COEN 60 Final Project

By: Jason Vu, Ryan Wong, Michelle Yavorskiy, Yujing Yang

01 Our Team

Jason Vu

- I'm really interested in research regarding data analytics and social media sentiment analysis.
 - I love to casually indulge in games, hang out in chat forums, contribute to open source projects, go outdoor sightseeing, listen to music, and dabble with instruments.
 - Fun fact: I was 11 years old when I first learned how to type on the keyboard effectively. ●



Major(s): Web Design and Engineering double minoring in Computer Engineering and Sociology '24

Ryan Wong

- Interested in concept design, specifically when it comes to games.
- For career aspirations, he would like a blend of front-end and back-end design.
- Hobbies are anime, gaming, martial arts, running, and volleyball.
- Fun fact: I like to make minigames on PowerPoint



Major(s): Web Design and Engineering '23

Michelle Yavorskiy

- Interested in user interface and website design
- Hobbies include any kind of arts and crafts, especially knitting and crochet
- Fun Fact: I love cats



Major(s): Web Design and Engineering '24

Yujing Yang

- Love design and drawing, especially graphic design, illustration and interaction design.
- Hobbies are piano, arts, music, swimming and working out, skateboarding, anime and outdoor activities.
- Fun fact: Really love the sound of the hairdryer.

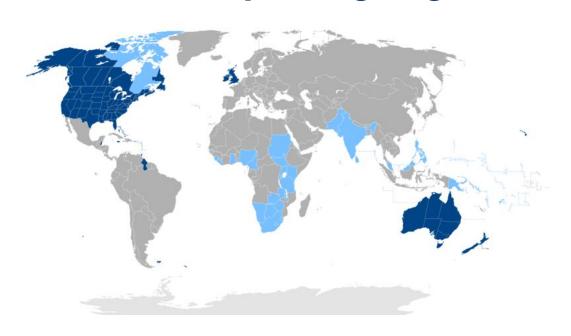


Major(s): Studio Art '23

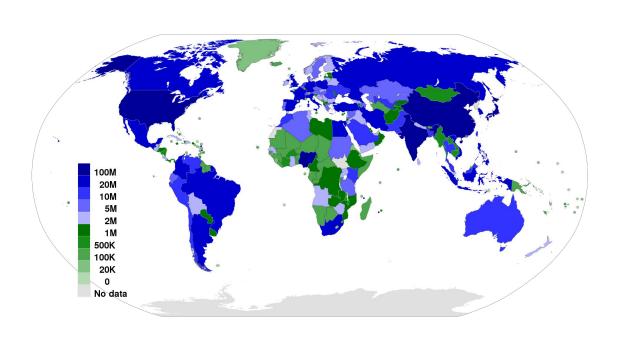
02 The Problem

Coding Languages and Language Barriers

Countries with English as Primary Language



Countries by Internet Usage



O3 Solutions

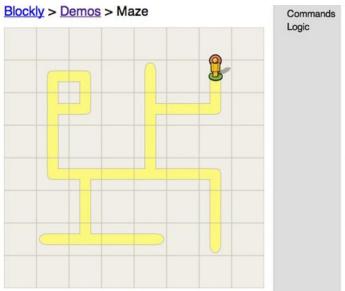
What technology will be used?

- Substitution
- □ Translation
- Simplification



Substitution

Scratch



move forward turn left move forward move forward turn right move forward move forward turn left move forward move forward turn right move forward move forward turn left move forward

Blockly

```
when clicked

forever

wait 0.1 secs

move 10 steps

wait 0.1 secs

move -10 steps
```

```
(a) English
```

```
quando si clicca su

per sempre

attendi (0.1) secondi

fai (10) passi

attendi (0.1) secondi

fai (-10) passi
```

(b) Italian

```
når klikkes

for alltid

vent 0.1 sekunder

gå 10 steg

vent 0.1 sekunder

gå -10 steg
```

