

**Hi-Tech Future-- End of "Moore's Law": Assume It's 2035 Instead of 2022**  
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In the wake of digital technology for silicon chips having reached the end of "Moore's Law,"<sup>1</sup> advances in molecular memory have *shrunk* the computation process from the super-microscopic scale to the *molecular* scale. The structure of a computer for its memory and computational and analytical functions is now *organic* rather than "*hardware*." This transition has yielded a greater size-reduction than the transition from vacuum-tube structures used in the earliest computers in the 1940s to the silicon chips in the 2020s.

A new company, **CerebraCortNet**<sup>TM 2</sup> (pronounced "ser *ree*' bruh *cort*' net") has introduced a revolutionary communications system that will make I-phones and android phones (including the most advanced "wearable" types using contact lenses or eyeglasses) as obsolete as those devices made first-generation cell-phones (such as Blackberries and flip-phones). CerebraCortNet<sup>TM</sup> provides a universal WiFi communication service for a monthly charge less than 10% of the typical charge for smart-phone service and for which customers will not need a physical device to use it. CerebraCortNet<sup>TM</sup> provides universal WiFi service via a system much larger and much more sophisticated than the world-wide WiFi network ("StarLink") pioneered in the 2020s by Elon Musk utilizing thousands of low-Earth-orbit "mini" satellites for each to serve essentially the same purpose as the cellular telephone service towers that became ubiquitous in the 2020s.

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<sup>1</sup> The end of "Moore's Law" will have arrived when it's become impossible to make silicon chip's super-microscopically-small operational parts any smaller without such parts losing their molecular structure, which will require molecular-level structures (molecular memory) to replace silicon chips (hardware memory). For more about "Moore's Law" go here: <https://www.intel.com/content/www/us/en/history/museum-gordon-moore-law.html> .

<sup>2</sup> As of the writing of these materials, I've been unable to find any company, trade name or domain name such as CereBraCortNet<sup>TM</sup>, so I've added "TM" so no person or organization could legitimately claim to have used, or adopted, it before my use of it here.

CerebraCortNet's statement of its *raison d'etre* is: Just as the Supreme Court recognized way back in 2018 that a then-state-of-the-art "smart-phone" was "indispensable ... in modern society"<sup>3</sup> and that everyone feared being "without" it, we now know that CerebraCortNet is "indispensable in modern society" in 2035, but no one need fear ever being "without" it.

#### **A. Installation of CerebraCortNet™ Service.**

For each subscriber the operational device is an **organic** device rather than a "hardware" device. To initiate installation, the subscriber swallows a capsule no larger than a typical time-release medication capsule. This is done immediately before a meal that would commence at least five hours before the subscriber expects to go to sleep. In ordering a capsule, the subscriber can choose among capsules designed for use by individuals speaking one (or more) of the major languages spoken in the world.

Inside the capsule is a "**CerebraCortZip**," which is a complex set of indigestible organic molecules designed to perform the same type of function within the subscriber's body as would the components of a conventional "zipped" file used to easily transfer complex software programs onto computers so that when the user "clicks" on it, it "unzips" and then properly assembles all the vital components of the program so it can then be activated (or "installed").

When the capsule dissolves in the stomach, the CerebraCortZip unzips itself and releases individually-zipped, indigestible, organic components (CerebraCortMini-Zips) which are absorbed into the blood stream. Upon detecting arrival in the prefrontal cortex near the corpus callosum, the CerebraCortMini-Zips unzip and form a linked-array of organic molecules comprising the structure of the organic "device" (known as the "CerebraCortLink") for interacting with the subscriber's cerebral cortex and serving as a link enabling two-way interactions (i.e., communications) between the subscriber's cerebral cortex and the CerebraCortNet™ WiFi network.

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<sup>3</sup> For a syllabus of the decision in *Carpenter v. United States*, 138 S.Ct. 2206 201 L.Ed. 2d 507 (2018), see Appendix #CVUS.

