Multicultural Education

Arts catalyst of creative organizations for the fourth industrial revolution

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A B S T R A C T

Today's digital era challenges organizations not only to follow the technological trajectories, by developing new technological solutions and/or adopting the latest disruptive technology, but most importantly to become creative and resilient organic systems that are open to changes and keen to experiment and innovate continuously. For this reason, organizations need to shape a creative environment in which technology and creativity are fully integrated and intertwined. This can be achieved by integrating the emotional and aesthetic aspects of an organization with the technical and rational dimensions distinguishing the technology. This paper argues that, in the context of the so labelled fourth industrial revolution, successful organizations are those that exert innovative capability by becoming techno-human systems developing and melting emotional and rational knowledge. In accordance with this view, managers alongside the deployment of innovative technologies – which defines the techno-based dimensions of an organization – they have to nurture an organizational creative environment which reflects and empowers the human-based characteristics. This can be achieved by taking into account the aesthetic dimensions and properties of an organization and by bringing artistic projects and/or attitudes into the organization in order to trigger critical and creative thinking. The instrumental use of the arts as a management innovation for the creation of an organizational context which nurtures human potential and creative thinking is illustrated through the analysis of some of the key arts based initiatives put in place by Elica, an Italian world leader company in the design and production of kitchen hoods.

A R T I C L E   I N F O

1. INTRODUCTION

Different interchangeable labels have been coined and used to describe the innovations of today's new socioeconomic era, such as Digital Age, the Fourth Industrial Revolution, the Internet of Things/Everything, or the Industrial Internet. In particular, in the last years, the notion of the Fourth Industrial Revolution has been proposed by the World Economic Forum to sign the drastic and accelerated development of technologies and their impact on society at large. It is argued that the development of digital and intelligent technologies in conjunction with biology and their combination and application to the physical world defines a new industrial revolution. New technology-enabled platforms capable of combining both demand and supply are already disrupting existing industries and shaping new business landscapes such as the "sharing" or "on demand" economy (Schwab, 2016). Two main drivers of this revolution can be recognised, on the one hand, the

development of industries from the preto the postFordism era, and on the other hand, the development of internet and the connected 'digital world', i.e. all applications and infrastructures related to the Web. To denote the implications of these two paths of innovation on the transformation of global industry and daily life, General Electric uses the notion of Industrial Internet, i.e. the combination of the physical world and internet (Evans and Annunziata, 2012). The manifestations of this combination defines the technology landscape which includes a number of key dimensions ever evolving, such as: Connectivity; Big Data; Automatization; Intelligent Agents, Robotics; Machine Learning; Artificial Intelligence; Blokchain; Sensors; Virtuality; 3D printing; and Augmented reality. These technologies and their convergence, integration and development have the digital dimension as common denominator and overall represent the key technological pillars characterizing today's Digital Age.

Independently from the adopted ontology and terminology the Digital Age, or Fourth Industrial Revolution represents a shift of paradigm with a new wave of innovations characterized by the digitization of business, society and our lives. These innovations will increasingly transform how organizations and institutions do their businesses, operate their productions, and impact on society and make their ecological footprint as well as how people live their lives. These innovations entail the development, deployment and exploitation of technologies, but their initiation and growth are strongly affected   by the creative characteristics of organizations. Indeed, at the centre of the creation and growth of any technological solution there is always the aspirations, curiosity, creativity, competence and passion of people who have imagined, prototyped and tested a technology. Therefore, the understanding of what drives the Digital Age has to take into account the human-based dimensions and characteristics as much as the technological ones, and in addition has to consider the biological components that define the ecology of life. This means that the Fourth Industrial Revolution is primarily concerned about the integration of Technology, Humanity and Biology. This, in other words, means that the key characteristic of the Digital Age is the shaping of Techno-Human Intelligent Systems, i.e. systems that integrate technological and human characteristics and are organic and living in nature, so that they are capable of dynamically learning and evolving in relation both to the context in which they operate and to the problems/challenges they have to face. This view of the Techno-Human Intelligent Systems acknowledges the centrality of people as much as of the technology. As evocatively formulated by General Electric, the new wave of innovations is about "machine + minds",i.e. the relationships between technologies and people to support intellectual activities that can exploit the computational capacity of machines.

