

Topics for Today...

- Ubiquitous Computing
- Living 4.0

ubiquitous

adjective • formal or humorous

UK 🗣️ /juːˈbɪk.wɪ.təs/ US 🗣️ /juːˈbɪk.wə.təs/

seeming to be everywhere

Ubiquitous Computing

Wen-Hui Chen

2023/12/18

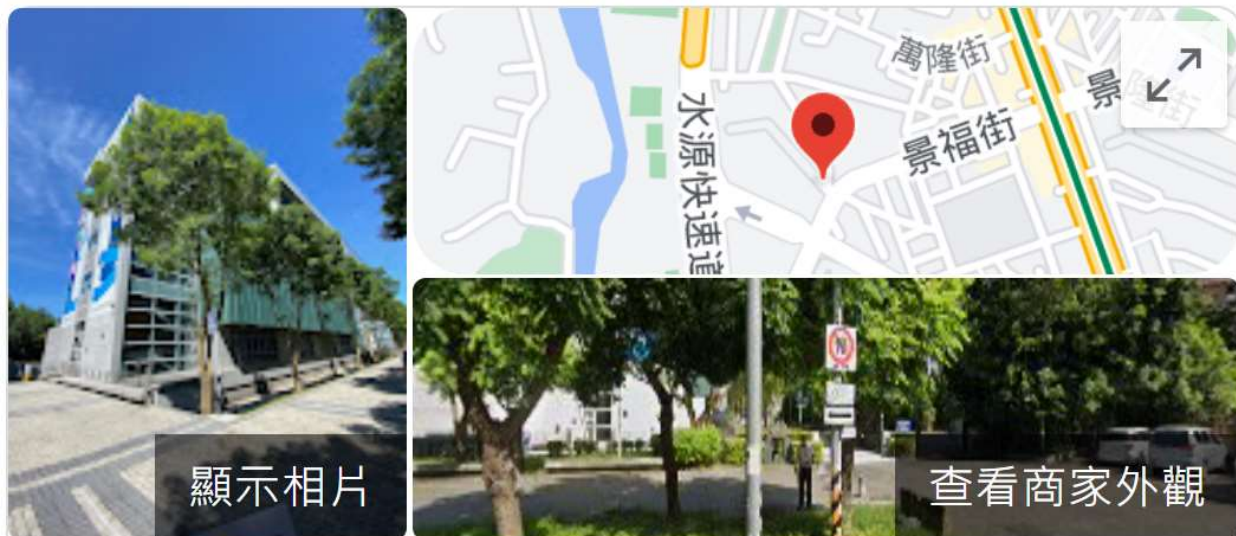
年 月	週 次	星 期						
		日	一	二	三	四	五	六
十二月	十二						1	2
	十三	3	4	5	6	7	8	9
	十四	10	11	12	13	14	15	16
	十五	17	18	19	20	21	22	23
	十六	24	25	26	27	28	29	30
	十七	31						
113 年 一月	十七		元旦 1	2	3	4	5	6
	十八	7	8	9	10	11	12	13
	結束	14	15	16	17	18	19	20
		21	22	23	24	25	26	27
		28	29	30	31			

No class

Living 4.0 @10:00 am

期末報告分組上傳

班級	姓名	組別
職自動化碩三	賴佳盟	1
職製科碩一	蘇韋安	1
職自動化碩一	張詠勳	1
職機電碩二	劉易蟬	3
職車輛碩二	王覺淳	3
職自動化碩二	馮立文	3
職電子碩二	邱裕雄	2
職電子碩一	梁瑀璇	2
職自動化碩一	廖恒德	2
職製科碩二	沈柔慈	4
職製科碩二	郭信銓	4
職自動化碩一	楊俊益	4
職隨班附讀	高玉鑫	5
職自動化碩一	連彥鈞	5
職自動化碩一	張佳明	5
職自動化碩一	吳郁賢	6
職自動化碩一	黃聖庭	6
職自動化碩一	黃冠廷	6



顯示相片

查看商家外觀

智慧化居住空間展示中心(Living 4.0)

網站

行車路線

儲存

致電

4.2 ★★★★★ 59 則 Google 評論

位於台北的會議中心

地址：116台北市文山區景福街102號

下午7:53 ○ 忠孝新生站
106台北市大安區

步行
✓ 約 3 分、220 公尺

下午7:56 ○ 捷運忠孝新生站

643 新店客運錦綉站
✓ 17 分 (12 個停靠站)