(c) Norwegian Bokmål



(d) German

Translation

divination.wy

所餘幾何昔之(左剩策)者今其是矣若(左剩策)等於等者臣之余策)以(左条策)皆之(右条策)者今其是矣除(左条策)以四者今其是矣所(左条策)以四十十二人左条策)者令其是矣滅(凶 上名之日 甲 東一貫之 (左条策) 著令其是矣加 (以条策) 以一昔之 (以条策) 以一带之 (以条策) 著令其是矣施 (听天由命)於 (以条策) 以一带之 (以条策) 滅 (以条策) 以一带之 (以条策) 滅(以条策) 以一带之 (以条策) 满(以条策) 以一带之 (以条策) 其一以《条策) 八行之称出言有一数日素名之曰 (左条策)言有一时(以条策) 八行之称出言有一数日素名之曰 (左条策)言有一时(以条策) 八行之称出言有一数日素名之曰 (左条策)言有一种(以条策) 八行之称第一次 春之八是矣吾有一數曰零名之曰[判據]唐之皇若[甲]等。 名之曰[余策]滅[甲]以「昔之[年]表今其是矣。五五节之[施]春秋古筮法]於[余策] 昔之[余策]表今其是矣。五五充之[春]以[余策]滅[余策]以一节之[余策]者今其是矣。急是 |老今其是矣若[判據]等於零者若有一言曰[[--之書方悟[占][運]之義至昼觀 听天由命

BunnaScript

BunnaScript

```
1 ክፍል ሰው {
2 | ከም: ሀረማ;
3 | መስራቸ(መልእክት: ሀረማ){
4 | ይህ.ከም = መልእክት;
5 |
6 |
7 | ሰላምታ() {
8 | መልስ ይህ.ከም + " እንዴት ነዎት!";
9 |
10 |
11 |
12 | ከልት ቀዳጫ() {
13 |
14 | ንበል ነውጤ = አዲስ ሰው("ነውጤ");
15 |
16 |
17 | ቀዳጫ();
```

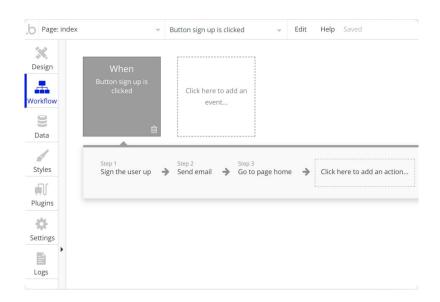
The Underlying JavaScript

```
1 var ሰው = /** @class */ (function () {
2 function ሰው (መልአክት) {
3 his.ስም = መልአክት;
4 }
5 ሰው.prototype.ሰላምታ = function () {
6 return this.ስም + " እንዴት ንዎት!";
7 };
8 return ሰው;
9 }());
10 function ቀጻጫ() {
11 var ነውጤ = new ሰው ("ነውጤ");
12 console.log(ነውጤ.ስላምታ());
13 }
14 ቀጻጫ();
```

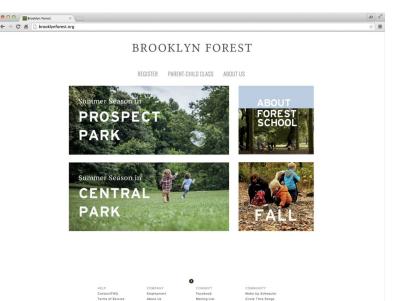


Simplification

Bubble



Squarespace and Adobe Portfolio





AgentCubes



Facilitation

How can the tech be used? • Simplification

SquareSpace | AgentCubes









Substitution

Pikalang Blockly

Translation

divination.wy bunnaScript

The Visualization

Sources

- <u>https://towardsdatascience.com/should-we-code-in-english-d59bd7ed87c9</u>
- https://www.wired.com/story/coding-is-for-everyoneas-long-as-you-speak-english/
- <u>https://spectrum.ieee.org/classical-chinese</u>
- https://mako.cc/copyrighteous/wp-content/uploads/2017/06/scratch-blocks-translated-1024x288.png
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 #/media/File:InternetUsersWorldMap.svg
- https://www.ethiocloud.com/bunnascript.aspx
- https://bubble.io/
- https://en.wikipedia.org/wiki/Non-English-based_programming_languages
- https://portfolio.adobe.com/
- https://en.wikipedia.org/wiki/AgentCubes
- https://github.com/MartinIngesen/Pikalang
- https://esolangs.org/wiki/Pikalang
- https://github.com/kysaeed/brainfreak-js

Thanks

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