The successful organizations of the Digital Age will be those recognising that as much as they will become more technologically advanced, the people will still be at the heart of organizational life and actually the most human distinguishing factors will become even more fundamental for the creation and deliver of value. Indeed, the organisations' innovation dynamics and value creation mechanisms are affected by the logical and rational components as well as by the emotional and creative dimensions, e.g. empathy, intrinsic motivation, curiosity and imagination. The engagement of these emotional and creative aspects is what distinguish people's contribution from technologies and, ultimately, it what an organization turns into technological solutions, products and services that embed value for society.

The success of digital companies such as, for example, Google cannot be explained without taking in account the deep human nature of these organizations that are continuously able to generate disruptive innovations by sustaining themselves as creative organizations. Google has created a capacity for change and innovation by shaping organizational contexts in which creativity could flourish. Employees are given time and space to cultivate and express their creativity so that they can be encouraged to continuously search for new solutions to emergent and potential business problems. Great attention has been paid to the aesthetic properties of the workplace so that it can inspire and energise employees' creativity. The workplace is enriched with playground areas (equipped with bar football and table tennis tables), and services for employees including free meals during the day, coffee corners, gym, spa, meditation and resting areas, and rooms where people can play music. All these solutions are aimed at managing the organizational aesthetic dimensions and properties in a way that human senses can be stimulated creating positive employees' experiences which in turn may certainly influence their emotive states and drive the enhancement of the existing technological platform as well as the prototype and development of new solutions.

The aim of this paper is to explore how in today's Digital Age organizations can shape and nurture a creative environment in which change is a 'state of mind' and employees have the capability to be imaginative and engaged to embrace transformation, continuously accepting and searching for new valuable solutions. The Fourth Industrial revolutions calls for organizations to be not only technologically advanced but very importantly able to develop a capacity to respond creatively to discontinuous changes and accordingly to be more and more flexible, agile, intuitive, imaginative and resilient. Shaping a creative environment organizations enable people to discover and express their potential so that by using their full cognitive capabilities they can find novel valuable

solutions to problems and challenges. The development of a creative environment is based on the idea that an organizational system is a living organism whose capacity for being intuitive, imaginative, resilient, creative and adaptable, is based on its human-based nature (Hamel, 2000, 2007, 2009; Schiuma, 2011). In fact, the ability of an organization to be intuitive and imaginative is tied to the employees' willingness and ability to exercise their creativity and imagination in daily work activities as well as the flexibility and resilience of an organization is strongly affected by the employees' capacity to tackle stress, anxiety or fear of failure.

The focus of this paper is on the investigation of how organizations can shape creative environments by adopting the arts as a catalyst for creativity and innovation. Acknowledging the techno-human nature of the organizations in the digital age, it is argued that the arts can be deployed as a managerial means to shape organizations' creative environments. Insights about how to deploy the arts as a driver for shaping creative organizations are gathered from the analysis of the case example of Elica: an Italian company world leader in the design and production of kitchen hoods. Despite technological nature of Elica's products and services, the company is continuously developing an organizational creative environment capable of sparking, fostering and developing human potential and creative thinking by using the arts as a catalyst.

2. DISTINGUISHING THE HUMAN-BASED NATURE OF ORGANIZATIONS IN THE DIGITAL AGE

In the new Digital Age, organizational success will not solely depend upon the ability to adopt, develop and exploit technologies. Successful organizations need to distinguish the human-based nature of their organizational life and components (Adler, 2010). Indeed, in the Fourth Industrial Revolution, organizations will be increasingly challenged to develop a capacity for change and innovation. The pace of change and the disruptive nature of innovations will require that organizations become more and more agile, intuitive, imaginative, and open to change. This can be achieved only by developing the human-based dimensions of an organization. Therefore, the Fourth Industrial Revolution it is not only about embracing new disruptive digital-based technologies and learning machines, but it is also about shaping organizational environments that let people express their real potentials and be in touch with their positive emotions.

