



EMIA6500R / CMAA5022 / CSM60021

Social Media for Creatives

Lecture 02

Social Media and Creativity

Professor Pan HUI & Professor Jussi
FRI 15:00 – 18:00

Before Everything...



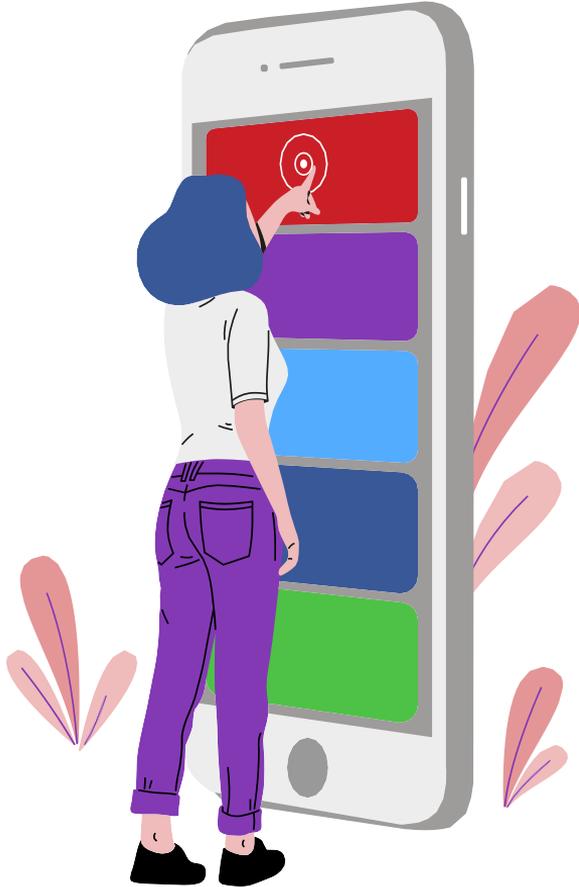
<https://christiep-academic.github.io/Social-Media-Course/>

For Classes this and next week...

- GZ is on official Chinese New Year holiday.
- Class will run in hybrid mode: on-campus (CWB & Helsinki) + Zoom
- Please check your audio/video setup before class if joining remotely.
- Friendly reminder: Group formation deadline is until Week 3!

Group Number	Group Member (* indicates the group leader)	Campus (CWB/GZ/Helsinki)	eMail
1	Ka Man (Janet) CHOI	CWB (PhD student in IIP - XR and wearables)	
	Melling WEI	CWB (PhD student in IIP - AI and media communication)	
	Yugi LIANG	GZ (PhD student in CMA -)	
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	Zhang Jingyi (Carnie)	CWB (PhD student in IIP - AI and media communication)	zhangj@connect.ust.hk

Today's Outline



01

Lecturing

Social Media and Creativity

02

Digital Teachers

Virtual World Affordances

03

Going back to Ben's Lecture

DIY Culture, AI and Creativity

04

Tutorial

Using APIs for Data Collection on Social Media Research

05

Q&A and Group Formation

Time for you to form your group

Creativity



When we use the term **creativity**, different images come to our mind...



Bright persons who express unusual thoughts, people who experience the world in novel and original ways, and people who change our culture are all creative.



Without **creativity**, it would be difficult to distinguish humans from other animals, and **mankind would not progress.**



Creativity results from the interaction of **three elements**



Domain

Domain consists of a set of symbolic rules and procedures



Field

Field includes all the individuals who act as gatekeepers to the domain. They decide whether a new idea or product can be accepted.



Individual

Individual using symbols of a given domain, produces a new idea or sees a new pattern. His or her thoughts or actions change a domain or establish a new domain.

Domain



- Each domain is made up of its own symbolic elements, its own rules, and generally has its own system of notation.
- In many ways, each domain describes an **isolated little world** in which **a person can think and act with clarity and concentration.**
- Different domains are structured in different ways. Best domains for creativity have **clarity of structure**, the **centrality within the culture (or focus)**, and **accessibility.**



Domain Examples



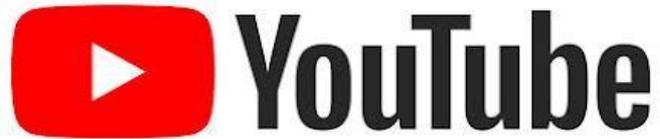
Focus: AR/VR



Focus: Text, Image, Video



Focus: Video



Focus: Image and Video





Fields

- Field includes **all the individuals who act as gatekeepers** to the domain. They decide whether a new idea or product can be accepted.
- *For example*, in the **visual arts sector**, the **field** consists of art teachers, curators of museums, collectors of art, critics, and administrators of foundations and government agencies that deal with culture.
- These people decide what new works of art must be recognized, preserved, and remembered.

Domain and Fields

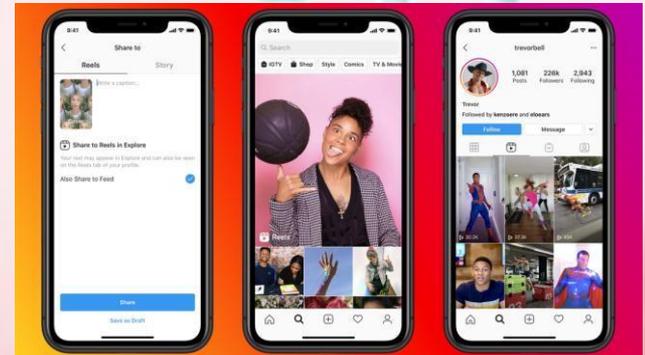


- Domains and fields **affect each other** in various ways.
- Sometimes domains mostly determine what the field can or cannot do. Sometimes the field takes the precedence.

- A good example is **Instagram's Reels Feature**:
- **Instagram** was mainly an image-based platform.

Following the widespread success and popularity of

TikTok, the company debuted the Reels feature in 2019.



Example: Instagram Reels



- Instagram announced their testing of 10 Minutes Long Reels in September 2023.
- Instagram Reels currently range from 15 to 90 seconds. **It appears to be attempting to compete with TikTok**, which launched 10-minute films in February 2022 and directly challenges **YouTube's Shorts** format, by moving toward longer form video content.

