# Social Affects Engineering and Ethics

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**Abstract**: This text proposes a multidisciplinary reflection on the subject of ethics, based on philosophical approaches, using Spinoza's work, Ethics, as a foundation. The power of Spinoza's geometric reasoning and deterministic logic, compatible with formal grammars and programming languages, provides a favorable framework for this purpose. In an information society characterized by an abundance of data and a diversity of perspectives, complex thinking is an essential tool for developing an ethical construct that can deal with the uncertainty and contradictions in the field. Acknowledging the natural complexity of ethics in interpersonal relationships, the use of AI techniques appears unavoidable. Artificial intelligence in KOS offers the potential for processing complex questions through the formal modeling of concepts in ethical discourse. By formalizing problems, we hope to unleash the potential of ethical analysis; by addressing complexity analysis, we propose a mechanism for understanding problems and empowering solutions.

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## 1.0 Introduction

Many individuals mistakenly equate rational decision-making with a conscious and deliberate process, believing they have complete control over their choices. However, this conscious aspect constitutes only a fraction of the brain functions engaged in decision-making. This raises questions about the nature of our decisions – Are they driven by fully conscious criteria? Are we truly free in our choices? Are we amply aware of the factors shaping our decisions?

In the perspective of Spinoza (Netherland, 1632-1677), human freedom is not an absolute concept, rather, it emerges as a relative freedom contingent upon our level of consciousness and understanding of reality (Spinoza 1965). He contends that genuine freedom resides in the capacity to comprehend and harmonize with nature, a profound understanding of oneself and the world at large. However, given our inherently relative freedom, our ethical framework is inevitably influenced by deviations from reality. Consequently, we grapple with an essential lack of comprehensive self-knowledge, hindering our evolution as ethical beings.

The principles that govern our Knowledge Organization Systems (KOS) play a pivotal role in safeguarding and preserving our knowledge amidst an increasingly technologically-driven future characterized by the dominance of artificial intelligence and quantum computers. The critical question arises: can we trust our current classification systems to effectively support this paradigmatic transformation? Have we taken the necessary measures to ensure the reliability and integrity of this organization's methods and tools?

These probing inquiries, among numerous others, occupy our consciousness, prompting a re-evaluation of our approach and opening possibilities for an alternative path toward shaping a future where the KOS we envision today possess robust ethical foundations to perpetuate and evolve our collective knowledge.

The future landscape necessitates that KOS embrace adaptability and responsiveness to novel technological advancements. The ethical considerations encompass issues

like data privacy, bias mitigation in AI algorithms, transparency, and accountability in decision-making processes. Ensuring that our KOS align with ethical principles becomes essential to maintain the integrity and trustworthiness of knowledge preservation.

By acknowledging these complex ethical challenges, we pave the way for designing KOS that can withstand the evolving technology. The conscious pursuit of ethical foundations in KOS design equips us to navigate this transformative future while upholding the continuity of our shared knowledge heritage.

Studying ethics from Spinoza's perspective requires recognizing that the determinants of human behavior predominantly stem from collective influences, manifested through institutions and social norms founded on affects (*affectus*).

In his work "*Ethics*", first edition in 1677, Spinoza (1965) expounds upon the mechanics of affects, offering insights into individual ethics, politics, and the complex web of interhuman relations. Within the framework of reason, passions, and society, Spinoza observes the existence of the seed of reason in humanity. However, the development of reason is challenging and relatively rare. On the other hand, the development of passions tends to be spontaneous. Individuals are initially most driven by their passions.

Despite the significance of reason, the domain of passions may hinder its development. Ideally, Spinoza advocates for the constitution of a rational society, recognizing it as the most advantageous arrangement for humanity. However, historical evidence reveals that societies have been formed through empirical experiences, leading to imperfect structures, albeit instrumental in averting perpetual upheavals or catastrophes. Spinoza's perspective on ethics delves into the dynamics of human behavior, emphasizing the collective nature of influences, the intricate interplay of reason and passions, and the societal foundations that have emerged historically to navigate human affairs. By understanding these aspects, we can glean valuable insights into ethical considerations and the complexities of societal development in the context of Knowledge Organization (KO).

The notion that "Man is a god for man," evoked by Thomas Hobbes (1982), a contemporary of Spinoza, also left a profound impact on the political philosophy of their time. This idea sheds light on the understanding that, for humanity, nothing is more advantageous than the application of reason in guiding individual actions, while, conversely, nothing can be more detrimental than succumbing to unchecked passions.

