TECHNOLOGICAL SALVATION: NEURALINK'S CAMPAIGN THROUGH THE LENS OF RELIGIOUS SYMBOLISM

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Introduction[1]

Neuralink is a company founded by Elon Musk aimed at developing brain-computer interface (BCI) technology, and it has sparked significant interest and controversy in both scientific and public circles. Neuralink presents its BCI technology as a revolutionary medical advancement, claiming that it can restore physical abilities and significantly enhance human cognition. Up to this point, it has been customary to engage directly with technical or security challenges or, more narrowly, with those of a professional nature. In this context, however, our primary concern lies with how the company articulates its ideas and cultivates public readiness for its strategic objectives. It is important to emphasize that this paper does not primarily address the technical or scientific implications of BCI systems, but rather the ways in which Neuralink constructs a public image around its technology. This will not be examined in isolation, but as part of a symbolic framework that mirrors Christian motifs associated with messianic deeds.

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Religious symbolism has largely permeated the narratives around new technologies to date. It "constantly emerges as a metaphorical component of the [Californian] ideology that is fueled by the public interventions of prominent figures in Big Tech."[2] This approach largely rests on the belief that technology can redeem, transform, or save humanity from its core problems, like disease, mortality, the climate crisis, or existential limitations. It often involves viewing technology not merely as a tool, but as an almost spiritual force that will bring ultimate improvement to human life.[3] That is what we have referred to as technological salvation.[4]

The concept of religious symbolism refers to a specific form of expression of sacred meanings within religious beliefs and practices. Eliade describes it as follows: "By manifesting the sacred, any object becomes something else, yet it continues to remain itself, for it continues to participate in the surrounding cosmic milieu."[5] Although not very common, it is known that religious symbolism can appear outside formal religious settings. This can be traced in marketing campaigns, and one of the most well-known examples is Coca-Cola's strategic use of Christian imagery, most notably its iconic portrayal of Santa Claus, which draws upon the symbolism of Saint Nicholas and the cultural associations of the Christmas season. Another well-known example is the marketing campaign surrounding the iPhone, which has been labeled as the Jesus phone. This illustrates, according to Campbell and

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2 Massimiliano Panarari and Gianni Gili, "Spiritual Technologies: The Religious Symbolism of the Digital Universe," *Religions* 15 (2024): 1320, https://doi.org/10.3390/rel15111320.

3 Michael Leidenhag, "Saved Through Technology: Exploring the Soteriology and Eschatology of Transhumanism," *Religion Compass* 14, no. 11 (2020): e12377, https://doi.org/10.1111/rec3.12377.

4 Leonie Fourie, "Technology and Theology: Finding the Real God," in *Engaging the Fourth Industrial Revolution: Perspectives from Theology, Philosophy and Education*, ed. J. Van den Berg (Bloemfontein: Sun Media, 2020), 32. Fourie describes this form of eschatological hope in technology as *technological eschatology*; Katleho Mokoena, "Transcendence in African Spirituality and the Techno-Utopia," *Practical Theology* 18, no. 2 (2025): 145, https://doi.org/10.1080/1756073X.2025.2477336.

5 Mircea Eliade, *The Sacred and the Profane: The Nature of Religion*, trans. Willard R. Trask (New York: Harcourt, Brace & World, 1957), 12.

La Pastina, "that religious discourse can function both to affirm and to critique technological enterprises."[6]

The central aim, in this context, is to demonstrate that Neuralink's marketing model appropriates elements of religious discourse, most notably by evoking the figure of the Christian God as depicted in the New Testament. This insight is articulated by V. Findrik, who identifies this parallel under the syntagma "Jesus Christ as an unexpected marketing model."[7] By analyzing these symbolic parallels, one could argue that Neuralink offers a form of technological salvation to distinguish itself within a field of competitors.

On Neuralink's Product

Neuralink is a neurotechnology company founded by Elon Musk in 2016, dedicated to the development of advanced brain-computer interface (BCI) systems that seek to enable a bidirectional communication pathway between the human brain and external digital devices.[8] Neuralink is positioned at the intersection of neuroscience, biomedical engineering, and artificial intelligence.

