

AI Elegance and Ethics – Just Married?

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Abstract. The following paper is dedicated to the 21st century’s “recent marriage” between the aesthetics of beauty and elegance on the one hand, and the ethics of choice on the other, involved in the “humanizing mission” of AI digital assistance. In the context of the *4.0 Social Revolution* it will be shown how modern aesthetic concepts of AI design can go hand in hand with the ethics of choice, because of their *inherent connection*, backtracked in earlier moments of European history, and expanded around the French Revolution in Schiller’s 27 letters *On Aesthetic Education of Man* (1795) as well as earlier in Leibniz holistic aesthetics. Relevant arguments will be discussed here to disclose the “secrets” of how the inherent connection is to be carried out within the *metaphysical background of faith*, even if modern 20th century attitude has seemingly dismissed its “philosophical burden” during the late 1970-ies. In 2011 a “New Aesthetics” was introduced without the burden of metaphysics, aiming to create a new “lens” for the perception of elegance, simplicity and clarity by young “digitally naïve” Avantgarde artists. However, elegance and beauty have previously been claimed by algorithmic solutions, starting with Leibniz and Condorcet, which gave birth to the 20th century computational aesthetics. The social life of AI algorithms – we cannot perceive them as humans – seems mostly intended to optimize corporate solutions. But the 21st century artists are about to take their chances on creating something new that makes us feel *artificial intelligence* as an integral part of a *beautiful mind*. *AI algorithms* can offer *smart solutions*, but the *wisdom of choice* has to remain a *human call*.

Keywords: Aesthetics of Design, Beauty, Elegance, New Aesthetics, Ethics of Choice, Artificial Intelligence, Plato, Leibniz, Schiller, Hegel, Heidegger, Facebook, Digital Divide, Digital Immigrants, Digital Natives, Grown-up Digital, Generation Like

1 Introduction

The expanding internet technologies have immersed human existence over the last decades to a point that we feel tempted to give more and more areas where *assisting algorithms* could be involved by offering us to make our “free choice” between a variety of *smart solutions*. The crucial question how far we go to trust their “tender suggestions” perceiving them as simple and elegant for a reason.

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If we have to handle the world of digital assistance, a multigenerational context has to be made relevant with a series of metaphors, because genuine metaphoric always recurs within the holistic approach of metaphysics. [1, p. 89] Let's figure out a "pendulum" swinging between *data immersed "non-programmers"* and *"programmers"*, YouTubers and gamers on the one hand, and *online tourists* participating in a variety of social networking activities and *in-and-out evasive users* on the other. A detailed analysis of the responsively *swinging pendulum* is out of our scope at the moment, because we will handle it in a separate publication (coming next). It requires a "microscopic analysis" where *emotionally driven addiction* to online spaces and *escapism* are often the two sides of the same coin, considered as a whole. Herein a 'great divide' is to be highlighted between the inconsistent multiplicity of a *networked clientele*, the fluctuations of *online user abstinence*, the "frozen cubes" of *online user aversion* and *passionate hater's behavior*. [2]

Keeping in mind the background multiplicity "digitally grown-up" users (the so-called *Digital Natives*) perceive beauty and elegance differently from the so-called *Digital Immigrants* [3] by designing their own aesthetic environment, often in an easy and light way, without the philosophical burden of a distinguished 18th – 20th century *metaphysical background of religion and ethics*.

The main accent of our short discussion today is on the discernment of a seemingly "difficult marriage" between *AI* perceived as *fancy, elegant and cool*, and a *nuanced ethics of free choice* varying on demand, within the "dismissed background" of *metaphysics of faith*.

2 A 21st Century Point of View with the Lens of Classics

In 2011 James Bridle announced a *New Aesthetics of cool* which aims to create a *Computational Avantgarde* in Art and Design. The young *Generation Like* claims here the perception of "unseen elegance", simplicity and clarity of shape and colors shared mostly on Tumblr and Pinterest. Their "digitally naïve" aesthetics meets here an "algorithmically born" ethics and touches upon 21st century "new anxieties" [4] [5] [6, pp. 63-67, 86-87, 238]. The trend has been followed by media-fatigued classy young people wishing to have a chance to relax and literally "just be". Uniquely beautiful and detached-looking youngsters master convincingly a "lens", manifesting themselves with captions like "Be hot! Be cool! Just be!" Media Sociologist Douglas Rushkoff calls them "merchants of cool". [7] The immediate perception goes hand in hand with the immediate action of art and sharing which could be referred here to as "dubstep design" to use a metaphor. [8, p.83]