下午8:13 ○ 萬隆

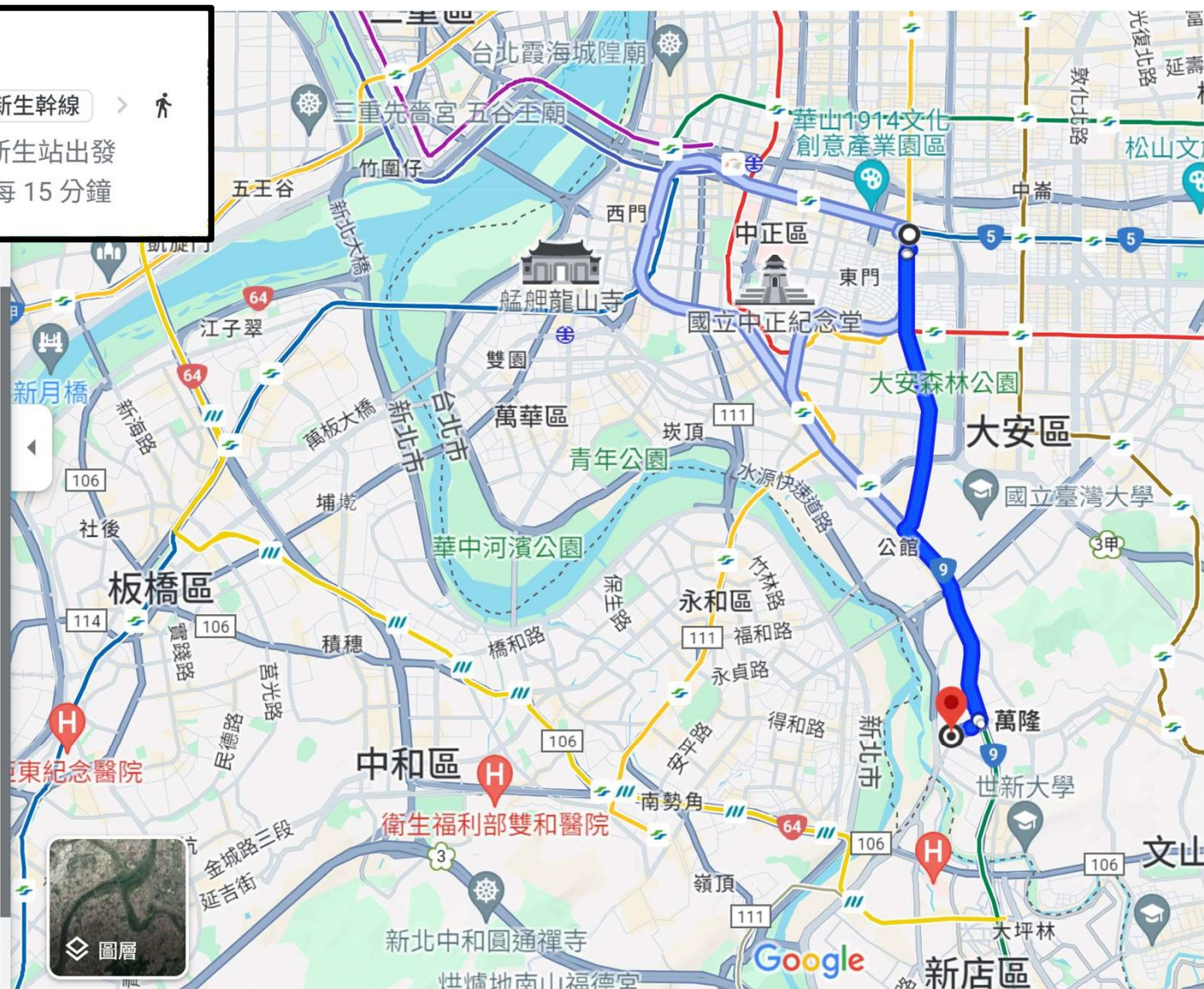
步行
✓ 約 4 分、350 公尺

下午8:17 ○ 智慧化居住空間展示中心(Living 4.0)
116台北市文山區景福街102號

(24 分)