The core innovation of the company lies in the creation of a high-bandwidth neural implant (with a surgery robot) designed not only to treat a range of neurological disorders, such as paralysis, blindness, and memory loss, but also to potentially augment human cognitive capabilities.[9] In 2022, the U.S. Food and Drug Administration (FDA) declined Neuralink's application to commence human clinical trials, citing significant safety concerns, including risks associated with the lithium battery, the potential migration of microelectrodes within the

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[6] Heidi A. Campbell and Antonio C. La Pastina, "How the iPhone Became Divine: New Media, Religion and the Intertextual Circulation of Meaning," *New Media & Society* 12, no. 7 (2010): 1192, https://doi.org/10.1177/1461444810362204.

[7] Stjepan Štivić and Valentino Findrik, *Transhumanizam i kršćanstvo [Transhumanism and Christianity]* (Zagreb: Centar za bioetiku, Fakultet filozofije i religijskih znanosti Sveučilišta u Zagrebu, 2024), 102

[8] Elon Musk et al., "An Integrated Brain–Machine Interface Platform With Thousands of Channels," *Journal of Medical Internet Research* 21, no. 10 (2019): e16194, https://doi.org/10.2196/16194.

[9] *Ibid.*

brain, and uncertainties regarding the safety of the device without compromising neural tissue.[10] In 2023, they received approval to initiate clinical trials on human subjects, marking a pivotal moment in the transition from theoretical research to practical application. The first human implantation was reportedly carried out in early 2024.[11]

As of early 2025, Neuralink has successfully implanted its BCI device in three human participants as part of its ongoing clinical trial. The first recipient, Noland Arbaugh, a quadriplegic patient, underwent implantation in January 2024. Since then, he has demonstrated the ability to control a computer cursor and play video games using only neural signals.[12] In June 2024, Neuralink implanted its second participant, known as Alex, a quadriplegic former automotive technician. Within days, Alex demonstrated high-precision neural control, playing video games using thought alone and designing 3D objects using CAD software. His implant showed improved stability compared to the first recipient, due to surgical refinements that minimized electrode retraction. These outcomes highlight significant progress in restoring functional autonomy through high-bandwidth BCI.[13]

The third recipient, Brad Smith, a nonverbal patient living with amyotrophic lateral sclerosis, received the implant by early 2025. He has since shown the capacity to manipulate a digital cursor, edit video content, and communicate via a synthetic voice interface, marking a significant advance in restoring communicative autonomy to individuals with severe motor impairments.[14] From a symbolic perspective,

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[10] Rachael Levy and Marisa Taylor, "U.S. Regulators Rejected Elon Musk's Bid to Test Brain Chips in Humans, Citing Safety Risks," *Reuters*, March 2, 2023, A Reuters Special Report, archived March 2, 2023, https://www.reuters.com/investigates/special-report/neuralink-musk-fda/.

[11] Laura Daniella Sepulveda and Shelby Slade, "Arizona Native Noland Arbaugh Is First Neuralink Patient: What to Know," *Arizona Republic*, March 21, 2024, accessed May 8, 2024, https://www.azcentral.com/story/news/local/arizona/2024/03/21/noland-arbaugh-first-neuralink-patient-from-arizona/72911013007/.

[12] *Ibid*.

[13] Leigh Mc Gowran, "Neuralink Shares Positive Progress of Second BrainImplant Patient," *SiliconRepublic*, August 5, 2024, accessed June 25, 2025, https://www.siliconrepublic.com/innovation/neuralink-second-patient-brain-implant-update.

[14] Sarah Jackson, "The First Nonverbal Patient to Receive Elon Musk's Neuralink Shares a Video He Edited and Narrated Using His Brain Chip," *Business Insider*, May 5, 2025, accessed

these healing cases resonate with biblical accounts of messianic deeds, a connection that will be explored in greater detail later in this paper.

