Micro-Agriculture

— raising awareness

- *Vinnie Hia Kai Xuan*
- *Lim Jia Sheng*
- *Rusydina Fazlin Athirah*
- *Denise Anjali*
- *Soo Jing Yi*

Micro-Agriculture:

Core Components

Micro farming is small-scale, high-yield, sustainably-minded farming, generally conducted by hand in urban or suburban areas. (←source)

Core components:

- *The plant itself*
- *The planting maintenance*
- *The results*

The plant itself:

- *Different from each situation, because of climate/availability/space constraints*

The planting maintenance:

- *Watering*
- *Sunlight*
- *Nutrition*

The results:

- *Depends on the maintenance*
- *Most often, is a food item*
- *When to harvest*

Micro-Agriculture:

User Opinion

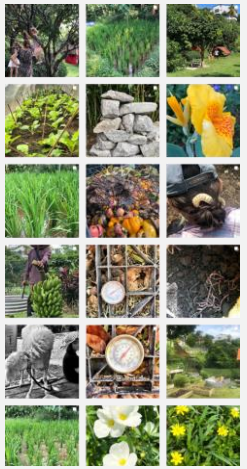
Survey conducted to collect opinions on the matter, enabling an easier search for direction (←source)

Kebun-Kebun Bangsar:

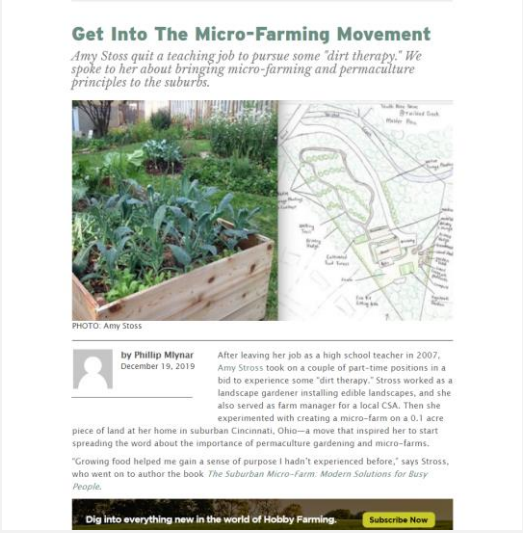
Case Study

Kebun-Kebun Bangsar (KKB) is a community garden in the middle of a suburban neighbourhood. KKB grows a variety of produce and even rears domestic animals. The community garden is open for all to volunteer at and regularly hosts "gotong-royong" events for volunteers to participate in.

KKB donates all its produce to orphanages and soup kitchens. This proves that micro agriculture can bring the benefit of food security and being a healthy food option. Many orphanages and soup kitchens rely on donations to get by and having food that is grown organically is a rarity since it is quite expensive. This gives them the ability to provide healthy food to children and the homeless at a low cost.



Miscellaneous:



Get Into The Micro-Farming Movement

Amy Stoss quit a teaching job to pursue some "dirt therapy." We spoke to her about bringing micro-farming and permaculture principles to the suburbs.

PHOTO: Amy Stoss

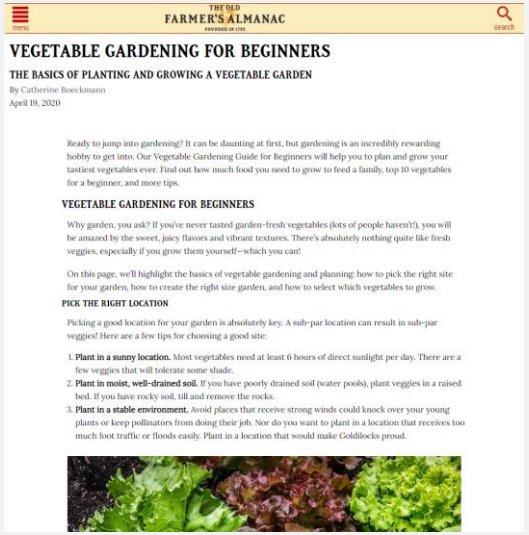
by Phillip Mlynar
December 19, 2019

After leaving her job as a high school teacher in 2007, Amy Stoss took on a couple of part-time positions in a bid to experience some "dirt therapy." Stoss worked as a landscape gardener installing edible landscapes, and she also served as farm manager for a local CSA. Then she experimented with creating a micro-farm on a 0.1 acre piece of land at her home in suburban Cincinnati, Ohio—a move that inspired her to start spreading the word about the importance of permaculture gardening and micro-farms.

"Growing food helped me gain a sense of purpose I hadn't experienced before," says Stoss, who went on to author the book *The Suburban Micro-Farm: Modern Solutions for Busy People.*

Dig into everything new in the world of Hobby Farming. Subscribe Now

(←source)



THE OLD FARMER'S ALMANAC

VEGETABLE GARDENING FOR BEGINNERS

THE BASICS OF PLANTING AND GROWING A VEGETABLE GARDEN

By Catherine Boeckmann
April 19, 2020

Ready to jump into gardening? It can be daunting at first, but gardening is an incredibly rewarding hobby to get into. Our Vegetable Gardening Guide for Beginners will help you to plan and grow your tastiest vegetables ever. Find out how much food you need to grow to feed a family, top 10 vegetables for a beginner, and more tips.

VEGETABLE GARDENING FOR BEGINNERS

Why garden, you ask? If you've never tasted garden-fresh vegetables (lots of people haven't!), you will be amazed by the sweet, juicy flavors and vibrant textures. There's absolutely nothing quite like fresh veggies, especially if you grow them yourself—which you can!

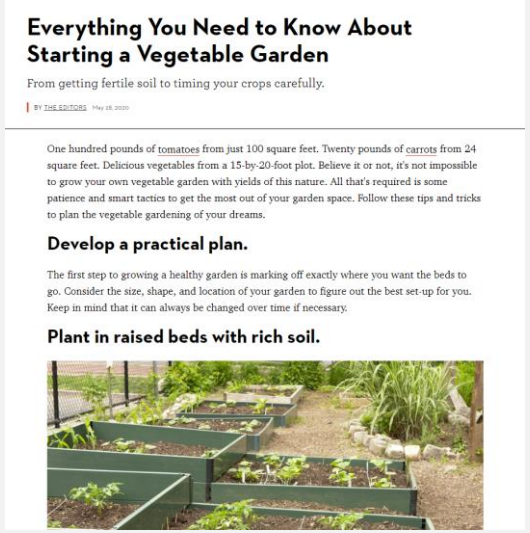
On this page, we'll highlight the basics of vegetable gardening and planning: how to pick the right site for your garden, how to create the right size garden, and how to select which vegetables to grow.