# Target Area for CerebraCortLink

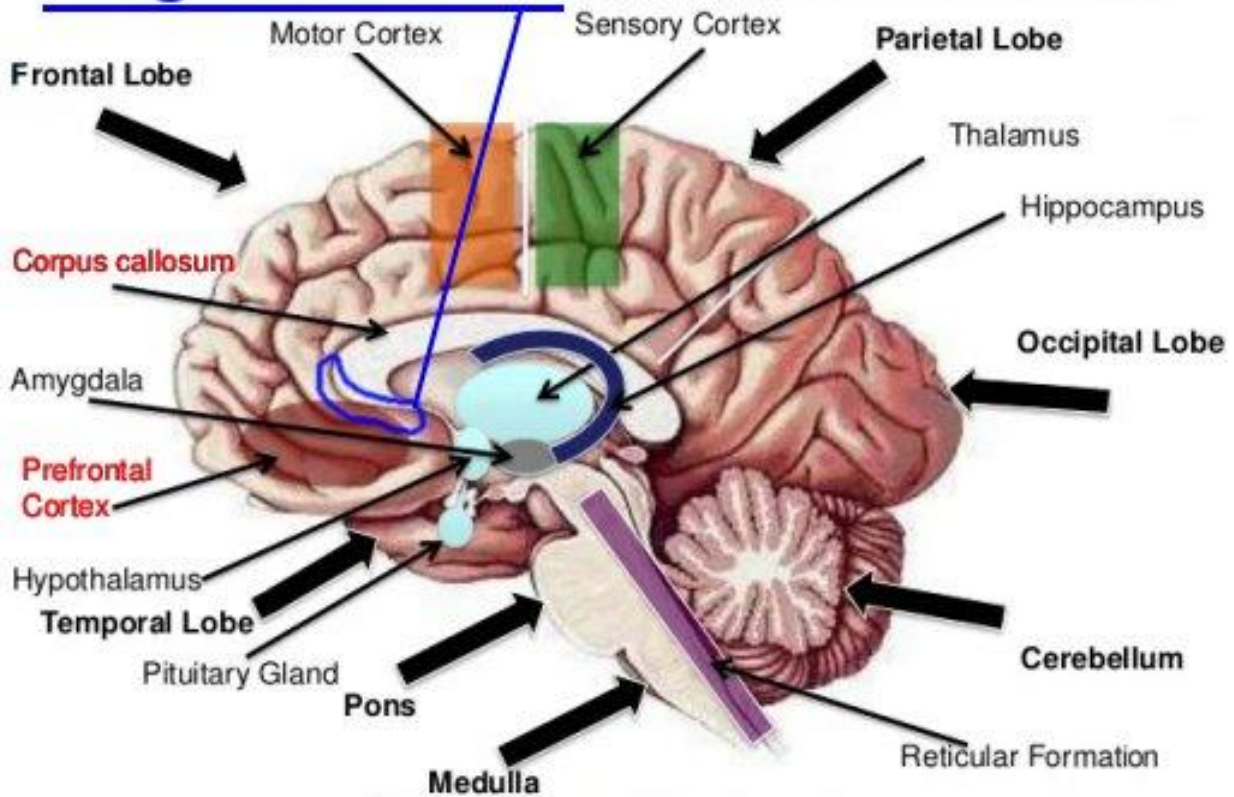


Fig. 1 re CerebraCortNet

Because metabolism rates differ among individuals, the "installation" process usually commences within two to four hours after the subscriber ingests the capsule. Here's a description of the installation process:

- (1) The CerebraCortLink generates a neural signal causing the subscriber to "hear" a sequence of three "fog horn" sounds, in response to which the subscriber distinctly and clearly speaks his/her full name, identifies his/her language and recites the alphabet. (This enables the CerebraCortLink to identify a common characteristic of the subscriber's neural signals in retrieving and speaking words.)
- (2) The CerebraCortLink acknowledges its successful processing of such information by generating two fog-horn sounds, after which it takes no further action until it detects neural signals generated by sleep.
- (3) While the subscriber sleeps, the CerebraCortLink creates a database of all neural patterns for speech matching those generated by the subscriber's self-identification in response to the three fog-horns. This enables the CerebraCortLink to create its own database of the neural signals associated with all words in the subscriber's vocabulary.
- (4) If the subscriber's sleep is interrupted, CerebraCortLink pauses this process and then resumes the next time the subscriber sleeps.

- (5) When the CerebraCortLink has completed this process and has detected that the subscriber is awake, it generates neural signals which the subscriber hears as the "voice" of CerebraCortLink saying, "Welcome to CerebraCortNet," after which it describes the protocols for the subscriber to use the system and prompts the subscriber to speak (**or merely "think"**<sup>4</sup>) particular commands to control functions of the CerebraCortLink-- e.g., shut-down, sleep, wake-up, standby, connect, search, disconnect, *etc.*
- (6) The last protocol is when CerebraCortLink asks permission to create a unique identifier to serve as the "IP Address" to be used by CerebraCortLink in connecting to CerebraCortNet, which it will do:
- (a) whenever specifically commanded by the subscriber and/or
  - (b) in response to whatever "general commands" the subscriber may choose to authorize for recurring tasks or specialized tasks upon occurrence of particular circumstances-- e.g., "downloading" updates from the CerebraCortNet, checking the subscriber's "inbox" for emails, text messages, etc., allowing access to the subscriber's CerebraCortLink by a physician (such as in an emergency room), calling 911 whenever it detects danger (e.g., an accident or health emergency, *etc.*), reporting news events per parameters and sources specified by subscriber, *etc.*
- (7) When the protocols have been completed, the CerebraCortLink says, "I am now available at your command, but absent a command, I will do nothing other than adding to my database whatever new words you add to your vocabulary by either speaking, reading or just thinking them."