Among the most potent passions that propel human behavior, fear of death holds the foremost position, followed by fear of poverty, fear of pain, and ultimately, fear of censure and shame. Regardless of their ranking, the underlying motivation for these passions is the concern about the opinions others hold of themselves. When individuals compare themselves to others, they may come to believe that no superior god or force exists beyond their own existence.

This concept of human power over others highlights the dynamics of power and submission intricately woven within the realm of knowledge. The awareness of one's standing in relation to others plays a pivotal role in shaping human behavior, as individuals navigate the dynamics of power, influence, and social hierarchies (Chamak 2004).

These ideas provide insights into the intricacies of human interactions and the ways in which knowledge and perception influence the dynamics of power and submission in societal structures. They underscore the importance of understanding human motivations and passions in shaping ethical considerations and social order.

Indeed, the formalism and rationalism intrinsic to Spinoza's thought extend beyond determinism, encompassing powerful ethical concepts applicable across various institutional configurations and epochs. These ideas find resonance in the formalism of formal grammars and Artificial Intelligence (AI) algorithms, prompting profound reflections on the management of human impulses driven by affects and the far-reaching implications of AI's integration into our daily lives.

As humans, we do not possess the agency to select our affects, passions, or desires; rather, we must endure them. This raises intriguing questions regarding the potential programmability of our affects. Could AI-generated impulses influence our behaviors? To what extent are our ethical conventions shaped by social engineering? How might the control or manipulation of our affects impact the structures of KOS?

The introduction of AI into our lives prompts us to consider the potential biases and ethical implications inherent in the patterns followed by KOS structures. Understanding and addressing any potential biases in AI algorithms and KOS design is of paramount importance to ensure fair and equitable outcomes.

## 2.0 A glimpse of freedom and determinism from Spinoza

In exploring freedom and determinism in Spinoza's philosophy, it is crucial to differentiate *determinism* from *fatalism*. Fatalism implies passivity and the belief that everything is predetermined, leaving no room for individual agency. Predeterminism, a form of fatalism, incorporates the notion of destiny, where human actions have no impact on the course of events, and free will is deemed non-existent. In this view, humans are rendered powerless, confined to a state of servitude, and subject to the will of a higher power, often conceptualized as God.

In contrast, Spinoza's determinism posits that everything in existence operates according to the law of cause and effect. Each effect is necessarily linked to a cause, and this causal con-

nection is governed by necessity. In the philosophical sense, necessity signifies what cannot be otherwise. For instance, as you read this article, it is because something prompted you to do so. While numerous possibilities may exist, the choice to read is ultimately yours to exercise. Thus, your decision to act is a consequence of the stimulus (cause) and your act of reading (effect). Alternatively, you could have chosen not to adopt this attitude, but even in that case, a specific cause would have influenced that decision. Spinoza's determinism does not diminish individual responsibility or agency. Instead, it emphasizes the interconnectedness of causes and effects and how they shape our actions and choices. The recognition of determinism in no way negates the importance of human decision-making; rather, it underscores the complex web of influences that inform our behaviors and decisions in the grand tapestry of existence.

In fact, Spinoza's philosophy revolves around the concept that freedom is synonymous with power. In his view, determinism serves as the framework within which human freedom resides, as it is through our actions and activities that we express our power to act. The understanding of determinism empowers individuals to access joy, as joy emerges from comprehending the causes and workings of various phenomena. The affects of joy augment our power to act, thereby enhancing our freedom. Spinoza posits that knowledge plays a pivotal role in making individuals active and free. When people gain knowledge and understanding of the world around them, it leads to a state of joy, which, in turn, amplifies their power to act and express freedom. Additionally, encouraging others to pursue understanding kindles a desire for knowledge, leading them toward experiencing joy and an increased sense of freedom.

However, Spinoza recognizes that human limitations constrain the totality of knowledge accessible to individuals. Since it is practically impossible for humans to attain a comprehensive understanding of the entire universe and grasp all the laws of Nature, their freedom is naturally limited. Nonetheless, he emphasizes the pursuit of knowledge as a means of expanding one's freedom and enhancing the power to act, even within the constraints of finite human understanding. The quest for knowledge and the active engagement with the world enable individuals to experience a fraction of their freedom and thereby manifest their power to act in the pursuit of joy and well-being.

The essence of Spinoza's philosophy on free will interplays between reason, passion, and ethics. He contends that our perception of free will may be an illusion, as we often lack awareness of the underlying causes and influences that shape our affects and thoughts. While individuals may believe they have complete control over their actions, the reality is that we are subject to a multitude of reasons that propel us to act, and our affects, passions, and desires hold sway over us.