In the Digital Age it will be fundamental to take into account that organizations' functions and existence is characterised and based on vital phenomena. These include, at the same time, the technological dimensions and the emotive and inner dimensions of human-based characteristics. These two dimensions are inseparable unless an organisation is made into a 'machine-like system', removing the human presence. This means that technology and humanity have to be seen as two intertwined pillars of develop ment and continuously put in conversation.

In order, to acknowledge and point out the dual and inseparable twofold techno logical and human-based nature of organizations in the digital age, the view of the organization as a techno-human system is introduced. This view considers organisations as living organisms (Burns and Stolker, 1961) and stresses that organizational behaviours are strongly affected by aesthetics and emotions in organizations (Fineman, 1985; Frost et al., 1985; Linstead and Höpfl, 2000; Mintzberg, 1985; Strati, 1992; 2000a; Turner, 1990). Accordingly, the technological and rational-based knowledge assets as well as the organizational aesthetic and emotive features have to be managed by organisations in order to sustain success and achieve excellence (Strati, 1992, 2000a; Taylor and Hansen, 2005). Indeed, emotions play a central role in explaining the quality of the organizational value creation capacity. They act as enablers and/or barriers towards business models and processes innovation, having the capacity to moralise and demoralise, mobilise and immobilise organizational energies (Frank, 1988). In particular, emotions affect the engagement of people to give the best of themselves as well as to exercise their curiosity and creativity in order to see new possible and valuable solutions. According to Dick Richards (1995) "engagement occurs when [people] experience a deep sense of caring about the work, a sense that what [they] are doing is worthwhile in and for itself." (p. 31). The creation of this 'sense of caring' requires that organisations address people's emotions (Richards, 1995). They affect people's behaviours as well as act as a catalyst for the development of business performance drivers, such as satisfaction, enthusiasm, flexibility, loyalty, creativity, change and innovation propensity, identity, diversity, culture, risk taking, and so on (Flam, 1993; Schiuma, 2009, 2011). They help to explain the organization's capacity of being adaptable, resilient and innovative.

In the new digital age where the computational power of machines will enable higher efficiency and control, emotions play an important role in explaining the level of people's engagement which in turns affect the employees' capacity of being creative and innovative. This means that the digitisation process of organizations

and economy will be coupled by an increasing acknowledgement that emotions and other soft dimensions such people's energy, experiences and ethics represent an important source for organizational performance.

In order to enable people to discover and express their creative potentials and being engaged organizations can shape their organizational context into a creative environment. A creative environment aims 'to shape a space and time' in which people can be engaged with their emotions, exert creative thinking and deploy their energy in order to make an impact on organizational value creation dynamics. The creation of an organizational creative environment is based on the idea that technology and humanity can be synergistically integrated. It represents a platform in which the rational and emotive elements of an organization are fused and nurtured by each other although they have a very different role. The emotive dimension involves touching people's feelings and moods, and making sure they are in touch with and present to themselves. Conversely, the rational dimension refers to the technologies, rational knowledge, and set of rules and procedures that define how activities have to be carried out.

The fundamental scope of a creative environment is to spur the full engagement of human potential and most importantly to avoid 'silos thinking,' such as overspecialisation, and/or a paralysis of critical and creative thinking among employees. At the basis of the creation of a creative environment resides the recognition that organizations have a living nature and that at the heart of their value creation mechanisms there are people.

On the basis of the above assumptions in the next session it is discussed how organisations can shape creative environments by managing their aesthetic dimensions.