PICK THE RIGHT LOCATION

Picking a good location for your garden is absolutely key. A sub-par location can result in sub-par veggies! Here are a few tips for choosing a good site:

1. **Plant in a sunny location.** Most vegetables need at least 6 hours of direct sunlight per day. There are a few veggies that will tolerate some shade.
2. **Plant in moist, well-drained soil.** If you have poorly drained soil (water pools), plant veggies in a raised bed. If you have rocky soil, till and remove the rocks.
3. **Plant in a stable environment.** Avoid places that receive strong winds could knock over your young plants or keep pollinators from doing their job. Nor do you want to plant in a location that receives too much foot traffic or floods easily. Plant in a location that would make Goldilocks proud.

(←source)



Everything You Need to Know About Starting a Vegetable Garden

From getting fertile soil to timing your crops carefully.

BY THE EDITORS May 18, 2020

One hundred pounds of tomatoes from just 100 square feet. Twenty pounds of carrots from 24 square feet. Delicious vegetables from a 15-by-20-foot plot. Believe it or not, it's not impossible to grow your own vegetable garden with yields of this nature. All that's required is some patience and smart tactics to get the most out of your garden space. Follow these tips and tricks to plan the vegetable gardening of your dreams.

Develop a practical plan.

The first step to growing a healthy garden is marking off exactly where you want the beds to go. Consider the size, shape, and location of your garden to figure out the best set-up for you. Keep in mind that it can always be changed over time if necessary.

Plant in raised beds with rich soil.

(←source)

CountryLiving

The 6 most cost-effective vegetables to grow in your garden

Use this handy Vegetable Cheat Sheet as your guide

BY KATIE AVIS-RIORDAN FEB 15, 2019

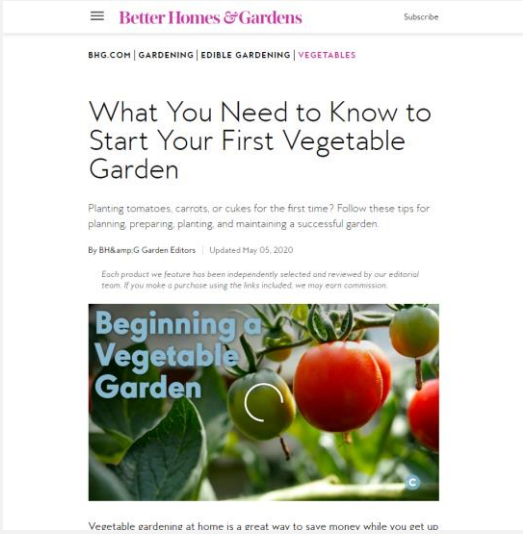
Growing your own vegetables can be a great way to help the environment and also save some pennies.

Another bonus is that you can choose organic produce and won't have to rely on supermarkets and shops to get your veg intake.

But where to start? Anglian Home Improvements has created a handy A-Z Vegetable Cheat Sheet all about the best ways to grow your own veggies.

As the price of fruit and vegetables are expected to rise by 8% after Brexit, the idea of growing your own is now better than ever. Take a look at the infographic to see how it's done...

(←source)



Better Homes & Gardens

BHG.COM | GARDENING | EDIBLE GARDENING | VEGETABLES

What You Need to Know to Start Your First Vegetable Garden

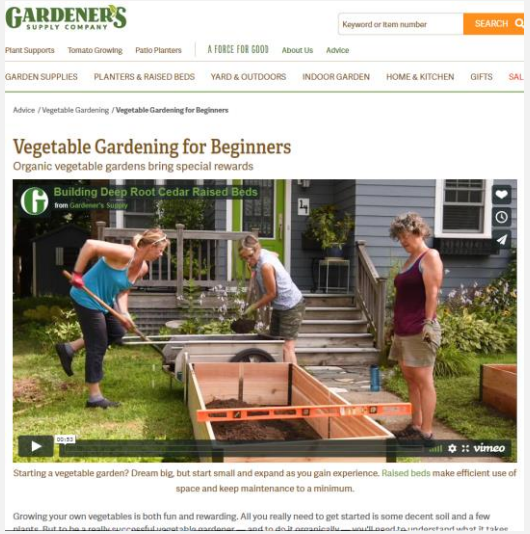
Planting tomatoes, carrots, or cukes for the first time? Follow these tips for planning, preparing, planting, and maintaining a successful garden.

By BH&G Garden Editors | Updated May 05, 2020

Each product we feature has been independently selected and reviewed by our editorial team. If you make a purchase using the links included, we may earn commission.

Vegetable gardening at home is a great way to save money while you get up

(←source)



GARDENER'S SUPPLY COMPANY

Plant Supports | Tomato Growing | Patio Planters | A FORCE FOR GOOD | About Us | Advice

GARDEN SUPPLIES | PLANTERS & RAISED BEDS | YARD & OUTDOORS | INDOOR GARDEN | HOME & KITCHEN | GIFTS

Advice / Vegetable Gardening / Vegetable Gardening for Beginners

Vegetable Gardening for Beginners

Organic vegetable gardens bring special rewards

Starting a vegetable garden? Dream big, but start small and expand as you gain experience. Raised beds make efficient use of space and keep maintenance to a minimum.

Growing your own vegetables is both fun and rewarding. All you really need to get started is some decent soil and a few plants. But to be a really successful vegetable gardener — and to do it organically — you'll need to understand what it takes

(←source)

Who?

New home owners (24-35y/o) (←source)

→ *Simpler to set up micro-agriculture in a new environment, without "baggage"*

Where?

Malaysia

→ *"Five million of the six million "new" gardening households [in the U.S.] were Millennials." (←source)*

What?

Not starting micro-agriculture

→ *In a piece about a successful home gardener, Abang Din — "Most of us are nowhere near Abang Din. We still drive to the market to buy pandan leaves or lemongrass for everyday cooking. Not to mention the few stalks of curry leaves for the chicken curry or cili api for sambal belacan." (←source)*

Why?

