-EURJPY-EURUSD	EURCHF-EURGBP-EURJPY-EURUSD	EURCHF-EURGBP-EURJPY-EURUSD	EURCHF-EURGBP-EURJPY-EURUSD
-15.23 -30.91 -10.42 -46.91	-1.34 -45.82 -21.62 -35.88	16.96 100.96 245.44 -35.81	-11.25 -48.32 323.65 -91.42	1.26 -46.35 93.21 -3.89					

fish whose coach is currently Tom has open a SELL order on currency EURUSD at 2013-10-08 15:55:00

Collective Intelligent Inventorying

WHAT WE HAVE:

01. A HUNDRED AND SOMETHING REGULAR USERS (NEED MORE ACCURATE NUMBER)



WHAT WE HAVE:

01. A HUNDRED AND SOMETHING REGULAR USERS

02. A LOT OF REUSABLE STUFF



WHAT WE HAVE:

01. A HUNDRED AND SOMETHING REGULAR USERS
02. A LOT OF REUSABLE STUFF
03. A FEW VOLUNTEERS WHO HELP WITH INVENTORYING



THE PROBLEM:

01. VOLUME

Processing large amounts of reusable items.

02. VELOCITY

Keeping up with rate at which items flow into the facility.

03. VARIETY

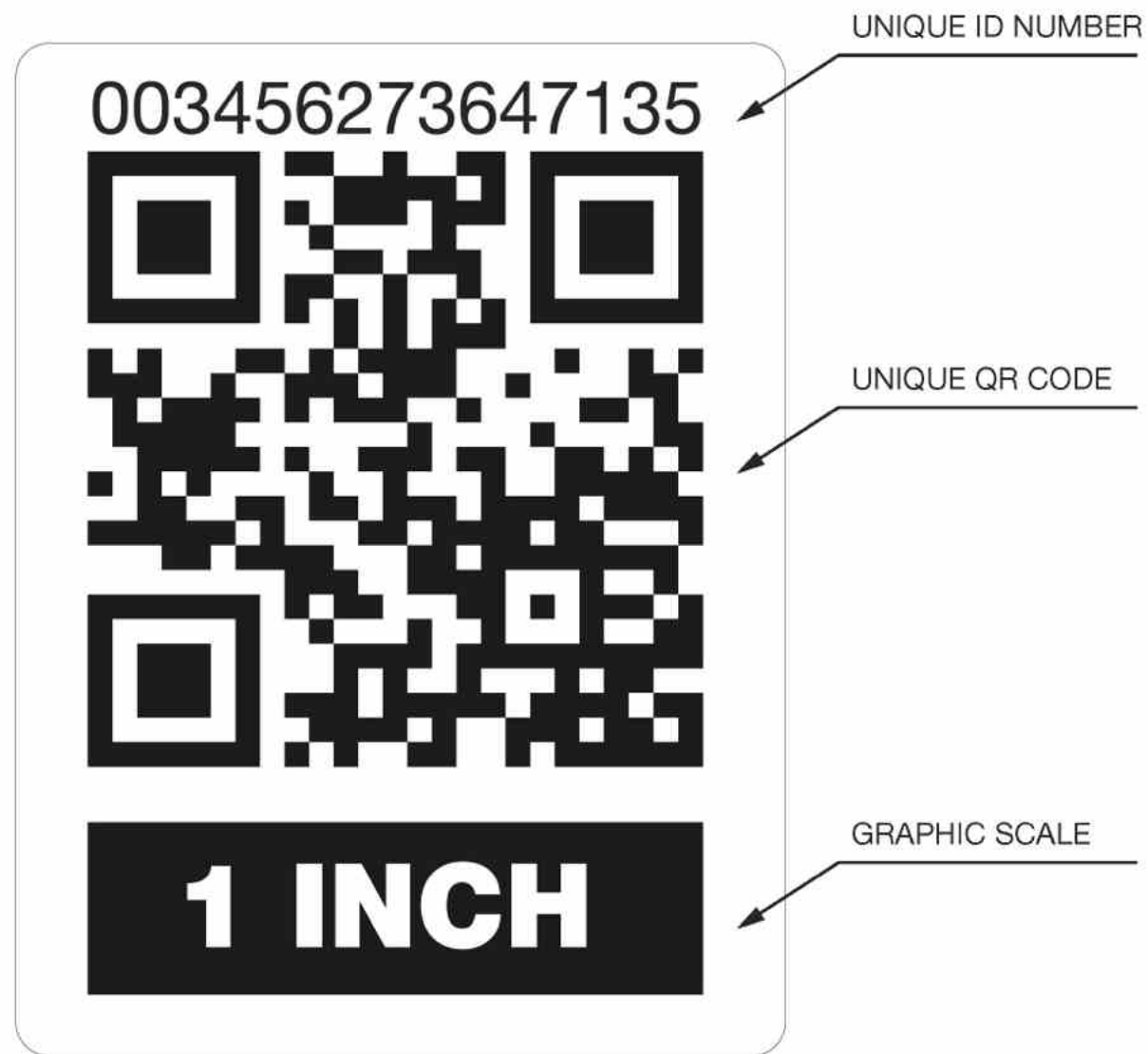
Rarely do items present themselves ordered and ready for distribution. The items are diverse, and do not fall into neat relational structures.

