

INFORMATION TECHNOLOGY AND ORGANIZATIONAL CHANGE.

Today's tendency regarding organizational change and transformation, includes a varied menu of initiatives, whose main actor is Technology as a primary change agent.

It leads us to believe that the implementation of new Technologies is the one certain route to reach the much hoped for transformation towards more flexible, dynamic, fast, innovative and integrated organizations.

The most important part is that these organizations be open to learning and to work effectively in a constantly changing environment.

According to IBM, these are the attributes of the "successful organization of the future" and calls them the organization "on Demand". Likewise, Peter Senge says that these "organizations learn to work better" and Peter Drucker identifies them as "the next generation of successful enterprises" and adds "knowledge corporations" "with the new work force will survive generating substantial profits".

We believe it is important to analyze what IT can do for us in relation to Processes and People.

Information Technology is merely, and no more, than an artifact that completely automates and/or complements the information process. It is easy to identify a long list of awesome tangible items or Hardware and another list of unbelievable intangibles items or Software.

We are talking about PC's, cell. phones, wide band, internet, intranet, and so on and on. This is quite evident when we see the product catalog of any major manufacturer such as IBM, HP, Dell or Compaq, as well as other lesser known providers. There, they describe all the essential and indispensable tools for our office today.

There is no doubt that organizations undergo a change when they implement an IT system. This is emphasized and celebrated by the IT industry and particularly by a great number of consulting firms to justify their action plans (to sell software) and their results. However, darkness begins to set in when we start asking among other things, what type of change occurs? Is this a sustainable change?

This is exactly the point I would like to make. It is time we step inside this world and become aware of the dark side of technology supported change. We should start asking what is the role of people in all of this? How do they contribute to achieve fast, flexible and creative organizations? What about adaptation to change and continuously learning organizations? Are these characteristics effectively generated within the organization by implementing a new IT? or a seminar or training session for its use?

On the other hand, if the successful organizations are and will be those that are in constant learning, then, training must be centered on “learning” particularly, “significant learning”. Is training understood as “significant learning”? What are the criteria, theoretical or pragmatic, to approach change? What is the synergy generated to foster synchronization between the awesome speed of technology evolution and the somewhat slower pace of personnel learning? Consequently, is it correct to look for answers only in technology? Or should we also consider a more humanistic approach? Finally, it is imperative to clarify, whether it is valid to incorporate, to solve the situation at hand Information Technology or should we be considering **Knowledge Technology**?

Every board and manager, in our opinion, should be addressing these questions. They are of paramount importance because of the vast amounts of money invested year after year with questionable results. The answers are not likely to be found in magazines or trade journals. In our opinion, the effort must start at the board because they are the ones interested in defining the type of change the corporation needs. They must also, in our opinion, identify the manner in which implementation and the subsequent actions, will take place. They should be concerned about their own role in the promotion and

information throughout the corporation, or the unit involved, of the effort the organization will undertake and the reasons for it.

Here I would like to advance my first recommendation: Anything that does not integrate all the pertinent elements of the organization, will not survive for long. Only the integration of these elements will generate the required synergy to bring about sustainable change and generate the benefits expected.

The pertinent elements are People-Processes-Technology and the inter action thereof. However, a great limiting factor arises on such implementation. This undertaking is perceived as being a formidable task. To deal with the 3 elements at once one, is conceived as very complex and would decelerate the organization. This, is considered by management as suicidal, a lethal fact in the context of the vertiginous technological war that they face. This fact, by the way is one of the contributing factors to the less than desirable outcomes of change efforts based on technological action.

There are persons, such as those of Marroco Technologies, who have dedicated their lives to the study of organizations and **how** they change. They constructed a system in 1989 to tackle these questions. As a matter of fact it is a very successful proposition. I believe that the words of Peter Senge in his last book “The Dance of Change” synthesize quite well the approach needed: “The fountainhead of our problems today rest fundamentally in our way of thinking, if these do not change, any new contribution will yield the same unproductive actions”.