Facebook Launches Instagram Reels, Hoping To Lure TikTok Users

August 5, 2020 · 1:32 PM ET

Example: Instagram Reels



- Noveria and Karjo (2023) compared the Instagram reels and TikTok, exploring the possibilities of utilizing the video contents at Instagram Reels and Tiktok for marking purpose. **They identified the differences in contents and the relationship between the videos, captions, and language function to enhance the copywriting for caption.**
- An interesting finding is **Instagram Reels' contents are more informational than TikTok.** TikTok videos are **more entertaining** as the promoting brands are following the trends. Instagram has a comparatively proper algorithm for food products. Both platforms share the same dominant directive language functions.

Individual: Creative Person



- Being in the right place at the right time is an important part of **creativity**.
- But to know that one is indeed staring at an opportunity **needs a prepared mind**.
- Many people **never realize** that they are surrounded by favorable circumstances **and even fewer know what to do** when the realization hits them.



Creative Individuals



- Creative individuals are remarkable for **their ability to adapt to different situations and to manage with whatever is needed to reach their goals.**
- Creativity is **facilitated** (but not restricted or determined) by some **genetic predispositions.**
- *i.e., A person whose nervous system is more sensitive to color and light will have an advantage in painting, while someone born with a perfect pitch will do well in music.*
- According to the literature, **practice and critical thinking** could help improve one' sense of creativity.



Important Factors in Recognition



- All in all, two factors are very important in **being recognized as a creative individual**:
- The first is “**discovery**” -discovering new ideas, new products, new services, new and better ways to do everything.
- The second is “**delivery**” – implementing new ideas, using the proven tools and methods of business and management.



The Work of Creativity

The **creative process** consists of **five** steps:



1. Preparation:

- The first is a period of **preparation**, becoming **immersed**, consciously or not, in a set of **problematic issues** or **emerging conditions** that are interesting and arouse curiosity.

2. Incubation:

- **Give yourself some time!** Let new and crazy ideas churn around **below the threshold of consciousness**. It is during this time that **unusual connections are likely to be made in your brain**.
- How long a period of incubation is needed varies depending on many factors. **It may range from a few hours to several weeks and even longer.**

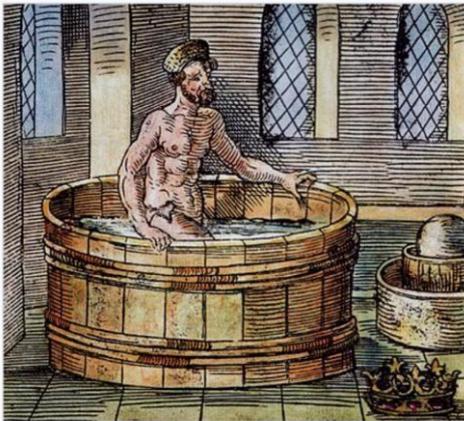
The Work of Creativity

The **creative process** consists of **five** steps:



3. Incubation:

- After giving yourself enough time, the **insight** arrives. It is time **when the pieces of the puzzle suddenly fall together**. It is that **Eureka** moment!



16th-century illustration of Archimedes in the bath, with Hiero's crown at bottom right 

The exclamation "Eureka!" is attributed to the ancient Greek scholar Archimedes. He reportedly proclaimed "Eureka! Eureka!" after he had stepped into a bath and noticed that the water level rose, whereupon he suddenly understood that the volume of water displaced must be equal to the volume of the part of his body he had submerged. He then realized that the volume of irregular objects could be measured with precision, a previously intractable problem.

The Work of Creativity

The **creative process** consists of **five** steps:



4. Evaluation:

- The fourth component is evaluation, i.e., **deciding whether the insight is valuable and worth pursuing further.**
- People may ask themselves, *“Is this idea really novel, or is it obvious?”*
- **Most lovely insights never go any farther because under the cold light of reason, fatal flaws appear.**



The Work of Creativity

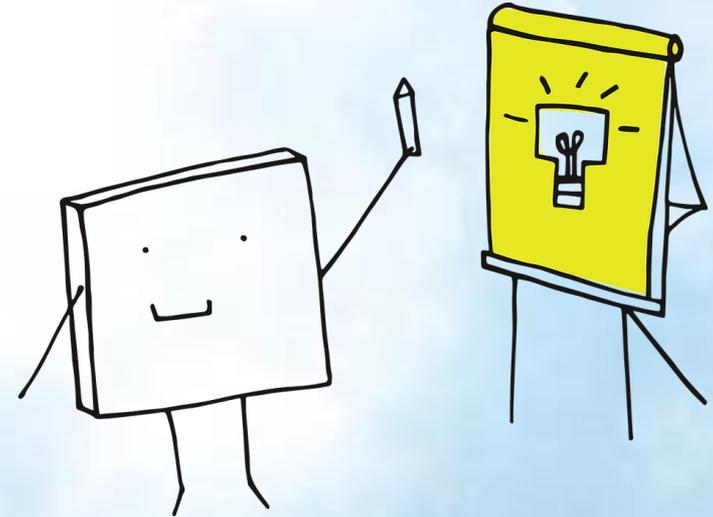
The **creative process** consists of **five** steps:



5. **Elaboration:**

It is time to sell your idea! This stage is comprised of three major parts:

- **Track and record your progress** throughout the implementation.
- **Communicate** with your peers, colleagues, and target audience (viewers)
- Think about the **delivery and presentation**. Pay attention to your goals and feelings.



Could Creativity Be Improved?

You can use **Zi-Zo-Zi** technique for your Creative Course Project!

- The answer is **YES**
 - One method for improving the creativity is using a technique called “**Zi-Zo-Zi**”
 - Zi-Zo-Zi stands for: **Zoom In, Zoom Out, Zoom In**
- What does Zi-Zo-Zi stand for?
 - **Zoom In**: Grasping every possible detail and fact related to the challenge or situation at hand.
 - **Zoom out**: Thinking wildly and collect **wild ideas**.
 - **Zoom in**: Returning to ground floor with the basket of ideas and converging – selecting the best one.

