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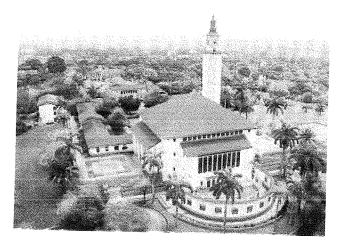


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CULTURIS: LEADERSHIP FOR LEARNING SUPPORTED BY INFORMATION SYSTEMS (VIANA, MACHADO, SERRANO)

CULTURis fosters the development of collective knowledge, where the primary concern focuses on citizens of all ages and social conditions integrated in a common regional network, to desirably communicate with formal and informal learning and development spaces. Within a collaborative action research methodology, pervasive and ubiquitous technologies (Fernandes, Machado & Carvalho, 2007) are adopted to make tangible the concept of leadership for learning and innovation.

What is evident from the project, as part of the paper that we propose, is the relevance of generating contextual activities for learners in areas of personal and collective action, where the family assumes a nuclear environment of belonging and, as such, the key for involving learners in natural contexts of learning that the community/city can provide in a creative, entertaining, constructively critical, transformative and inclusive way. These activities contextualized within natural environments of belonging, mean structuring niches of daily multiple and significant learning experiences (in the work of Dunst, 2001), configured for *glocal* innovative postures. Capable of providing, quality and diversity meaningful life opportunities that enable transmuting life with joy, with confidence, while structural axes for plural and global integrated learning and development of citizens, of learners, assuming in itself a concept of leadership and inclusion (Viana & Serrano, 2010).

CULTURis propose creates spaces that represent different learning styles, needs and interests of learners and a contextually model of teacher's training, which generates learning beyond institutional walls. The Information Systems enables the teachers and learners to have access/visibility from the place where they are and leverages their education/training.

So, this project contributes to improve the knowledge and skills leaders must have to meet the expectations for 21st century challenges (ET and EU 2020, DL. 281/2009), enriching and creating a space of learning opportunities (new spaces for learning – encouraging development and learning). In the management of information resources, the project coordinates and integrates critically the various media – people, information sources and technologies – ensuring the quality of information and the use with quality (effective), allowing informed decisions. The role of information systems as part of construction of meaning in leadership for learning – a creative and innovative response to the challenges of inclusion, constitutes a major challenge about knowledge on the role of teacher and education for 21st century learners.

#### Methodology

The methodology approach of this study, with characteristics that are close to the Participatory action research ones, promotes reflective and critical construction of knowledge (Stake, 2003) by all key informants (cluster of schools, parents, enterprises, local development associations). Its development will use the most advanced Information Technology and Communications, including web technologies and social service-oriented (service-oriented architecture and cloud computing). Based on this technological infrastructure, the leadership for learning will be supported by a multilingual ubiquitous technology. These systems are characterized as having a potentially large number of heterogeneous interactive embedded/mobile computing devices to collect, process and transmit information. Moreover, they are the target of technological innovations (Fernandes, Machado & Carvalho, 2008). This multilingual ubiquitous technology will respond, in an integrated manner, to the different needs of learners/citizens at different stages of education. It aims to continuously construct, in a participative and shared manner, the sustainable development of intelligence, characterized by the ability of every citizen

participants in the city/learning to identify and develop the necessary skills for his/her wellbeing as active and creative citizens, in an inclusive perspective aiming to promote a culture of participation and lifelong learning in which concerns to urban education. It also aims to be a process that provides policy-makers, professionals, families, teachers, within a multidimensional space (local, national and global) and transparent common goals in the Community action plan regarding programs, strategies, education, learning and training of professionals (Viana & Machado, 2011).

#### Key idea

The creative interaction between Education/Training and Quality of Life generates a process of reciprocity, which promotes a smart sustainability (an intelligent sustainability) from which emerges the Creative City. This is the motor of the Urban Education – Intervention and investigation with/in the city. The Leadership for Learning supported by information systems framed in the Creative City is a space capable of generating educational proposals, which influences the configuration of the city as well as how to live in it, in order to empower its inhabitants to promote lifestyles and life conditions to construct sustainable cities. These are structural axes for plural and global integrated learning and development of citizens and learners, assuming this way a concept of leadership and inclusion (Viana & Serrano, 2010).