Now we dare to present another recommendation: it is people and not technology, that should be the aim of our efforts. It is they, their knowledge, their managerial and generic capabilities – perception, intuition, creativity, reflexion who are the corner stone of the change efforts. These capabilities are not necessarily generated by technology.

It is imperative to underline that we are not talking about persons alien to technology, or state of the art processes, but persons that

understand that these are tools and not the main fountainhead of change.

What follows is my humble contribution to “light in the shadow “. If we wish to implement an effective and sustainable change we must shift to **Knowledge Technology** in greater proportion than to IT. The former is the moving force behind the latter in the organization. It is Knowledge that resolves the above mentioned paradox in the real world, the one about decelerating managerial action.

What I would like to suggest is that managers, professionals and technical personnel consider the following:

The implementation of technological approaches whose objective is the individual, and the comprehensive development of his/her technical and generic capabilities, preferably in their own work place.

The implementation following an educational approach that focuses on “significant learning” or Hyper learning as Marroco Technologies suggests, instead of a mere technological or process approach.

The harmonious interaction of the organizational components –Processes, Technology and, most importantly, People- in the change initiatives simply because it is they, people, who will make it happen.

A good example of this fusion is represented by all the e-learning initiatives in Information Technology under Intranet for the implementation of new administrative systems. These Processes are fundamentally based on “coaching” considering significant learning in some, still a few, consultants in the area of Human Resources.

I would like to dwell for a moment on the fact that IT, as any new technology, is beginning to show important gaps. I would like to submit a few:

The IT industry generates so much information and so fast that the models for analysis are sometimes inadequate and normally they survive only because they normally deal with information only, up to now.

Education, which is always related to access to information, does not count today with good ethical resources to provide principles for its use.

IT has created its own space. The NET, Internet, cyber space and most of us have difficulties alternating in those two worlds, real and virtual. It is a complex and traumatic situation that we all have to comprehend.

With the advent of IT our human relations have become less personal. There is some serious sociological evidence that unless we start studying in depth this situation, there could develop sociological implications such as social and community disarticulation, with consequent negative effects.

“ IT is controlled by a select group of countries, the great memory or inclusively the collective conscience is being deposited in SAN (Storage Networks Area) of a hand full of countries. Therefore, global concentration of information could lead to very undesired consequences such as use of power, of which humanity has experienced countless atrocities.

IT development talks about an increasing level of control and vigilance given the increased capability to watch in real time many operations. This is something we really consider critical because there is an endless list of the consequences of control and exploitation of human resources.

It is interesting to note that we have generated more information in the last decade than in all of history although that fact has not had a corresponding effect on wisdom or simply, quality of life.

In our opinion the greatest weakness is the lack of ethics on the part of a very large and increasing group of users. Some very small groups have an enormous capability for destruction in the Internet.

Millions of dollars are spent every day on electronic safety by corporations all over the world. There are reasons to believe that, precisely IT corporations are the ones that spend more heavily.

E- Gaps occur daily in software. These are taken advantage of by “hackers” to cause heavy blows in the otherwise normal functioning of corporations. They respond with a new more costly platform which in turn will become obsolete in a short time. The cruel fact is that most of these mishaps are so frequent that they are considered “normal” in most operations.

There are persons that have the opinion that “technology does not improve anything, it only changes it”. There are many philosophical implications in that statement that I do not share in principle because I am a soldier of IT regardless of all the dark spots that I mentioned earlier. I believe that there are more benefits than dark spots and that with adequate help we shall be able to overcome them in time. However, I believe that we have to be conscious of the fact that the use of IT, a tool, is in the hands and conscience of human beings.

IT as mentioned earlier, has created its own space in Internet. This space is huge, it is of extraordinary dimensions for the development, knowledge and even safety of humanity, but it can also be used by delinquents. It is a space that would have to have norms and values. However, as in every other endeavor it is humans who will have to find the solution.