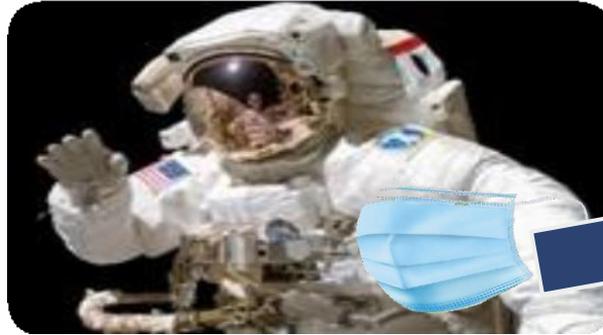
Zi-Zo-Zi in Health



Zoom In

The first step helps you understand the **gap** or **need**.

i.e., Covid-19 was spreading so fast. There was no vaccine yet. Virus was attacking the respiratory system.



Zoom Out

This Zoom Out step helps you think about wild ideas. **Brainstorming** could help.



Zoom In

In the final step, Zoom In brings one idea back and apply to the situation. Check for **feedback**.

Zi-Zo-Zi in Art



Zoom In

Situation or Problem: **Global warming** is a serious issue. Some countries do not take it serious.



Zoom Out

What can you do as an **artist**?



Zoom In

Bring back and implement /develop your **best idea**. Use the best platform to share your work.

Collaborative Creativity

- Creativity is not restrained to individual activity. In fact, much creative activity today happens in **groups**.
- Many domains such as science, the arts, technology, marketing, and government involve collaborative discussions to generate ideas for solutions to problems.
- Therefore, **collaborative creativity** is an essential part of **modern teamwork**.
- It can be supported by formal techniques, such as design thinking, and modern technologies such as VR environments.



Different Types of Teams

- At the **group level**, effective group processes are a necessary condition for converting individual creativity into group creativity
- Creative teams can collaborate **locally**; the attendees share a geographic location and a common physical space during the interaction.
- However, creative processes have become **more complex** and demanding in modern organizations because **teams and networks are increasingly engaged in a globally distributed mode of operation.**
- Participants in the creative process operate in separate geographic locations and time zones

Distributed Team Collaboration

- In distributed team collaboration, trust, support, freedom, challenge, goal clarity, motivation, commitment, encouragement, and sufficient resources and time are focal factors that **enable creativity**.
- For globally distributed teams, **brainstorming activities can be challenging** because team members lack a shared physical space for ideation.
- However, **cultural diversity** among team members, in conjunction with separate locations and individual expertise, may also enhance creativity during certain phases of the innovation process.
- Thus, **when process losses are minimized, creative activity within distributed teams can thrive**.

Distributed Team Collaboration

- Distributed teams typically use a variety of **communication media** for their interaction.
- These technologies support **synchronous and asynchronous** modes of collaboration
- While **synchronous** collaboration involves real-time interaction among the collaborating participants, **asynchronous** interaction is not time dependent but allows participants to collaborate intermittently.



Synchronous Media: VRChat



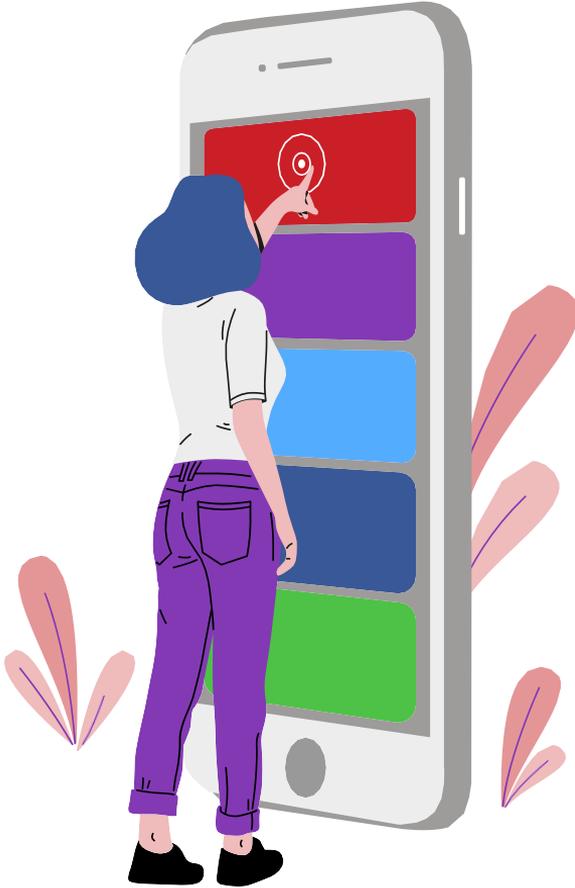
Asynchronous Media: GitHub

Today's Outline

02

Digital Teachers

Virtual World Affordances



DIGITAL BEN

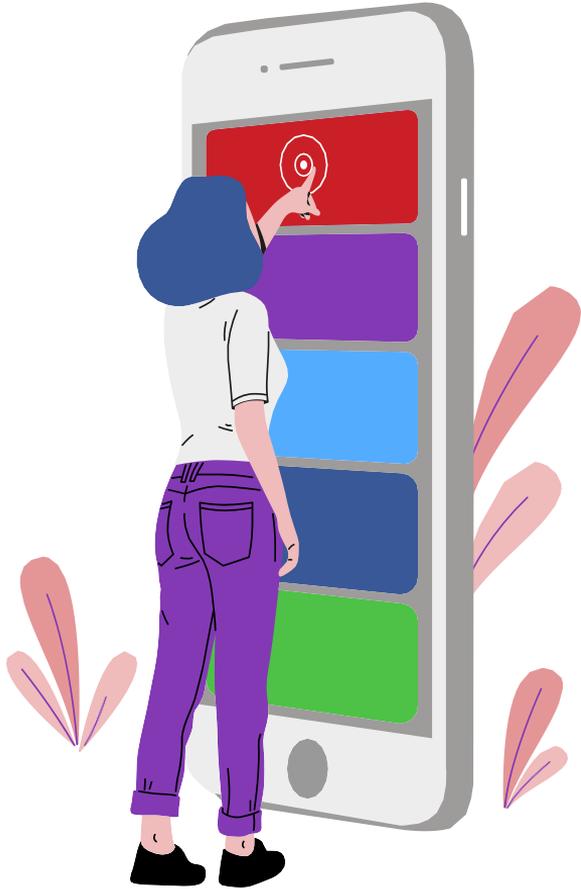
- Digital Version of Professor Ben
- Available on the website



YURI

- Age: Unknown
- Gender: Female
- Animated Character

Today's Outline



03

Going back to Ben's Lecture

DIY Culture, AI and Creativity

Creativity in Online Communities

- Creativity has a very wide domain and can take different forms.
- In what comes next, we will take a closer look at **Do It Yourself (DIY) online communities**.