### Contextualization - framing the problematic - active innovation with information systems

CULTURis fosters multidisciplinary discussion and research on technology to leverage leadership for learning, approaches the dialogue individual, collective and organizational with a global vision. Promote a good opportunity to holistic and multidisciplinary discussion on technology-enhanced leadership for learning in the *glocal* and collaborative space. It aims to provide a sharing ideas and know-how on technology-enhanced leadership for learning.

CULTURIS propose to investigate and discuss strategies on how information systems enhance leadership for learning and this way, promote sustainable educational development. With this vision:

- \* Claims from education a critical action to serve the progress of communities improving the living conditions to transform society in a civic society;
- \* A vital role is assigned to the community/city in educating its citizens (recovery and development of culture) asks for behaviors and attitudes framed by *glocal*, to ensure a better integration of action in professional space and personal/community space;
- \* To facilitate the ownership of several roles and harmonious relationship with the different contexts where they live.

the exploration and development of technology to meet the needs and interests of users, projecting them and empowering them, for example, in a leadership for learn, capable of substantiate inclusive education. This perspective is to be achieved through appropriate technology to the specific contexts and people, regardless of age and cultural resources.

Within the school context, the curricular decision makers used the Project to support the processes of teaching and learning, and to understand how Curricular Project influences the organizational and professional development of teachers.

Within this scenario, the project represents a strategic process capable of adding value to information technology interface and leadership for learning, as they develop via a useful proximity dialog, first, to the exploration and management of knowledge and, secondly, the development of technology in the context of use.

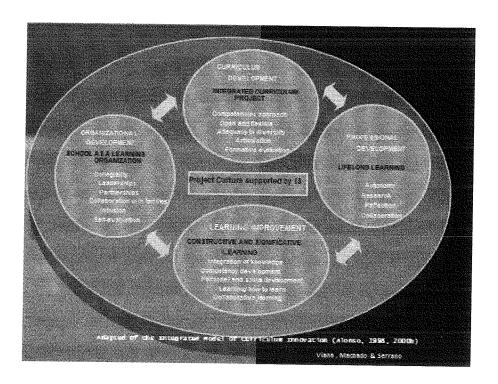
The continuously changing environment that we live in space education/training, triggered mainly by the conflict that exists between the current curriculum guidelines and current practice in schools, training spaces, causes discomfort and creates a certain anxiety, particularly within class teachers (Viana, 2010):

The legislative requirement to build curricular projects, with varying degrees of coverage and the value of a structured curriculum in skills development, brought to the school a lively discussion around the concepts and the ways transform the national educational guidelines into real practice. Move from a logic of teaching content in properly designed programs and supported by textbooks, to a logic of learning, where each student develops a range of competencies, according to their potential and difficulties from the perspective of complex integration of knowledge's and actors within pedagogical I action, is not an easy task, particularly because it involves the development of a real Curriculum Project, through a collaborative work where all school dimensions have a voice of its own. "(Candeias & Viana, 2004:75).

From our point of view it is through the project work, characterized by interdisciplinarity, that we can achieve greater systematization of knowledge and a stronger capitalization of the most meaningful experiences of the different individuals in different contexts (Dewey, 2002). These are situations that call for reflective practitioners, capable of giving other (s) sense(s) to educational processes.

### With this vision, Guidelines to improve Education:

- To promote school inclusion as a principle;
- To promote curriculum reorganization of Education in order to involve participants;
- To empower teachers to be curricular decision makers, using the Project to mediate the process of learning;
- To empower students/learners to be project decision-makers improving their own learning.



This integrated model of curriculum innovation tries to situate an area of inquiry substantiated in the project and structured around creative decision-making processes, leveraged by information systems, able to address the unpredictability, which ultimately lead to disorder, a disorder that balances in creativity and invention of interdisciplinarity.