WHAT WE NEED:

IMPROVED INVENTORYING

energy & time





[illegible]

[YOU]
STEP 1/4



[YOU]

STEP 2/4



[YOU]
STEP 3/4



[YOU]
STEP 4/4



[YOU]
UPLOAD
COMPLETE



[WE]
STEP 1/4

3

**PLEASE HELP US OUT:
3 TAGS / 3 ITEMS**

WHY TAG?

Tagging gives value to items.



**#Sweater
#Burgundy
#Long sleeve**



**#Table
#Round
#Wood
#Brown
#circle**



**#Textbook
#Mathematics
#Blue**

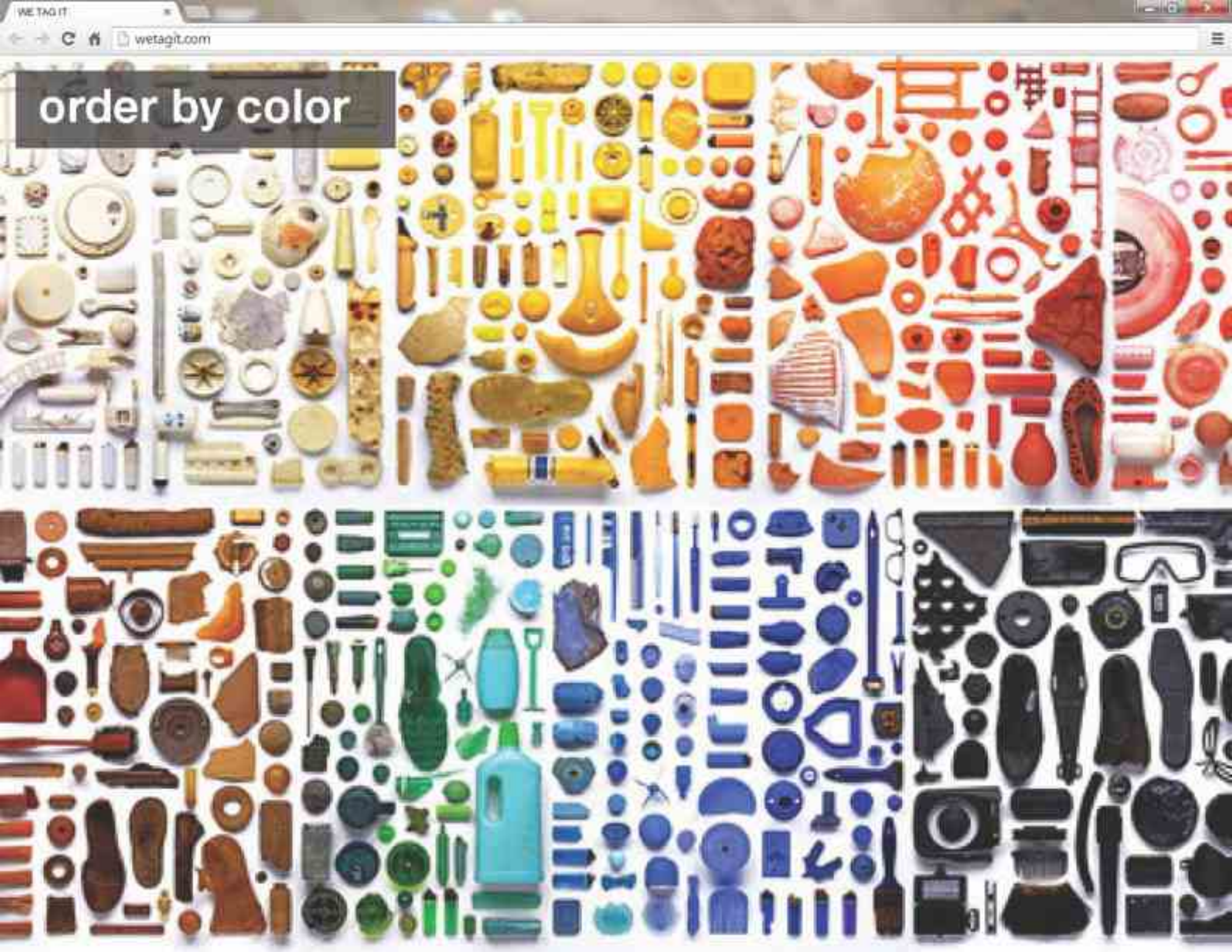
**[WE]
STEP 1/4**

THANK YOU FOR TAGGING!

≈ 200 PEOPLE X
3 TAGS X
3 ITEMS
≈ 600 TAGGED ITEMS
≈ 1800 TOTAL TAGS

TAG MORE ITEMS?

[WE]
STEP 1/4



order by color

brush



Questions to ask:

More accurate number of regular/irregular users

About how much stuff and type of stuff come in and at what rate.

How many and how often volunteers come in to help.

Remind me what are the different kinds of people who search for reusables/scraps/etc