One of the key characteristics of Neuralink lies in the fact that it is not merely developing an implant device, but rather actively shaping a broader sociotechnical imaginary, an imaginary that intertwines the concept of autonomy, the notion of technological innovation, and the trajectory of medical progress.[15] The inclusion of these technical details is not intended as a full scientific analysis, but rather as necessary context: Neuralink itself strategically mobilizes these elements when shaping its promotional rhetoric. Through its design choices and public messaging, Neuralink promotes a specific vision of the future. This vision serves not only to guide public perception and investment interest, but also to influence ongoing ethical debates and expectations surrounding BCI technologies.[16]

The Assumptions of Neuralink's Approach

Neuralink is in some ways characterized as a transhumanist company.[17] While such a characterization may be justified, it remains incomplete without further elaboration. To provide a more comprehensive understanding, it is necessary to examine the underlying assumptions that inform Neuralink's approach, both from an anthropological standpoint and as part of the framework of its marketing strategy.

At the outset, it is useful to distinguish between two principal categories: technical assumptions and, more broadly, anthropological assumptions. For example, technical assumptions are:[18] Neuralink is

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June 25, 2025, https://www.businessinsider.com/als-neuralink-patient-edits-video-brain-ai-voice-elon-musk-2025-5.

15 Aishu Hombal, *A Sociotechnical Imaginary for Neuralink* (Bachelor's thesis, University of Virginia, School of Engineering and Applied Science, 2021), unpublished.

16 Toni Garbe, "The Presentation of Brain–Computer Interfaces as AutonomyEnhancing Therapy Products," *NanoEthics* 18, no. 3 (2024): 6, https://doi.org/10.1007/s11569-024-00462-9.

17 Neil C. Hughes, "Transhumanism and Neuralink: The Dawn of Digitally Enhanced Humans," *Cybernews*, June 10, 2023, accessed June 25, 2025, https://cybernews.com/editorial/transhumanism-and-neuralink/.

18 Musk et al., "An Integrated Brain–Machine Interface," e16194.

based on BCI technology. This technology uses electrodes that penetrate the brain or are placed on its surface, enabling direct communication with the device; This communication or transmission of data is bidirectional; the implant is the size of a coin and is implanted in the skull. From it, a series of tiny wires extend into the patient's brain, each about 20 times thinner than a human hair. These wires are equipped with 1024 electrodes that can monitor brain activity and theoretically electrically stimulate the brain. Based on Neuralink's agenda, several underlying philosophical assumptions may be identified: Thoughts are entirely the product of neural dynamics in the brain; they are readable and can be read using technology. This allows us to perform physical tasks using only our thoughts in connection with external devices; The brain serves as the electronic hub of the nervous system. Based on these assumptions, BCI technology should enable us to create an electronic device for solving electronic issues within that system.

Beyond the technical assumptions, Neuralink's discourse implicitly targets fundamental human dimensions. These dimensions reveal that Neuralink is not merely selling a technical device, but actively promoting an anthropological conception of the human being. Four aspects are particularly significant: the body (the promise of restoring sight, movement, and speech), the mind (the extension of cognitive capacities and potential symbiosis with artificial intelligence), autonomy (the restoration of independence to those who have lost it), and control (the ability of thought to direct devices, which raises questions about privacy and freedom). By framing its product through these dimensions, Neuralink does not simply describe technical functions but symbolically redefines what it means to be human, thus transforming a medical device into a narrative about the future of humanity itself. This symbolic horizon indicates that Neuralink's discourse is articulated within a secularized form of a religious narrative of redemption.

This, however, does not stem from radical technical innovation. On the contrary, the perceived genuine novelty of Neuralink lies in the symbolic register, while its device largely builds upon existing research and established engineering paradigms. Several companies had already been engaged in the development of neural implant technologies long before Neuralink entered the field. From a purely technical standpoint,

therefore, Neuralink does not represent a substantial breakthrough, but rather a symbolic repackaging of established neurotechnological frameworks.

The concept of BCI technology can be traced back several decades, rooted in a long-standing aspiration to advance neurotechnology.[19] The first documented effort to translate neural activity into the control of external devices was conducted in 1966 by Evarts, who recorded neuronal firing patterns in monkeys during motor tasks. The term brain-computer interface itself was formally introduced in 1973 by Jacques Vidal at the Brain Research Institute of the University of California, Los Angeles. The institute's objective was to connect the inductive reasoning capabilities of the human brain with the deductive processing power of computers.[20] The study of BCI technology has its own history, and the emergence of Neuralink is merely one of the more recent developments in this field, albeit one that has significantly popularized this technology.