Modern societies build their cultural and ethical foundations on the premise of individual responsibility, which is inherently tied to the notion of free will. Yet, Spinoza's determinism emphasizes that all actions are subject to the law of causality, leaving no room for actions to escape this rule.

Ethics, from Spinoza's perspective, involves becoming conscious of the causes that drive our actions, engaging in contemplation without judgment. This awareness allows individuals to attain freedom by understanding their determinants and escaping the enslavement of passions. Reason becomes the liberating force, granting humans the power to act independently and make informed choices.

According to Gilles Deleuze (1980a, 1980b), in Spinoza's philosophy man is a being of power driven by an internal force called the "*conatus*," which animates all aspects of existence and compels individuals to persevere in their being. The *conatus* can be understood as an innate desire to live, which propels us to act in ways that promote our own well-being and survival. This concept is closely linked to ideas of desire and power and holds a significant role in Spinoza's ethical and political understanding. By recognizing the influence of the *conatus*, individuals can gain insights into their desires and aspirations and how these desires influence their behaviors and decisions. Spinoza's philosophy encourages us to embrace this fundamental desire for life and well-being as a guiding force in our pursuit of ethical and political ideals. In his pursuit of joy, man finds a profound connection with eternity, aligning his will with the world's. This alignment leads him to act in harmony with reason, which grants him power over both his body and mind. To fully grasp this transformative experience, one must delve into the realm of unconscious thought and the enigmatic unity of body and mind. As expressed by Gilles Deleuze (1980b), the fusion of the body and mind, the two inherently linked components, unveils a profound oneness within the individual. This interconnectedness forms the basis for a revelatory experience, where man attains joy by tapping into his inner power and aligning it with the universal forces. The power derived from reason empowers the individual to act purposefully and consciously in a way that elevates his life experience.

Spinoza says that free will is not hindered by the fact that our choices are determined by previous causes and external influences. Even though our decisions may be influenced by past events and external factors, we still possess the freedom to make those choices based on our own will and desires. In essence, free will grants us the ability to make decisions in alignment with our inner motivations, even if those motivations have been conditioned by external forces. While Spinoza acknowledges that external influences and past events impact our decision-making, he emphasizes the importance of acting in accordance with our own understanding of freedom and goodness, despite the complexities of causality and external influences.

In contrast to Spinoza's view from the XVII century, Philippe Guillemant's modern physical view of free will adds a fascinating dimension to the classical debate between determinism and free will (Guillemant and Morisson 2016). While acknowledging that certain future events may be determined by past causes and natural laws, Guillemant proposes that the present moment remains open to conscious choices and actions that can influence the unfolding of the future. According to his theory, although the past may have set certain events in motion, the future is not entirely fixed and rigid. There is still a degree of flexibility or "leeway" that allows individuals to exercise their free will and influence the course of future events through their choices and actions in the present.

In this view, the future is not entirely predetermined and closed, but rather, it remains open and malleable to a certain extent. By making conscious decisions and acting in accordance with their intentions, individuals can actively participate in shaping the outcomes of their lives and the world around them. This concept of free will situated within determinism presents an interesting reconciliation between the seemingly opposing notions. It suggests that while certain events may be beyond our control due to past causality and natural laws, we still retain agency and the ability to make choices that can impact the direction in which our lives and the future unfold.

Indeed, the ethical choices we make in the present regarding KOS, classification systems, or the structuring of information reflect our desires for free will and our capacity to exercise agency in designing the systems that will influence how knowledge is organized and accessed. Our ethical decisions go beyond mere technical or practical considerations. They reflect our values, beliefs, and understanding of the world. How we structure and classify information can significantly impact how future generations access, share, and interpret knowledge.

However, our ethical choices are not isolated from external influences and societal decisions. The societal codes, premises, and norms of our time can shape and influence the ethical decisions we make in KO. The acceptance and inclusion of certain concepts or references in our KOS can be influenced by prevailing ideologies and power structures in society. This is a recursive process where the choices we make now will not only shape our present but also influence future generations. The decisions we make today will become the foundation upon which future generations build their understanding of knowledge and information.

That is why it is important to reflect on how KOS can shape our future. As custodians of knowledge, we are responsible for making ethical decisions that promote inclusivity, accuracy, transparency and respect for diverse perspectives.

## 3.0 Ethics and life in society

Language indeed plays a crucial role in determining how we perceive and understand the world, including ethical values and practices. It serves as a powerful tool for transmitting knowledge, ideas, and experiences from one generation to another. Through teaching, storytelling, media communication, and social interactions, ethical values are communicated and shared, allowing for the continuity and evolution of ethical practices over time.