# Enthusiast – looking for ideas, "manufacturing" ideas/problems, survival/emancipation – re-imagining learning

We live faced with a culture-world continually transformed by technologized environment in which we operate, such as designated Lipovetsky (2011, p. 20), reposition ourselves in a new relationship with distance and time:

Culture-world means, from an anthropological point of view, a new relationship experienced with distance, an intensification of consciousness of the world as a planetary phenomenon, as totality and unity. In this sense, globalization is a new objective reality in history and at the same time, a cultural reality, a fact of consciousness, perception and emotion. New technologies, mass media, the Internet, the speed of transports, environmental catastrophes, the end of the cold war and the Soviet empire, all this led not only 'unity' of the world, but also its consciousness of new ways of seeing, thinking and living. Now, what is produced across the globe raises in place where we are reflections and fears, hatreds and currents of empathy. The culture-world matches, in this sense, with 'the understanding of time and space', with the erosion of boundaries, a new experience of the relationship between the here and abroad, national and international, the near and the distant, the location and global.

Thus, we enter a dimension of global *cybertime*, that cannot mean the dissolution of cultural diversity. The development of *cyberspace*, beyond generating opportunities to be informed of what happens in the world, adds value if it is organized to develop inclusion and social cohesion.

This is a scenario that, if accomplished, projects education beyond technical training, allowing all learners to develop cognitively and creatively knowledge (Viana, 2011), in a rhythm and involvement capable of understanding and grasping, collaboratively, a culture of inclusion.

CULTURis fosters the construction of individual and collective knowledge, where the primary concern focuses on citizens of all ages, cultural and social conditions integrated in a common regional network, to desirably communicate with formal and informal learning and development spaces for leadership for learning. Within a collaborative action research methodology, pervasive and ubiquitous technologies (Fernandes, Machado & Carvalho, 2007) are adopted to make tangible the concept of leadership for learning with creativity and innovation (Viana, Machadao & Brito, 2011). This position integrates Education/Training of children and youth (regular education, framed by the (normative order n.º 13-A/2012, exercise of autonomy, administration and management) and training of young and adults as a government policy to improve the skills and qualifications of all, (New Opportunities). Creates entities to take responsibility for quality, innovation in training and accreditation.

Recognizes an image/idea as a value for the integrated development of re-imagining the curriculum/learning and the city relational as a cultural, plural, creative and glocal territory, driven by citizens. The city takes:

- Culture;
- Education:
- Training;
- Entrepreneurship.

A relationship between education and information/knowledge society, develop and mobilize processes/languages that monitor/intervene in a responsible way – where carefully observation cannot be developed within a weak and short observation and it requires sustained decisions (Innerarity, 2009) – allow for distinguishing fact from fiction. Contact with things in real time. Work a new interpretation that they propose for space with the society/community/city – not a space as a receptacle for the actions of its citizens, but what comes between the people through their action - each city produces its own space, needs to develop processes articulated with the uniqueness of human activities.

#### **Scientific fascination**

Applying this approach to the reality of the participant cities/regions suggests that they may be constituted as a vibrant space, where is good to live due to the dynamics and cultural development, technology and the diversity of businesses connected to these lines. To achieve this configuration cities/regions have to explore the factors that differentiate them, must become active spaces, of discovery and experimentation and should invest in developing collaborative strategies that mobilize citizens and exploit the technologies available. In order to achieve this, it is necessary to create technologies, which allow personalized access, exploitation and development of cultural resources.

Causes relaxation and motivation, the value of the project moves from a state considered commonplace and invisible to a special state, with social value, scientific and visible - categories of visible and invisible lead us to a world consisting of views and inadvertence, of those who see and those who are seen, prominent and unknown, all this stirred by the effect of movements of which these relations are modified and rebuilds the space of what one sees (Innerarity, 2009:132).

Develop and use technology in order to revitalize learning activity and the training of citizens, sustained on interaction and sustainable leadership between creativity, innovation, technology and culture. Supported by a persistent intention of qualifying its human capital, enabling, this way, inclusion, cohesion and social heterogeneity, highlighting the value of linking leadership of learning, culture and digital literacy. Considering two dimension:

#### At the level of practical action

It is based in a construction, grounded in active and interactive learning dynamics, sustained by research, by the desire to experiment in action, researching, criticizing and regulating the process of development of teaching and students' learning.