To date, a range of companies and products have emerged that utilize BCI technology. One such company, Synchron, received FDA Investigational Device Exemption (IDE) in July 2021, five years after submitting its initial application, allowing it to begin human clinical trials in the U.S. The company's BCI system, delivered via a minimally invasive endovascular procedure, is designed to assist individuals with severe paralysis in operating digital devices.[21] In addition, there are several other relevant companies in the field of BCI technology. NeuroPace (1997), received FDA approval in 2013 for its implantable device designed to treat epilepsy by reducing the frequency of seizures. Blackrock Neurotech (1998) has received FDA Breakthrough Device designation for its MoveAgain BCI system. This system is intended to

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[19] Agnieszka Kawala-Sterniuk et al., "Summary of Over Fifty Years with Brain–Computer Interfaces: A Review," *Brain Sciences* 11, no. 1 (2021): 43, 7–10, https://doi.org/10.3390/brainsci11010043.

[20] Hombal, *A Sociotechnical Imaginary for Neuralink*, 5.

[21] J. J. Han, "Synchron Receives FDA Approval to Begin Early Feasibility Study of Their Endovascular, Brain–Computer Interface Device," *Artificial Organs* 45, no. 10 (October 2021): 1134–1135, https://doi.org/10.1111/aor.14049.

enable individuals with severe motor impairments to control external devices, etc.[22]

One of the fundamental questions is, why is Neuralink widely known, while other companies developing similar technologies remain relatively unknown?[23] One might be inclined to attribute this disparity to the ethical controversies associated with Neuralink. More significantly, however, Neuralink uses the strategy of the acceptance-shaping function by presenting it in ethically and emotionally compelling terms.[24]

The answer lies primarily in the marketing model or several of them that underpin Neuralink's promotional strategy. It is important to note that, at this stage, the focus is not on the literal commercialization of a product, but rather on the promotion of a concept, a carefully constructed vision intended to generate public interest and attract public acceptance for its continued development.

The Goals of Neuralink

Initially, Neuralink's product is presented as a medical device, but its underlying mission is more broadly defined: "Creating a generalized brain interface to restore autonomy to those with unmet medical needs today and unlock human potential tomorrow" or "To restore independence and improve lives [...]"[25] If we consider this Neuralink's defined mission, it is evident that the applicability of the brain implant is intended to be extensive.

However, Musk has announced two primary promises or goals. Firstly, restoring sight to those born blind and helping patients with spinal cord injuries regain the ability to move. Musk also believes that eventually, everyone will develop various neurological issues, and this is where the product developed by Neuralink will find its broader

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22 Levy and Taylor, "U.S. Regulators Rejected Elon Musk's Bid."

23 Anita Ko and Nancy S. Jecker, "Several Companies Are Testing Brain Implants – Why Is There So Much Attention Swirling around Neuralink? Two Professors Unpack the Ethical Issues," *The Conversation*, February 14, 2024, accessed June 24, 2025, https://theconversation.com/several-companies-are-testing-brain-implants-why-is-there-so-much-attention-swirling-around-neuralink-two-professors-unpack-the-ethical-issues-222556.

24 Garbe, "Presentation of Brain–Computer Interfaces," 6.

25 Neuralink, "Homepage," accessed June 25, 2025, https://neuralink.com/.

application. On another occasion, he specifies the normalization of other neurological issues more precisely, such as memory loss, hearing loss, blindness, paralysis, depression, insomnia, extreme pain, seizures, anxiety, addiction, stroke, and brain damage.[26] Additionally, diseases and disorders such as autism, depression, schizophrenia, and obesity are mentioned.

The long-term goals, which are not emphasized in Neuralink's marketing discourse, relate to what Elon Musk has described as the company's overarching aspiration: "to improve the AI–human symbiosis by increasing the bandwidth of communication."[27] Similarly, Matthew MacDougall, Neuralink's lead neurosurgeon, has articulated the company's broader vision as "the full expansion of human cognition into artificial intelligence without limitations, enabling unrestricted communication and the interconnection of human minds."[28]

Two key characteristics emerge from the outlined goals: first, the "tendency to overpromise, can overshadow the actual progress,"[29] and second, the narrative surrounding the product exceeds its technical capabilities and practical applicability.