Language not only conveys information but also defines our identities and shapes our relationships with power, desire, and other affects. It enables us to express the fundamental principle of *conatus*, the driving force that animates all living beings. Yet, language has its limitations, as it can only serve as a container for the infinite complexity of existence, encapsulating the vastness of human experience within its finite framework.

Despite its limitations, language remains a crucial tool for expressing and understanding reality. It allows us to communicate our perceptions, experiences, ideas, and knowledge, enabling us to conceptualize reality and develop theories to comprehend natural and social phenomena.

However, the understanding of reality remains a complex and subjective process. Our perceptions and interpretations of reality are influenced by various factors such as sensory perception, lived experiences, intuition, and reason. As a result, we cannot fully grasp the complete causes of what happens to us, and subjectivity comes into play as we attempt to navigate through the intricacies of reality. Language, with its inherent subjectivity (Ducrot 1972), introduces both precision and imprecision into communication. It can subvert our expectations and introduce uncertainty in the decoding of information and may not fully capture the complexities of communication when subjectivity and interpretation are involved (Shannon and Weaver 1949, Motulsky 1977). Embracing this complexity can enrich our ethical reflections and foster more nuanced and inclusive perspectives.

## 4.0 The unconscious is a language

The definition of reality (Brémaud 2013) is indeed a complex and philosophical question that has puzzled thinkers for centuries. There are different perspectives on what can be considered real. From an objective standpoint, reality is often defined as that which exists independently of our perception or understanding. This view suggests that there is an external world that exists objectively, and our perceptions or understanding of it may be imperfect or limited. In this sense, the conscious experience of individuals may not encompass the entirety of what is objectively real.

On the other hand, some philosophical perspectives emphasize the importance of subjective experience in defining reality. From this viewpoint, our conscious experience of the world is the interpretative reality around us, and each individual's subjective experience contributes to their own unique reality. This concept aligns with the notion of multiple perspectives and the idea that reality can be understood through various subjective lenses.

The exploration of the unconscious and its relation to language and desire, as presented by Freud (2013) and further elaborated by Lacan (1960), indeed adds another layer of complexity to the understanding of human consciousness and behavior. According to Freud, a significant portion of our knowledge and motivations reside in the unconscious, outside of our conscious awareness. This means that much of what influences our thoughts, feelings, and actions may not be readily accessible to us.

Language, as a powerful tool of communication and expression, plays a crucial role in shaping our unconscious as well as conscious thoughts and desires. Both our conscious and unconscious minds are structured by language, and we are constantly exposed to its potentialities. Our relationship with language can be fraught with complexity, and it can influence how we perceive reality and navigate our desires.

Lacan's insights (Lacan 1958) on the relationship between language and desire further emphasize the role of language in constructing our identities and desires. He posits that we are divided beings, shaped by language, and our desires are not directed towards objects but rather towards the desire of the other. In this context, ethical behavior may be understood as conforming to the desires and norms of society, but the question arises: How do we know the true origins of our desires? Are our desires truly our own, or are they influenced and conditioned by external factors, including societal expectations and language itself?

The concept of neurosis, as described by Freud and Lacan, illustrates the struggle to recognize and confront our true desires, leading to states of anxiety and avoidance. We may be taught how to desire, and our desires might be influenced by external influences, leading to a constant negotiation between language and reality.

Lacan's theory of the social bond (Lacan 1966) based on the theory of discourse suggests that our interactions with others are founded on fundamental impossibilities, as the real is inherently impossible to fully grasp or articulate. Our exchanges with others involve a complex interplay of desires and attempts to influence one another's desires. This intricate web of interactions shapes our individual truths and contributes to our understanding of reality. Lacan's theory of social ties highlights the fundamental incompleteness and division of the human subject, leading individuals to seek connection and recognition through social bonds. These social ties serve as a way for individuals to fill their perceived lack of being and to construct their identities in relation to others. However, these bonds are not without tension and conflict, as the recognition of the individual as a subject is an ongoing and complex issue in social relations.

This notion of fundamental incompleteness and division is reflected in various aspects of our interactions with KOS, including material catalogs and bibliographic databases. The choices made in cataloging and organizing information can privilege certain sources over others, influencing the desires and choices of users. Algorithms and citation indexes, for example, may prioritize specific sources without necessarily considering the quality of their content. This can result in certain sources being more prominently featured, shaping users' desires and perceptions of what is valuable or authoritative. Behind these seemingly objective processes, there are rules and mechanisms that contribute to shaping users' desires and choices. The organization and presentation of information in KOS can influence how users perceive and engage with information. By making certain sources more visible and accessible, KOS can shape users' desires and guide their interactions with information.

