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Genealogy of Organizational Architecture: Transhumanistic invasion of Intellectual Space

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Abstract

The notion of organizational space has taken many turns throughout its evolutionary existence; after having discussed geographical, physical, mechanical and personal space; now a new body of knowledge is being generated to encircle and comprehend the concept of intellectual space. Transhumanism has influenced organizations round the globe and furthermore the cognitive process of knowledge workers across organizations. This paper is an initial attempt to look into these impressions and their impact on personal progression of an individual in a holistic manner. It is evident that excessive transhumanistic initiatives have overpowered natural mental functions and a sheer sense of social isolation seems prevailing that hampers inter-personal relationships and posits damaging outcomes in the long run. Fast track technological automation has not left little room for working professionals to sustain mind-body relation as their required intellectual space is being overwhelmed by artificial intelligence.

Keywords: Architecture; space; transhumanism; intellect; isolation; society; knowledge workers.

1. Introduction

The term organizational architecture was first coined in the book Organizational Architecture: Designs for Changing Organizations [1]. In another book, Nadler in association with his other associates from Delta Consulting group took the matter further, he manifested the concept of organizational architecture in a novel fashion and link with structure, strategies and systems that comprise whole organization. Harvard Business Review (HBR) published an interview of Xerox's CEO and Chairman Paul Allaire in which he mentioned the role of organizational architecture with competitive realities [2]. Large scale organizational transformation is a close outcome of well knitted organizational design that expressively changes its performance [3,4].

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Organizational architecture can be understood in literal and metaphorical sense; in its literal sense, it depicts the structure of an organization, built-in environment and overall design (roles, functions, operations and chain of command) [5,6]. On the other hand, in its metaphorical sense; it reflects organizational space, the impression and influence of spatial environment on mind, physical health and behavior of humans working in an organization [7,8]. In the very right perspective of the scope of this paper, we keep our further discussion enveloped across metaphorical side of Organizational architecture, Organizational space.

1.1. Organizational Space

The concept of organizational space is intrinsically an area of scientific research which incorporates number of academic disciplines as philosophy, psychology, sociology and anthropology etc. It integrates these disciplines across organization through a process of thinking out of defined boundaries [9]; it is precisely thinking out of the box that exemplifies a novel and a new perspective of thinking [10] that assimilates human productive behavior with organizational aesthetics with close reference to organizational architecture. In addition to it, this research area further incorporates environmental psychology coupled with architecture, business and management sciences. The trio of organization, architecture and management further exemplifies the multi-dimensional and multi-faceted linkage of architectural perspective of organization [11] with individual and organization in a holistic manner. Furthermore, organizational space evenly influences the personal development (health, mind, behavior) of individuals working in the organization [12].

Organizational space encircles three core dimensions of environment; (1) the physical environment [encompasses all physical and tangible entities in an organization], (2) the spatial environment that [includes the circumstance, context and perspective in which human function in an organization] and (3) architectural environment that [consists of the physical facility in which an organization operates] [13]. Organizations create space for its people that further support individual's creativity and innovation. In this connection, the most significant is natural space that surrounds organic and in-organic species and equally influences them, this space comprises of physical settings and general living conditions which impress humans and their inner abilities since that humans are active part of natural space that's why essential characteristics of natural space enfolds humans in a most powerful fashion [14].

Aesthetic interventions (indoor plants, art work, wide working area, noise control, changing wall colors) in natural space, across organization, leave positive impact on overall outcome of organization [15]. It evenly impresses an individual in number of ways as reducing anxiety and stress levels, increasing attention and productivity, streamlining organizational interfaces and minimizing work place loses [16]. These interferences are encouraging since they call for a reduced amount of direct and cognizant contribution from employees, are comparatively implemented on fast track, and are often lesser in budget paralleled to individual-focused behavioral modification exertions [17].

Social Settings across organizations count a lot; when people interact with other people around them in a natural, congenial and friendly environment. Culture is even a prominent part of social settings as it stimulates thinking process and motivates an individual to come out with more creative ideas and innovative concepts [18].

Homogeneous Social environment creates solidarity among people; they tend to work together, help one another, communicate openly and form social groups, this social grouping gives way to social solidarity that further energizes and inspires human relationships. This social environment is based upon the force that exists in our minds and keeps us enthusiastic and alive, Emile Durkheim captioned this force as religion/religious beliefs that provide emotional security needed to establish a plausible balance between individual and social environment [19].

