

Using AI and Crowdsourcing to Simplify COVID-19 Info Worldwide

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EasyCOVID-19 Goals

- Make the world healthier and safer.
- Make COVID-19 info understandable
 - by every country's huge populations of people with cognitive disabilities, low literacy, non-native language speakers, the Deaf, and seniors.
- Make accessible, to the blind, COVID-19 info graphics; test and vaccine center finders.
- Recruit world citizens to help us do all that.



EasyCOVID-19 Team Members

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People From:

- China, Ghana, India, Italy, Japan, Russia, South Korea, Vietnam, U.S.

People With:

- Cognitive and physical disabilities.

EasyCOVID-19 Primary Goal

Make COVID-19 info

so simple

we understand it the

first time

we read it.

EasyText.AI Machine Learning Model: Technologies

- **Neural Machine Translation**
 - Typical web text sentences and
 - simplified ones as distinct languages.
- **COVID-19 Knowledge Graph**
 - We are creating a KG to train our model and for the world.
- **Generative Adversarial Network**
 - **Generator** of web text examples using operationalized plain language guidelines (OPLG).
 - **Discriminator** that judges examples using OPLG.



Crowdsourcing Procedures

- Recruit 1000s of people from every country.
- Guide them to simplify text from government websites.
- Help them replace non-literal text and biased text.
- Ask them to rate text simplified by other crowdsourcers.
- Incentive them with gamification.

Crowdsourcing Introduction Page

Please simplify as many COVID-19 terms as you can.

- Think about how:
- you would explain the term to a child.
- your version would replace the term in a sentence

Examples:

- "people with COVID-19" not "confirmed cases"
- "stay safe at home" not "quarantine"

Crowdsourcing Example

Please write a simple version of the term shown.

The term definition will help you.

Term to simplify

Quarantine

Your easy term

stay safe at home

Term definition

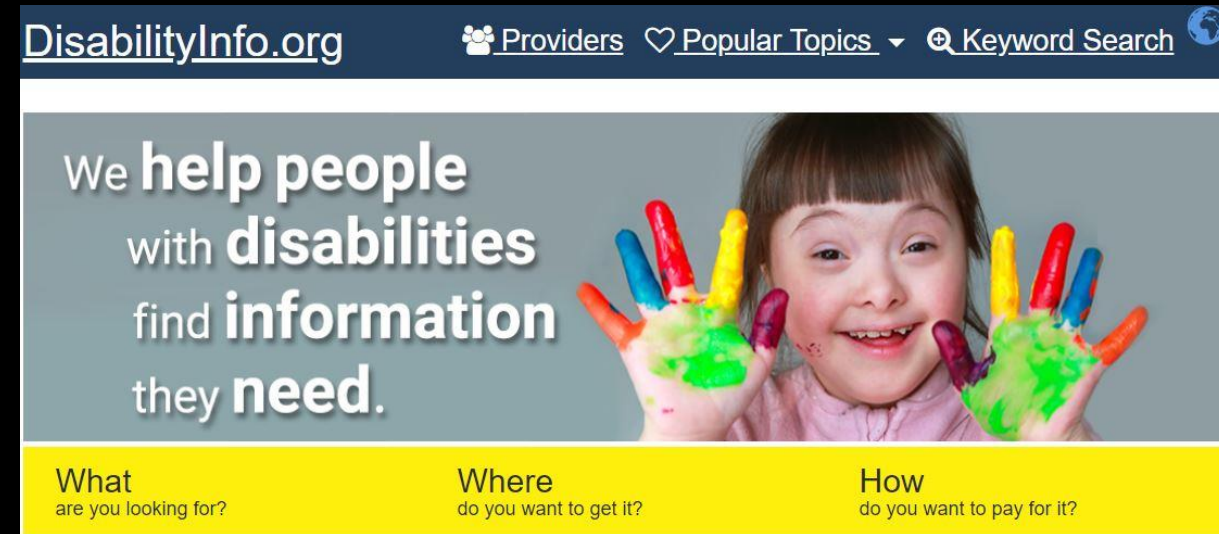
The practice of confining apparently healthy people who may have been exposed to an infectious disease to see whether they become ill. The length of a quarantine depends on the incubation period of the disease.

Skip

Submit

EasyCOVID-19 Project Stages

- Stage 1/Pilot: Massachusetts
- Augment DisabilityInfo.org with:
 - easy-to-understand COVID-19 text
 - accessible test- and vaccine finders
- Stage 2: All U.S. states
- Stage 3: 18 native-English speaking countries
- Stage 4: 21 native-Spanish speaking countries
- Stage 5: All countries, official languages



EasyCOVID-19 Partners and Other Projects

- [Global Symbols](#)
 - Create symbols to aid comprehension with contextually relevant images.
- [Diffbot](#)
 - Develop a knowledge graph to train our ML model and for the world.
- [Twitter Academic Research Network](#)
 - Detect and notify local communities of outbreaks, new strains, clusters.
- [Open AI](#)
 - Explore a tool that summarizes text to configurable reading-grade levels.
- [Fizz Studio](#)
 - Create data-driven COVID-19 graphs accessible to the blind.

EasyCOVID-19 Partners and Funders

- Microsoft AI for Health
 - Microsoft FastTrack for Azure
- Massachusetts Life Sciences Center
- University of Massachusetts Medical School
- Amazon Machine Learning Research Awards
- IBM Accessibility and Watson Research Groups

EasyCOVID-19

Websites



[EasyCOVID-19.org](https://www.EasyCOVID-19.org)

easy
text AI

[EasyText.AI](https://www.EasyText.AI)

Presentation



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