Proposal for Emoji "Circuit Board"

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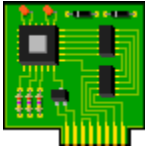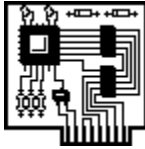
1. Identification.

Keywords: "PCB", "electronics", "CPU", "microchip", "semiconductor"

Category: *Object > science*

Images:

1. **Color and black&white example images:**

	Color	Black and White
72x72		
18x18		

2. **License:** I hereby certify that I, Greg Kennedy, have created these images (above), and I release them into the Public Domain, disclaiming any relevant IP rights so they may be freely incorporated into the Unicode Standard.

2. Factors for Inclusion.

This proposal suggests the addition of a new emoji to the Unicode Standard, titled "Circuit Board", representing a printed circuit board covered with various traces and components. The image may include an edge connector (as in a video game cartridge or a computer card), and should have a large microchip located somewhere on it.

Printed circuit boards are ubiquitous in any electronic device today, and found within a variety of technological gadgets. They are also a useful shorthand for any sort of electrical engineering, or technology as a whole. These factors outline why Circuit Board makes sense for inclusion as an emoji.

1. *Expresses Multiple Concepts* - The circuit board is both a literal object (i.e. the insides of a 📱 , 💻 , etc) but also symbolic of "technology" in a general sense. In many cases the "circuit board" simply means the indiscriminate "guts" of an electronic device, or a specific card or component of a computer (RAM, graphics, etc). It can also be used as a generic Device, where something more specific does not already exist, or the form-factor is unimportant..
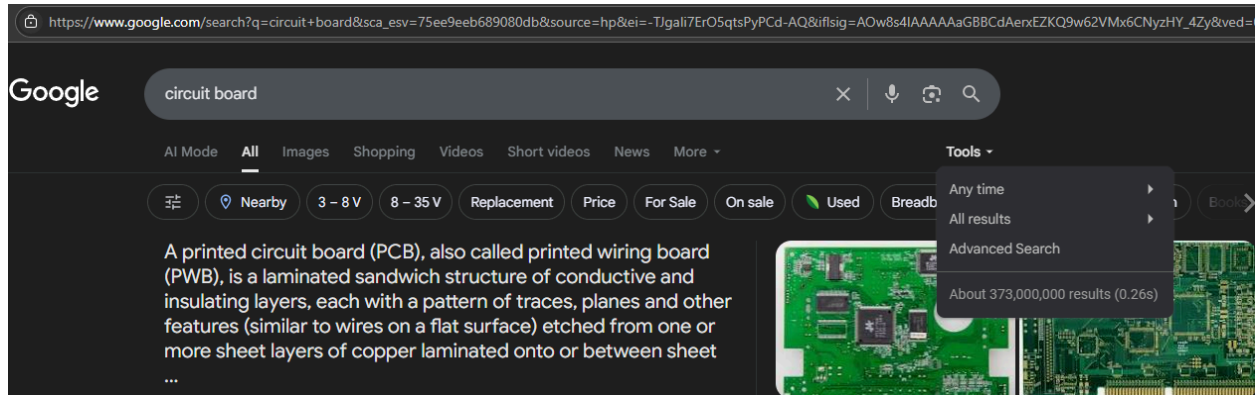
   They also represent the "state-of-the-art" in science and engineering, an instantly understood mark of the march of technology. Adding a circuit board to anything (🎹, 💡 , 👷) makes it "smart", "electrified", and "high tech".