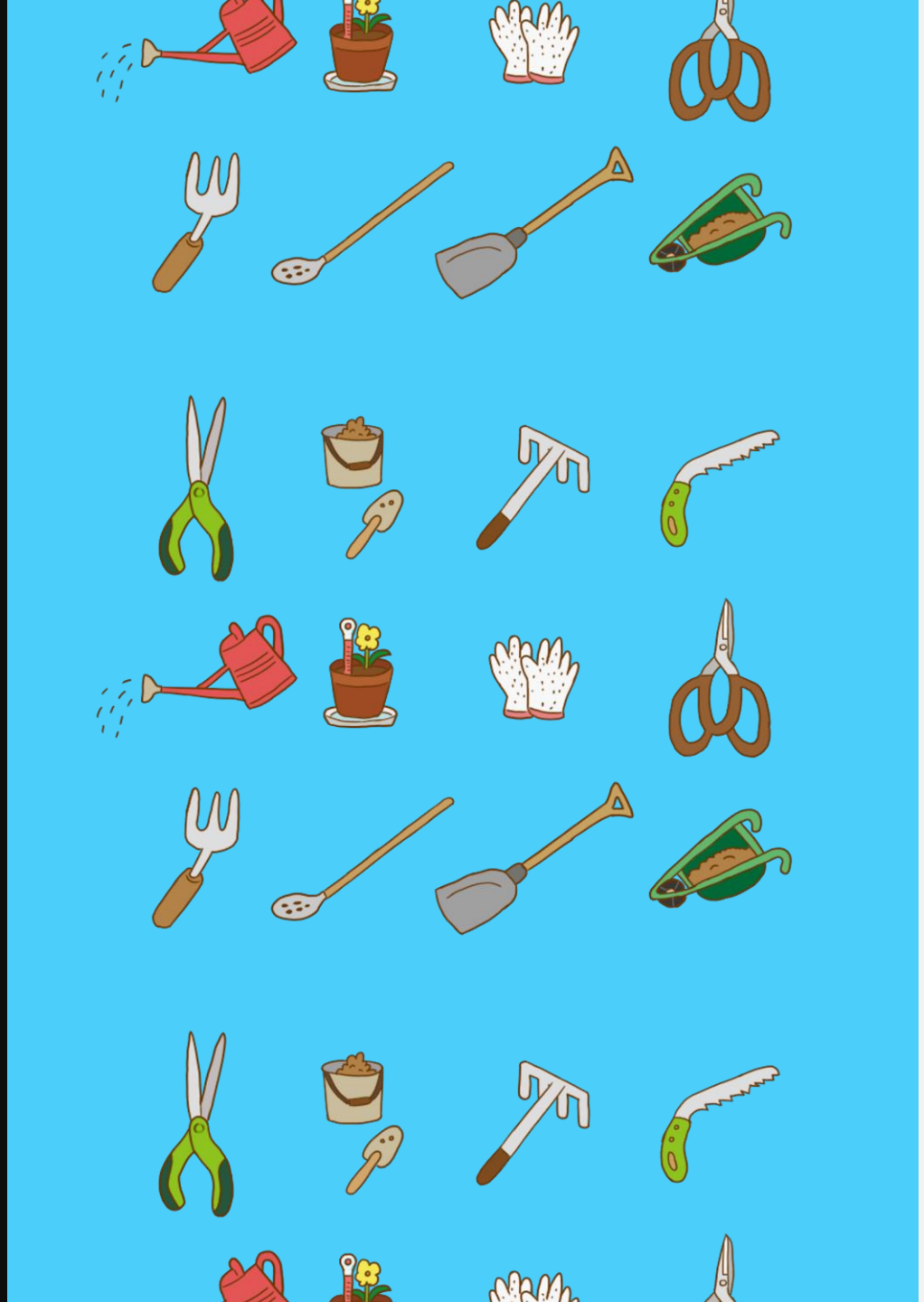
Too much friction in maintenance

→ *Based on the most popular options of the opinion survey done — takes too much time (80%), takes too much effort (80%)*

Micro-Agriculture:

Problem Statement

New home owners in Malaysia are not starting micro-agriculture because of friction in maintenance. The solution would be to expose new home owners to the benefits of, and methods to, start micro-agriculture, that apply to them.



– *chosen!*

Facebook

– video

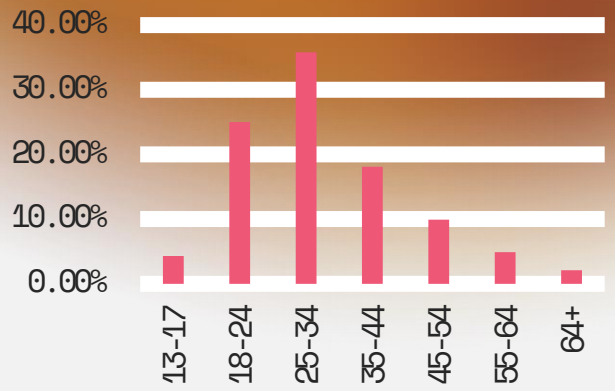
Pros:

- *most people of age inside our demographic (25-34y/o ~= 9,300,000) (←source)*
- *relatively high click through rate (0.9%) (←source)*
- *relatively low CPC (USD$0.97) (←source)*
- *highest net daily users (74%) (←source)*

Cons:

- *with such a large user base, targeting becomes very challenging, and can affect pricing/CTR (←source)*

Malaysian Facebook user age



How

- *blend in with normal facebook posts*
- *post about top 5 micro-agriculture plants for home*
- *Emphasize on smaller plants that can fit in smaller spaces*
- *Inspirational, funny, practical posts get most engagement (←source)*
- *With the genre of comedy, as it hits most boxes of viral posts (←source)*

Instagram

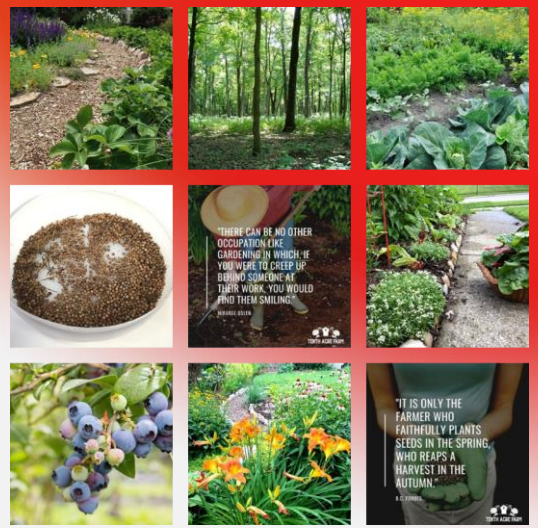
– album

Pros:

- *second most people of age inside our demographic (←source)*
- *relatively low CPC (USD$0.50 – $1.00) (←source)*

Cons:

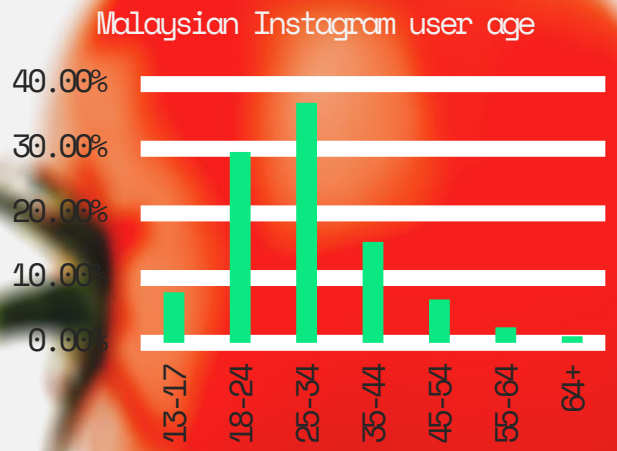
- *relatively low click through rate (0.52%) (←source)*