The parallels between Lacan's theory and the dynamics of KO highlight the intricate interplay between individuals, information, and technology. The ways in which information is organized and presented can influence users' desires, perceptions, and decision-making processes, underscoring the ethical implications of KO in shaping our understanding of reality and the choices we make.

## 5.0 An empire within an empire

In Lacan's view (Lacan 1966), one of the significant changes in contemporary society is the transformation of the principle of authority and the process of socialization. Traditionally, socialization involved learning obedience and internalizing the rules and norms imposed by vertically hierarchical institutions. However, Lacan observes that in our contemporary context, this principle of authority is being disrupted, leading to a dissonance in the grammar of speech and language. This shift in societal values and norms is reflected in the way people express themselves and interact with others. This dissonance can lead to feelings of uncertainty and confusion, as people navigate a more fluid and decentralized social landscape. As language plays a central role in constructing social reality and identity, the dissonance in speech and communication reflects the broader shifts in social dynamics and power structures. The way people communicate, express their desires, and negotiate their relationships with others may reflect a new emphasis on individual agency and autonomy.

The Freudian theory (Freud 2013) reveals that our thoughts and actions often serve as substitutes for our repressed desires, concealing an impossible reality. Edward

Bernays (2007), inspired by Freud's ideas, introduced the concept of symbolic variables to associate desires with legitimate actions. He proposed creating virtual desires whose actions would be perceived as legitimate. This approach allowed for the manipulation of individual consciousness, making individuals unwitting accomplices in their own domination. Bernays demonstrated that by manipulating the consciousness of multiple individuals, as described in his book "Propaganda" (Bernays 2007 first Ed. 1928), shared representations could be created to influence public opinion and shape consensus. This technique, known as the manufacturing of consent, involves presenting an idea or proposal as the only acceptable option to gain widespread acceptance among the population. Manipulation in this context is a form of power without overt coercion, as individuals feel a sense of freedom while being influenced and their desires shaped.

The realm of consumption operates on the principle of converting desires into purchasing actions, appealing directly to our impulses and satisfaction of desires. While humans desire freedom, they are often subject to their impulses, leading to a reversal of values. Spinoza's view suggests that power is attained through reason, but Bernays focused on emotions rather than rationality, employing various techniques to manipulate opinions.

Spinoza's perspective highlights how institutions shape and control the *potentia multitudinis*[1]. Bourdieu (1998), in line with Spinoza's ideas, argues that individuals are manufactured and shaped by the state, leading them to voluntarily submit to authority. Considering the complexity of our affects and the difficulty of discerning their causes, we may struggle to fully understand and materialize our ethical aspirations. As librarians, archivists, or museologists, comprehending how institutional KOS work is essential to practice impartiality effectively. Understanding the functioning of KOS helps us ensure ethical practices and safeguards, promoting transparency and responsible management of information. As we evolve in the face of technological advancements and changing societal norms, ensuring ethical behavior and the preservation of impartiality remains critical.

Drawing from the concepts of affects engineering, Herman and Chomsky's (1988) work "Manufacturing Consent" sheds light on how the media and political elites use sophisticated techniques to manipulate people's emotions and feelings. By employing communication and persuasion strategies, such as fear, anxiety, anger, frustration, or hope, they influence individuals' opinions and behaviors to accept policies that may not align with their true interests. Understanding this social engineering is crucial to analyse and criticize the mechanisms of power and political manipulation.

Undoubtedly, the advent of AI and advanced technologies has raised significant ethical concerns, particularly regarding the potential for mass manipulation and the exploitation of individuals' emotions and behaviors. Addressing the ethical implications of AI-driven social affects engineering requires a multifaceted approach, encompassing regulations, transparency, accountability, ethical guidelines, and digital literacy initiatives. Ben Goertzel's (2001, 2021) work has highlighted the importance of addressing the social and ethical implications of AI. AI systems can be both beneficial and concerning because of their ability to process vast amounts of data. Furthermore, the use of AI in affects engineering raises important ethical questions about the manipulation of people's emotions and behaviors. By understanding the potential risks and delving into these grey areas, we can develop appropriate and nuanced approaches that take into account the intricacies of AI's impact on society. As Jung (2014, 265) pointed out, "one does not become enlightened by imagining figures of light, but by making the darkness conscious".

The technologies that underlie KOS often incorporate AI-derived strategies and may not always be visible to users. The aspiration for convenience, speed, and efficiency in information processing has led individuals to widely accept these technologies, sometimes without fully understanding their implications. Recognizing and understanding the biases inherent in AI-driven KOS is crucial in maintaining awareness of their specificities and potential effects on the users' communities.

