



MINISTERIO
DE ASUNTOS
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DIRECCIÓN GENERAL
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**THE MURCIA PROJECT
FOR PEOPLE WITH DISABILITIES.
PANEL AT INET' 2002
IN WASHINGTON DC.
19TH JUNE 2002**

**BEYOND WEB ACCESSIBILITY. DESIGN FOR ALL
&
INTERNET TECHNOLOGY.**

Madrid, 18 julio 2002

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Í N D E X

1. Where is Murcia or how do you spell it?	5
2. The Murcia Project as an outcome of the UofMU	8
3. Main targets of the UofMU Projects: integrate people with disabilities into Societal life.	10
3.1 The Ciud@d.es Project.	11
3.2 The Smartfires Project.	12

“THE MURCIA PROJECT”

1. Where is Murcia or how do you spell it?

Geographically located at the South East of Spain, the Region of Murcia makes a triangle, dividing firmly the influence of the Catalanian impact from the North East & the input of the Andalusian inheritance from the South west.

Just at the Corner of the cape of Cabo de Palos, strong point of curve towards the west of the Iberian peninsula, the Region of Murcia is like a frontier with a firm tradition & personality for *i*-integration. Phoenicians, Carthaginians¹, Romans, Sephardics, Berbers, Gypsies and Christians populated the are of some 11.000 square Kilometers, and presently with a population of over 1 Million inhabitants with the tallest rate of *i*-migrants in Spain. Some cities like Lorca have over 20% of migrants².

¹ They came through the Region of Murcia, on its way to conquer Rome and if Anibal will have won again, after the succesful three hours battle, of the Trasimeno Lake, some day of April 217 b.c. against the Romans Legion lead by Servilio and Flaminio to conquer Rome, the whole politics and history of Europe will have been a different one. Rome won, and the world of Europe became roman. Carthago lost and Anibal could not impose the rule of Cartagena on the Mediterranean area and the Iberian peninsula, which he has conquered before from Castilla to Salamanca, and his father Amilcar Barca had done in northern Africa, when he died in 228 b.c. already in Spain. Carthago was located in the present area of Tunisia and its Iberian foot hole was set up and nominated the Region of Cartagena-Murcia.

² Of some over 75.000 persons of population, and probably the tallest immigration rate of Europe. Families, of third generation, from Ecuador, Peru, Morocco and Subsaharian countries are populating the large agricultural fields of Lorca, on its summers harvest of Kiwis, and other primor vegetables.

Hans Christian Adersen made a trip to Murcia in 1862/63³ and found too many Gypsies and Arabs in its unpaved streets!

With some 250 kilometers of sea shore the Region of Murcia, the tallest in desertification of the Iberian Peninsula, is a very creative Region:

- The 6th of April 1272 King Alfonso X el Sabio set up the University of Murcia targeting, mainly, the integration of Christian, Arab and Jewish cultures from the Sephardics, the Murcianos, the near neighbouring Berbers and Gypsies....etc. He was a real innovative man⁴. Today, we, at the UofMU are very proud of him, for his visionary knowledge and his wisdom, so we have nicknamed him as Alfonso X “El Sabio” the knowledgeable man of wisdom.
- In 1885 Isaac Peral⁵, invented and performed the first ever navigating Submarine in the harbour of Cartagena.
- In 1923, Juan de la Cierva, created the first ever Helicopter which took off from the hills of Verdolay, some 10 Kilometers from Murcia city.

The Region of Murcia is composed of light lands, with a good chain of mountains in the North, getting into the Segura river plantations of rice at Calasparra and passing by the North west cities of Caravaca where the world wide known French Croix de Lorraine of General De Gaulle is originated, then to Cehegin with a large marble industry and Moratalla headquarters of an important oil business. Following on the East the grapes lands of Jumilla’s wine and the important furniture industry town of Yecla, getting South to Cieza, of over some 50.000 persons and located at a historical crossroads of communications - Train, High ways

³ Cfrs. In the book, published in Denmark, “Hans Christian Andersen in Spanien” first edition of 1863 by C.A.Reizel in Copenhagen, where he describes the shores of the Mediterranean coast from Barcelona, to Valencia, Elche and Murcia, going then from Cartagena, on a very “dirty ship” to Malaga and then travelling to northern Morocco and Marraquech.