The notion of intellectual space, “data representation of the essential properties and states, as well as the relationship with the external world of the territory where people live and which is developed” [20]; encompasses cognitive development of an individual. Cognition can be defined as, "the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses"[21]. Cognitive process is holistic performance of fused cognitive commotion that incorporates perception, memory, reasoning and judgement [22]. Aristotle initiated research on human cognitive development keeping close focus on inner mental functioning and its impact on human experiences; he encircled three core cognitive areas as perception, memory and mental imagery [23].

Cognitive development is basically mental evolution [24] that requires a balanced and consistent relationship with corresponding environment; precisely, it can be manifested that mental evolution is seriously and deeply influenced by social and natural environment [25]. Descartes mentioned the need of mind-body relation and exemplified that unless a composite mind-body connection is there [26], the possibility of new knowledge representation and generation is out of discussion. Intellectual space is the repository of cognitive development and they are directly proportional to one another. Persistent, peaceful, congenial and pleasant working environment ensures the possibility of extensive mental evolution on lasting basis.

Intellectual space is sharply influenced by natural space in a subjective manner, but with reference to an organization where intellectual spaces seem confined and objective; the impression of natural space on intellectual space appears more dominating and relevant. Natural space stimulates physical, emotional and mental faculties of an individual and the cognitive abilities of an individual; it further offers a plausibly balanced surrounding that enables an individual to establish a linear connection with prevailing issues and problems. In the same manner, intellectual space even paves the way for reflective space that provides ample options for individual contemplation and single-mindedness on a project or task in an incessant manner [27].

1.2 Contingencies and Intellectual Space

Organizations are coherent network of intertwined contingencies, interferences and performances [28,29]. The most important facet in this network is contingencies as these are natural, technological, functional and operational conditions in which an organization perform or work and they continuously influence the individual’s productivity and organizational performance in general [30,31]. The influence of these contingencies on individual is more vivid and deep as they impress the social connections between individuals and spatial work environment that ensures human’s productivity [32,33]. Contingency theory advocates that there is no ideal, best or planned way to run an organization, take decisions or take forward an enterprise; rather, the optimal action plan seems

dependent upon internal and external circumstances and effective leadership is adaptive in terms of prevailing situation to select the right style [34,35].

In fact, organizations are open systems that are administered, managed and controlled in the perspective of related environment [36,37] and most optimal management of an organization depends upon the level of understanding with the nature of environment related to an organization [38,39]. The relatedness of individuals, in an organization, with organizational processes and functions is very intricate and complex that incorporates physical and metaphysical aspects. Organizational architectures play pivotal role in streamlining this relationship as the design and structure of organization evenly influences the physical and metaphysical attributes of an individual. There is an imperative connection amidst contingencies and organizational architecture; the relatedness between structural contingency theory and organizational structure theory further cements this relationship as the notion of intellectual space seems sharply dependent upon balancing these two [40,41].

Technological conditions are more vibrant, dynamic and astounding with larger impact upon organizational architecture and intellectual space. Rapid technological advancements have drastically altered the overall organizational environment and shattered intellectual space in and around an organization by automating physical, functional and operational conditions with the claim to nourish human productivity and progress. It is for sure that technological automation and rapid advancements have influenced human lives in number of dimensions [42] but it has consequently conquered the space needed for cognitive development of an individual that requires peaceful and serene intellectual space.

1.3 Transhumanistic Invasion and Intellectual Space

Transhumanists believe in transforming human conditions by evolving and creating broadly accessible refined technologies to momentously enrich human intelligence and psychology [43]. The most focal transhumanist proposal is that human beings may ultimately be able to transmute themselves into changed beings with capabilities so impressively stretched from the existing circumstance to touch the distinction of post human beings [44]. This thesis is further supported by the notion of technological singularity that advocates the possibility of inventing artificial super intelligent technology that would result in profound modification in human civilization [45]. I. J. Good guessed that artificial general intelligence would bring about an intelligence explosion and enable human beings to come up with a machine more intelligent than human itself with refined problem-solving and decision-making skills [46].

Prompt digitalization seems expanding human abilities and distracting centuries-old human undertakings. Code driven systems and technological automation have altogether transformed the dynamics of individual's and social life. This on-slaught of technology is coated with the promise of opening unimagined prospects coupled with unparalleled threats [47]. Transhumanists appear firm in their commitment to automate every single aspect of human life and by way of doing so, they are hopeful that they would provide ample chances to humans to select a customized future [48]. Unfortunately, in this quest; they are marginalizing human identity, social relationships,

inter-personal communications and numerous other aspects of an individual's active life.