@tenthacrefarm

How

- *blend in with other instagram posts*
- *aesthetic posts of plants at home*
- *not have any obvious advertising elements, to try to overcome the low CTR*
- *Don't use video as the line of "over-producing" is very fine, viewers will tune out*



Twitter

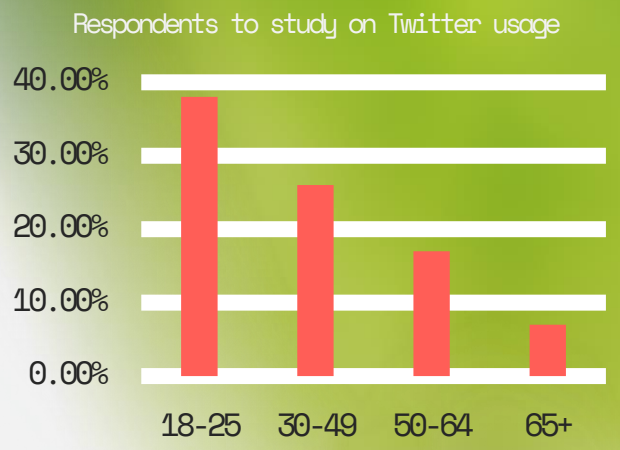
– photo

Pros:

- *highest click through rate (1.64%) (←source)*

Cons:

- *demographic mismatch, majority is aged 18-29 (←source)*
- *lowest net daily users (42%) (←source)*



How

- *blend in with other twitter posts*
- *comedy and relatability is powerful on twitter, but difficult to nail*
- *use memes*

YouTube

– video

Pros:

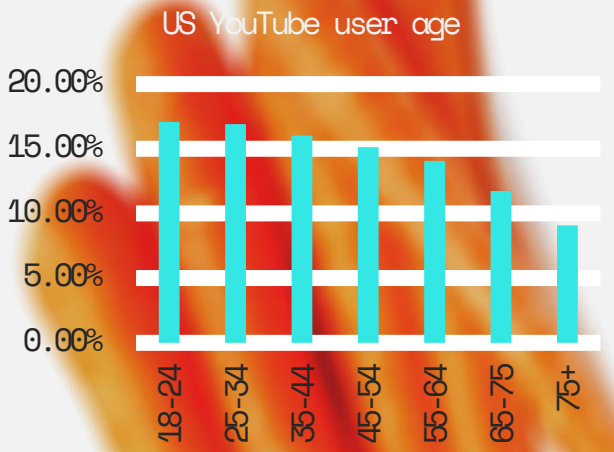
- video can contain a lot more information & content
- Millennials prefer YouTube two to one over traditional television (←source)

Cons:

- the lowest click through rate (0.33%) (←source)
- the highest CPC (USD$3.21) (←source)

How

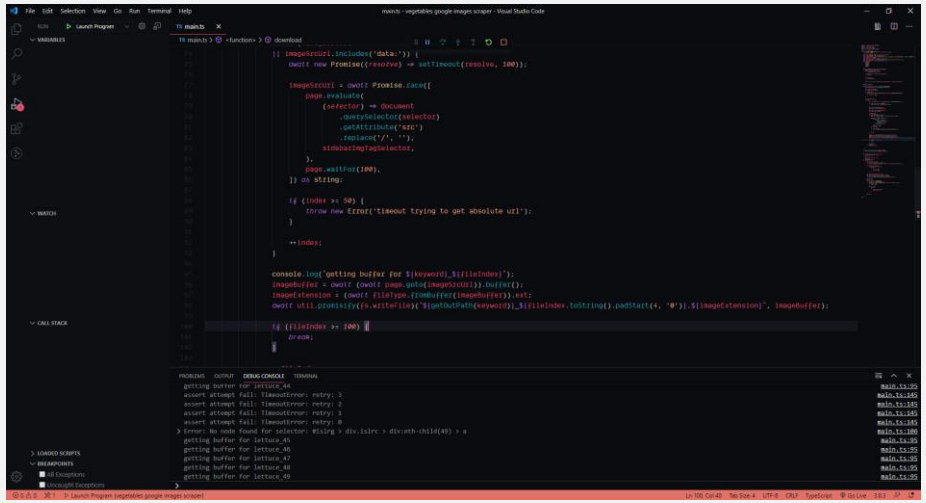
- use a skippable format to reduce CPC
- Not required to blend in with other content, but if done, will help
- Vlog style video showcasing micro-agriculture, featuring a local youtuber

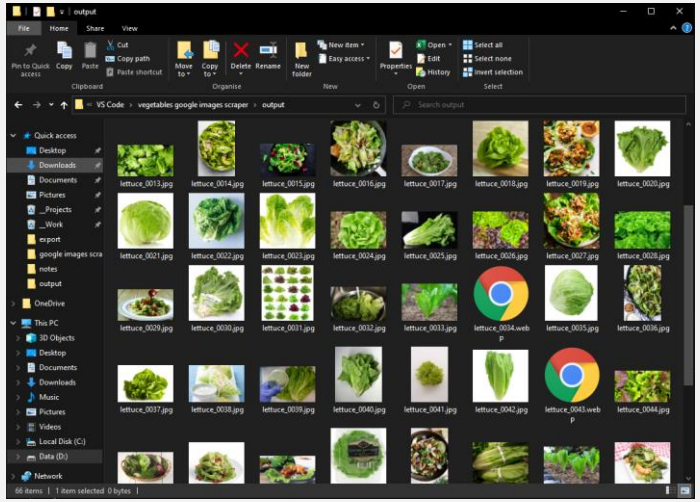


— prototype

Pre-game:

Asset Collection





Script to download pictures

- *Attempts to download the first 100 results on google images on each of the plants — garlic, carrot, tomato, potato, lettuce*
- *Written in NodeJS with puppeteer for browser automation*

— prototype

Pre-game:

Data Collection

Separated into headings & sub headings

- *Headings contain crucial information about the plant & the question being asked*
- *Sub headings contain jokes & puns, just for comedic relief*

Distributed among group members

- *Parallel workloads are always fun xd*

Plants pros & corns

Potato

Pros

- is a truly sustainable food source
- easy to grow and require no machinery
- long shelf life if kept properly (proper temperature in root cellar)
- versatile in preparation — boil, mash, fry, scallop etc

Cons

- requires specialty bought "disease-certified" potato seeds
- even with that, it's still very susceptible to disease
- improperly stored seeds can produce potatoes with toxins
- requires cool nights down to 12°C for good tuber formation

