Consulting in Technology and Job Training

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1. A company involved with innovation and quality
FORTEC is a company whose basic objective is the creation and development of projects that impact beneficially in society, paying particular attention to all processes and related training systems.

Currently FORTEC is a national reference in the field of training for employment, annually receiving recognition from Public Organisms (the Tripartite Foundation for Employment Training, the regional employment services or the Ministry of Industry, Tourism and Trade ) and Business and Union Organizations and the private sector.
FORTEC is certified organization by Q-FOR, quality and specific certification for training organizations.

The European (EEIG Qfor 1998) Economic Interest Group aims to ensure the management and coordination of the Qfor method as well as promote innovation and adaptation of assessment methodology and quality certification of training organizations and consultancy.

Since 1997 For "ClientScan" has shown its validity and relevance, and has been widely accepted and used by training organizations and consulting, and public and private institutions. The Qfor system has systematically supported by a Supervisory Committee and a Committee of Experts.
2. A company that researches on ICT applied to training

More than 15 years dedicated to educational research
Over the last years it has made significant progress in the development of new information and communications technology. However, the path in terms of improving the quality and effectiveness of learning in these new learning environments has been sparse. And it is this educational neglect which largely prevented the optimal use of ICT in virtual training environments.

**Objectives**

- Describe how new ICTs be applied in virtual training environments to ensure the quality of the teaching and learning effectiveness.
- Improve access to training for SMEs.
- Improve the competitiveness of SMEs as a result of improving the quality and effectiveness of the training.
- Improve training systems for employment.

The study describes how new information and communications technology in virtual training environments should be applied to ensure the quality of it and the educational effectiveness of learning how to improve access to training of SMEs, how to improve competitiveness SMEs as a result of improving the quality and effectiveness of the training and how to improve continuing training systems.

A series of proposals for implementation of ICT to overcome these difficulties and objections, to improve the quality of comprehensive management of ongoing training in virtual learning environments are made (taking into account the standards of quality assurance ISO-9000), and to improve the effectiveness of the training and guarantee retraining of workers who are trained in virtual learning environments.
RESEARCH ON ICT APPLIED TO TRAINING


Objectives

• Improve profitability development of multimedia digital educational content.
• Ensure educational effectiveness of digital educational content.
• Guide the actions of SMEs providing digital educational content.
• Make available to institutions with capacity to regulate and organize the training for employment an instrument to recognize and certify technological and pedagogical quality digital educational materials developed.
• Quantify the degree of implementation of the standards among suppliers.

Results

• Technological specifications Guide
• Teaching Guide specifications
In the information society and knowledge, ICTs have become key to the work and training world elements. However, its inclusion should not focus exclusively on the fact that they allow us to do things more quickly, automatically and reliably. In use we must seek new uses, creating new scenarios and rich and varied learning environments.

**Objectives**

- Analyze the potential of ICT devices in training for employment.
- Experience in laboratory and through a potential pilot sample.
- Evaluate the information collected about the different variables of technological and pedagogical.
- Preparing the proposal proper educational uses for each device.
- Conduct an educational interactive guide on the use of each of them.

**Initial situation**


**References**

- Methodological guide quality standards pedagogical and technological SWOTs of each device
- Proposal of educational uses of each device
- Applications interactive teaching guide for each device aimed at teachers
It is considered necessary to develop a proposal within the culture of quality, providing companies interested in accessing to E-learning, a model of quality standards, specifically geared to this mode, and the prospect of its application in sectors and various groups.

The overall objective of the study is to provide companies interested in carrying out E-learning actions, a practical guide that allows them to develop plans in any of the forms of line education with total guarantee of quality and efficiency. The guide includes for this purpose, among other matters, two instruments useful such as: A structured phased about the quality standards to be applied in the process of distance training model. A bank of good practices in distance training, which constitute a benchmark for other companies.

Initial situation

Objective

The research on ICT applied to training

References


Objectives

Results

• Methodological guide for quality standards and best practices.
• Model quality assessment of the implementation process of e-learning in enterprises.
• Q-Learning System: Web tool for the evaluation of the implementation process of e-learning in enterprises.
3. A development-oriented ICT training solutions company

At every moment the technology for teaching. Innovations in three areas:

- Media and devices
- Contents
- Interaction systems
The approach to user interactive television as a means of learning are two main difficulties:

Limitation of student-tutor interaction through television.

Restrictions on the deployment of personalized content, without depending on the television operator.

The existence of decoders with free return channel band. Wide promotes research ways of solution.

**Objectives**

- Developing a video messaging system through an IP camera that allows a flexible student-tutor interaction through TVi to develop an editing system for the tutor to deploy customized content that students receive in their application for TVi content.

**Initial Situation**

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**Results**

- Determination of the basis of student infrastructure. Integration and configuration assistance elements.
- Training product for TVi on home help.
- Integrated video messaging system, which facilitates the exchange of video messages.
- Viewing system personalized content sent by the tutor.
- Application Web tracking student learning with ability to send prerecorded messages via webcam and generate new multimedia content.

**ICT TRAINING SOLUTIONS**

Innovation interaction systems

System collaborative work and editing dynamic and customizable content for DTT in first aid. 2009.

Client: FOREM Confederal
One common deficiencies in the training modalities online is the lack of practical burden, being a type of training which, frequently, have prioritized the theoretical contents. New technologies can foster the integration of practical resources in learning processes in matters that require the acquisition of certain abilities and skills.