Imagine the next decade or decade after next, when super-intelligent machines would challenge the human existence and left no choice for humans to survive with their natural abilities and capacities. Humans are turning out to be a pattern rather than a person. The 'Ego Theory' of leadership exemplifies that – a person's nature is her —soul or non-physical mind, and this mind or soul can survive the death of the body [49]. Furthermore, the Psychological Continuity Theory asserts, "you are essentially your memories and ability to reflect on yourself and more generally, your overall psychological configuration" [50]. This psychological configuration is rapidly being taken over by technological advancements, man is in the close circuit of losing his identity. Technology is an objective social phenomenon and you cannot name any technology that has been invented or introduced without keeping specific objective or use in mind; on the other hand, cognitive development is a natural metal functioning that differentiates human from other genes and species. Interlocking these two and hope for a better union is a utopian ideology that eventually fade human existence as humans.

It is to be understood that cognitive process is subjective and natural while technology is artificial and objective; when we pull these two notions together then individual subjectivity is taken overwhelmingly by technological objectiveness. The hurried modernization in technology is blowing up and so is the level of frustration among those who are at the users' end. Swift advancements and pace of change is pushing human mind to jump into objective mode, like taking dictation to think excessively without any choice to go out of this circle [51,52]. The process of integrating and escalating human's intellectual prospect is characterized as cognitive development. Humans possess an intricate biological configuration that engrosses scores of stimuli from related environment, stimuli being the connections that are capable to yield skills and knowledge. Knowledge bearers always exist in our environment but knowledge is to be trailed with passion and vehemence without any compulsion as learning is purely a natural process [53].

Cognitive psychology makes it clear that learning process within a human begins with sense perception (empiricism); acquiring and converting that data into information and consequently after application this piece of information turns out to be knowledge based upon concrete experimentation. This whole process is not mechanical but mental as learning takes place through internal codification of mental structure [54]. This mental codification needs quiet and comfortable metaphysical space; every human is a complete compendium of mind and Body (dualism) with identified texture of individuality that cannot be generalized [55] since that, material body and metaphysical mind needs balance in order to perform. Plato captioned in his theory of Forms that soul is metaphysical (beyond space and time) while body is material within space and time, they go together till the time of death; real knowledge is the knowledge of forms as forms are universal realities and he considered this procedural acquisition of knowledge as rationalistic epistemology [56].

Furthermore, human cognitive development undertakes another dimension (rationalism) that states that human knowledge is acquired through reason independent of senses. Rationalism maintains that criterion of reality or truth is purely intellectual and deductive without any reliance upon sensory experiences. The world around us is illusionary, a mere replication of ideas in our minds. Rene Descartes establishes the same thesis that knowledge of eternal truth can only be obtained through reason and there is no other source [57]. It requires meditation,

contemplation, cogitation and commitment with a consistent connection with self. It is the natural process of knowledge acquisition that manifests that the order and correlation of ideas is the order and correlation of material objects.

Empiricism and rationalism are two different, rather opposite schools of thought within the close proximity of epistemology. Knowledge acquisition is the foremost and natural process that is as old as humans and it is primarily relates to humans only; as perception and reasoning are peculiar faculties gifted to humans. It must be understood that this natural process of learning cannot be accelerated or exaggerated by any external factor or impression unless an individual him/herself decides to learn something new. Supportive social environment motivates an individual to learn new things in a natural setting in order to strengthen the bond between individual and society. The effectiveness of this learning process depicts the extent of cognitive development; an individual appears cognitively sound and composed by way of being in this process of knowledge acquisition and application. It is to be kept in mind that learning is a subjective process that is evolutionary in nature and envelops entire physical life of an individual with the sole aim to facilitate social balance, peace, inter-personal relations and harmony in any and every societal structure.

Since the technological onslaught is based upon copying or patterning human mental and physical functions; that is why the immediate outcome of technological singularity is rapidly increasing. The escalating sense of mechanical mannerism in users and other humans simply provide ample evidences that humans are inclining towards mechanistic behaviors without any specific intentions rather, under the impression of prevailing organizational circumstances. Organizations, throng by technologies, have altered overall culture, mode of communications, working relationships, individual performance etc. [58]. People start acting more like machines (in an objective manner). The healthy physical life of an individual is passed at the work place; being encircled with gadgets and latest devices, he/she silently develops a result oriented attitude and this shatters the work-life balance [59]. An individual does not find enough space for himself and pushed by circumstances to work encircled by a lot of machines.