   Circuit boards also signify a kind of computerized, calculating intelligence / logic - contrast with e.g. 🧠, a circuit board could be the machine equivalent. One could use the circuit board similar to a flow chart - "you think like a machine", "you are so logical", etc - or, conversely, to indicate that the machine is thinking.
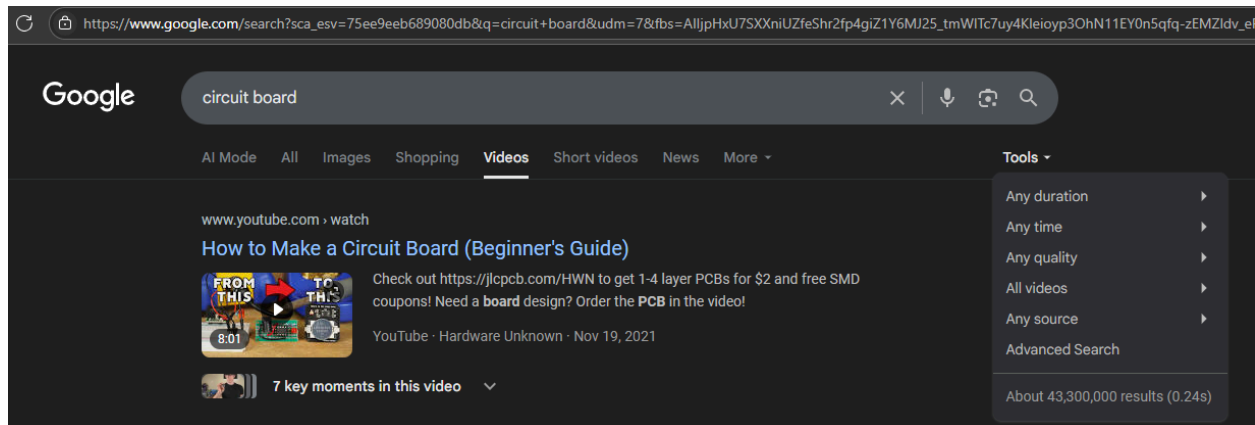
2. *Can be used with other emoji to convey additional concepts* - The circuit board can be combined with other objects to indicate a specific type of circuit board (e.g. 📽️+[board] for "video card", 📢+[board] for "sound card").

3. *Breaks New Ground* - Though we have a variety of electronic devices in the standard, there are almost no emojis for the components inside them - excepting perhaps 🔋 , there is no CPU or "microchip" (rejected in 2020 and 2022), and certainly no "resistor", "capacitor", "RAM" or any other good representation for the specific innards of the object. "Circuit board" encompasses them all, in the public consciousness. It's what comes out when you drop your phone off a tall building.

