

The seduction of convergence between all with everyone and everything

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The development of Full Mixed Reality will give to everybody the opportunity to learn by doing, anything, anywhere, anytime. Also be registered and publicly certificate what they learned.

Summary

In 2030, the analogue natural world, and all layers of virtual realities, which replicates it technologically, will configure two adjacent parallel universes, and each operating fully, a Full Mixed Reality, in which people will be able to act interchangeably in, one, other or both, freely, with others and with the machines individually or collectively.

This Full Mixed Reality, trains people to act ubiquitously, and access knowledge in a practical, and fluid, for learning by doing it.

Be exploited for educational materials produced for other purposes: industrial, tourism, security ... continuous monitoring, counseling, and smooth passage from one reality to another, greatly facilitate the process of learning and improvement. Education tend to focus on the development of values and attitudes and the proper management of technology.

Glimpse of education in 2030

Today the future arouses huge interest in all continents and in many cultures. Proliferate studies and publications on the future ... not in vain we all see that our society and technology are experiencing rapid change, to the point that we are about to experience major historic changes.

The future is always a projection of the present: imagine on the basis of what we know.

To this end we change ratios and proportions between the parts of our present reality: by example: flying car. Sometimes when we distort our reality, the new, appears between the cracks. So, to try to envision the New, started asking us.

Do we observe trends in our present? Which of these trends that we see today are called to develop, to diminish, to disappear? How fast will they? Will combine with each other? How? Can we extrapolate results of these trends?

We think we can find answers. So, before going on to describe the possible future, it is necessary to indicate that the conclusions we obtain, configure only one among many possible futures.

The changes bring the trends that shape our vision of the future, do not develop independently as plants. Changes that affect our social set, are the result of voluntary human choices. Education, as central element of our society, depends on our decisions, now, and that will be taken until 2030.

When we focus on the future, we are committed to making certain decisions ... in Europe, and also in other parts of the world, due to the mutual interaction between all ... because convergence is a central event in this process that we are already living intensely.



What trends do you see? ... instead of responding, we will make more questions

How is affecting us Genome Project? What are the achievements of the European project "Galileo" "Graphene" and "Human Brain"? What can we expect of the American project "Brain Activity Map"? Border ... in 2020 to 2025, according to estimates of their promoters practical results will apply.

These projects are emblematic, but the list is not complete, missing CERN, and many smaller ones. There are those in private industry, or those of other countries such as China, Japan, Korea ... certainly in 2030 things will not be like now.

We still do not know about the future.

No one doubts that in some ways will be different from our present and new materials and ICT (Graphene), the self (Human Brain and Genome), Geopositioning (Galileo, GPS2, Beidou). They will have more weight.

And so, slightly fitted, we specify a bit.

We talked about the massive virtualization of all types of information that will define a new coat of digital reality, mirror of our natural reality.

That is, in 2030 we will be working, actively and consciously in the replication of our biological reality to create a parallel digital reality.

We speak of progress towards a "strong symbiosis" with technology in our everyday lives, at the individual level and at the level of human groups in the whole world at once.

We believe that the line sets voluntary decisions that create this future will be guided by a powerful promise, that despite great difficulties, will not be rejected. The promise of "convergence among all with everyone and everything".

Compliance with the premise "convergence among all with everyone and everything" will mean the actual implementation of ubiquity for everyone, which means telepresence, unlimited space and with it the ability to interoperability, human-machine (work), machine-man (training), and human-human (share, advise, study), offshore of any particular place and of course naturally.

This will dominate the everyday reality in the year 2030. Regardless of their degree of implementation, and while it will be skewed depending on the area of the world where we are, there is a basic consensus on the desirability and the need for its implementation.

How will they do?

We expect a universal programming language, probably an evolution of the current HTML 5, data networks, ultra high speed, 5G or higher, ultra-powerful computers capable of supporting big data applications, expert systems, real-time systems, artificial intelligence systems, to consolidate and improve the current concept of the Internet of Things and the current semantic web.

We also expect the extension and generalization of the use of haptic terminals, custom avatars representation and management that will allow us to enter and exit the digital universe ...

Telepresence is a virtual presence that maintains the ability to act alone or share with others in work or learning environments, relocating our actual position, the place of our performance ..

The exchange with other means that our telepresence is not unique. This exchange takes place in virtual environments with other telepresence with whom you share not only information but actions. This requires that machines, systems and generally any entity that virtualized representation to find this common virtual space.

On this basis we will be able to "simulate" a broad range of resources multisensory immersive virtual environments able to improve performance and user retention. As we have shown, you can experience alone or accompanied by other "telepresences".

These environments, for extraordinary visual quality, responses also provide sensory, tactile, auditory and olfactory experiences generating totally "real" to the user, allowing you to learn to level of experience, including bodily and gestural behaviors.

The new digital reality will be able to evaluate data neurobiological, cognitive, psychological and emotional responses and behaviors that will help determine the degree of learning of the users. Also stored user responses.

The presence of Avatars integrated into the fabric of the simulation allow the tutor to assist on-line or deferred to the different training sessions.

Resources for learning objects may have multiple sources, probably in the area of continuing education much of this information will come from the reuse of information used in the industry. For example the machine tool developers with such technologies simultaneously fulfill several functions:

- To provide value added service to its customers by providing instant assistance capacity of specialists to better match their needs ..
- Improve after-sales
- Assist in the day to day operation of the machine
- Contributing to the training needs.

... /// ..

This approach is extended to other areas ... for example information about a territory, of any kind, nature, culture, resources, is capable of multiple uses, in addition to training (guided visits a city and its monuments, by a natural ...) this information may be used in maintenance, monitoring, tourism ...

The ability to evoke virtual learning in the real scenario, fits learning to the real world, and the real presence or telepresence of the guardian completed the learning.

The results of studies on the activity of the human mind, will establish parameters and guidelines for assessment of human behavior much more accurate than currently, known ICT tools more powerful than today will be able to draw conclusions from the behavior of people, their use, learning, and many other aspects of his personality.

The conditions required to achieve a goal will be the result of consensus among claimants of the capabilities and certifiers, and probably the system without difficulty collect this information and make it available to those who need it at all times ... through custom avatars.

Profits are endless:

Historical scenarios, natural environments at any scale, micro, normal, mega ... scenarios applied to mathematics, physics, chemistry ... Technology will not be problem.

The discussions will center on the intensity of the application of these technologies in learning, how they are used and the guidance given to people.

The objectives of the initiative ATC21S, seems a good starting point

Ways of thinking: Creativity, critical thinking, problem-solving, decision-making and learning

Ways of working. Communication and collaboration

Tools for working. Information and communications technology (ICT) and information literacy

Skills for living in the world. Citizenship, life and career, and personal and social responsibility.