Tomato

Pros

- efficient use of nutrients and water uptake
- high yields, no seasonality
- fight stomach, prostate & colorectal cancer with lycopene (an anti-oxidant)
- fight cataracts & macular degeneration with beta carotene, lycopene & lutein

Cons

- requires both direct shine from the sun, and temperatures less than 32°C
- not all tomatoes deal well with smog or air pollution

Carrot

garlicc
* deters many pests, such as aphids, spider mites, fungus gnats, Japanese beetles, snails, and cabbage loopers
[No bugs = More hugs]
* snake repellent [say no to sneaky slithery serpents]
* fight high blood pressure by taking 4 cloves of garlic a day
[you've gotta cLOVE what garlic can do!]//[its getting hot in here so take off all your cloves]
* fight heart disease by decreasing bad cholesterol and ignoring good ones [garlic stinky but heart strong]

2:48 pm

subs

potato
* is a truly sustainable food source (what a spud)
* easy to grow and require no machinery (easy peas- wait wrong vegetable)
* long shelf life if kept properly (proper temperature in root cellar) (i yam into saving potatoes)
* versatile in preparation — boil, mash, fry, scallop etc (potatoes can make vodka. what have you done successfully?)

tomato
* efficient use of nutrients and water uptake (water bill wont go up)
* high yields (want to get high.... yields? grow tomatoes instead)
* no seasonality (perfect for the 4 seasons: hot, rain, haze and durian)
* fight stomach, prostate & colorectal cancer with lycopene (an anti-oxidant) (dont be anti tomato!)
* fight cataracts & macular degeneration with beta carotene, lycopene & lutein (cant you see the benefits? eye can!)

lettuce
* versatile in usage (lettuce be flexible in using lettuce)
* does not require large and deep spaces (shallow but not dumb)
* benefits from being indoors (puteri lilin style)
* fight high cholesterol by increasing cholesterol metabolism (i ❤️ lettuce, theyre good for hearts)
* fight insomnia with lactucarium, used in medieval times (a bed of lettuce helps you sleep in bed)
* fight dehydration with water, it is 95% of it (water you doing, grow some lettuce)

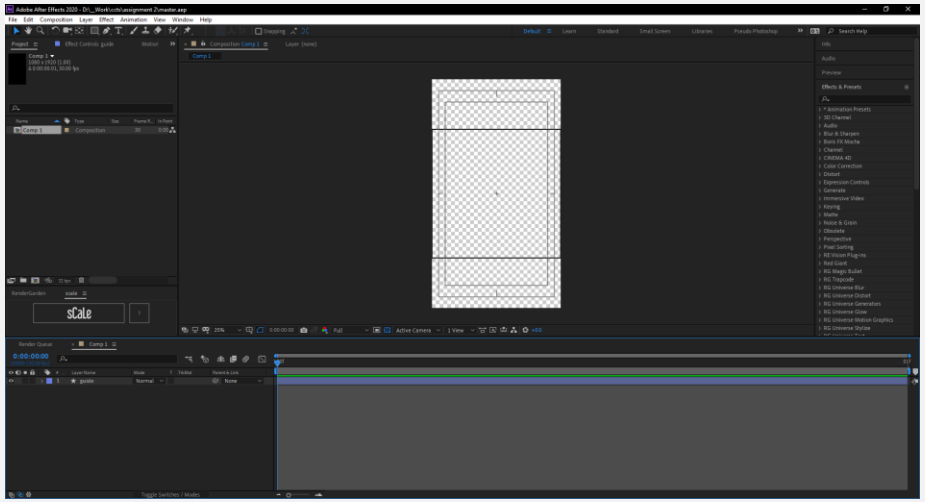
From my Huawei Notepad

Pre-game:

Dimensions Planning

Set up guides & safe space

- *Facebook will either crop your video to 1:1 or 2:3 aspect ratios depending on device (←source). Having the content be within the 1:1 subspace, it will ensure all devices have good experiences viewing it.*

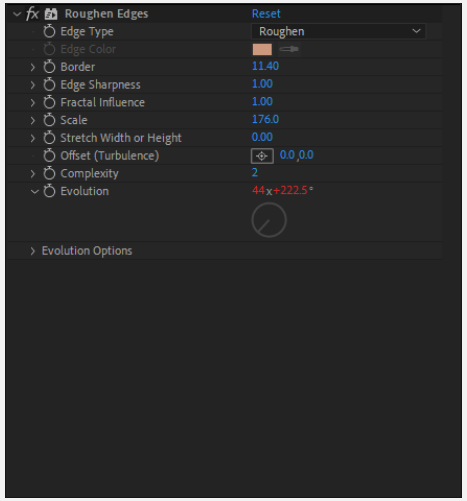


Building Blocks:

LEMON MILK
LEMON MILK
LEMON MILK
LEMON MILK
LEMON MILK
LEMON MILK
LEMON MILK
LEMON MILK

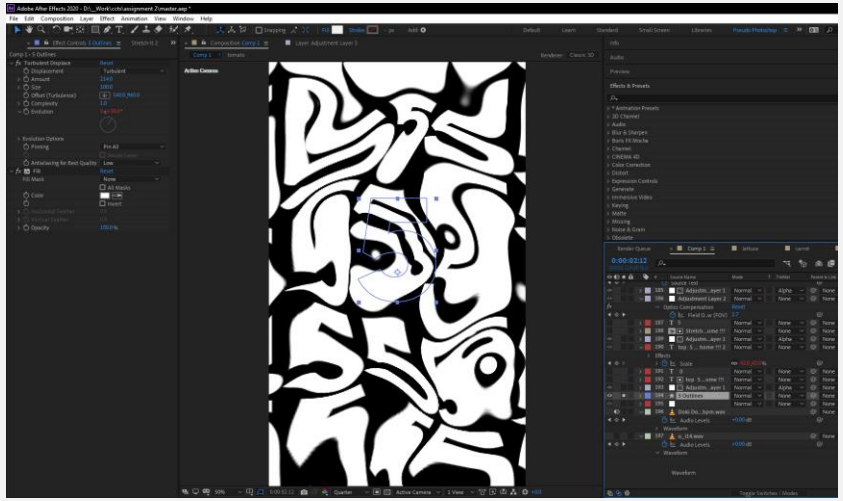
"Lemon Milk" font

- *Though overused, its bold and sleek nature made for a great canvas for some organic distortion*



"Roughen Edges" effect

- *Abused to create an organic "breathing" effect on the text, so the entire composition is more lively, retaining attention*



Warping background overlay

- *Abused to create an organic "breathing" effect on the text, so the entire composition is more lively, retaining attention*