It is important to conceive *religion and ritual* not as a traditional *theology of God*, but merely as an individually driven *quest for a free choice*. A "personalized attitude" of a *homo singularis* who is "free to be on his own" as defined since Hegel ("Freiheit bei sich selbst zu sein" [9, p. 5, 277]) and to act differently in every situation, i.e. to

believe or remain skeptical from case to case [10, p.124-125, 128-129] [11, p.130-133]. The 20th century attitude has been defined by the sociologist Peter Berger [12] as acting upon a *heretical imperative* where everyone can make his own “religious choices”. This attitude has been increasingly developed after 15th – 16th century Reformation of Luther, Calvin and Zwingli within a “religiously neutral” state, thus being primarily initiated in 13th century China. The 21st century *experience* is increasingly processed by the “granular dissolution” of human life in *small features* computed every moment by AI “invisible algorithms”. Information granularity is to be considered as a design asset that assists existing modeling patterns and practices with new conceptual and algorithmic features. It remains open if that makes the resulting models more reflective concerning the increasing complexity of real-world phenomena. [13] These processes have been tagged with the remarkable computing metaphor of *granular society*, introduced by sociologist Christoph Kucklick. It became a symbolically considered as an umbrella term for the 21st century “digital modeling” of societal interaction processes [14].

The “small features” are the *data fundus* of a new digital *ethics of choice* which underpins the new digital *aesthetics*. The online *filter bubble* [15] tailors what we *see* and *experience immediately* as a data driven *onscreen aesthetics*. Algorithmic gatekeepers based on Google search criteria take decisions for us *what* is to be visually accessible and *how* it is to be queued, which initiates a new *data ethics*. A new *elegant* transparency via data scaling of a human being or a product comes up. However, it becomes difficult to backtrack the way in which the “invisible algorithms” bring out their *smart solutions*, which makes the feeling of *uncanny valley* stronger and stronger. [16] During the Industrial Age only our friends and family would have access to life data we shared with them. The *uncanny moment* is not only the globally distributed risk to share your *home* “trespassed” by someone unknown without noticing it. That could happen in the 19th century as well, if not in the same “invisible way”. Being vulnerable as an accurately explored “content object” we would never know how and when we are analyzed “below the surface” which causes an *uncanny feeling*. It makes people feel like a target to be taken down by a shotgun, because the digital assistant is emotionally inaccessible to us as a friend. “Don’t be evil” is the assigned friendly role it plays. This remains just the *visible part* of an “iceberg”, a “frozen ethics” where data criteria make us *believe* it is about Buddhist *ethics of choice*. Historically viewed, Christian and Buddhist faith have developed the Medieval patterns of belief for “mass consumption” of everyday users. A short list of eminent figures, the so-called *viri illustri*, developed a variety of “invisible ways” to solve contradictory criteria in the “cloud of mystics” accessible only to a certain elite. This model of thinking has been “granularly dissolved” to a minimum of meaningful criteria and prepared for the “mass consumption” society, being intensified during the Industrial Age. We have to jump back in time to find out how a significant minimum of relevant criteria can also comply with 21st century individual choices, considering the *metaphysics of faith* and *wisdom* as integral part of the *aesthetics of joy* and *pleasure*. In a late 17th century letter, addressed to the Duke of Hanover, Ernst August, Leibniz had articulated essential touchstones relevant to a 21st century context. He showed how *joy* mirrors the “feeling of perfection” and retrieves the “highest degree of reality” at the same time, when speaking of *justice* as *charity* (= general benevolence)

of the *wise man*. Here *wisdom* is to be considered as a “science of *felicity*” (*felicity* being confined as a *lasting joy*): „La justice est la charité du sage ou une charité conforme à la sagesse. La charité n’est autre chose que la bienveillance générale. La Sagesse c’est la science de la félicité. La félicité est l’état de joie durable. La joie c’est un sentiment de perfection.“ [17, p.877] Leibniz can be considered as the initiator of *computational aesthetics* to be later developed in a 20th century context. Within his holistic vision of *beauty as perfection*, he saw also the perspective of algorithmic *criteria of elegance* with the *simplicity* and *clarity* of computational choices [18] [19] [20, p. 5-6, 11, 13, 31-33].