Do It Yourself (DIY)

- **DIY (Do It Yourself)** practice predates recorded history and has been used to repair and repurpose tools and materials.
- Modern societies **oppose the principle of self-reliance** with mass-production and consumer economy.
- DIY is defined as **any creation, modification or repair of objects without the aid of paid professionals.**
- The use of social computing, online sharing tools, and other HCI collaboration technologies has facilitated a renewed interest and wider adoption of DIY cultures and practices.



DIY Cultures: Historical Overview

- One of the earliest “modern era” DIY communities formed among **amateur radio hobbyists** in the 1920’s.
- These hobbyists relied on amateur handbooks, which stressed “imagination and an open mind” nearly as much as the technical aspects of radio communication
- **Ham radio** enthusiasts often met in person to discuss their work as well as unrelated social subjects.
- They continued to thrive rebelliously during **World War II**, when a ban was placed on amateur radio communication.



DIY Cultures: Historical Overview

- Later in the 1980's, **low-cost MIDI equipment** enabled people without formal training to record electronic music, evolving into the rave culture of the 1990's.
- During this time, computer hobbyists also formed communities to create, explore and exploit software systems, resulting in the **Hacker culture**.



Amateur Radio: a 21st Century Hobby

Watch: https://youtu.be/8x6x_6mDVIQ



Modern **DIY** Communities

- Today's DIY cultures reflect the anti-consumerism, rebelliousness, and creativity of earlier DIY initiatives, **supporting the ideology that people can create rather than buy the things they want.**
- Recent breakthroughs in technology allow anyone to quickly **document** and **showcase** their DIY projects. This has led to **large communities forming.**
- **There are thousands of DIY communities,** ranging in size from large online forums to small in-person gatherings.

Digital Artifacts Vs. DIY Objects

- Today, many **online communities** such as GitHub help produce 'artifacts' which are tangible (or digital) objects such as documents, software, or images.
- Such **artifacts can be compared to DIY 'objects'- items that are created, modified or refurbished by hobbyists and non-experts.**
- For example, **open-source software** is an artifact created and maintained by decentralized contributors, usually as a hobby.



Digital Artifacts Vs. DIY Objects

According to the literature, many people contribute to **open-source culture** in order to:

- “Learn and develop new skills”
- Share “their knowledge and skills” and
- Improve “FS/OS products of other developers”.



open source
initiative[®]

Another Example: **Wikipedia**

- **Wikipedia** showcases another collection of artifacts: millions of encyclopedia-style articles.
- A survey study conducted by *Nov* classifies motivations of contributors into several categories, suggesting that **fun** and **ideology** (“information should be free”) are the top two motivations of contributors



DIY Communities

- DIY communities are also driven by scientific pursuit, personal organization, community values and intrinsic enjoyment of creating DIY objects.
- However, unlike communities that revolve around the creation of digital artifacts such software, encyclopedia articles, or blogs, DIY communities **showcase meta information**:
 - Personal experiences and knowledge from creating physical objects, **projected into the public sphere**.
 - **YouTube** is a common place for this type of DIY objects

DIY Communities

Watch <https://youtu.be/BYMqrgbvugM>



DYI Easy Life Hack How to Carry a Heavy Bucket Correctly



Mad Scientist
96.8K subscribers

Subscribe

86 Share Download Save ...

Features that Distinguish DIY Communities

- Formally, a **community** is defined as a group of people who share common goals and interests- communicating through mediums online and in person.
- Features that distinguish DIY communities:
 - **Low Barrier to Entry**
 - **Learning**
 - **Creativity**
 - **Open Sharing**



Low Barrier to Entry

- With the majority of DIY projects costing less than \$50, **a low financial threshold** enables people to work with a range of materials across different project domains.
- DIY communities enable people to work with a range of materials across different project domains, and encourage interdisciplinary skill building by **enabling exchange of ideas with people with different technical, artistic and professional backgrounds.**

Learning

- The breadth of communities and projects that are often associated with a single person suggests **widespread information exchange**.
- DIY communities serve as instruments of learning through **features** such as discussion forums, the 'instructable' format, images and video.
- DIY communities entice learning by **initiating a give and take dialogue between individuals across all backgrounds and skill levels**. This is contrasted with the more 'traditional' dissipation of knowledge in academic fields.
- **Community Question Answering Websites** such as Stack Overflow and Reddit are helpful media in this regard

Creativity



- DIY communities and projects are driven by creativity.
- The vast majority of people contribute to DIY communities not to gain employment, money, or online fame, **but to express themselves and be inspired by new ideas.**
- Moreover, **creativity serves as a prerequisite** for sharing, with nearly a quarter of the community refusing to share their work because it is self-perceived as uninteresting, not novel, or too simple.