— prototype

Constr-
uction:
Intro

3, 2, 1 countdown

- *To retain the viewer by giving a signal of when the content starts to show.*

Emphasis on "top 5"

- *"Lists help tidy up, simplify, hierarchize the booming, buzzing confusion of sensory input we call life, being alive," (←source)*

Emphasis on "food"

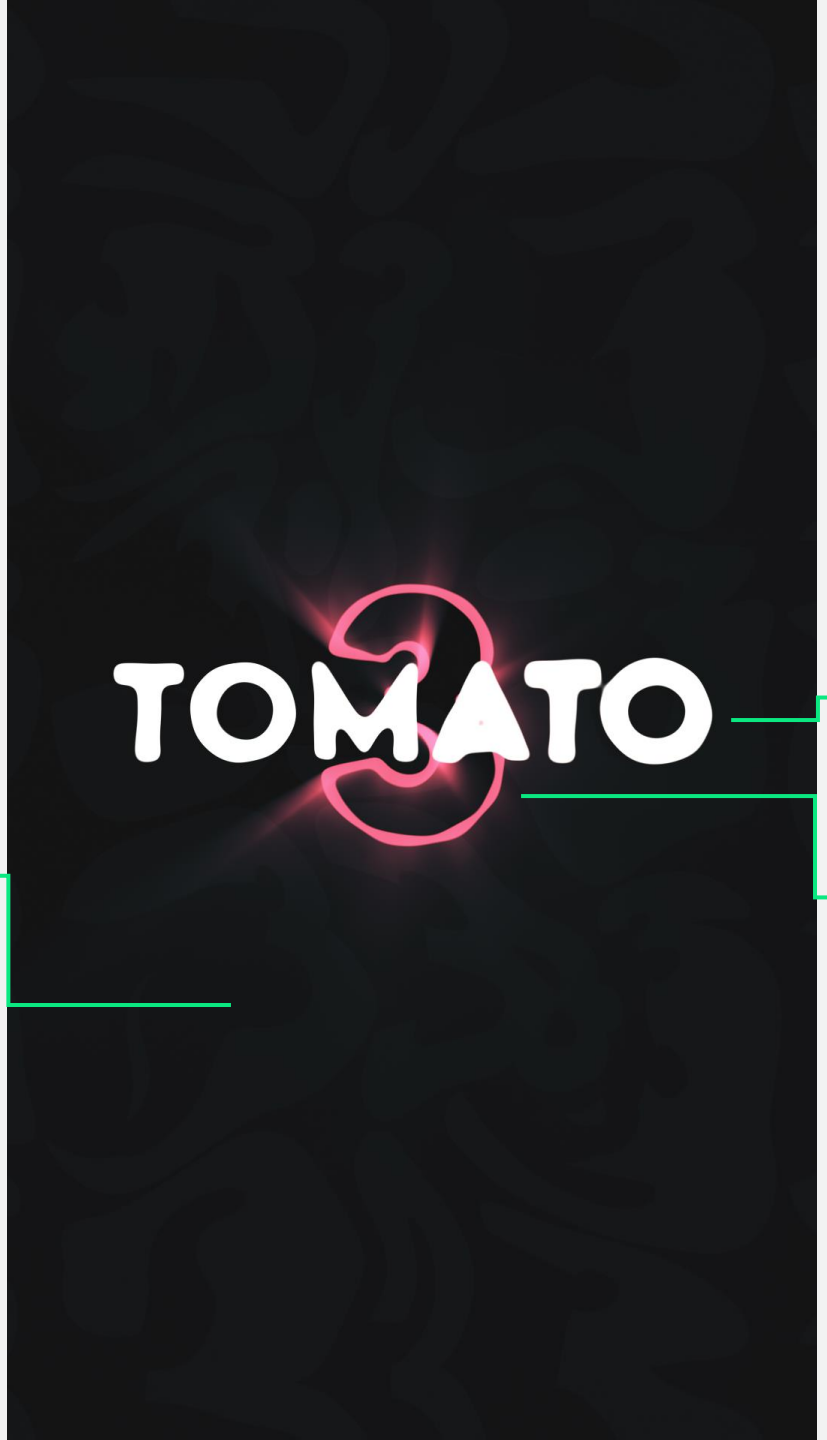
- *"People love food" (←source)*

Short and relatable terms

- *So the viewer will immediately know what the video is about, a higher chance of retention*

Constr-uction:

Counter



Dark background

- *Contrasts the light backgrounds of the other components, signals different section of the video is about to start*

Big header

- *Reduce effort needed to identify sections*

Same number style as intro

- *Keeps consistency throughout the video & helps the viewer track progress of the video*

– prototype

Constr-uction:

5-1 (Why)

Small header question

- *For the viewer to keep track of what's happening & for people who screenshot these sections (even though it's not stated here)*

Big header

- *Contains the main info, in short and concise form, nothing else, so the viewer can absorb max amount of info in shortest amount of time (they can google the details)*

Small sub header

- *Comedic relief with non-essential information*

Changing background

- *Pictures of the currently relevant plant, changing every 5 frames for more life in the video*

— prototype

Constr-uction:

0 (How)

Screenshot reminder

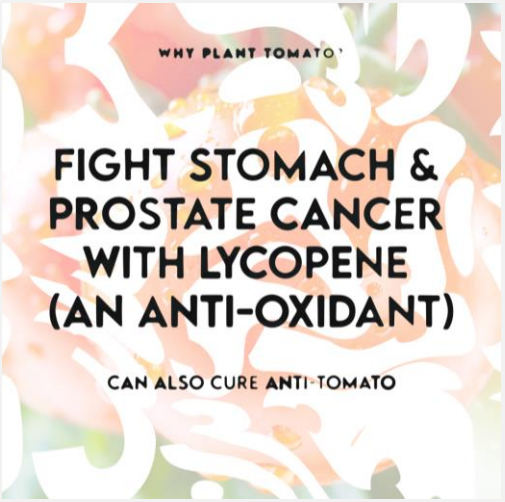
- *To remind the viewer that screenshotting is an option, as it's beneficial here to remember what the steps are.*