3 21st Century Challenges with the Lens of Digital Consumerism

The 21st century democratically-driven Western society model is about to face several crucial challenges:

1. The first one is to consider the “invisibly optimized” AI distributed environments of global players, such as Apple, Google, Amazon, Facebook, IBM, HP and other, because these environments design and maintain the communication infrastructure of over 50% of 7,5 billion people. To what extent is aesthetics of design relevant here to the ethics of decision, since *AI chatbots* can “recognize” our demand – from project participation to “mass consumption”?
2. The second one is to what extent individuals are “tuned” to interact with AI digital assistants who are “happy” to help us with “granularly dissolved” data on smartphones, iPads and tablets. How would *AI assistants* be programmed so that the granularly delivered information comply within an *ethics of choice* [21]? How would the ethics of choice *convene* to handle patients with hard diseases in a “critical situation”? How would medical specialists “adjust” their choices to face the knowledge in granularly dissolved “small criteria” where the usual way to handle a disease, e.g. diabetes or heart attack in various cases, is not going to be the same? How will health insurances and patients respond when having granular data about life expectancy of each patient? In cases when patients know accurately they will not live long, how will they respond to the ethics of free choice? Will they join the *solidarity insurance* or another “customized one”? The *ethics of choice* is raised here to another level. How do we handle the processed granularity of Big Data when having embraced the “4K resolution” scaling options, keeping in mind that over 2/3 of Big Data have been processed during the last years? And we “feel motivated” to further the exponential growth of Big Data as a luxury option of home environment.

Since the Enlightenment people have lived with the fundamental illusion that they “create” their own world, a thesis well underpinned by philosophers, sociologists, psychologists, anthropologists and later on by scientists, scholars and research fellows. It can be best illustrated with the eminent words of the existential philosopher, Martin Heidegger, one of the last thinkers to have “processed” historically the metaphysical background: “The man as a *world maker*” (*weltbildend*, [22, p. 273]). Then, comes up the *second illusion* as a chain reaction, people have a *free choice* to take a decision and determine how they *live in* a world being “primed” through the centuries by mainstream religious perspectives, such as Jewish-Christian, Islamic and Buddhist ones. In a world, regulated by *AI social algorithms* and *digital assistants* an *uncanny valley* is the natural emotionally driven response to the *disrupted illusion* of human environment “created” by man as a subject taking one’s own choices.

We mentioned previously the “great divide” of the audience between “grown-up digital”, “digitally naïve migrants” and “digital immigrants” (which could be “granularly dissolved” in *smaller categories*). The “digitally naïve” young people are the designers of a 21st century world where their *first home* is a “digitally born” one. It reverses the usual perspective of “digital immigrants” who *get in* and *out* of online spaces as a “second life ambience”, but do not *live in* [3] [23]. If we philosophically “dissolve” the context of the “young audience” then we will disclose a “historical secret” with a Socratic back-to-the-future *metaphysical* view that “young” is intrinsically bound to “beautiful”. A clear cut Platonic reference [24, p.416] brings out a “4K resolution” of the *integral relation* of “being noble” within a human choice of action and the AI aesthetics of beauty: “There is nothing written by Plato and there will not be anything. Everything which bears his name is from the time of Socrates who has been *young and beautiful*”, i.e. *young and beautiful* means here to “give birth” to a new environment, in the personal faith to create something good, not to leave “written traces” which can be falsely interpreted. Re-designing digitally 21st century societal interaction modalities – where human intellect, for the first time in history, is challenged with *smarter* and *faster* developing *AI assistants* – we have to make up our mind with a *moral choice* how to configure our “AI children”. How should they “learn” from our experience and how should they take ethical decisions to apply the concluded context which becomes a real issue [14, p.96] [21].

4 The Holistic Inevitability of Choice

Should we keep on “optimizing” unified communications for a distribute environment on a global scale? Or should we “implant” human emotions, opening the door to organically growing AI “hybrid intelligence” that can *love* and *enrich* its own *imagination* on the go? And how is the “emotional resistance” to be “granularly dissolved” in small criteria? Finding an AI computing solution is crucial, which is pointed in the inscription on the Platonic Academia, literally restricting the entrance to users who cannot think with a mathematical precision (as evidenced by 6th century philosopher, Elias [in Cat.