2.1   *Shaping creative environments by managing organizational aesthetic dimensions*

In shaping a creative environment, the key challenge for managers is how to practically handle the emotive characteristics and elements of an organization so that they can be integrated with technology and the other technical and rational-based knowledge characterising of the organization's processes. For this purpose, acknowledging the technohuman nature of an organization, a powerful approach the management of the aesthetic characteristics of an organization. Indeed, the organizational capacity of handling emotions and other key soft human-based value drivers, such as experiences, energy, engagement and ethics, can be built by focusing and managing the organizational aesthetic dimensions. In fact, aesthetics and emotions are two dimensions which are closely intertwined. Aesthetics generate feelings and feelings affect aesthetics. Aesthetics can be used to mobilise and manage emotions within and around organizations, and emotions can be put in place to better tune organizational aesthetic characteristics. The management of aesthetic dimensions within organizations equals to affect how people make sense of their outer and inner reality by using their senses. The management actions can be focused on the aesthetic experiences and/or properties of an organization. Organizational aesthetic experiences refer to the quality of employees' experiences within the organisation, including their well-being, the quality of their daily work activities and the engagement level in what they do. This idea can be further extended to include all possible organizations' stakeholders; in which case the management of organizational experience corresponds to how stakeholders perceive the organization and its products/services and activities. On the other hand, organizational aesthetic properties characterise the aesthetic qualities of the organization as a whole. This involves the capacity of the organization's tangible and intangible infrastructure (from equipment and workplace to culture and climate) to affect people's (stakeholders') experiences. For this reason, organizations are increasingly paying attention to the integration of interior design and playfulness in workplaces and are paying great attention to the creation of an organizational atmosphere in which employees could be happy, inspired and energised. However, the recognition of the role and relevance of the aesthetic dimensions of an organization requires the definition of approaches and tools to handle the creation, development, and impact of the organisational aesthetic experiences and properties. For this reason, the knowledge domain of the arts can be approached and instrumentally used. In fact, the power of the arts is the capacity to define and shape aesthetic properties and experiences. Accordingly, the arts from an instrumental point of view can be considered as aesthetic technologies, i.e. art forms and/or artistry that are instrumentally used in order to deal with or solve a business/organisational issue. This means that from a practical point of view in order to manage organizational aesthetic dimensions artistic projects and practices can be adopted by organisations. Through the arts it is possible to foster people's aesthetic experiences and manipulate the aesthetic properties of an organization's infrastructure. This, in turn, supports managers in handling the organization's emotive, energetic, ethical, and experiential features and to integrate these dimensions with the organizations' rational-based assets and technology grounding the working mechanisms of business processes.

3. ARTS AS A CATALYST FOR THE DEVELOPMENT OF ORGANIZATIONAL CREATIVE ENVIRONMENTS

The value of the arts has been explored from different point of view and it is a subject of debate, particularly, in the public discourse when to assess the investments for the arts and the cultural and creative sector. Indeed, the arts have a value of twofold nature. On the one hand, they have an intrinsic value which justifies the arts for the sake of arts because their role for expressing and defining humanity. On the other hand, the arts have a utilitarian value in which case their value is defined by the specific use of the arts in relation to some specific purposes. Both perspectives are important when analysing the role of the arts as a management means of the aesthetics characteristics of XXI century organizations (Schiuma, 2011). However, the utilitarian point of view explains the instrumental use of the arts as a vehicle that can inspire managers to develop management innovation, frame new organizational and business models, and draw on new approaches and instruments to tackle continuously emergent business challenges (Schiuma, 2011). In other words, the arts represent a knowledge domain which can be used to transform organizations and make them more suited to cope with the business challenges of the digital age (Adler, 2006; Austin and Devin, 2003; Darsø, 2004; Nissley, 2010; Schiuma, 2009; Taylor and Ladkin, 2009).