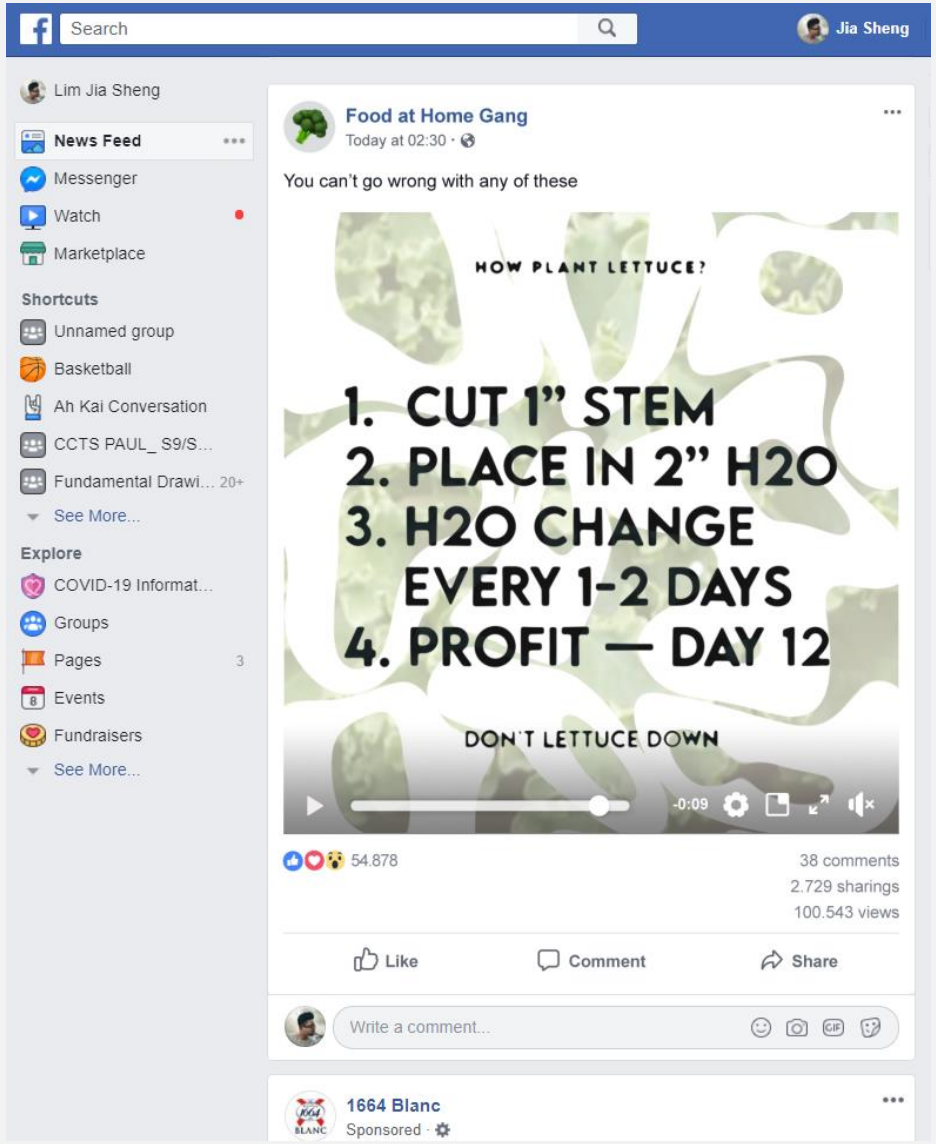
Generalized instructions

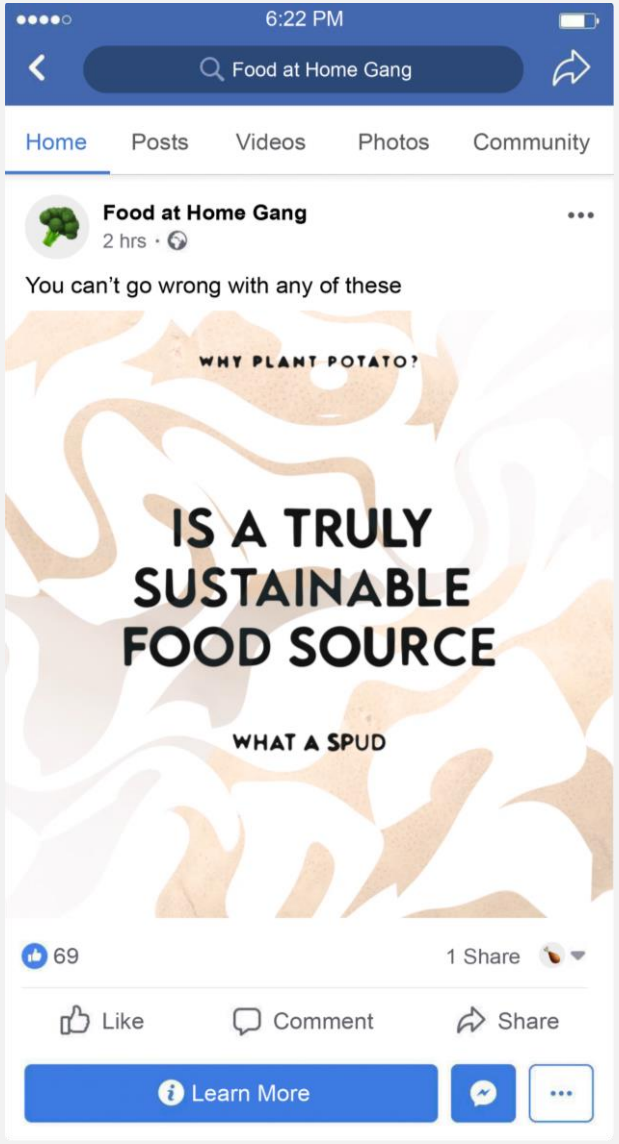
- *Contains summarized steps, just to give the viewer an idea of what they're in for. Don't over complicate to not confuse beginners as well. (they can also google this)*