Organizational architecture has lost its aesthetic sense and most of the buildings are designed keeping under close focus the machines, gadgets, latest equipment, and necessities that come along with these. Workers are supposed to adjust themselves in small shells, cubicles, square rooms, tightly closed quarters and condensed work stations where a man under four closely erected walls has no place to soothe his eyes or relax. The baseline of organizational design is more profit driven and goal oriented, the physical layout, locations and structure is so aimed to achieve maximum with minimum operating cost [60]. Inter-group and intra-group relationships are no more existing and a group has been replaced by an individual working with number of machines and generating more output for their organizations.

Social connectivity is a fundamental human need; where prolonged loneliness influences cognitive performance of an individual that further impresses and individual's ability to meet deadlines in and effective and efficient manner [61]. Another research in Academy of Management Journal exhibits that extended employee loneliness results in poor professional relationships, poor task performance and damaged team roles [62]. Another executive research study reveals that a great number of CEOs feel lonely and 61% actively believe that it hampers

their genuine performance {63]. [64], in his research study mentions that technology coated workplaces generate loneliness that not only affect the overall performance of employees but evenly influences their physical health, relationships, productivity, loyalty and engagement.

Natural tendencies of humans always work when mind and body relation remains affirmative, composed, positive, motivating and satisfied. Number of studies reveals that work space directly influences the satisfaction and productivity of an employee. Some research studies found out that effect of sitting close to a window and open plane work station on employees' satisfaction is phenomenal as visual access to a window from a closer distance and getting fresh air positively affects the satisfaction level of an employee [65, 66]. Some other research studies established that open office occupants were more satisfied with their jobs and more satisfied with the working environment and it openly improved their performance and productivity rather they appeared delighted and enjoyed their work [67]. Technologically molded building designs are discouraging collaborative environment and a phobia of producing more has turned man into a rational machine or robot. The drastic impact of this human abuse is becoming evident by every passing day. Man is a rational animal [68] and his cognitive abilities are the sole source to strengthen this faculty of rationality. Present day knowledge workers are passing through a dilemma of working in an atmosphere that does not allow them the liberty of enjoyment and they are slowly but gradually turning into objective, result driven, goal oriented machines.

Technology coated invasion of organizational space is now resulting in more damage than good as companies are over flooded with modern technology in an attempt to be more competitive, cost effective and profitable but in this race, the top stalwarts have forgotten that overloaded employees are losing their sense of job ownership and a sharp sense of alienation is haunting knowledge workers [69]. Estrangement from their essence or in other words loss of personal identity is the consequence of being an integral element of mechanistic working model or social class; it so happens when workers are deprived of their right to think by themselves and direct their own actions, to develop sense of ownership of their production and develop relationships with other fellow workers [70].

Overall work environment seems instructed or directed through operating manuals required to use technology in an objective manner to give desired results. It is to be understood that the pace needed to cope with machines is faster than natural pace. The mechanism of nature starts from recognizing core identity of a human as an individual and grooms an individual through evolutionary phases and makes him compatible with related changes. The rapid, sudden and abrupt introduction of technology and interaction with humans does not leave any room for humans to accept it through defined cognitive process (perception, memory, reasoning and judgement), rather an individual is pursued to accept the technology and go along with it. This process negates the natural process of learning and by passing time, human mind gets dominated by machines and this unavoidable acceptance further cements sense of alienation that is one of the prime causes of depression and in the language of clinical psychology Major Depressive Disorder (MDD) [71].

Depressive cognition initiates destructive views of the self, the future, and the world, as well as intermittent and uncontainable negative views that often spin round the self, are incapacitating signs of depression [72]. If we connect MDD with prevailing corporate environment, then it appears that quality of work life (QWL) is highly questionable. Mounting job related stress flooded with accelerating technological interfaces has occupied the

space necessary for cognitive development. Increasing rate of work place suicide provides ample evidence to support this argument. French Telecom Company 'Orange' is again on high alert to avert recent second wave of suicide; since the beginning of 2014 till March, 10 employees committed suicide. 11 employees committed suicide between 2008-2009 as a result of two core causes work related stress and forced mobility [73].