The arts have the power of influencing and creating organizational aesthetic properties and experiences (Strati, 2000a, 2000b). They can be adopted as an instrument to develop people and/or to change the organization's infrastructure both tangibly and intangibly. Addressing people development issues, the arts can be deployed as a means to create aesthetic experiences that can affect employees' emotive, experiential, energetic and ethical dimensions with an impact on their level of engagement to the organisation's activities and life. On the other hand, the arts can be used as a tool for developing the organization's infrastructure. They can be applied with the scope of affecting the aesthetic properties of the tangible and/or intangible components of an organization. So, the arts can be deployed for designing and enriching workplaces, for communicating culture, identity and image of the organization, for emotional-driven design of facilities, equipments and products, and for creating impactful meaning that can influence individual and collective behaviours as well as acting as drivers for personal development.

From a practical and operational standpoint, the managerial implementation of the arts is carried out by means of Arts-based Initiatives (ABIs) (Schiuma, 2009, 2011). An ABI is the planned managerial use of any art form or combination of art forms to address management challenges and business problems with the aim of developing employees and organizational infrastructure that positively affect the company's value creation capacity. The underlying assumption is that the adoption of ABIs is fundamentally aimed at humanising organizations, by harnessing the emotional and experiential dynamics characterising organizational life and business activities.

The ABIs stand for approaches and tools that instrumentally use the arts aim to create or to affect organization's aesthetic dimensions. In this view, ABIs can be used specifically adopted as instruments to shape creative environments that acting as catalysers and amplifiers of human emotive abilities can foster the development of organization's adaptability and continuous innovation. By adopting ABIs, organizations can employ and exploit the aesthetic properties and experiences associated to an artistic product and/or to an artistic process in order to create a frame of references which promote the connection of employees' technical and emotive knowledge.

Therefore, the deployment of the arts can enable organizations to shape a creative environment which can spark and support the integration and conversation between emotive and rational dimensions of an organization.

In shaping creative environments, the arts can fundamentally play a twofold role. On one hand, they can act as a learning platform (Darsø, 2004). On the other hand, they can represent a device or vector to influence organizational aesthetic dimensions (Schiuma, 2009). The perspective recognising ABIs as a learning platform considers the arts as an instrument to support individual and organizational learning mechanisms both by transferring artistic skills, which are useful in the business context, and/or by shaping an experiential organizational atmosphere which can engage people with their emotions. The use of the arts as a learning platform is fundamentally aimed at developing human capital. This transformation is mainly based on the learning processes taking place both at the individual and at group level that nurture the development of employees. It may also have a positive impact on the internal and external organisational relationship dynamics as well as on the development of organizational and business models valuing emergent coordination, distributed wisdom, full engagement of people and distributed authority. In particular, arts-based methods are particularly useful to spark reflections on the leadership style and culture characterising an organisation. ABIs can be applied to develop and enhance leadership skills not only at top management level but across the entire organization.

This is particularly useful in those contexts in which there is a need for distributed leadership. Using arts-based methods employees can understand the meaning and the characteristics of leading and how to share this task with others. For example, using theatre applied methods people can be fostered to reflect on their values, on how they interact with others, on the challenges of directing a group and sharing the responsibilities and the trust among the group's members.

The use of the arts as a device and vector is mainly related to the use of ABIs to embed aesthetic properties into tangible and intangible organizational infrastructure and products. So, for example, the arts can be used as a way to shape workplaces that can be inspiring. Offices can be artistically designed and beautified in order to spark and energise people. But the use of the arts can be also focused on managing the intangible elements of the organizational capital such as, for example, culture, values, identity and image. These dimensions can be made visible, more understandable and emotive through the use of artworks that symbolise them. For instance, the use of sculptures or visual arts can be deployed to represent metaphorically the identity of the company and its fundamental values.

The adoption of the arts either as a learning platform or as a device, allows shaping creative environments; by creating a frame of references in which rational organisational characteristics that are ingrained in the working mechanisms of today's organisations are put in conversation and integrated with the emotive features.

In the next section the case example of Elica, a world leading Italian company in the production of kitchen hoods, is presented. Elica despite being an advanced technologybased organizations, is systematically using the arts as a managerial instrument to support the development of the organization as a human-centred living organism as well as a means to foster creative processes and maintain an organizational creative environment.