643 松江新生幹線

下午7:56 從捷運忠孝新生站出發
\$15.00 7 分 每 15 分鐘



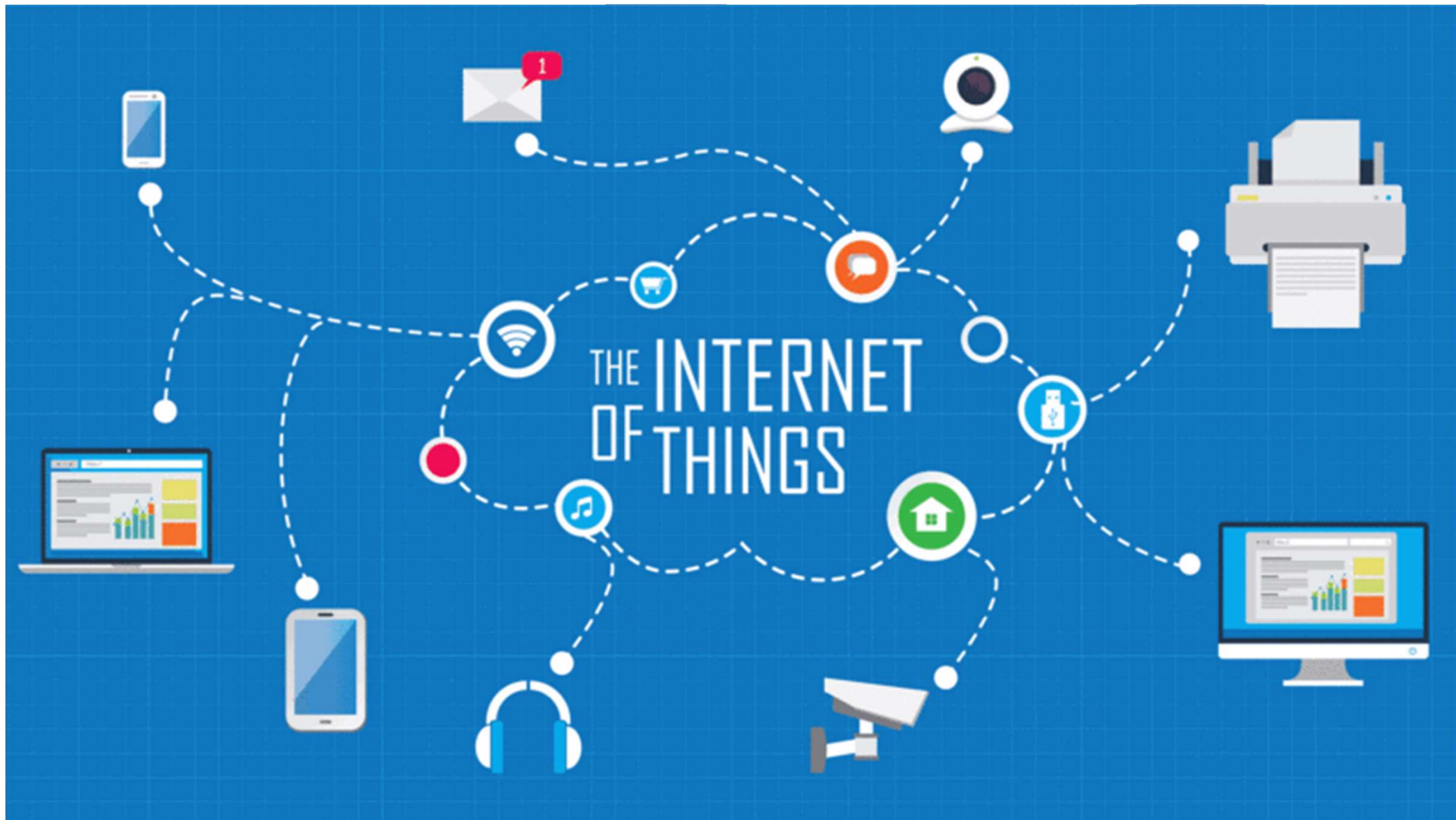
- **Ubiquitous Computing**
- Living 3.0

UbiComp

Ubiquitous Computing

- UbiComp
- IoT



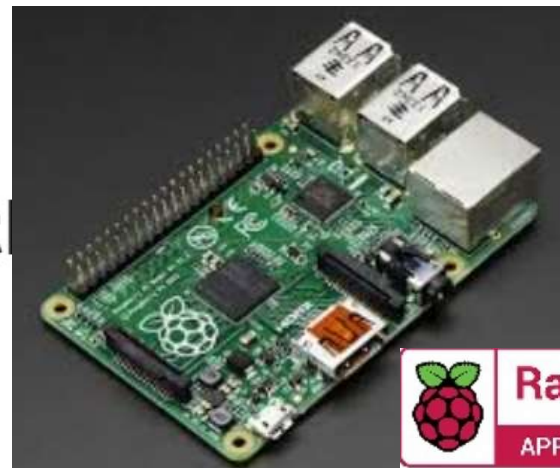


Do-it-yourself
project



ARDUINO

to



for the



When was the IOT introduced?