Full Expression of Creativity

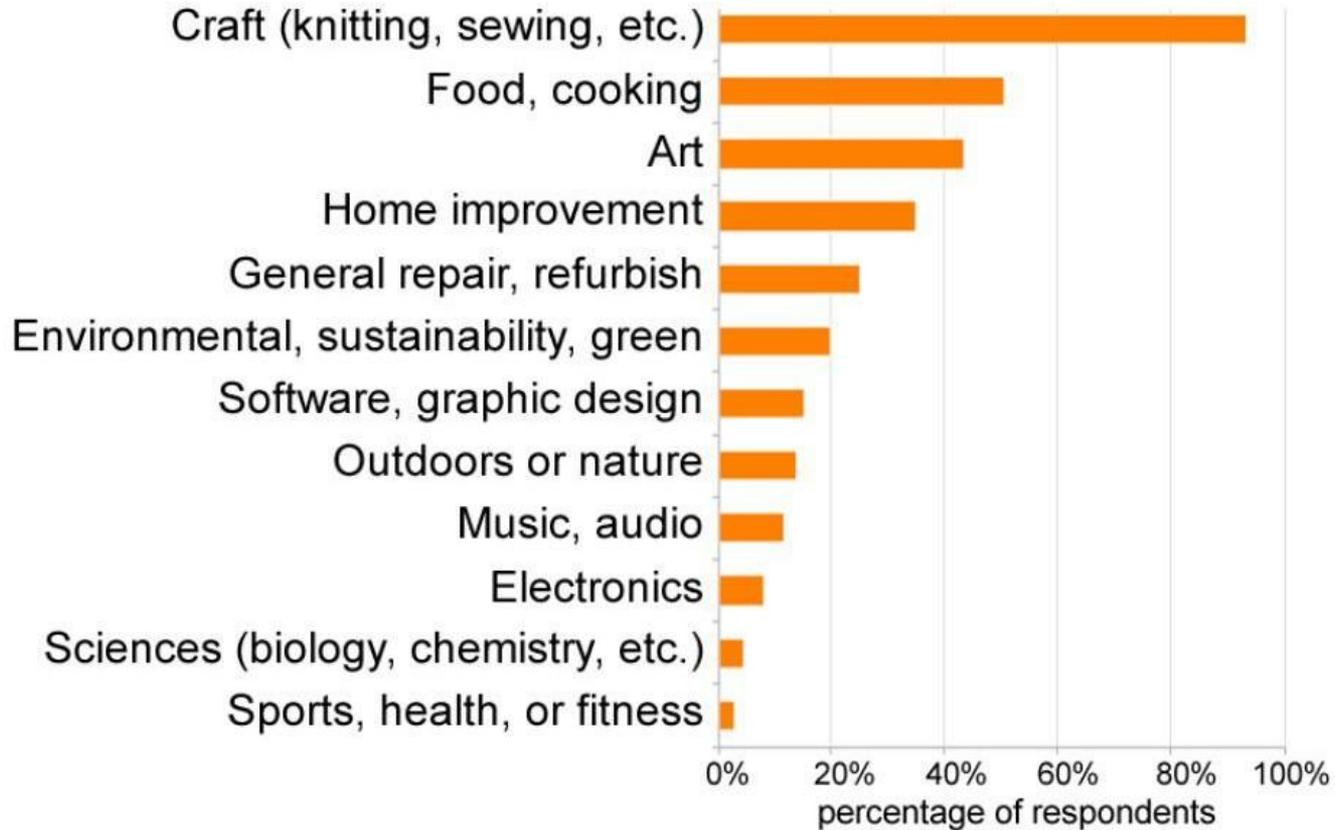
- The types of projects showcased through DIY communities, ranging from robotic gardening tools to three-dimensional art quilts to ladybug cupcakes etc.
- They all embody the **members' drive for the unique, the whimsical and the artistic, to enable what is described as "full expression of your individual creativity"**.
- This individual creativity echoes Csikszentmihalyi's view of **p-creativity**, referring to individuals who are interesting, stimulating, and **"experience the world in original ways"**
- DIY communities facilitate pcreativity by enabling millions of witty, curious, and enthusiastic contributors to share and draw from DIY knowledge.
- This knowledge affords inspiration and learning, which in turn lead to discoveries and innovations in personal DIY projects.

Open Sharing

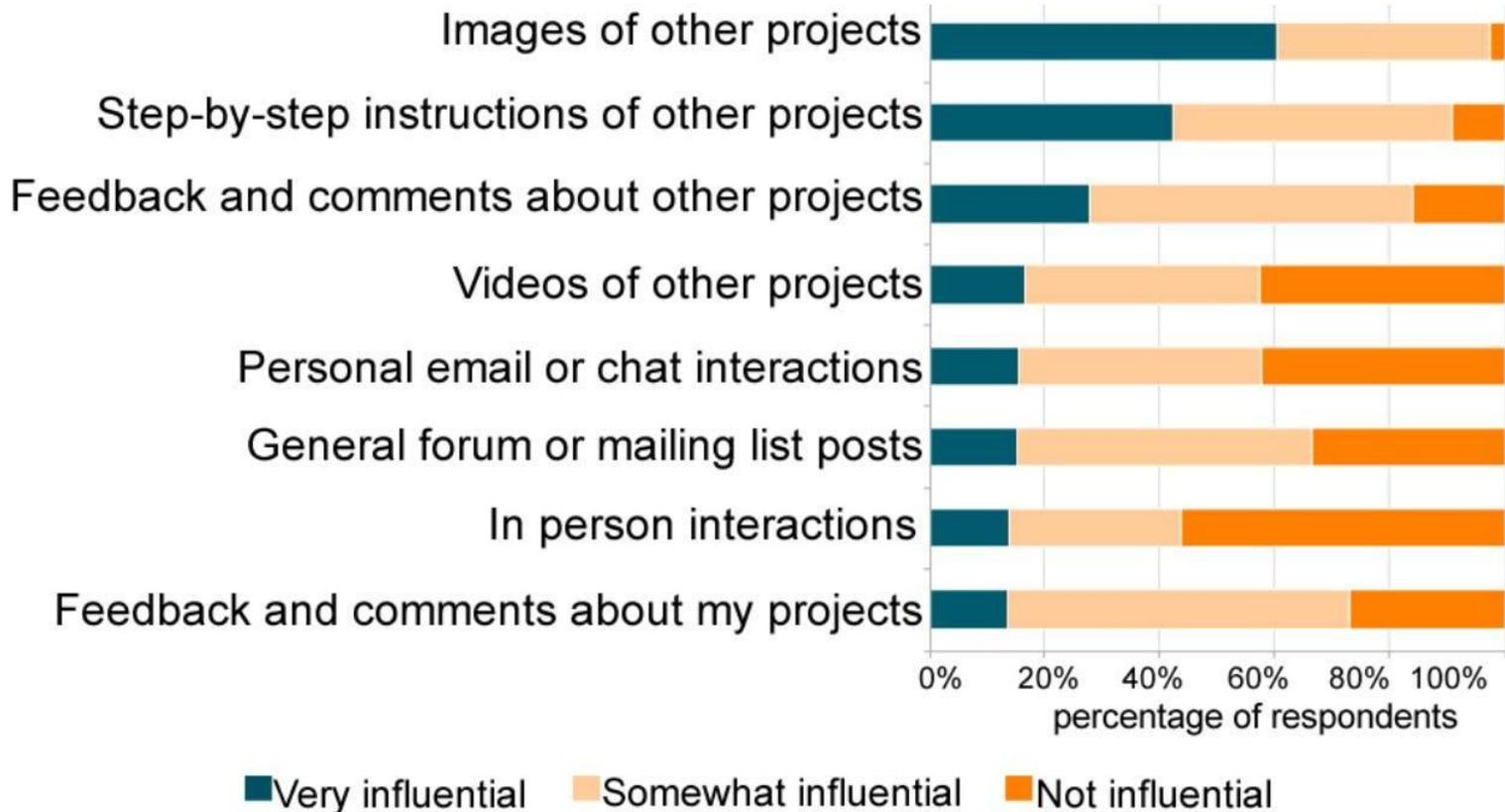
- Motivations for contributing to DIY communities highlight **information exchange** as a core value: **receiving feedback on projects, educating others,** and **showcasing personal ideas and skills** are the top factors.