The space for human relationships has been well occupied by modern technology and intra-organizational connection among employees is less face-to-face and most of the time the intra-net is used to serve this purpose. When the natural space is over populated by technology or technology driven then personal stress cannot be handled as it needs in-formal communication between individuals and groups. This work related stress piles up and consequently turns into destroyed mind-body relation. In a research study, a US worker said that information is required on fast pace, we are hooked up by work stations and while going to washrooms or anywhere around building, the cell phones keep us on the toes; we have less time for ourselves rather no time for ourselves [74].

It sharply works in labor-management relation as both are under pressure and behaving like robots, this increasing objectivity in natural space derives stress, employee abuse and lack of working relationships. For instance; the case of Foxconn (China) with highest suicide rate as 14 employees committed suicide in 2010, 4 employees in 2011, 3 employees in 2012, 2 employees in 2013, with prevailing continuity of suicides till date and the known causes of these suicides revealed through a research report published by 20 Chinese universities were the ones describes earlier in this paragraph [75].

An interesting research study by Centre for Disease Prevention and control duly published by CBC showed that, machine based jobs have higher rate of suicide across US companies as compared to those professions where people interact with one another and have more space for themselves, The study reveals that highest rate of suicide found in technicians, electricians, construction workers who are followed by machines round the clock while Doctors, Dentist, teachers, trainers, lawyers, educators and librarians touched the least mark. Long machine based working hours, stress, isolation and less communication were instituted as the core causes [76]. Same is the case with Japanese companies where the suicide rate is highest in the world; many reasons are posted as the cause like, isolation, loneliness, financial anxiety etc. In a research report, the researcher quoted as "There are not many ways to express anger or frustration in Japan," says Mr. Nishida. This is a rule-oriented society. Young people are molded to fit in to a very small box. They have no way to express their true feelings. If they feel under pressure from their boss and get depressed, some feel the only way out is to die." [77].

The problem of confiscating intellectual space by modern technology is generating a new breed of humans who are exposed to search for a definite result in every facet of their lives. Influence of modern technology on smooth functioning of human mind is all evident. Canadian sociologist Marshal McLuhan who used the term 'global village' for the very first time was of the candid opinion that transforming our society into an information society would be dangerous as modern technology influences human mind in many negative ways [78]. Human interaction with computer (a non-human agent diminishes the possibility of non-verbal communication which further eliminates the probability of human interaction and by way of doing it for a longer period of time turns

humans into an objective agent that establishes result oriented and question-answer relations with other agent [79].

Cognitive Psychology made it clear that feelings and thoughts are the outcomes of interconnections and ability to make living connections is the most important condition for effective brain functioning and streamlining cognitive process [80]. Jean Piaget clarified that shared feature of every brain is the natural desire to be vigorous and strive to learn something new and every new thing comes from the external world through communication and interaction with other people [81]. There are lot other references can be quoted to support our thesis but the captioned are enough to prove the point.

2. End Note

The genealogy of organizational architecture tells us that organizations round the globe have passed through many evolutionary phases across their lives. From Physical space to prevailing technological space, the interaction of human and organization has also taken many turns and the existing one is most exciting and noteworthy. It seems that employees and organization are in a flux to challenge one another, an employee enters the office with an aim to achieve pre-defined tasks and the organization keeps a close watch over the performance of every employee. Relationship is a subjective and social phenomenon that can never be objective as it is not for something but of something. It is not about achievement and accomplishment but accommodation and adjustment. It is all natural a condition prevails between man and nature.

Technology is a very funny notion as first it generates problem then start providing solutions; the claim of transhumanists to take man to new heights and enter into the realm to create superhuman is making the life miserable for existing humans. Organizations are turning into silent, dull, dry and gloomy domes where people are doing something for something [82]. The work-life balance has been shattered to the grounds as people are turning into robots and they want perfection in every aspect of their lives. They deal with machines, computers, gadgets for whole day and once they enter their houses they want same response from their fellow humans which is next to impossible [83].

Different social institutions have gone dead as public libraries, community clubs, town halls etc. where people used to gather and interact with other people to share and learn. The world is smartly moving towards a large den of modern inventions where man would be a number or tag without any personal identity; merely touching buttons and following screens to get the job done. We need to create a world of ideas, forms, intellect and peace. It is required to let humans think in a most natural manner so that they may come up with the best they can, the neuro phenomenology manifests that human brain and related mental functions are innate abilities that requires ample space to perform.

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