   Furthermore, while some sciences have available the tools and products of their trade (🧪 , 🔬 , 🧮) we have no good shorthand for the field of electrical engineering at all.
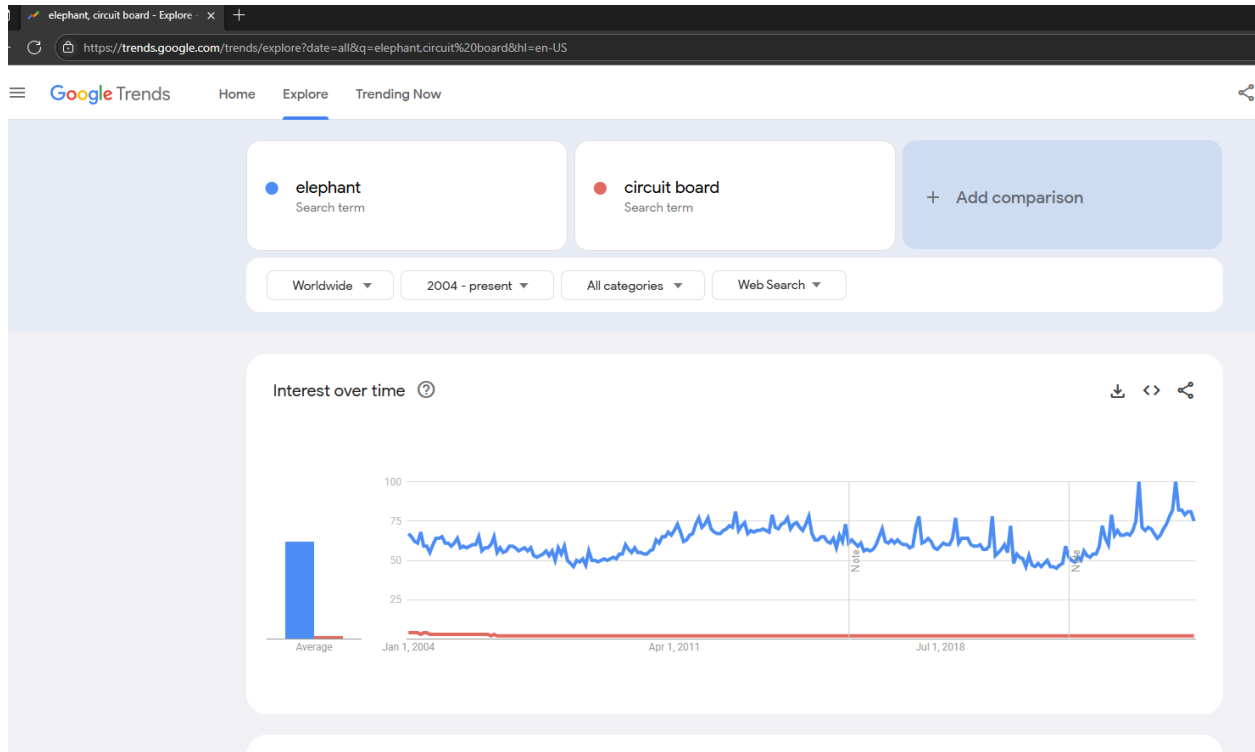
4. *Is legible and visually distinctive* - The circuit board is almost always depicted in green, with gold traces and colorful components, and sometimes a prominent microchip in black. They are recognizable even at small sizes or monochrome due to their physical shape (thin, large rectangular object) and distinctive pattern of traces or small objects adorning its surface.