The Campaign and Religious Symbolism

A more detailed observation shows that Neuralink combines two dominant marketing paradigms: marketing orientation and relationship orientation. To understand this more clearly, it is useful to highlight the main elements through which Neuralink conducts its campaign.

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[26] Neuralink, *Neuralink Progress Update, Summer 2020*, video, 2:15, posted August 28, 2020, YouTube, https://www.youtube.com/watch?v=DVvmgjBL74w.

[27] Elon Musk, *Elon Musk and the Future of Humanity*, interview by Lex Fridman, *Lex Fridman Podcast*, audio podcast, March 2024, https://lexfridman.com/elon-musk-and-the-future-of-humanity/.

[28] Matthew MacDougall, *Neuralink & Technologies to Enhance Human Brains*, interview by Andrew Huberman, *Huberman Lab*, audio podcast, April 2023, https://hubermanlab.com/neuralink-and-technologies-to-enhance-human-brains/.

[29] John Can Gedik, "Neuralink: The Hype and the Reality Three Years Later," *LinkedIn*, January 25, 2025, accessed June 24, 2025, https://www.linkedin.com/pulse/neuralink-hype-reality-three-years-later-john-can-gedik-ddzle.

Neuralink's campaign can be described through four interconnected components: (1) public appearances and livestream demonstrations that emphasize technical transparency, (2) patient testimonials that generate emotional resonance and credibility, (3) Musk's charismatic presence in interviews and on social media, where he embodies visionary leadership, and (4) official promotional materials that employ slogans such as 'restoring independence'[30] and 'unlocking potential.'[31] Together, these elements construct a hybrid narrative that combines technical progress, emotional identification, and visionary promise, thus shaping an image of technological salvation. When placed against the Christian messianic tradition, Musk's public charisma and Neuralink's rhetoric of healing directly parallel the role of Christ as healer and savior.

From the perspective of marketing orientation, Neuralink identifies clear user needs, such as communication for individuals in need, and presents its technology as a solution.[32] It applies educational marketing through livestreams, white papers, and public demonstrations, cultivating awareness and demand. From the relationship orientation standpoint,[33] Neuralink focuses on building long-term trust with its audience by offering transparent updates, emotionally resonant patient testimonials, and community engagement through social media. Elon Musk, as a charismatic figure, also personifies the visionary leadership that enhances loyalty and belief in the company's mission.

In doing so, Neuralink does not merely market a product but promotes something else—or more precisely, the product "becomes something else, yet it continues to remain itself."[34] The company employs a religious symbolic marketing logic where the technological product represents liberation from existential human limitation. Religious

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30 Neuralink, "Neuralink Raises $650M Series E," *Updates*, Neuralink.com, June 2, 2025, accessed 15 September 2025, https://neuralink.com/updates/neuralink-raises-650m-series-e/.

31 Neuralink, "Homepage," accessed June 25, 2025, https://neuralink.com/.

32 Hamed Gheysari, Amran Rasli, Parastoo Roghanian, and Nadhirah Norhalim, "A Review on the Market Orientation Evolution," *Procedia – Social and Behavioral Sciences* 40 (2012): 543, https://doi.org/10.1016/j.sbspro.2012.03.228.

33 Laith Alrubaiee and Nasser AlNazer, "Investigate the Impact of Relationship Marketing Orientation on Customer Loyalty: The Customer's Perspective," *International Journal of Marketing Studies* 2, no. 1 (2010): 157, https://doi.org/10.5539/ijms.v2n1p155.

34 Eliade, *The Sacred and the Profane*, 12.

symbolism is used to lend the Neuralink implant legitimacy, credibility, and emotional weight, much like when a brand employs scientists or celebrities to endorse its product. The symbolic and overpromising message is *I offer you what no other human can give you*.