4. THE CASE OF ELICA: INSIGHTS ON THE USE OF ARTS TO SHAPE A CREATIVE ENVIRONMENT

Elica is world leader technology company specialised in the design, production and commercialisation of kitchen hoods and also design, manufacture and sell motors for central heating boilers for domestic use. It has a market share of 17% in the world and 43% in Europe. With over 2,300 employees and an annual output of about 16 million units of kitchen hoods and motors, the Elica Group has ten plants: five are in Italy, one is in Poland, one in Mexico, one in Germany, one in India and one in China.

The fundamental competitive value drivers of Elica's products are: the integration of high technological quality with a design driven innovation capability, and the aesthetical dimensions combined with high functional quality.

Elica has achieved a world leading competitive position by revolutionising the traditional mature sector of the kitchen hoods. In particular, the company has changed the traditional image of the kitchen cooker hood transforming it from a simple accessory and household appliance into a design object. Elica's products are associated with an image of unique objects, with unusual shapes and incorporating innovative technologies. They combine meticulous care for the design, for the quality of material and for cutting edge technology, which is also the result of the partnerships created with world leading technology-based companies such as Artemide, in the lighting sector, and Whirlpool, in green and smart technologies.

The fundamental idea behind Elica's products is that they have to represent sources of inspiration and wellbeing, beautiful to look at and capable of providing the highest technological performance in order to meet customers' wants and needs. In other words, they are interpreted as an important component of the living house. In this perspective Elica's products are designed and produced on the basis of high technological and aesthetic features making sure they embed intangible value and generate positive experiences for customers. In order to meet this challenge, Elica has understood that the development of products that can have a positive impact on people, first and foremost is driven by an organization which deeply embeds the features and potential of human nature. Consequently, they have developed a strong awareness about the relevance of being and operating as a human-centred living organism, paying great attention to managing organizational aesthetic dimensions and handling emotive features.

Elica attributes a fundamental centrality to people whose technical and emotive competences are considered the engine of competitive success. As stated by the Deborah Carè, Elica Group Brand Marketing Manager, the notion of promoting creativity is fundamentally interpreted by the organization as the capacity of coping with the risk of the 'paralysis of thinking'. For Elica, it is essential that employees do not carry out their activities in a mechanistic way without too much questioning about it. Elica strongly believes that it is fundamental to foster

the development of a creative environment which encourages people to think and to engage in what they do. This is considered essential in order to foster an organizational environment capable ultimately of developing and producing products that combine and embed high technology and emotive/ aesthetical features. For this reason, they have integrated in the management system the use of the arts as a managerial instrument to support the development of employees' adaptability to changes and their innovation-oriented behaviour.

Elica interprets the arts as a powerful means to push the organization beyond the traditional business model and break conventional paradigms that have characterised the company in the past when it was just focused on producing standard appliance hoods.

Elica is using the arts as a strategic managerial instrument to nurture an organisa tion's behaviour towards imagination, innovation behaviour, problem solving oriented capability, and creativity. Some of the main organizational issues addressed through the arts are: communication of the company's philosophy, development of productive and wellbeing-oriented workplaces, strengthening of ties with clients and more generally with society and territory, employees' development, promotion and communication of organizational image and reputation, enhancement of product development capacity.

From an operational point of view, Elica has launched different ABIs to shape a creative environment. In particular, identifying people and workplaces as two fundamental dimensions of the creative environment they have developed two specific artsbased programs as follows: the program named "Lifestyle" and the program named "E-straordinario".