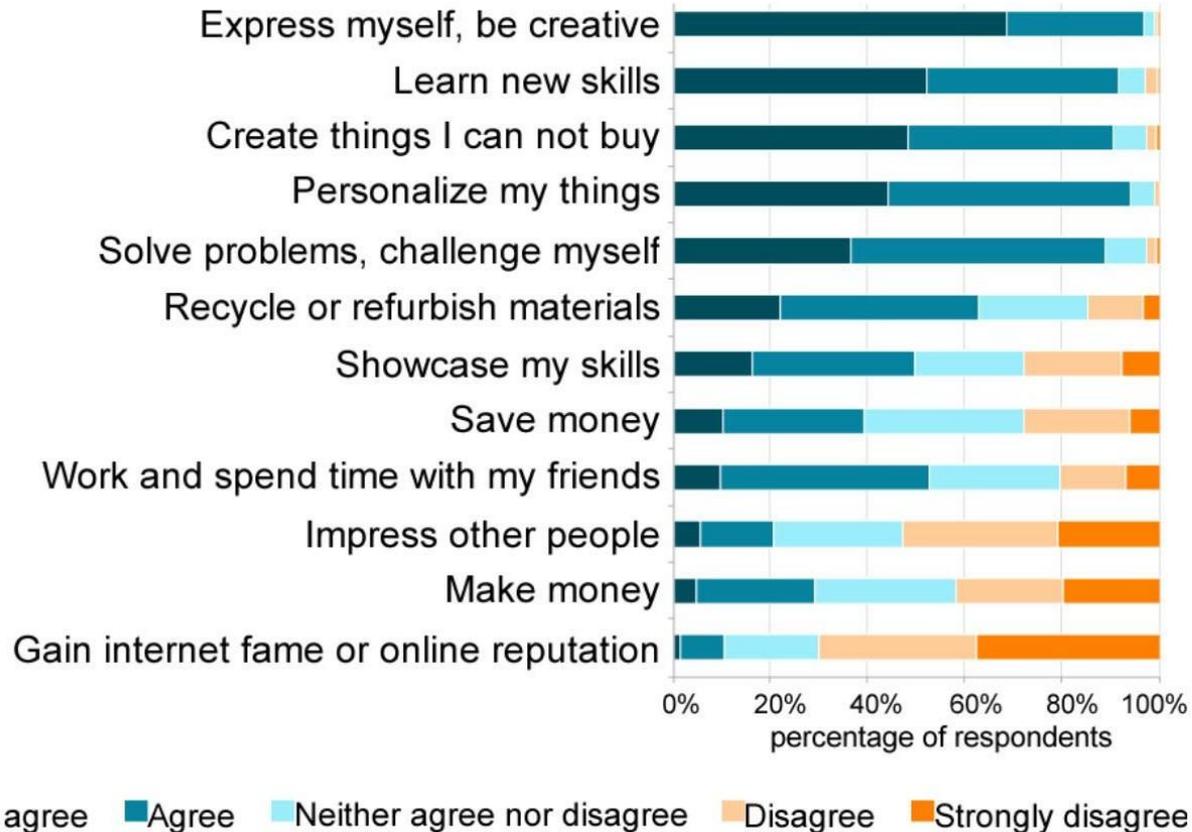
DIY Project Categories



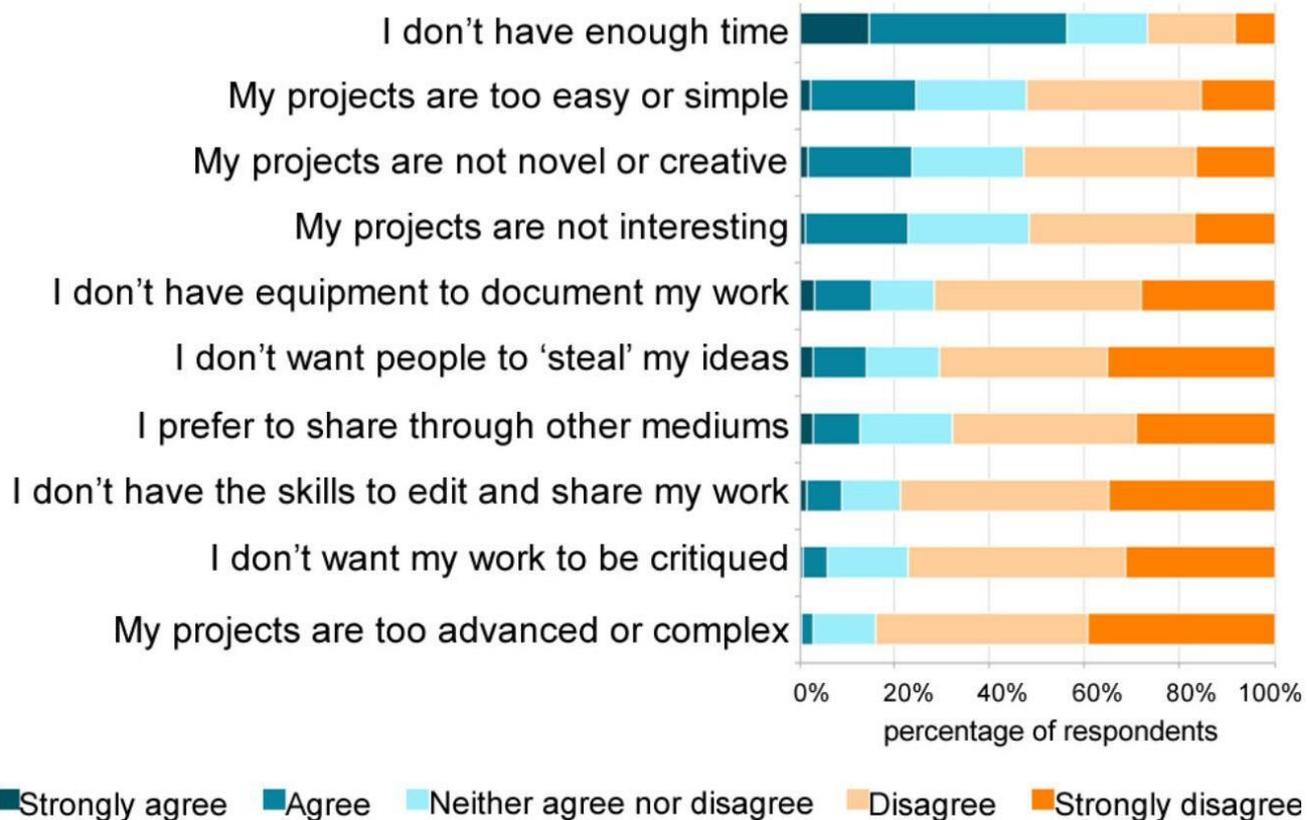
What is Most Influential?