The complexities of these biases are numerous and intertwined, making it challenging for actors, designers, or users of KOS to fully perceive their presence and impact. The interplay of various factors can obstruct the complete awareness of the ethical considerations involved. It requires continuous research, evaluation, and refinement of KOS to ensure they remain aligned with ethical principles and societal values. Transparent disclosure of AI mechanisms and strategies in KOS is essential in empowering users to make conscious decisions about the information they consume and utilize.

## 6.0 Ethics and complex thinking

Edgar Morin (2015; Le Moigne 2008) expounds on the interconnectedness of ethical concepts and human relationships through his theory of complex thinking. According to Morin, complex thinking embodies an epistemological approach that seeks to comprehend reality in its entirety, embracing the intricate interplay of transdisciplinary perspectives that transcend the confines of individual disciplines. This inclusive approach enables the consideration of phenomena in their multifaceted and diverse manifestations, prompting a critical examination of entrenched certainties, and fostering receptiveness to the uncertainty and unpredictability inherent in reality.

The aptitude to model and process intricate instances pertains to the capability of computer systems and algo-

rithms to effectively handle intricate datasets and derive valuable insights from them. This sophisticated data processing involves employing cutting-edge techniques such as artificial intelligence, machine learning, deep learning, and real-time data analytics. Given the contemporary drive among all societal stakeholders to leverage data to enhance their comprehension of reality, the potential to model and process complex instances has attained paramount significance.

Complex thinking does not prescribe ready-made solutions; rather, it fosters independent thought by introducing new perspectives. In the view of Edgard Morin (2015), a society characterized by abundant freedom is inherently complex. Nevertheless, as complexity intensifies, our awareness of the underlying causes that shape our experiences diminishes, leading us to navigate the realms of causality through approximation or even intuition. The farther we stray from reason, the more we find ourselves trapped in subjugation. Given that we cannot escape the ethical imperative of promoting societal well-being, the outcomes of ethical actions become probabilistic due to the myriad variables at play (Morin and Du Seuil 2005). While intentions may be noble, the effects of our actions remain subject to probabilities. The solutions offered by AI and big data, though valuable, are limited by the capabilities and computational power of machines.

According to Morin (2015), the resolution to this dilemma lies in solidarity. A higher degree of solidarity among individuals allows freedom to flourish. What hinders humanity from fully embracing this freedom is the disconnect between knowledge and ethics (Biausser 2005). Conversely, for Spinoza, ethics comprises the very comprehension of causes and effects through rational reasoning.

Spinoza's ingenious application of geometric reasoning to fundamental ethical concepts and his advocacy for determinism rendered ethics accessible to human understanding. However, in the current landscape, information management exceeds our intellectual capacities. Thus, we confront the question of to what extent we should submit to technology to govern human ethics. Faced with the unfathomable complexity of information, do we willingly accept the manufacturing of our emotions to render them comprehensible on a human level?

The potency of algorithms and Spinoza's concept of "*potentia multitudinis*" both revolve around the collective power and its capacity to generate significant effects through joint actions. Similarly, modern algorithms can be regarded as embodiments of collective power, as they possess the ability to process vast volumes of data and yield influential outcomes. Affects manipulation delves into the mechanisms by which emotions, feelings, and desires can be artificially created or modified to influence individuals' decisions and behaviors. Conversely, the engineering of reason concerns the construction or imposition of ideas, beliefs, and values upon individuals or groups, often accomplished through means like education, propaganda, or information manipulation. In each instance, the goal is to manipulate or mold the perceptions and behaviors of individuals, employing methods that may range from subtle persuasion to coercive techniques. However, it is opportune to recognize that these techniques of communication, persuasion, and education indeed constitute essential and legitimate activities within the realms of social and political life.

For Edgar Morin (2005, Le Moigne 2008), the crux of complex thinking lies in its intrinsic connection with ethics, encapsulated within a worldview that embraces diversity, plurality, contradiction, and uncertainty. He posits that complex thinking represents knowledge of responsibility and openness to others, recognizing that reality transcends the confines of our perspectives and perceptions, always presenting itself as broader and more intricate. As we embrace complex thinking, we become mindful of our interdependence and co-responsibility in shaping the world.

Moreover, complex thinking embodies ethical reasoning when it underscores the imperative to contemplate the consequences of our actions and decisions in the long term, considering their impacts on diversity, plurality, solidarity, and co-responsibility. Through the ethical dimensions of our choices, complex thinking guides us to a more holistic understanding of the world and the ethical ramifications of our conduct, promoting a greater sense of responsibility toward the interconnected fabric of human existence.