#### Collaborative culture

- An ecological perspective on teaching-learning for leadership;
- The teacher as an actor for change;
- Enables a better management of the complexity that emerges from the rapid evolution of science/technology all just decided on the ability to perceive and be perceived, it means recognition of value;
- Makes the dream comprehensible capable of changing/transforming the re-imagining of the curriculum, identify the power of the knowledge for participating at life with sense.

#### Cross-fertilization

CULTURis is a multidisciplinary programme that provides new learning spaces in a perspective for generate autonomous individuals and promoting the leadership for learning. This position facilitates extended and interdisciplinary learning and enables an integrated and contextualized decision-making.

Widespread availability of affordable and innovative information technologies represents a potential opportunity for improvement/innovation on business processes or for enhancement of life quality of individuals (Fernandes, Machado & Carvalho, 2011:1-2). Align the quality of access to cultural resources (the essential elements of education) with priorities of European cultural policy. Is a concept to develop research in the context of this challenge, leadership for learning, that seeks to generate a wide range of useful technological solutions for schools, workplaces, businesses, museums, libraries, tourist nucleus and other cores cultural bodies, meeting the individual and collective needs, leveraging and answering to their expectations (as users and consumers) in the context of the interaction and involvement with digital learning and cultural resources. Use technology in order to revitalize learning activity and the training of citizens presents itself as a bridge to carry out the CULTURis effectively and further adapted to the new time:

- This initiates a self-reflexive questioning, systematic and scientific practice to improve it is assumed practical action as a source of knowledge;
- Enables a deeper understanding and informed intervention on the action of the Project and the context in which such action unfolds improves the rationality and understandability.
- Aims to develop approaches that can enable the construction of spaces of continuous discovery and co-responsible of training and lifelong learning.
- The leadership for learning will enable all citizens to be active players in their own development processes, which will be innovative and creative in order to meet the challenges of the twenty-first century.

The concept CULTURis generates a purpose of sustainable and intelligent development of its cities/regions, new spaces for learning, because, based on the value of the innovative information and communication technologies, it highlights, according to Landry (2009: 6), "the aggregate value is generated by the ideas that turn into innovations, inventions and copyrights".

In order to generate a purpose of social, economic and cultural development, that did not leave indifferent countries and cities, insofar as they sought responses capable of interacting with the future and release the past. Currently, the cities have a major role in the sustainable and intelligent development of the communities, that within this proposal, we assume creative and innovative, empowered by information systems.

The urban world, characterized by new civilizational paradigm, information/intelligent society, where demographic trends indicate that the urban population in 2015, will increase, for example, it will be 79% in OECD countries and 47.8% worldwide (data based on national definitions, it refers to averages of projections. Source: Human Development Report, 2004). Cities develop into a civilizational context that seeks to respond to different groups:

- People lifelong education/training social cohesion; employment/unemployment; health; leisure/culture; social inclusion; etc.
- Economic activities traditional sectors; competitive sectors; etc.
- The institutions Territorial dynamics; services; etc.
- The territory organization, accessibility, quality of green spaces; Smart sustainability, etc.

Within the process of globalization and mass society, the information systems enables cultural resources, identity and collective memory, local/regional, to be preserved, disseminated and developed, if exploited and mediated through appropriate and flexible technologies. Allowing, this way its expansion/exploitation for responding, qualitatively and efficiently, to the sociocultural and economic needs of its users, in the different locals/regions.

This intention intends to enhance the classical cultural/historical memory and generate new resources/new learning attractions, providing interfaces between the past, present and future. Intends to contribute to structure and define the interface between the local and global levels, highlighting the local brand identity, distinguishing the groups and the specific locations, while generating the possibility of sharing experiences within an integrated global agenda and with the visualization and exploration of common experiences, in an attractive, creative and low cost way.