⁴ His well known “El Libro de las siete Partidas” was a master piece, in the XIII Century. A sort of a Rule of Law for that time!

⁵ Vide. More information in Encilopedia Universal Ilustrada, Euro-Americana, Vol. XLIII, Espasa Calpe, Bilbao, 1921, pp. 504-507.

and the Rio Segura meets there for the first time - to the rest of the Region and towards “La Mancha” North and South to Murcia city. Cieza is a rich valley amidst a very fertile plantations of Orange, Lemon, Tangerines, Apricots, Peaches, Prunes & Vegetables of all sorts and the first Digital network of the Region, Ciez@net, a digital Project set up in 1997⁶.

Palms trees and desserts lands sets Murcia at the bottom of a large agricultural Valley, irrigated still in some parts through an old arabic system⁷ where a good communications network of High ways leads West to the important city of Lorca⁸ in the western part, a real frontier⁹ to Andalucía.

At the bottom South is the city of Cartagena¹⁰, one of the three National Navy Headquarters of Spain – this one for the Mediterranean, as Cadiz is for the Atlantic south and El Ferrol for the Atlantic north - Another interesting Politechnical University is located in Cartagena as well as the Parliamentary Assambly of the Region. Cartagena was also the oldest place where it set foot the preachings of the Christian faith in Spain¹¹. The old Catholic Diocesis of Cartagena-Murcia is located in Murcia city as well as the UofMU and the Political Executive Presidency of the Regional Community of Murcia¹².

The Region of Murcia has also a “Costa calida”, which runs along some over 250 Kilometers, from the borders of the Catalonian impact

⁶ Cfrsé. <http://www.cieza.net>

⁷ El Reguerón is a long Cannal which spreads the water all over the agricultural fields and La Noria of “La Ñora”, is a round pump wheel which elevates water some 20 meters with the same purpose of irrigation. Both artifacts belongs to the arabic water technology and are in total use now-a-days. The Transvase Tajo-Segura brings water from River Tajo to the Segura, and a future project to bring more water, this time from the Ebro River, is under major discussion. Water is an essential element to the Region of Murcia.

⁸ More than 70.000 persons and with a rate, the tallest in Europe, of some 20% of migrant population.

⁹ See at the Metropolitan Museum of Art in New York, the splendid Patio of the Marquis of “Velez Rubio”, part of a real fortress and a few kilometers west of Lorca.

¹⁰ With a population of some 200.000, and no doubt the second City in the Region and probably the strongest foot whole for its economy, industrial power & maritime strategy.

¹¹ No later than the year 60 a.c. Apostle Saint Jack came from Carthago to Spain and landed in Santa Lucia on the shores of the Mediterranean sea very near to Cartagena, and then he preached the Gospel all over Spain, dying in Santiago de Compostela and being buried there.

¹² More details and facts can be found in <http://www.carm.es>

at Guardamar, the mouth of the Segura River into the Mediterranean, and which runs along a very special ecological and very salted Lagoon, “El Mar Menor”, connected to the “Mar Mayor” through a natural canal, “La Encañizada”¹³, near to Santiago de la Ribera, headquarters of the National Military Air Force Training school, and down to the Cabo de Palos, the deepest geographical turning point into the south of the Iberian Peninsula. It is a magic point. Mines of Gold & Silver were in production some decades ago at La Unión, very close to the heavy industrial Park of Portmán, on the out skirt of Cartagena. Aguilas is the last splendid seashore resort and in between from Murcia city is the town of Alcantarilla, siège of the National Academy for civil and military Parachute training School.

Murcia is a stronghold and meeting point of Cultures, Economics and Politics of *i*-ntegration in the Iberian peninsula, and its historical and mythological background goes back to the Roman Goddess of Murcia, representing a beautiful young Lady lying down in a roman cannapé and surrounded of ivy thick plants.

I was born in Murcia¹⁴ where I did my High School and University studies but I left the city when I was only 21, after my Graduation in Law at the UofMU and have not come back, from my Diplomatic postings at the UN in New York, The Vatican in Rome, and the Embassies of Peru, Australia, New Zealand, PNG, Fiji, Tonga, The Salmon Islands, Canada, Lithuania and Denmark, after 39 years of absence. But I was graduated in Law at the UofMU. So my connections are clear enough from the very beginning.