In the context of elucidating complex thinking, Morin (Le Moigne 2008) relies on a set of fundamental principles to exemplify the capacity to model and process intricate instances, wherein the power of algorithms takes the place of Spinoza's "*potentia multitudinis*. By manipulating the causes of affects, the production of reason is facilitated. Morin proceeds to illustrate how codetermination is mediated by institutions, and how the multi-dimensionality of a situation evolves into a strategy of consent when the observer's perspective is considered. To this end, he applies the dialogical principle by juxtaposing two complementary truths. Also, he employs Pascal's (*apud* Morin 1996, 14) statement that "the opposite of a truth is not necessarily an error; it can be a contrary truth." This approach highlights the intricacies and nuanced interplay of divergent perspectives, embracing a broader understanding of truth that goes beyond a binary paradigm. By applying the principle of recursion, wherein the part exists within the whole, and vice versa, it becomes evident that our affects possess underlying reasons, but these very affects can also serve as sources for generating new reasons and so forth. Consequently, as there exists no effect without a cause, a reason can be consciously fashioned to engender tailor-made affects in an infinitely interwoven manner. Additionally, the principle of "hologram-

matic" thinking posits that the whole contains the essence of its parts, and conversely, each part encapsulates the essence of the whole. A system is an integrated whole comprising diverse and distinct components. Unity encompasses diversity, and diversity is inherently inseparable from unity. When contemplating the concept of emergences, a whole can surpass the mere summation of its parts, yielding emergent properties and phenomena. However, it is equally possible for the whole to fall short of the collective potential of its parts when certain qualities of the components are suppressed or inhibited within the overarching system. In either scenario, individual autonomy proves inadequate, highlighting the essential interdependence and interconnectedness of the various elements within a complex system.

Indeed, a human being is inherently a social being, existing simultaneously as an individual, a member of a species, and a part of a society. This concept of the individual-species-society trinity originated from the work of the German sociologist Ferdinand Tönnies (2010, Berlan 2012) during the early 20th century. According to Tönnies, the individual embodies the unique and singular aspect of each human, distinguishing them from others. In contrast, the concept of species refers to all biological and cultural characteristics that are shared among all human beings as members of the same animal species. Finally, society represents the social group in which an individual is embedded, defining the norms, values, and acceptable behaviors for its members. Consequently, a comprehensive understanding of a human being necessitates considering these three interconnected aspects. The individual comprises both a distinctive and social being, whose actions and behaviors are influenced by their association with a species and a society. Similarly, society can only be comprehended within the context of its relationship with the individual and the species, as they constitute and are influenced by it. The trinity of individual-species-society underscores the intricacy of human nature and emphasizes the importance of considering all dimensions of the human experience to grasp their place in the world. This interplay of individual, species, and society highlights how these three dimensions synergistically shape the lives and behaviors of human beings.

In the realm of ethics, the central concern frequently revolves around ascertaining what is universally deemed good or right for all individuals, transcending the confines of personal desires or motivations. The exponential surge in information production we are currently witnessing necessitates a profound reconsideration of truth reconstruction within the context of our ethical considerations. While perceptions of reality may be subjective, this does not negate the existence of shared criteria or principles that can steer our comprehension of what is good and just. Beneath the surface of cultural and individual disparities, a consensus often emerges concerning certain fundamental values and principles. These core values serve as guiding beacons, facilitating a collective pursuit of moral alignment and ethical conduct amid the intricacies of contemporary human existence.

Yet, these universal values and principles serve as a shared foundation, offering a common basis for discerning what is deemed good and just across diverse situations and contexts. It is significant to recognize that consensus extends beyond a mere numerical majority. The prevalence of a particular opinion or stance among the majority does not inherently guarantee its correctness or appropriateness. Similarly, the presence of a dissenting minority does not automatically render their perspective incorrect. Instead, consensus entails a concerted effort to seek mutual agreement or approval among stakeholders, rooted in open dialogue and genuine understanding. This approach reflects a commitment to fostering a sense of collective responsibility and consideration for the diverse needs and aspirations of all individuals and groups involved.

Utterly, ethics transcends the confines of consensus, and its practice can persist even in the absence of unanimous agreement. It is not solely reliant on adhering to norms or following majority decisions; rather, ethics involves a continual quest to determine what is deemed good and just in specific circumstances. The dynamic and evolving nature of ethics becomes apparent as it responds to shifts in values, norms, and contexts.

Ethics, as a fluid process, is open to transformation in the face of changing societal paradigms. This adaptability may result in alterations in consensus or the emergence of fresh perspectives and ideas regarding what constitutes the good and just. Such evolution in ethical understanding can emerge due to heightened awareness, enhanced dialogue, and evolving social norms. As our understanding of complex ethical issues deepens, it leads to ongoing reflection and reassessment of ethical principles and norms.