Another principle underpinning this intention is the possibility of answering to the challenges posed by the strategic action established by the Cultural and Educational Policies of the European Community. Even though the proposal refers to the development of cities/communities, it assumes the culture/education as a factor of its social and economic regeneration, and enables the directives emanating from the Convention on the protection and promotion of the diversity of cultural expressions, adopted by the General Conference of United Nations Educational, science and culture, held in Paris in 2005, which considered the cultural diversity as an essential vector of human values and capabilities, being the engine for the sustainable development of communities and your knowledge.

It is an attitude which we believe can generate project with creativity, where the uniqueness of interdisciplinary innovation through its high substrate, helps to strengthen and design, becoming an area of freedom, as constructed by knowledge. It's an attitude that appears capable of making us believe on a useful fusion between convergent thinking and divergent thinking, the attitude to learn with responsibility, in a continuum that happens from knowledge management to its use - life-time space and time theory ( past, present, future), in a research environment recreated - praxis as epistemological field of knowledge (Viana, 2010).

In the scenario outlined, there emerges the symbolic function of the imagination, creativity and innovation not as a unique way of situating scientific truths, but also rather as seeking truth in the perceptions.

The challenges of today's world are located beyond the boundary between information and curiosity to discover, ie, claims clarity of quality and usefulness, to enable use and develop knowledge with meaning and significance. Therefore, seeks to develop visibility mechanisms of that usefulness, in order to overcome possible inertia of the information processes. With this aim, information systems are assumed as a strategic potential to organize high tech and globalized world, where we witness high consumption and production of information. Creating for their users, opportunity to develop critical thinking skills, in order to enable them to interact and establish useful interconnections with the complexity and richness that define this world.

#### **Challenges of the Digital World**

- \* Claims from the education a critical action to serve the progress of communities improving the living conditions to transform society in a civic society;
- \* A vital role is assigned to the community/city in educating its citizens (recovery and development of culture) asks for behaviors and attitudes framed by *glocal*, to ensure a better integration of action in professional space and personal/community space;
- \* To facilitate the ownership of several roles and harmonious relationship with the different contexts where they live, because:
  - Considers the multiplicity of knowledge;
  - Collaborates in the development of the identity of teachers and students and competencies to exercise leadership;
  - Interdisciplinary construction;
  - Develops skills to meet the challenges of today's society;
  - Intents to respond to differentiated teaching;
  - Intents to respond to diversity:
  - Have an inclusive vision.

### Challenges for Leadership for Learning with a creative project supported by information systems

- It is a collaborative work:
- Perceives teaching as a space for participation and leadership;
- Considers teaching a socially integrating space;
- Perspectives the process of teaching as a preparation for life work, leisure, consumption, entrepreneurship, culture, knowledge;
- Fosters the face to face;
- Upgrading of learning activities;