5. *Has a high usage level* - Circuit boards are, as previously mentioned, ubiquitous within all electronic devices today:
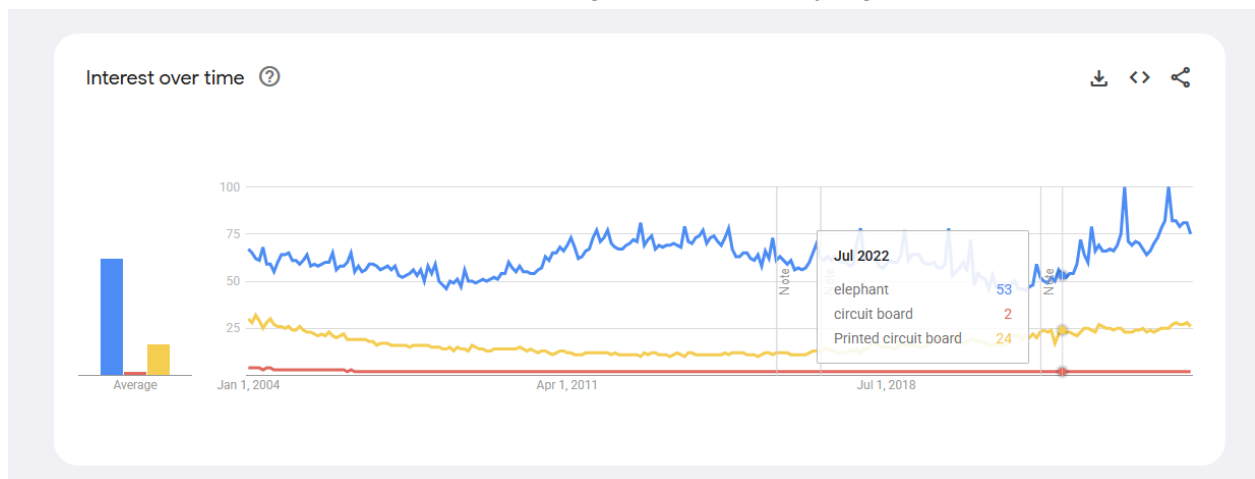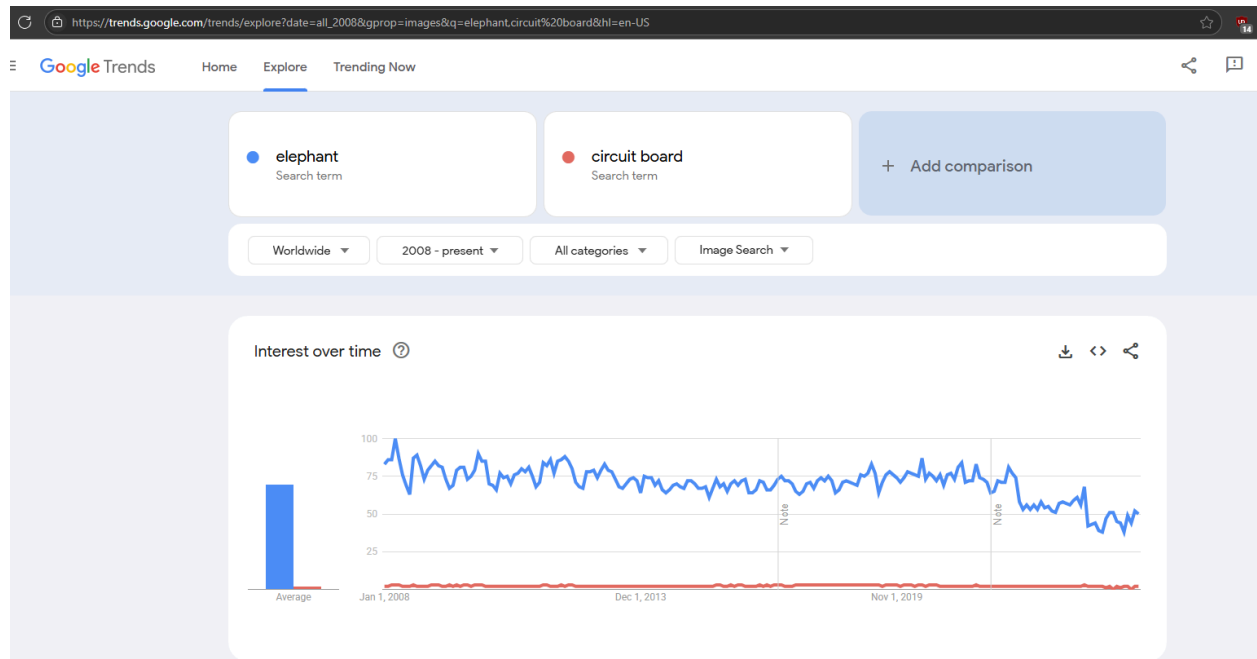   a. *Google Search:*