It is important to emphasize that, much like Edward Bernays, who systematically applied the concept of third-party endorsement,[35] Neuralink adopts a comparable strategy by incorporating elements of religious symbolism into its promotional narrative as third-party credibility to legitimize its product. In Neuralink's case, the symbolic framework draws on Christianity, and more specifically, the figure of Jesus Christ, which functions as a model within its marketing strategy.

Similarities with Christian Symbolism

Within religious symbolism, a deeper question emerges: Who is the one who offers or grants what no one else can? The one who enables the blind to see, the deaf to hear, and the lame to walk again? Within the Christian tradition, these deeds are attributed to the Messiah and are understood as signs heralding the arrival of the messianic age.

When Neuralink promotes its product within the framework of its stated marketing orientations, it primarily focuses on short-term goals aimed at shaping acceptance. However, while often overpromising, the company simultaneously and implicitly invokes religious symbolism, suggesting a salvific dimension to its work as its long-term objectives involving experimentation with artificial intelligence remain obscured. The symbolism within the marketing model aligns with messianic imagery, as seen in the following: The blind shall regain their sight (Mark. 10:52; Luke 18:42 etc.); The deaf shall hear again (Mark. 7:35 etc.); The paralyzed shall walk (Mark. 2:1–12; John. 5:8–9 etc.).

The key compilation passage is: "Jesus said to them in reply, 'Go and tell John what you hear and see: the blind have regained their sight, the

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[35] Tonina Ibrulj and Ivana Zovko-Bošnjak, "Lexicon of Public Relations: Exploring Edward Bernays' Influence on Introducing Public Relations Concepts and Vocabulary Terms," *South Eastern European Journal of Communication* 5 (special issue, 2023): 57, https://doi.org/10.47960/27120457.2023.1.S.5.53.

lame walk, lepers are cleansed, the deaf hear, the dead are raised, and the poor have the good news proclaimed to them. And blessed is the one who takes no offense at me." (Matt. 11:4-6) From a symbolic perspective, the question that precedes this passage invites a deeper reflection on the religious imaginaries subtly appropriated within Neuralink's marketing model. "When John heard in prison of the works [deeds] of the Messiah, he sent his disciples to him with this question, 'Are you the one who is to come, or should we look for another?'" This functions not merely as a textual reference, but as a paradigmatic expression of messianic expectation, one that resonates with the implicit promises embedded in the rhetoric surrounding Neuralink. Through this parallel, the syntagma Jesus Christ as a marketing model becomes clear and it may be attributed to Neuralink's marketing, although there are certainly other candidates that could be similarly characterized. Thus, each technological promise (restoring sight, enabling the paralyzed to move, and giving voice to the voiceless) becomes legible as a modern re-enactment of messianic motifs.

Conclusion

Although not very common, it is well-known that religious symbolism can appear outside formal religious settings, particularly in marketing campaigns. Perhaps the most famous example is Coca-Cola's use of religious imagery, especially through its iconic portrayal of Santa Claus, which draws on the symbolism of Saint Nicholas and Christmas time, or the highly intriguing religious symbolism constructed around the iPhone as the *Jesus phone*, both by its producers and its users.

Neuralink borrows language, imagery, and ideas that function as religious motifs, framing its product as something beyond the ordinary, something redemptive or transcendent. The similarity to religious, specifically Christian, symbolism is undeniable. However, this symbolism remains implicit rather than explicit. The way in which the resemanticization of the messianic deeds of Jesus Christ operates in the context of Neuralink's promises may be one of the reasons for the company's public position and relative popularity compared to its competitors.

It is difficult to determine, but one might speculate that the Christian message has become an archetype of Western civilization, and that the instrumentalization of what we have described as the marketing model of Jesus Christ is playing on a subconscious human longing. Or is it, more broadly, the instrumentalization of the inherent human need for the *religious*? This raises the question of how far modern technological discourse depends on religious symbolism to secure its authority.

The only similarity between miracles in Christianity and the promises found in Neuralink's promotional discourse lies in the fact that neither function as an end in itself; rather, both point toward 'something beyond.' In Christian symbolism, miracles signify a deeper reality, the complete transformation of life and the acceptance of the message of the Christian proclamation. However, in the case of Neuralink, this dimension remains notably vague and obscured.

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