The Elica's program "Lifestyle" aims to shape workplaces that secure wellbeing and productivity as well as create an atmosphere which spurs creativity and positive emotions so that new ideas can converge and be created. According to Elica the workplaces have to be a kind of 'open porthole' on a different concept of being, of living and acting; so they have to be places for meeting and renovating the mind. The creation of engaging workplaces is achieved by adopting the arts as an instrument to shape the aesthetic properties of facilities and organization's culture, values, identity and more generally climate. Offices are artistically designed and host exhibitions both of artworks from public and private contemporary art collections, and of artistic artefacts created by employees with the support and facilitation of artists. Among the different Lifestyle's initiatives, it is worth mentioning Elica Contemporary which has is based on the idea that artworks together with the company's products are exhibited in different spaces within the company. This has an impact on the aesthetic characteristics of the workplace, on the capacity of communicating the company's identity highlighting its mission of creating products which aspire to be 'artworks for the living house', and on the engagement level of employees fostering their pride in the results of their work activities.

On the other hand, the program E-straordinario is aimed at supporting employees' development. Its purpose is the creation of an aesthetic experiential learning process that can engage employees with their emotions. It works on the basis of a set of conceptual and practical arts-based seminars and workshops in which artists work on a project within the organization and with employees. The selected artists brought into the company are asked to conceive and carry out an artwork which can engage the company's employees intellectually, emotionally and physically. The artist(s) works with a facilitator in order to make sure that the insights can be distilled from the arts-based initiatives. The artists' projects to be implemented in the organization are selected on the basis of different criteria, particularly: experimentation, contamination of different codes, hands-on participation of employees, quality of contents, capacity of challenging established habits and behaviours, moving employees out of their comfort zone, and the use of the arts as an ethical model.

Both programs are based on the fundamental assumption that people have a central role in organizational value creation capacity and competitiveness. They are aimed at creating space and time fostering the integration of the organization's emotive and rational dimensions. By affecting people's aesthetic experiences, the arts stimulate human senses and create processes or contexts in which people's emotions arise and can be combined with rational elements grounded in the organization's working activities. By blending the emotive reality with the traditional rational working mechanisms, Elica has been able to shape a creative environment which is producing positive impact on people's innovation behaviors and more generally on company innovation capacity. Although the case example of Elica cannot be generalized, it offers important insights and implications to identify some critical factors about the relevance of the arts for shaping a creative environment in the new Digital Age.

5. CONCLUSION

Today's digital era challenges organizations not only to follow the technological trajectories, by developing new technological solutions and/or adopting the latest disruptive technology, but most importantly to become creative and resilient organic systems that are open to changes and keen to experiment and innovate continuously. The view of the organization as a techno-human system points out that organizations need to integrate the traditional rational-based principles and technology assets with the emotive features of human life and understand that emotions play a fundamental role in the organizational life and in the pursuit of business excellence.

Emotions denote all those factors of human expression that cannot be reduced to rules/procedures or technological components; rather they need to be disclosed and channelled for contributing to the organizational value creation mechanisms. On the other hand, technology guarantees efficiency and control. Both rationality and emotions, technology and humanity, matter for the success of an organization and in the new Digital Age they need to be integrated. For this reason, organizations need to shape a creative environment in which technology and creativity are fused and intertwined.

In order to shape a creative environment, it is suggested that organizations manage their aesthetic dimensions. For this purpose, the use of the arts is proposed as a management instrument to shape the organization's aesthetic experiences and properties which in turn can support handling emotive elements in organizational contexts. From a practical point of view the arts can be deployed within organizations to shape creative environments in the form of Arts-based Initiatives (ABIs).

In conclusion, the successful organizations of the Digital Age will be those recognising that as much as they will become more technologically advanced, the people will still be at the heart of organizational life and actually the most human distinguishing factors will become even more fundamental for the creation and deliver of value. The use of the arts is aimed at making organizations more human, acknowledging the human-based nature of organizations and business, and their role to make organisations intuitive, imaginative, creative and resilient. A creative environment is capable of engaging employees in their daily work activities, of inspiring executives to build igniting visions and energise people, and of making organizations more aware of the value propositions delivered to stakeholders. As pointed out by Steve Jobs "Technology alone is not enough – it's technology married with liberal arts, married with the humanities, that yields us the result that makes our heart sing".

Competing interests

The authors declare that they have no competing interests.

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