2. The Murcia Project as an outcome of the UofMU.

Early on the Decade of the 90’s, the UofMU has elaborated, researched and developed an important special “niche” for the IT’s. The outcomes, in the world of Internet Technologies and the fields of TIC’s,

¹³ Privately owned by the family of Tomás Maestre.

¹⁴ I was born in “El Barrio del Carmen”, on the south side of the Segura River, which my father, nicknamed as “El Barrio de los Ferroviarios” or the train workers living place, because it was very near to the Train Station.

can be tested, by/at different areas of research and applications of the University, probably one of the most advanced in this issues in Spain.

The UofMU¹⁵ has one basic Product and two flagship Projects which I am going to outline in this Panel of ISOC at¹⁶ INET' 2002¹⁷ in the next 20' in my closing address to this Panel about "Beyond Web Accessibility - Design for All and Internet Technology"¹⁸.

The flagship Product of the UofMU is the MUSCard¹⁹ based on smart chip technologies which has produced a Smart Card device with the main purpose of ID at the University, throughout the ITAC (Intelligent, Terminal for Access Control) or TICA in Spanish (Terminal Inteligente de Control de Acceso) which runs the entire system of the

¹⁵ The UofMU has over 50.000 students and some 3.000 Professor and staff members. Some 14 Faculties and three Campuses, of Espinardo, La Merced and Convalecencia, with uses and employs quite an advanced ITC's system of identification, communication and social impact developments.

¹⁶ Vide <http://www.isoc.org> created in Copenhagen in 1992 for the free development and uses of the Internet, and in to which, at its Board of Trustees, I was elected in 1997 together with Ben Segal from the CERN in Geneva, John Gilmore CEO of EFF the Electronic Frontier Foundation at San Francisco Ca. Jun Murai from Japan and Christine Maxwell french-anglo Lady creator of the Yellow Pages of the Internet in 1994. At this BoT were already John Postel, the man from IANA, Vinton G. Cerf, the man for IP/TCP, Scott Brand, the man for Standards. The BoT use to meet, at the same time that the IETF (The Internet Engineering Task Force) and later on, after the meeting on "Strategies for the 2000" in Paris, in 1999 the ISTF or Internet Societal Task Force, which lead to the ICANN, actually chaired in its last meeting in Bucarest in July 2002 by Vinton G Cerf.

¹⁷ The Internet Society or ISOC, has developed & research many Tuition ways at its annual Conferences of INET, <http://www.inet.org> since then, with the criteria of setting the Conferences, one in Europe, one in America and then in Asia. I have actively participated in all of them since 1996 in Montreal, 1997 in Kuala Lumpur, 1998 in Geneva, 1999 in Yokohama, 2000 in San Jose, Ca. 2001, in Stockholm and 2002 presently in Washington DC under the title, this last time, of "Internet Crossroads" including IPv6 Development Summit. See <http://www.intet2002.org> and <http://www.ipv6summit.com>

¹⁸ Vide the whole Program at the above mentioned URL <http://www.inet2002.org> This panel, specially devoted and a follow up of precious INET Conferences at Stockholm, San Jose and Geneva, is composed of some special personalities, more or less, all of them devoted and touched in the world and areas of People with disabilities. The following ones, are important to underline, for future works, Mark Urban docurban@nc.rr.com, Bill LaPlant, claplant@census.gov, ICDRI, USA "Accessible Protocols for an Array of Devices to be Connected Over the Internet", Bill Lawsson, wjl@att.com AT&T and ICDRI, USA "Biometrics, People with Disabilities and the Internet". All under the leadership of Mike Burks, AT&T, USA, mburks952@att.net and more or less all of us disable, in a certain way.

¹⁹ Vide <http://www.Muscard.com> and mainly its impacts in the University campuses and areas of influence, mainly in Spain and Canada.