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<sup>4</sup> Several years ago, a computer scientist actually designed a form of headgear with sensors to detect neural activity generated by a human brain engaged in "thinking" and highly sophisticated algorithms to categorize such thus-detected neural activity and convert it into electronic data to be transferred to a search engine to enable a wearer of such headgear to "think a question" and be "told" the answer. For an article on this, use **either** of the **links below** (the second of which is the original link now saved in the WayBack Machine): [news.mit.edu/2018/computer-system-transcribes-words-users-speak-silently-0404](http://news.mit.edu/2018/computer-system-transcribes-words-users-speak-silently-0404) or <https://web.archive.org/web/20191004213716/http://news.mit.edu/2018/computer-system-transcribes-words-users-speak-silently-0404>

- (8) The CerebraCortLink suggests that the subscriber conduct a "shakedown cruise" to test the system, and if the subscriber agrees, it guides the subscriber through the process such as:
- (a) Asking (or thinking) a question for the purpose of retrieving the answer from the internet: When the subscriber thinks (or speaks) the question, the CerebraCortLink connects to the CerebraCortNet, propounds the question *via* a search engine, receives the answer and then **either** "speaks" the answer by generating neural signals of the same type as those generated by the subscriber's own hearing system **or** generates neural signals to cause the answer to appear as text in a ticker-tape style within the subscriber's field of vision;
  - (b) "Calling" a friend who is a fellow subscriber. Since the CerebraCortLink does not yet "know" the IP address of the friend on the CerebraCortNet, the subscriber must first describe the friend's full name and address to enable CerebraCortLink to find such IP address on the CerebraCortNet. Once the connection has been established, the subscriber and friend can communicate with each other by thinking and/or speaking.
  - (c) "Calling" a friend who has a cell-phone (or land-line) but who is not a subscriber to CerebraCortNet. (That friend could verbally answer and hear using 2035 versions of the "ear buds" commonly used today in 2022.)
- (9) CerebraCortLink next instructs the subscriber about a variety of functions the subscriber can have it perform. Examples:
- (a) Interfacing with the subscriber's home-security system so the subscriber can use thoughts to control any aspect of the security system (lights, door-locks, garage door, *etc.*) capable of being controlled by a device such as a smart-phone.
  - (b) interfacing with any other device or appliance in the "internet of things" (*e.g.*, refrigerator, oven, heating/cooling system for the house, *etc.*) so the subscriber can control them with thoughts.

## **B. Operational Use of CerebraCortLink.**

CerebraCortLink acquires operational energy and discharges waste the same ways brain-cells do (but even though it's organic, it's *not* "alive"). It detects WiFi network waves passing through subscriber's brain. Whenever it's in an active mode (*i.e.*, by specific command of, or within perimeters establish by, the subscriber), it interacts with CerebraCortNet's WiFi network (in the same way conventional laptops, ipads, smart-phones interact with the internet) to enable the subscriber to use thoughts to control such interactions, to control devices remotely, to communicate with another subscriber by exchanging thoughts, or communicate with another subscriber (or a non-subscriber using a conventional cell-phone) by voice or text.

Whenever the subscriber want's to view information or images, the CerebraCortLink generates neural signals that display the information (or image) in the subscriber's field of vision either in a manner equivalent to what would be a "full screen" mode for a laptop *or* within a box occupying part of the field of vision, which, for the subscriber, would be the same as looking at the screen of a laptop. And, of course, the subscriber would be able (by thought) to control the apparent size of any such box.

## **C. Assignment:**

CerebraCortNet's stock price and it's number of subscribers are skyrocketing. Regarding the request that you become a subscriber, what decision would you make and why? Also, in your sole discretion, be prepared to answer any one or more (or none) of the following questions:

1. What decision do you think most people will make?
2. If you were to assume, *arguendo*, that a large majority of people choose to become "subscribers," how will that affect any one or more of the following: our legal system, our Bill of Rights, society in general.
3. If you think this "crystal ball" scenario is likely in the near future, what action, if any, do you think society ought to take (or commence) now?

Wrenn Note: If you think this scenario is unrealistic science fiction, set-aside some leisure time to study this: [http://wrennlaw.com/Digital\\_Tsunami.htm](http://wrennlaw.com/Digital_Tsunami.htm).