– present

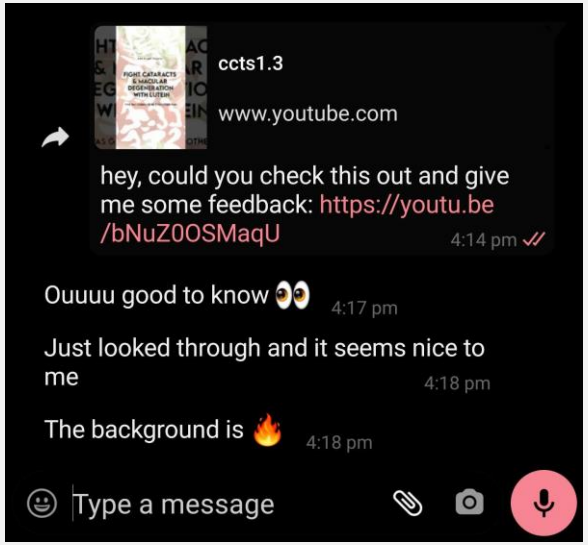
Mock-ups

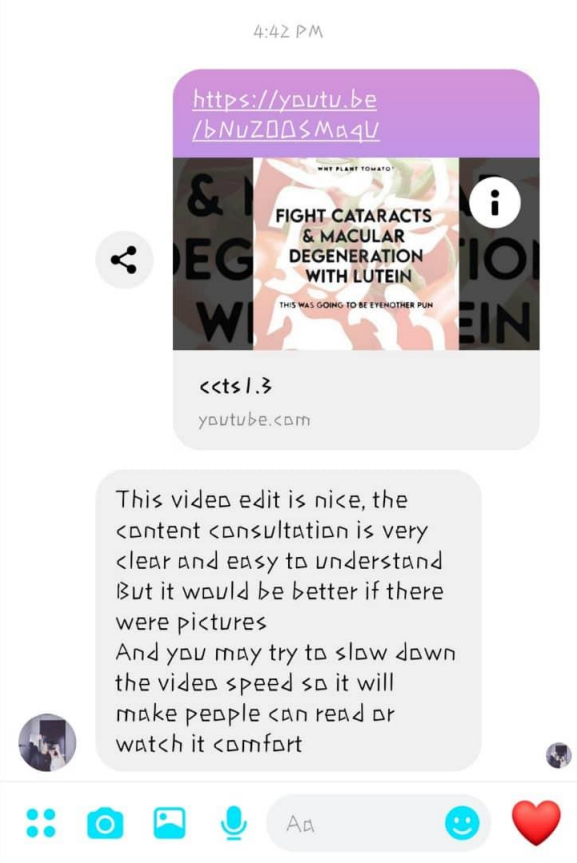




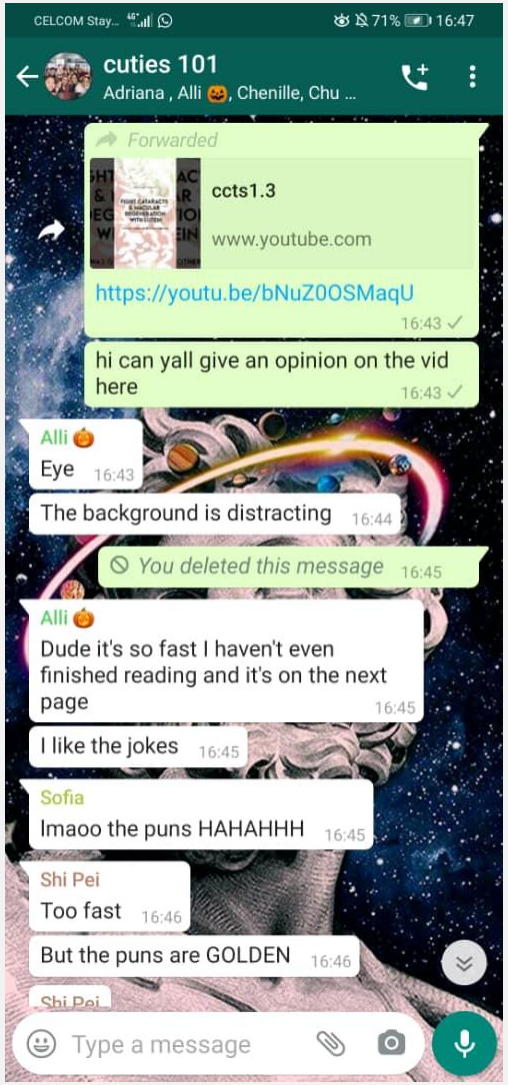


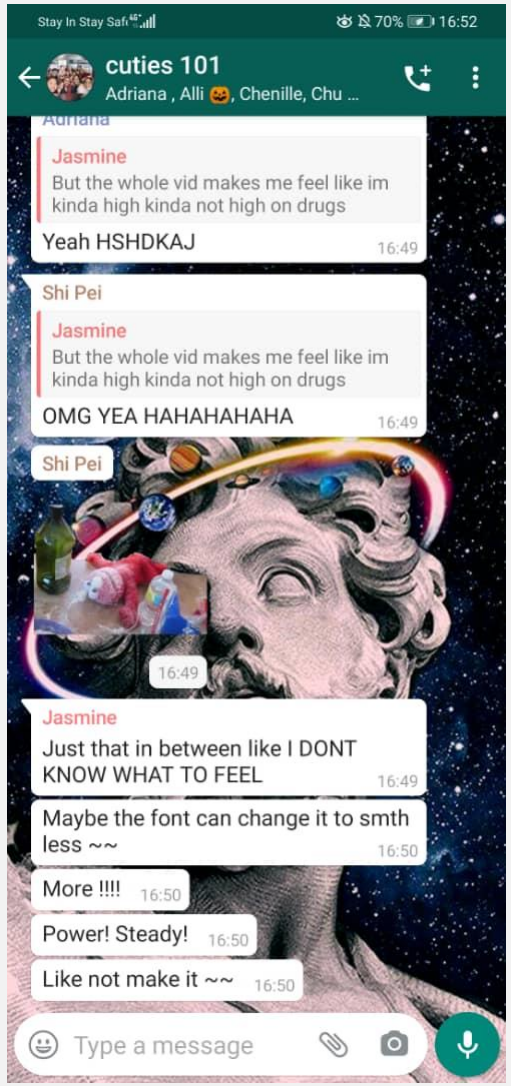
Outside Opinion





Outside Opinion



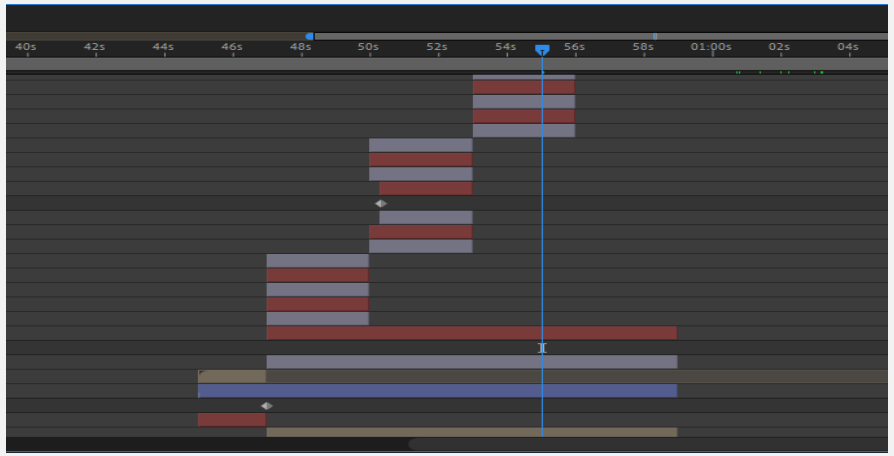


Outside Opinion:

Resolu-tions

Background is distracting

- *Resolved by Facebook cropping the video down to 1:1 aspect ratio when the video is not full-screened, effectively pulling focus into the centre of the frame only.*



Text duration is too low

- *Resolved by decreasing text reveal animation, giving more time for the brain to process the text*

Final Product

Thank
you