^ History

The concept of a network of **smart devices** was discussed as early as 1982, with a modified Coke **vending machine** at **Carnegie Mellon University** becoming the first Internet-connected appliance,^[6] able to report its inventory and whether newly loaded drinks were cold or not.^[7] **Mark Weiser's 1991 paper on ubiquitous computing, "The Computer of the 21st Century"** as well as academic venues such as UbiComp and PerCom produced the contemporary vision of the IoT.^{[8][9]} In 1994, Reza Raji described the concept in *IEEE Spectrum* as "[moving] small packets of data to a large set of nodes, so as to integrate and automate everything from home appliances to entire factories".^[10] Between 1993 and 1997, several companies proposed solutions like **Microsoft's at Work** or **Novell's NEST**. The field gained momentum when **Bill Joy** envisioned **device-to-device** communication as a part of his "Six Webs" framework, presented at the World Economic Forum at Davos in 1999.^[11]

The term "Internet of things" was likely coined by **Kevin Ashton** of **Procter & Gamble**, later **MIT's Auto-ID Center**, in 1999,^[12] though he prefers the phrase "Internet *for* things".^[13] At that point, he viewed **radio-frequency identification** (RFID) as essential to the Internet of things,^[14] which would allow computers to manage all individual things.^{[15][16][17]}

What are the keywords?

Specialized elements of hardware and software, connected by wires, radio waves and infrared, will be so ubiquitous that no one will notice their presence.

- Mark Weiser
 - Ubiquitous Computing (UbiComp)

<https://bit.ly/3rl00Mu>





**Mark Weiser
(1952–1999)**

**The Founder of
Ubiquitous
Computing**



Mark Weiser was the chief technology officer at Xerox's Palo Alto Research Center (Parc). He is often referred to as the father of ubiquitous computing. He coined the term in 1988 to describe a future in which invisible computers, embedded in everyday objects, replace PCs. Other research interests included garbage collection, operating systems, and user interface design. He received his MA and PhD in computer and communication science at the University of Michigan, Ann Arbor. After completing his PhD, he joined the computer science department at the University of Maryland, College Park, where he taught for 12 years. He wrote or cowrote over 75 technical publications on such subjects as the psychology of programming, program slicing, operating systems, programming environments, garbage collection, and technological ethics. He was a member of the ACM, IEEE Computer Society, and American Association for the Advancement of Science. Weiser passed away in 1999. Visit www.parc.xerox.com/csl/members/weiser or contact communications@parc.xerox.com for more information about him.



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TOSHIBA



Xerox

noun [C] • trademark

US 🔊 /ˈziəˌrɒks/



a copy of a document or other piece of paper with writing or printing on it made by a machine that uses a process similar to that for making photographs:

- *I can give you a Xerox of the letter if you like.*

The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.

Consider writing, perhaps the first information technology. The ability to represent spoken language symbolically for long-term storage freed information from the limits of individual memory. Today this technology is ubiquitous in industrialized countries. Not only do books, magazines and newspapers convey written information, but so do street signs, billboards, shop signs and even graffiti. Candy wrappers are covered in writing. The constant background presence of these products of "literacy technology" does not require active attention, but the information to be transmitted is ready for use at a glance. It is difficult to imagine modern life otherwise.

Read and make notes

- Write as detailed notes as possible.
- Focus on the keywords/phrases and content.

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Silicon-based information technology, in contrast, is far from having become part of the environment. More than 50 million personal computers have been sold, and the computer nonetheless remains largely in a world of its own. It is approachable only through complex jargon that has nothing to do with the tasks for which people use computers. The state of the art is perhaps analogous to the period when scribes had to know as much about making ink or baking clay as they did about writing.

The arcane aura that surrounds personal computers is not just a “user interface” problem. My colleagues and I at the Xerox Palo Alto Research Center think that the idea of a “personal” computer itself is misplaced and that the vision of laptop machines, dynabooks and “knowledge navigators” is only a transitional step toward achieving the real potential of information technology. Such machines cannot truly make computing an integral, invisible part of people’s lives. We are therefore trying to conceive a new way of thinking about computers, one that takes into account the human world and allows the computers themselves to vanish into the background.

Such a disappearance is a fundamental consequence not of technology but of human psychology.

Whenever people learn something sufficiently well, they cease to be aware of it. When you look at a street sign, for example, you absorb its information without consciously performing the act of reading. Computer scientist, economist and Nobelist Herbert A. Simon calls this phenomenon “**compiling**”;“**tacit dimension**”; ...“**visual invariants**”; ...“**horizon**”; ...“**ready-to-hand**”; ...“**periphery**.” All say, in essence, that only when things disappear in this way are we freed to **use them without thinking and so to focus beyond them on new goals.**

Now present your topic to the rest of the class