- International Conference on the Quality of Information and Communications Technology (pp. 218-222). IEEE DOI 10.1109/QUATIC.2007.26.
- Fernandes, J. E., Machado, R. J. & Carvalho, J. Á. (2011). Profiling and Framing Structures for Pervasive Information Systems Development. Virtual and Networked Organizations, Emergent Technologies and Tools, pp. 283-293, CCIS Series vol. 248, Springer-Verlag, Berlin Heidelberg, Germany, January, 2012, [ISSN: 1865-0929], [ISBN: 978-3-642-31799-6].
- Freire, Paulo (1982). Pedagogia do oprimido. 11. ed. Rio de Janeiro: Paz e Terra, 1982.
- Gregòri, S. P. (Coord. ed.) (2005). Nuevos Espacios y nuevos entornos de educación.
   Alicante: Editorial Club Universitario (ECU).
- Hargreaves, A. (2003). O Ensino na Sociedade do Conhecimento. A educação na era da insegurança. Porto: Porto editora.
- Innerarity, D. (2009). A Sociedade Invisível. Como observar e interpretar as transformações do mundo. Lisboa: Editorial Teorema.
- Landry, C. (2009). The Creative City: the story of a concept. In Reis, A. C. F. & Kageyama, P. (Orgs.. Creative City Perspectives (pp. 4-7). São Paulo: Garimpo de Soluções & Creative City Productions. Digital Edition.
- Ricardo J. Machado, Kristian Bisgaard Lassen, Sérgio Oliveira, Marco Couto, Patrícia Pinto. Requirements Validation: Execution of UML Models with CPN Tools. International Journal on Software Tools for Technology Transfer (STTT), vol. 9, no. 3-4, pp. 353-370, June, 2007, Springer-Verlag, [ISSN-1433-2779]. [© Springer link]
- Stake, R. E. (2003). Case Studies. In N. K. Denzin & Y. S. Lincoln (Orgs.). *Strategies of Qualitative Inquiry* (2end Edition, pp. 134-164). Thousand Oaks, California: SAGE Publications.
- Trilla, J. (2005). La Ciudad Educadora: municipio y educación. In Gregòri, S. P. (Org.). Nuevos espacios y nuevos entornos de educación (pp. 11-18) Alicante: Editorial Club Universitario (ECU).
- Viana, I. C. & Machado, R. J. (2011). CULTURis: A Portuguese Project that Aims the Adoption of Information Systems and Services to Support the Mapping of Learning Opportunities in the Community/City. In ISEI Third Conference, New York City, May 2-5.
- Viana, I. C. & Serrano, A. M. (2010) Inclusion and citizenship plural cultural context of creativity and curricular innovation. *Inklusion*, 3. http://www.inklusiononline.net/index.php/inklusion/article/view/69/73
- Viana, I. C. (2008). The Classroom Curriculum Project within changing practices of the Basic Education system effects of national policies in practices (pp.607-619). *ICET 53rd World Assembly, Learning, Leading and Linking: The Impact of Policy and Research upon Practice*, July 14-17, University of Minho, Braga, Portugal, ISBN 978-1-4276-3411-5.
- Viana, I. C. (2011). Formação e educação: um projecto criativo de interface com a emancipação profissional. Revista Educação Skepsis, n. 2 Formación Profesional. Vol. II. Claves para la formación profesional (pp. 630-660). São Paulo: skepsis.org. url: < http://academiaskepsis.org/revistaEducacao.html> [ISSN 2177-9163], enero/julio.
- Viana, I. C.; Machado, R. J. & Brito, M. A. (2011). BETWEEN THE VIRTUAL AND THE REAL: TECHNOLOGY AND THE CITY AS AN OPPORTUNITY AND CHALLENGE TO THE EDUCATION OF THE FUTURE. ACTAS ICONO14 № 8 II Congreso Internacional Sociedad Digital, Ciudades Creativas | 10/2011 | REVISTA DE COMUNICACIÓN Y

- NUEVAS TECNOLOGÍAS (pp. 1580-1590). ISBN: 978-84-939077-6-1 | C/ Salud, 15 5º dcha. 28013 Madrid CIF: G 84075977 | www.icono14.net. Madrid, 26-28 outubro. http://portal.ciudadescreativas.es/index.php/es/
- Villar, M. B. C. (2007). A Cidade Educadora. Nova Perspectiva de Organização e Intervenção Municipal (2.ª edição). Lisboa: Instituto Piaget.
- Weiser, M. (1991). The Computer for the 21 st Century. Specialized elements of hardware and software, connected by wires, radio waves and infrared, will be so ubiquitous that no one will notice, their presence (pp. 94-104). In Scientific American September 1991 <a href="http://wiki.daimi.au.dk/pca/files/weiser-orig.pdf">http://wiki.daimi.au.dk/pca/files/weiser-orig.pdf</a>
- Young, M. F. D. (2010). Conhecimento e Currículo. Do socioconstrutivismo ao realismo social na sociologia da educação. Porto: Porto Editora.
- Despacho Normativo n.º 13-A/2012, de 5 de junho, visa estabelecer os mecanismos de exercício da autonomia pedagógica e organizativa de cada escola e harmonizá-la com os princípios consagrados no regime jurídico de autonomia, administração e gestão dos estabelecimentos públicos da educação pré-escolar e dos ensinos básico e secundário.
- DL. 281/2009, de 6 de outubro, cria o Sistema Nacional de Intervenção Precoce na infância.
- Human Development Report 2004. Cultural Liberty in Today's Diverse World http://hdr.undp.org/en/reports/global/hdr2004/