118,18]: οὐδείς ἀγεωμέτρητος εἰσίτω) [25]. Leibniz goes a step further in the late 17th century and delivers a “second key” why *metaphysics* cannot be “granularly dissolved” without *mathematics*. He has disclosed the “secret” why a holistic approach on the fundamentals of our world is an unsatisfactory one without the *exactitude of mathematical thinking* as a *tool*. (Bordas-Demoulin’s words, quoted by Heidegger [22, p.24], have apparently been assigned to Leibniz with a slightly altered wording: “Sans les mathématiques on ne pénètre point au fond de la métaphysique”, while Leibniz writes explicitly in another letter /1694/: “Ma métaphysique est toute mathématique pour ainsi dire, ou la pourrait devenir”) [26, p.2-3]. Here is the appropriate moment to say why *metaphysics* and *religion* are relevant as a background to our approach. *Metaphysics* has granularly processed relevant points of *faith and ritual* through the centuries which have been originally the domain of mainstream Jewish-Christian, Islamic and Buddhist faith. That way it has fostered the 20th century “heretical imperative”, i.e. the ethics of a “neutral choice”. *Metaphysics* has also processed and maintained the permanent quest for defining *the world we live in* by meaningful categories within a holistic approach, “embracing the whole” and getting the “underlying fundamentals”, as eminently announced by various philosophers, where Martin Heidegger has a distinct position. He is the last 20th century thinker to have historically “processed” great philosophical thinking from Descartes, Leibniz, Kant, Schiller, Hegel to Nietzsche. Facing the “end of metaphysics” where human existence received its *medially assigned designation* (Da-sein) he designed mid of the 20th century a “lens” to look in the future and called it “another beginning” [27, p.176-179]. Is the new Cartesian trend *Communico ergo sum* expressing an emotionally driven *resistance of Generation Like* while AI “takes over” the communications and “dissolves” granularly our subject-oriented experiences? Is *digital Darwinism* really disrupting our subject-centered illusion of “free choice”? [28, p.199-210]

5 Schiller’s Aesthetical Lens as a 21st Century Tool

We close our short trip touching upon the milestones of *AI aesthetics* wherein the *ethics of choice* is integral part of the *aesthetics of beauty* and *elegance* by extracting valuable touchstones, framed by Schiller in the times of another social revolution, the French one in 1789. Schiller’s aesthetics of beauty [29, p. 94, 99] confers a *capacity of perception* on the intellect (= AI in our case) and the will (= the ethics of choice) that should “speak” directly to both. “Beauty offers no interference to the intellect or to the will. Here all external help disappears and the pure logical form – the concept – speaks directly to the *intellect*, the pure *moral form* – law – directly to the *will*. It confers on both merely the capacity.” Then comes the crucial conclusion: “The *moral condition* can be developed *only* from the *aesthetic*, not from the physical, because the *aesthetic* alone leads to the unlimited ...”. Schiller’s idea is the cornerstone for our concept of *AI beauty* and how its perception can bring us out of the *uncanny valley*. Following his point of view, the transition from “passive perceiving” of beauty to active *willing* and *thinking* occurs only through the “intermediate condition of aesthetic freedom of pas-

sions”. [30, p. 640-642] He delivers here a tool which is relevant to a 21st century context. AI beauty “granularly dissolves” our emotionally driven resistance and *introduces* the aptitude to conceive it “neutrally” and confers the *ethical capacity* to “assist” on a rational level of *logic* and a *moral* of a “free choice”.

6 Conclusion

Concluding our journey, we have highlighted some historically given, yet “invisible milestones” which refer to an *intrinsic connection* between the *aesthetic perception of beauty* and *elegance*, and the *ethics of free choice*. On our way we have disclosed relevant *societal issues* requiring alignment with the “granularly dissolved” knowledge of Big Data, exponentially increasing during the last years. The highlighted questions will remain open since we have not yet decided if we advance *AI digital assistance* within a *utilitarian context* of profit-oriented corporate environment or we are determined to shape *AI aesthetic design* “re-connecting” to Schiller’s *moral conditions* and Leibniz’ *wisdom of perfection* as *immediate pleasure* and *lasting joy* with the vision of a *beautiful mind* as a “hybrid solution”.