University throughout multiples small virtual secretaries, (TICA's machines) scattered all over the Campuses, and which gives more than 30 services to students, professors and staff members, from ID, to Library lending purposes, virtual "on line" meetings among students & professors and staff, paying fees of different sorts like photocopies, tuition and others, money pocket, car pools, sportive, gym and outdoors activities....etc.

The main products are based on the MUSCard technologies and both of them, actually in a well road of development, are:

- The Ciud@des project²⁰.
- And the Smartfires²¹.

I will speak today, only about the two Projects and in a very concise way.

3. Main targets of the UofMU Projects: integrate people with disabilities into Societal life.

The University School of Social Works of the UofMU has worked in the past, for 8 consecutive years and since 1995 together with the TICA Department and they have succeed in setting up several Encounters among University students, people with disabilities and volunteers for "University Education, Community life & Disabilities" bringing about the publication of a Book 'on-line' introduced in Copenhagen in 1999²² Since them two main targets are aimed, in order to integrate IT's Technologies and specially the SC device, MUSCard, in order to advance the Societal immersion of People with disabilities into Society:

- The Ciud@d,es Project
- The Smartfires Project

²⁰ Look at <http://www.um.es/unids>

²¹ Research Program launched the 7th of June, this year, for the EU. research Network of Excellence, in cooperation with 75% of the anti fire business in Spain <http://www.tecnifuego-aespi.org> the Government of the Region of Murcia, <http://www.carm.es> and the TICA Department of the UofMU, looking to stablish a Network of Excellence research and application for people with disabilities, helping in cases of fires.

²² See <http://www.um.es/unids>

The Smartfires has been presented, in an Abstract, to the European Union, P6M or 6th Framework Program for Excellence Research, the last 7th of June.

I will describe both of them, also in a very short way.

3. The Ciud@d.es Project.

Ciud@d.es in Spanish is the synchronic of the following ideas in our Language:

Centro de
investigación y
usos
de las TIC para los
@dultos y
discapacitados
.en
es-paña.

The main idea is to build a huge *i*-DB which is called “The Virtu@l building”, for the entire Region of Murcia, for Senior and other People with disabilities, done, if possible, by themselves, since the very beginning, using Chip technologies and specially the basic MUSCard of the UofMU.

This intelligent and inter-active Data Base will be the main pumping heart of the Project and it is easy to build, following a very simple schema of data:

- **Geographical** (where is located the person),
- **Arithmetical** (which is the users number assigned to the person at the *i*-DB) and
- **Cultural** parameters (sort of quality & preferences in life for/of the Members of the *i*-DB, plus economic situation data....etc.).

All this Information will be stored also at the MUSCard chip and will inter-act with the “Physical Building”, which is going to be built with the latest technologies for construction. Soft, adjustable new materials,

sensors and all kind of furniture, able to be stored when need it, in order that when a new user comes to the Building, showing her/his identity at the MUSCard, the Memory of the *i*-DB, automatically will adjust the entrance hall, corridors and rooms and even common spaces to the needs of the users. Ramps, sounds, braille systems, chairs, wheel chairs, tables and sofas, will be set up, as well as common spaces, for the type asked for at the SC identification memory.

This is a concept developed by the Canadian Architect Eric BUNGE²³ of nARCHITECTS, based in New York. In 2000, they won first prize in an international competition to design a “Hotel á la Karte” house of the arts for Hotel Pro Forma²⁴ in Orestad, Denmark, in which physical services would be digitally ordered with a smart card. This year they were one of thirty firms worldwide to have been exhibited in the international architecture exhibition in Orleans, Archilab, 2002.

The Project of Ciud@d.es was presented²⁵ at the UofMU on the 17th of January 2001 on occasion of the inauguration of the International Year of Volunteers and during the Official visit of HRH the Prince of Asturias, Prince Felipe, to the Region of Murcia, by a team of Canadian, Spanish & US researchers, professors, diplomats and businessmen from Ottawa, Nepean, Segovia, New York and Madrid. The project was also outlined at the Closing address of Educa-red, in Madrid with the Participation of hundreds of professors and teachers from all over Spain at the Palacio de Congresos in Madrid, on the 20th of January same year. This Congress of Educa-red was also inaugurated by HRH the Prince of Asturias, Prince Felipe, on the 19th.