People's Motivators of contributing to DIY Projects



Deterrents of Making Contributions



AI and Creativity

- Currently, the field of artificial intelligence (AI) is receiving renewed interest as a direct result of the proliferation of trendy new tools such as ChatGPT.
- The famous artificial intelligence philosopher M. Boden says:
 - *“Creativity is a fundamental feature of human intelligence, and an inescapable challenge for AI.”*
- **However, AI is advancing really fast!**
- And in fact, **AI could help or facilitate a great deal** to the process of creative design and creative development.
- Furthermore, **AI experts believe that intelligent agents can be given a certain degree of creativity through designing programs and Deep Learning skill.**
- In the following slides, we would like to also take a closer look at the interaction between **Artificial Intelligence (AI) and creativity.**

Different Types of Creativity

- The literature review divides creativity into two types:
 - **“Improbabilist” creativity (also known as novelty):**
i.e., recombination of various ideas
 - **“Impossibleist” creativity (also known as originality):**
i.e., to create new ideas that have never appeared before
- AI seems to do better with **novelty** than **originality**.
- However, humans are still believed to be superior crafters of originality.



AI-generated



Artist: Vincent van Gogh

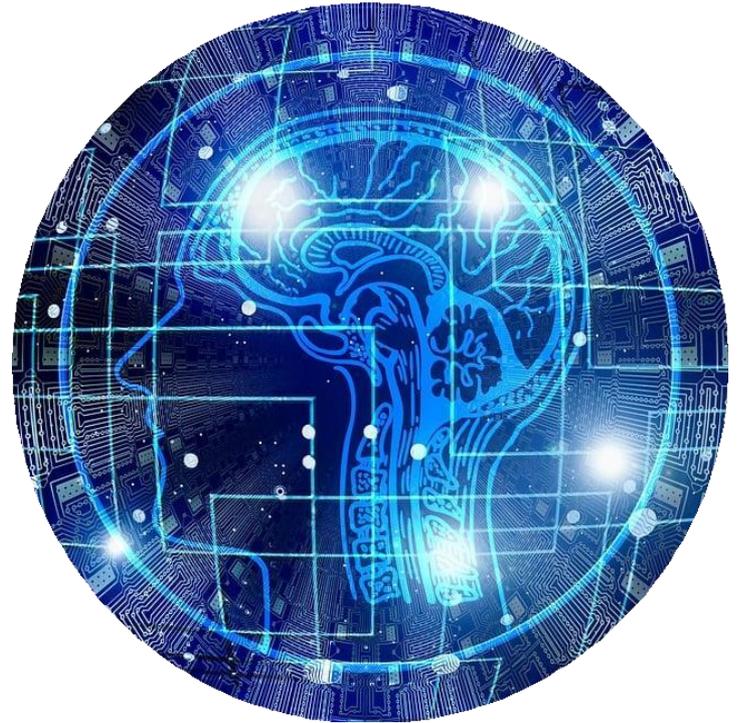
AI Could Produce Great **Novelties**

AI-Generated Artwork Goes Viral after Winning Award at State Fair



Digital-Mediated Creativity

- In digitally-mediated creative practices, smart or intelligent tools are becoming increasingly common to support the design process.
- These tools can produce **fictional text, presentation material, or programming code, and can co-exist with, and be put to use in a higher education programming course.**



Co-creation in Design and Programming

- **The idea of computers generating content** in collaboration with human designers has existed for a long time!
- The notion of **computer aided design (CAD)** and the first CAD-software tools were created already in the 1960s, to support and automate parts of the design process.
- Albaugh et al. discuss **CAD-systems as an example of a set of tools that can be categorized as "time saving systems"** aiming at ...
 - Shortening **the time or expertise required** for each design iteration by delegating repetitive or time-consuming work to the machine,
 - In order to **give the users more space to focus on the creative aspects of design.**

Open AI's Language Model

- **GPT-4o** from Open AI, and **DeepSeek** from High-Flyer have shown great potential for many NLP tasks, with applications in many different domains (e.g., translation, essay writing, and programming).
- Based in Hangzhou, Zhejiang, DeepSeek is owned and funded by the Chinese hedge fund **High-Flyer**.
- **Open AI** is a research company that aims to develop friendly AI to benefit humanity.
- **ChatGPT** is a chatbot developed by Open AI and launched in November 2022. It is built on top of Open AI's GPT-3 family of large language models and has been fine-tuned using both supervised and reinforcement learning techniques.