AYUDATE is a multiconsola game created to satisfy the need to give workers the opportunity to do internships to gain professional experience as a caretaker of physical, mental and sensory disabled, caregiver dependent on institutions or gerocultor in a highly motivating fun environment people.

Objectives

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Results

MULTICONSOLA game that can be accessed and played from two different types of game consoles, the Wii and Play Station 3. Also here, the game is also available on the Internet from a PC. In addition to conducting training in either of the means provided, the user can play collaboratively with other students. It is used for teaching purposes capacity of both consoles to detect motion and rotation in three-dimensional space.
Traditionally, interfaces man-machine interaction had been limited to the keyboard, mouse or joystick as a communication device between the machine and the user. Therefore, Kinect opens up a whole new horizon revolutionary allowing non-intrusive interaction and free, without physical contact with any device.

**Objectives**

It arises the development of a new software tool that pedagogically systematize and automate the process of generating e-learning practices based recognition technologies and gestural interaction. The specific objectives are:

- Analyze the educational possibilities of gesture recognition technology.
- Designing a pedagogical model for creating training practices in this technology.
- Develop an editing tool "kinect practices" that allows the production of interactive digital content for the acquisition of practical skills through PC.

**Results**

- Authoring tool gestural practices.
- Client application.
A the training traditional applications can be attributed two major shortcomings:

1. They suffer intelligent or advanced modes of application interaction with the student, which causes such training applications can be classified as passive and linear, that is they are applications that have no capacity to adapt to student and always obey to training strategies default.

2. Current systems evaluation and mentoring act only on expository content, showing a clear lack of practical content aimed at the acquisition of skills and task performance.

**Objectives**

Develop solutions and tools for training that includes the creation of innovative multimedia content in 3D and Augmented Reality tutorials and their integration into systems based on Artificial Intelligence.

**Results**

- Authoring tool that allows teachers to generate useful content for distance learning, exploiting the advantages of the technologies of Augmented Reality (training of action) and the Model Tracks (decision-making practices). Practical interactive multiplatform contents favoring labour integration and consolidation of workers: practices repository.intelligent tutor analyzing parameters of the actions of users in order to adapt to the characteristics and evolution system to offer personalized learning paths.
Current society allows to intuit a new type of patient, accustomed to the use of new technologies. At the same time, it is perceived a trend in health centers and hospitals to optimize their processes by increasing incorporation of new technologies to support their daily tasks.

The purpose of the system is that all devices serve as support to the work of telecare and monitoring of patients and people, as if they were in the health center.

In a scenario where interactive television is the vehicle monitoring and transmission of the main information, they have developed training content based on the European standard HBBTV, which will be accessible also for PC platform and mobile devices (Android and IOS environment) in response to the demand for flexibility gradually being detected in the market.

The project is nothing more than a commitment to experiment with technologies that allow us to intuit the patient of the future, interconnected through various technologies converging in interactive television. There may be a smooth doctor-patient communication, disclosure and updated aspects essential to patient health and transparent control of measurement parameters, depending on the patient's pathology training.
ICT TRAINING SOLUTIONS
Innovation interaction systems

FOR-IN-AR I: Tool production augmented reality applications and artificial vision, for dissemination processes. Year: 2013-2014. FORTEC - INNOVAARAGON (Government of Aragon)

Initial Situation

One concern of training through technological means is how to be effective from a pedagogical point of view on matters of technical, where the practical component is indispensable. Usually a series of videos or photographs that illustrate and explain the processes are used. The shortcoming is the lack of interaction and being able to run targeted actions directly on the object that you want to learn how it is working out.

Objectives

Uniting artificial vision with augmented reality in order to recognize objects and get overprinted information that illustrates a particular process, and all in situ, in front of the object. The key aspect is the module responsible for interpreting the logic of the model description or object, to detect using artificial vision.

Results

The result is a stand alone tool that allows you to create the following types of practices or actions: 1. Simple Observation. Ex.: signaling action of the meaning of each command on the front of a washing machine. 2. Timed sequence. Ex. selection action of a program of the washing machine. Roulette spins indicating what the user should do with the actual roulette of your washer. 3. Interaction. Ex.: startup action of the washer. The user clicks on the virtual button panel overlay that appears on the screen of your mobile. This produces a characteristic noise audio start of operation of the washing machine or video from phonegap showing the drum starting the washing process starts.

Applications allow diffusion through augmented reality applications based on the recognition of objects, a set of attributes concerning products of virtually any company and scope of activity.
One of the concerns of enterprises and universities is how to generate e-learning content just-in-time adapted to the needs of the moment, personalized, low cost, and criteria of pedagogical and technological quality well defined. Being competitive in content production opens wide possibilities in an increasingly global market.

**Objectives**

Develop an editing system that enables a streamlined production of e-learning content by specialists in any subject. Make intensive use of artificial intelligence algorithms and technologies. Validate the system in controlled environments.

**Results**

The result is a project valued by the European Commission in SME Instrument with a score of 12.62 out of 15 and an assessment in the call of the Government of Spain Horizonte SME 14 points on 15. Nowadays it has developed the system architecture and programming are different modules of the system and conducting tests on contents of the computer field.
Advanced training solutions