The practice of ethics requires an active engagement with the complexities and nuances of various situations, acknowledging that there may not always be a clear-cut answer. It involves grappling with diverse viewpoints, recognizing the interplay of multiple factors, and discerning what actions align with a sense of integrity and moral responsibility. The contemplation of ethics highlights the need for AI tools that can aid in aligning our actions with social norms and consensus. In an increasingly complex and rapidly changing world, the assistance of AI tools becomes invaluable for navigating intricate ethical dilemmas and decision-making processes. These tools possess the capability to assimilate vast amounts of information, consider a myriad of factors, and generate tailored analyses to support informed and principled decision-making. It can weigh multiple variables, assess potential consequences, and ascertain the alignment of decisions with the ethical and moral values that serve as the foundation of our actions.

Spinoza's deterministic logic offers a foundational framework for the design of KOS that consider intricate interactions and interdependencies among various factors. It is noteworthy that Spinoza's logical principles were formulated within a moral and political philosophical context, employing a geometric order of demonstration that proves particularly suitable for intelligent system design. Indeed, Spinoza's deterministic logic revolves around the cause-and-effect concept, wherein each event emerges as a consequence of antecedent causes. This logical approach facilitates modeling the intricate interdependencies between factors, enabling the system to encompass all variables that might influence a given situation. Moreover, since ethics play a significant role, not only must the complex interactions between factors be taken into account, but also the values and ethical principles that should guide the system's functioning. Consequently, Spinoza's emphasis on the power and interconnectivity of nature offers inspiration for crafting KOS that aim to optimize efficiency and cooperation while upholding social bonds and ethical considerations at its core, thereby ensuring that the system is not exploited for detrimental purposes.

It is worth noting that within the realm of classification, numerous authors have advocated the implementation of warrants as a means to safeguard the integrity of information processes (Barité 2018). Given that the system inherently involves reasoning and is susceptible to deviations from merit, justice, or ethical compliance, such safeguards would provide an additional layer of integrity to the intelligent system concerning concept analysis, learning, and terminological relationships. This approach aligns with Edgar Morin's principles of recursion and "hologrammatics", which advocate the inclusion of interactions and feedback loops between the different components of a complex system. The inclusion of warrants in KOS can greatly improve the reliability and transparency of systems while preserving ethical and moral values.

## 7.0 Conclusion

The concept of free will remains an intricate and multifaceted subject. While our decisions often stem from conscious considerations, it is essential to acknowledge that our emotions can be influenced involuntarily, and our impulses may be triggered by artificial emotional responses. Moreover, given the vulnerability of our ethical conventions to social engineering operations, it becomes imperative to gain a profound understanding of the underlying motivations that drive our actions. Consequently, cultivating our emotional awareness becomes a crucial enterprise.

Spinoza contends that true freedom lies in comprehending the causes that determine our actions rather than in absolute free will. We attain awareness of our deliberations to the extent that we grasp the influencing factors; nonetheless, our actions inevitably remain determined by these causes, irrespective of our conscious acknowledgment.

In today's increasingly technologically reliant world, establishing safeguards to ensure the integrity and reliability of KO becomes of paramount importance. This necessitates our ability to adapt to emerging technologies and implement measures to safeguard the trustworthiness of knowledge organization within this evolving technological landscape.

The interconnection between our emotions, impulses, ethical conventions, and KOS is a complex matter influenced by a multitude of intricate factors. Addressing concerns in this domain requires a comprehensive exploration of individual and societal dimensions, necessitating contextual understanding. Diverse perspectives may coexist, contingent upon varying areas of knowledge and adopted approaches. As we confront the burgeoning production of information and the intricate web of referential relationships it generates, KOS is shaped by conscious and unconscious needs, aspirations, social norms, and cultural expectations.

Ultimately, the intricate nature of contemporary societies and the rapid pace of technological and social transformations present challenges in consistently adhering to ethical aspirations concerning the future of KOS. This implies a perpetual commitment to self-reflection, ethical education, a willingness to question, and a determination to act in alignment with our core values. Navigating an ethically grounded reality necessitates individual and collective dedication to promoting ethical values, while acknowledging the inherent complexities and challenges that accompany this endeavour.

## Endnote

1. The term "*potentia multitudinis*" literally means "power of the multitude". According to Spinoza, the multitude is composed of free and equal individuals, who are able to govern themselves without the need for external power to direct them. *Potentia multitudinis,* therefore, refers to the political power of the multitude as such, that is, to its ability to self-organize and govern itself autonomously.

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