3.1. The Smartfires Project.

This Project is about the building up of a Digital network of Excellence, of no more than 50 experts “on-line” in order to research and come up with practices, tools and incentives to adequate the European normative on building construction for Fire Protection and improved the IST technologies to prevent/help the blind, the deaf, the wheel-chair users

²³ Cfr- <http://www.n@n-architec.com>

²⁴ See more of this important and innovative Ballet Art Co. <http://www.hotelproforma.dk>

²⁵ Vide <http://www.On-Lsp.com>

and the aged, in cases of Fires at their living or working places. This could be possible by an intensive use of the Smart Card and by setting up special alarms, sensors and devices, as well as training people and the creation of artifacts to be more suitable in order to help before, during and after the whole process of a Fire is detected.

The process to follow up research must be focus in:

- Detection
- Prevention, and
- Extinction of fires

The targeted research will have to be directed mainly to:

- Infrastructure Technologies (software and hardware)
- Equipment/Devices of all kinds
 - Sounds
 - Lights
 - Consumer electronics
 - Radios
 - TV sets
 - Cellular phones
 - Universal Remote Consoles
 - Special devices for specific needs
- And Human resources
 - Accommodation Specialist
 - Training systems
 - Employment of a digital network of trained volunteers²⁶.

The level of protection of buildings is bound directly to the culture of society, the growth of energetic consumption and the technological advances to the built-in systems²⁷.

²⁶ It could be used a schema more or less similar to the present UNITEs Digital Volunteers service which is already operating and being directed from Bonn by two spaniards, Alexandra Haglund-Petitbo, Alexadra.Haglund-Petitbo@unvolunteers.org. and Manuel Acevedo, Manuel.Acevedo@unvolunteers.org for bridging the digital divide between North and South. See <http://www.unites.org>

²⁷ Cfr. this and the following paragraphs taken out of the quoted Abstract presented to the European Commission on the 7th of June last.

When rising the cultural and economic levels of society, a greater protection against fires on the part of citizens is demanded; whereas the greater power consumption, entails greater fire risk. Also, the existence of norms relative to the compulsory conditions that buildings and systems must comply, contributes to the collective awareness of this problem.

On the other hand, technological advances in the fire detection (more and more precise and trust worthy) as well as the systems of extinction take place (more effective and ecological) are in steady progress. Nevertheless, **we**, at the UofMU thought that we can extend this technological advance hamessing the technologies aimed at the effective coordination of digital and human mechanisms in case of emergency and the integration of the existing system of detection and extinction of fires, contributing advances in the IST's that result, in the protection of citizens with special emphasis in the most disable groups. It is intended to developed systems that, in addition, eliminate environmental barriers and facilitate the integration of these disabled and aged groups in society.

The universal character of this problem, entails a big effort beyond the national scope, requiring European scale means of mobilization with the purpose of offering global solutions. The departure point of this investigation ahead is based on the Smart Card incorporation from the Department of TICA of the UofMU, <http://www.Muscard.com> to the systems of detection and performance of fires on two levels:

- Control of presence,
- Control of access,
 - The outgoing interface,
 - The incoming interface
- The control system of management of control and presence.

As a result of this Digital network of Excellence, an European approach to all techniques of performance in existing case of fire at present time is being offered.

Generally speaking and following this simple schema we should have also a look into ISO&IEC, the International Standards Organization, out of the International Electronic Commission, for the special devices. They

are all hooked up at Geneva, and specially see <http://www.iso.org> in reference to IT standars an the JTC, the Joint Technical Committee and sub-committee SC 35.

We have to research into a sort of *Useres Interfaces with Human beings*, in order to build a Digital Network of no more than 50 people, representing all this aspects of research and appliencies.

My intention with this talk is to add to the excellent Panel we just have heard here, at INET' 2002, about "Beyond Web Accesibiliy - Design for All and Internet Technologies" by Mark Urban and Bill LaPlant "Accesible Protocols for an Array of Devices to be Connected Over the Inernet" and Bill Lawsson on "Biometrics, People with Disabilities and the Internet" and exepctionally moderated by Mike Burks some special fields where we can **all** deploy our imagination, inspiration and desire to achieve our aims.

I hope it can ne adds something.....more!

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