References

1. Heidegger, M.: Der Satz vom Grund. Verlag Günther Neske, Pfüllingen (1986).
2. Schüll, N. D.: Addiction by design: machine gambling in Las Vegas. Princeton University Press, Princeton, New Jersey (2012).
3. Duridanov, L.: Digital Humanities in the Age of Visual Immediacy. CAx Technologies, issue 6, Technical University, Sofia (2018), pp.27-33.
4. Koterbay, S. C., Mirocha, L.: The New Aesthetic and Art: Constellations of the Postdigital. Institute of Network Cultures, Amsterdam (2016).
5. Berry, D. et al.: New Aesthetic, New Anxieties. Institute for the Unstable Media, Rotterdam (2012).
6. Berry, D., Dieter, M.: Postdigital Aesthetics: Art, Computation and Design. Palgrave Macmillan, London (2015).
7. Rushkoff, D.: Coercion: Why We Listen to What “They” Say. Riverhead Books, New York (2000).
8. Rushkoff, D.: Present shock: when everything happens now. Penguin, New York (2013).
9. Hegel, G.: Phänomenologie des Geistes. Felix Meiner Verlag, Hamburg (1988).
10. Бердяев, Н.: Диалектика божественного и человеческого. Фолио, Харьков (2003).
11. Duridanov, L.: Ein postbyzantinisches Schisma – Bulgarien 1992. In: Makrides, V.: Religion, Staat und Konfliktkonstellationen im Orthodoxen Ost- und Südosteuropa. Peter Lang, Frankfurt am Main (2005), pp.115-135.
12. Berger, P., Huntington, S.: Many Globalizations: Cultural Diversity in the Contemporary World. Oxford University Press, New York (2002).
13. Pedrycz, W.: Granular Computing. Analysis and Design of Intelligent Systems. CRC Press, Taylor & Francis Group, Boca Raton, London, New York (2013).
14. Kucklick, Chr.: Die Granulare Gesellschaft. Wie das Digitale unsere Wirklichkeit auflöst. Ullstein Verlage GmbH, Berlin (2016).

15. Pariser, E.: *The Filter Bubble. What the Internet is Hiding from You*, Penguin Books, New York (2011).
16. Mathur, M.B., Reichling, D.B.: Navigating a social world with robot partners: a quantitative cartography of the Uncanny Valley. *Cognition* 146 (2016), pp.22–32. <doi:10.1016/j.cognition.2015.09.008>
17. Leibniz, G. W.: *Reihe II. Philosophischer Briefwechsel*. Akademie-Verlag Berlin, Forschungsstelle Münster (2009).
18. Hoenig, F.: *Defining Computational Aesthetics. Computational Aesthetics in Graphics, Visualization and Imaging*. Girona (2005), pp. 1-7.
19. Debuiche, V.: *Le beau dans la philosophie de Leibniz. Séminaire sur la beauté 2005 – 2014*. CEPERC/CIELAM, (2014), pp. 1-15.
20. Suzuki, Y.: *Computational Aesthetics*. Springer, Tokyo (2019).
21. Rovers, S., Clarebout, G., Savelberg, H. et al.: Granularity matters: comparing different ways of measuring self-regulated learning. *Metacognition and Learning* (2019), pp.1-19. <doi.org/10.1007/s11409-019-09188-6>
22. Heidegger, M.: *Die Grundbegriffe der Metaphysik. Welt – Endlichkeit – Einsamkeit. Gesamtausgabe, II. Abteilung, Band 29/30*. Vittorio Klostermann, Frankfurt am Main (1983).
23. Duridanov, L.: *Getting Immersed in the 21st century Digital Fluidity with BA Minors Across Disciplines*. Yearbook Telecommunications, Vol. 5, New Bulgarian University, Sofia (2018), pp.119–127.
24. Plato: *In twelve volumes. Vol. IX. Timaeus, Critias, Cletophon, Menexenus, Epistles*. With an English translation by Bury, J. Harvard University Press, Cambridge, Mass. (1989).
25. Elias Philosophus: *In Aristotelis Categorias Commentaria (Commentaria in Aristotelis Graeca, xviii, pars i, ed. Basse, A.)*, Teubner, Berlin (1900).
26. Debuiche, V. : *Éléments de géométrie dans la Monadologie. Mathématiques et métaphysique chez Leibniz*. In: *II Congreso Iberoamericano Leibniz 2014, Granada* (2019), pp.1-7. <hal-00984120>, last accessed 2019/04/08.
27. Heidegger, M.: *Beiträge zur Philosophie. Vom Ereignis. Gesamtausgabe, III. Abteilung, Band 65*. Vittorio Klostermann, Frankfurt am Main (1989).
28. Béla, A., Endrös, St., Kalka, J., Lobo, S.: *SignsBook – Zeichen setzen in der Kommunikation*. Gabler Verlag, Springer Fachmedien, Wiesbaden (2012).
29. Schiller, Fr.: *On the Aesthetic Education of Man in a Series of Letters*, translated with an introduction by Snell, R. Yale University Press, New Haven, Connecticut (1954).
30. Schiller, Fr.: *Sämtliche Werke, Auf Grund der Originaldrucke herausgegeben von Fricke, G. und Göpfert, H. in Verbindung mit Stubenrauch, H., Band 5*, Hanser Verlag, München (1962³).