The End of Programming

Programming will be obsolete! Watch <https://vimeo.com/775827887>



ChatGPT to Write a WordPress Plugin

The screenshot shows the ZDNET website header with the logo and navigation menu. The article title is "I asked ChatGPT to write a WordPress plugin I needed. It did it in less than 10 minutes". The author is David Gewirtz, and the article was published on Feb. 6, 2023. A red arrow points to the article title. Below the article title, there is a sub-header "/ innovation" and a red arrow pointing to the article title. The article text starts with "I wrote a short description of what I needed and ChatGPT wrote the whole thing: user interface, logic, and all." Below the text, there is a small image of the author and social media sharing icons. At the bottom left, there is a "must read" section with a small image and the title "How to throw an unforgettable Super Bowl Party". At the bottom right, there is a large image of a laptop displaying the ChatGPT logo on a desk with books.

tomorrow belongs to those who embrace it today

trending innovation home & office business finance education security

Home / Innovation / AI & Robotics

I asked ChatGPT to write a WordPress plugin I needed. It did it in less than 10 minutes

I wrote a short description of what I needed and ChatGPT wrote the whole thing: user interface, logic, and all.

Written by **David Gewirtz**, Senior Contributing Editor on Feb. 6, 2023
Reviewed by **Alyson Windsor**

in

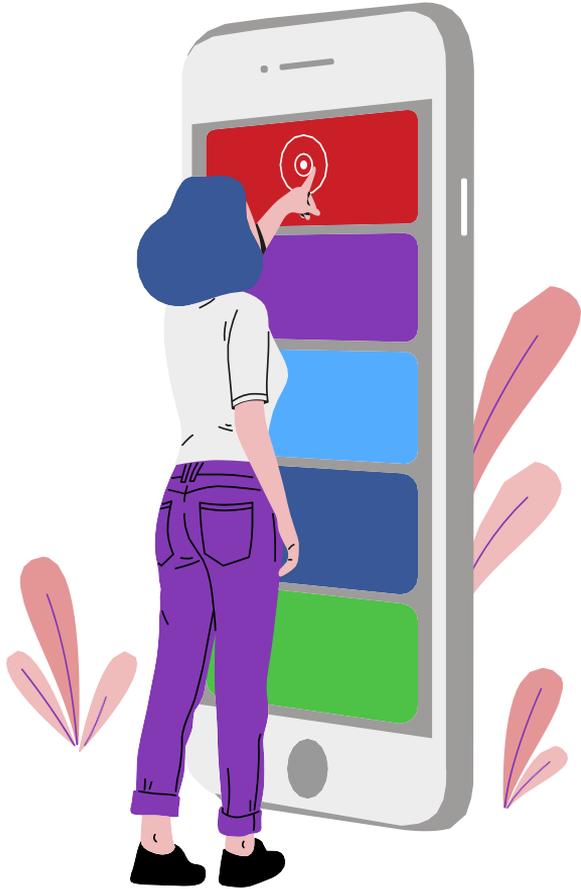
/ must read

How to throw an unforgettable Super Bowl Party
Read now →

The prompt

The key to getting ChatGPT to generate anything is a carefully written prompt. In the case of programming, think of it as being a manager or client. You have to clearly describe what you need in order to get what you want.

Today's Outline

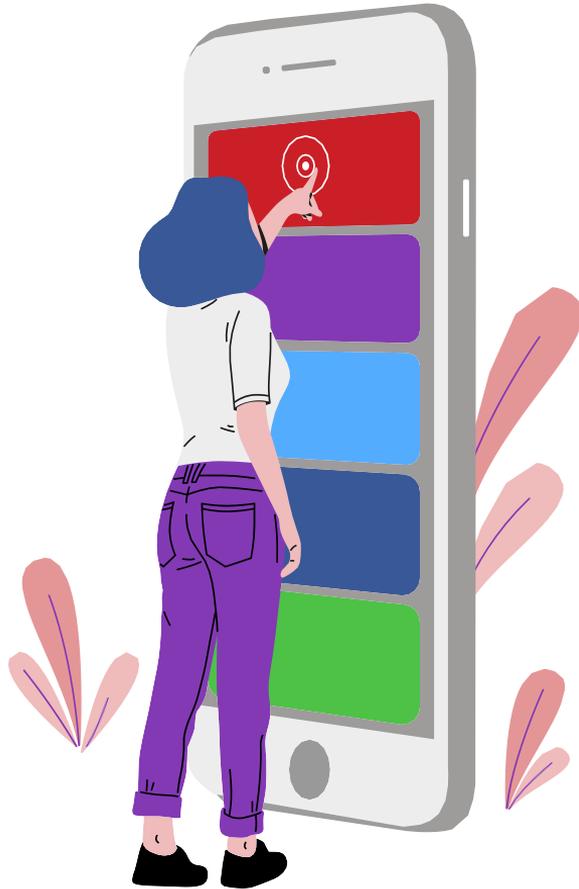


04

Tutorial

Using APIs for Data Collection on Social Media Research

Today's Outline



05

Q&A and Group Formation

Time for you to form your group

1 Remember to remove your name from the list after you have found your group					
2	Name	eMail	Contact (WhatsApp/WeChat)	Campus (CWB/GZ/Helsinki)	Int
3	Chris Chan	example@connect.ust.hk	WhatsApp: +852 12345678; WeChat: abcabc	CWB	Music, YouTuber
4	Tianzuo Shi	tshi886@connect.hkust-gz.edu.cn	WeChat: Temzo_Shi	GZ	Film, X, Reddit, Bilibili
5	Jian Yang	jyang000@connect.hkust-gz.edu.cn	WeChat: kinkin0323	GZ	AIGC, Product design, ICF
6	You Zhou	yzhou785@connect.hkust-gz.edu.cn	WeChat: zhoyou329	GZ	Digital Cultural Heritage
7	Xinyi Chen	xchen822@connect.hkust-gz.edu.cn	WeChat: cxy1286381415	GZ	AIGC entertainment HCI
8	Yueli Li	yli883@connect.hkust-gz.edu.cn	WeChat:shiminglooloo	GZ	AI for Storytelling, HCI
9	Yulin Yao	yao294@connect.hkust-gz.edu.cn	Wechat: YaoYulin2000	GZ	immersive storytelling, dig
10	Feiyue Zhao	fzhao322@connect.hkust-gz.edu.cn	Wechat: Freya_Z7158	GZ	music visualization, sound
11	Sam Lin (Fengshan)	sam.lin@connect.ust.hk	+852-53775820 ; WeChat samisfun	CWB	The link between Twitter (
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- If you haven't found a group yet, add your info to the shared list. Browse the list and contact classmates with similar interests. This list serves as a cross-campus contact book for all students.