b. *Google Video Search:*

c. *Google Trends - Web Search:*
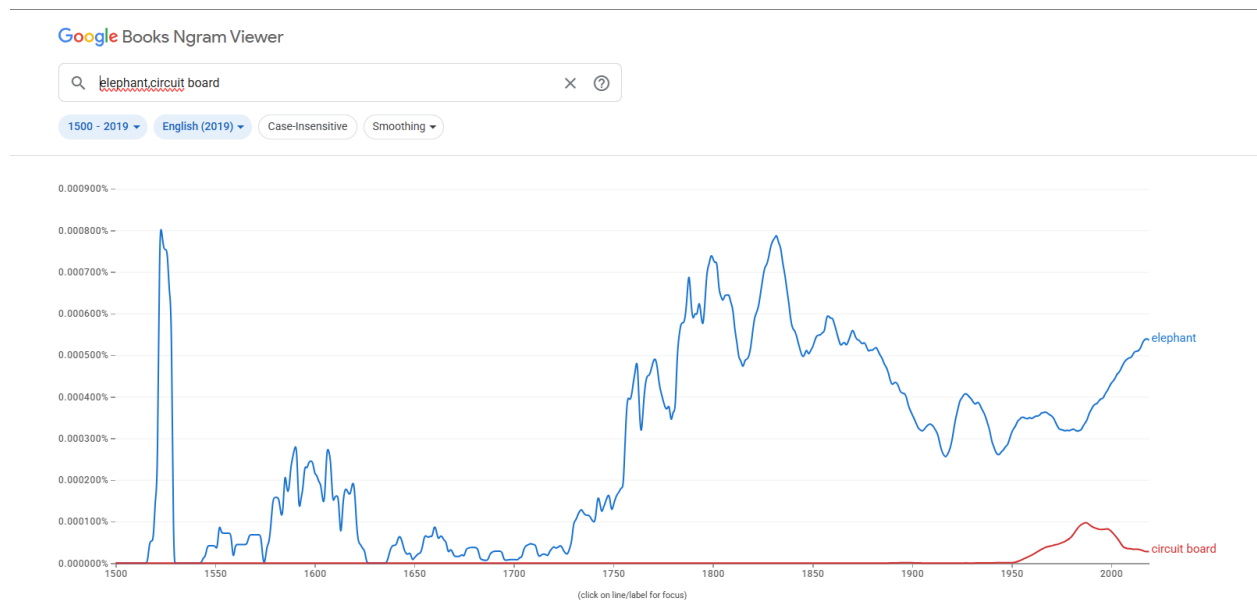
(note that "Printed Circuit Board" as a "topic" gives considerably higher representation)

d. *Google Trends - Image search:*

e. *Google Books Ngram Viewer*

…to be fair, Elephant has a head start here of about 3 million years or so.

6. *Completes an incomplete category - n/a*
7. *Is needed for compatibility with popular existing systems - n/a*

3. Factors for Exclusion

1. *Already Represented* - Some of the nearest emoji to represent ideas of "circuit board", and why they're no good:
   a. 🔌, 🔋 - focused on the "power delivery" and not the computational or technological aspects of the circuit board
   b. ⚙️ - while it does work for "mechanical guts" or "engineering", it carries too much of a physical connotation. You don't find gears on the ground when you drop your phone. Does not convey the technology aspect at all, though admittedly it was pretty novel in 300 BC.
   c. ⚡ - far too abstract / broad.
   d. 🤖 - is too "science fiction" to be useful. The robot also has the same problem of 📱, 📟, 📺, etc - it is a device *made of circuit boards*, and not an effective stand-in for *the board itself*.

2. *Overly Specific* - The circuit board proposal actually covers a wider range of more specific ideas about electronic components. Circuit board encompasses the previous microchip proposals, as well as all individual electronic components (transistor, resistor, capacitor), other aspects / symbols / tools of electrical engineering (schematic, soldering iron, multimeter), and computer parts on a large scale (graphics card, RAM, motherboard).

3. *Open-Ended -* One circuit board design is enough to cover all variations of circuit boards and electronic doodads. There is no need to expand on it further in the future.

4. *Transient -* Printed circuit boards have been the industry standard means of mass-producing electronic circuits since their invention in the 1950s, supplanting other methods and becoming the dominant platform for electronic circuits in that time. New innovations are extremely unlikely to supplant it, but rather improve upon it. As long as we have 🖥️, we will have circuit boards.

5. *Justified by an existing emoji -* This proposal does not cite other emoji sets as examples of "missing-ness" from a set, or use them as justification for its own existence. Circuit Board is its own character.

5. Other information

The circuit board emoji, at last, brings us the much-needed means to complete this sequence:

🖨️ 💥 ⚒️ ➡️ ❓ ❓ ❓

Please consider filling in the blank by approving this proposal.