



Ubiquitous Computing and Internet-2 Technologies as Support for Hospitals

*Tecnologías de Computo Ubicuo e Internet-2
como Apoyo a Hospitales*



REUNIÓN DE PRIMAVERA
CUDI 2004
28 al 30 de abril
Manzanillo, Colima

Project background

- CUDI-supported project
 - january-december, 2004
- Inter-institutional collaboration
 - Ensenada: CICESE, IMSS (HGZ IV, no. 8)
 - Colima: U. Colima, University Hospital
- Previous efforts
 - Excellent relations: CICESE – U. Colima
 - On-going work: CICESE - IMSS
 - Strong commitment: U. Colima - Hospital

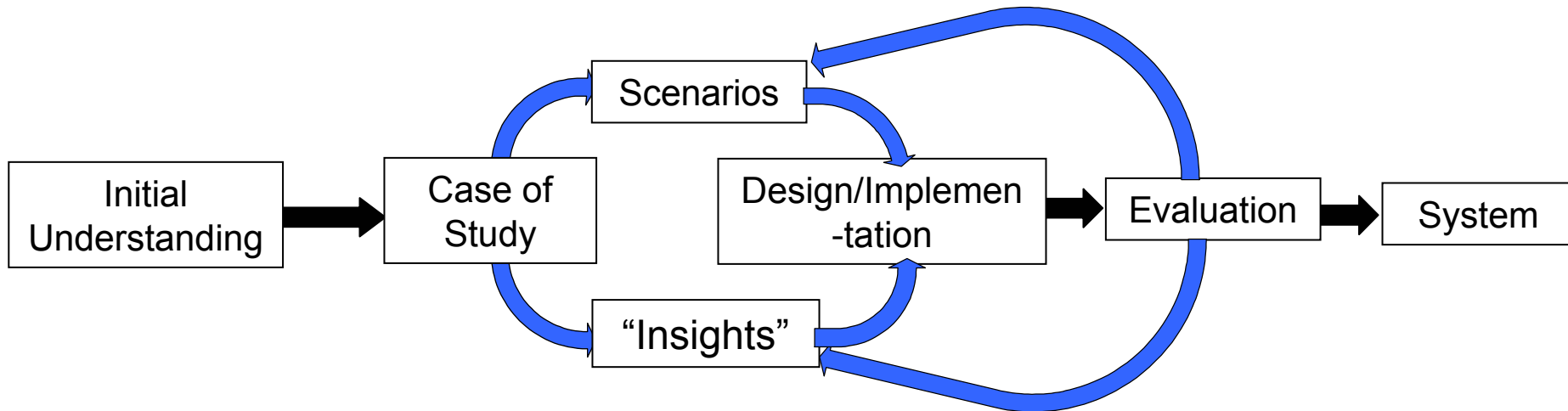
Project participants

- **Dr. Juan José Contreras Castillo**
- **Dr. J. Antonio García Macías**
- Dr. Ana Isabel Martínez García
- Dr. Jesús Favela Vara
- M.Sc. Marcela Rodríguez Urrea
- Many students, university and hospital staff, interviewers, ...

Hospitals + Ubicom tech.

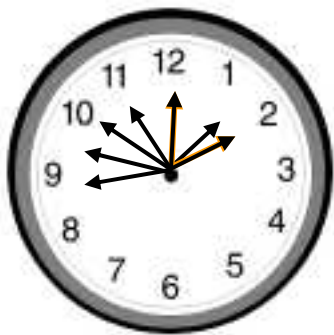
- Pervasive computing environments full of information resources and appliances
- Handhelds as bridges from the personal to the public ubiquitous infrastructure
- Mobility is significant and connectivity intermittent
- How can users remain part of an ubicomp environment, interact with their peers or services, and access relevant information?

Methodology



Workplace Study (1)

- Location of people and devices
- Timing for the delivery of information
- Role-oriented nature of work
- Artifact oriented nature of information gathering



Role: Doctor

Identity: Any

Location= Room 222

Date: Today

Time: 2:00 to 8:00 pm

The patient is not responding well to her medication...



Location-estimation agent

Dr. Moreno

doctores

☒ Cualquier ☐ Todos

☒ Lugar

222

☒ Fecha

hoy

>>

☒ Hora

2:00 PM

>>

8:00 PM

☐ Mensaje

Mensaje:

Theresa no respondio al medicamento que se le suministro esta mañana, y los ultimos resultados de sus analisis no son favorables, incremente la dosis, verifique si hubo cambios.

Cancelar

Enviar

pedro45

rita

Central de Enfermeras

Vestidores

Juan I

Medicina Interna

224

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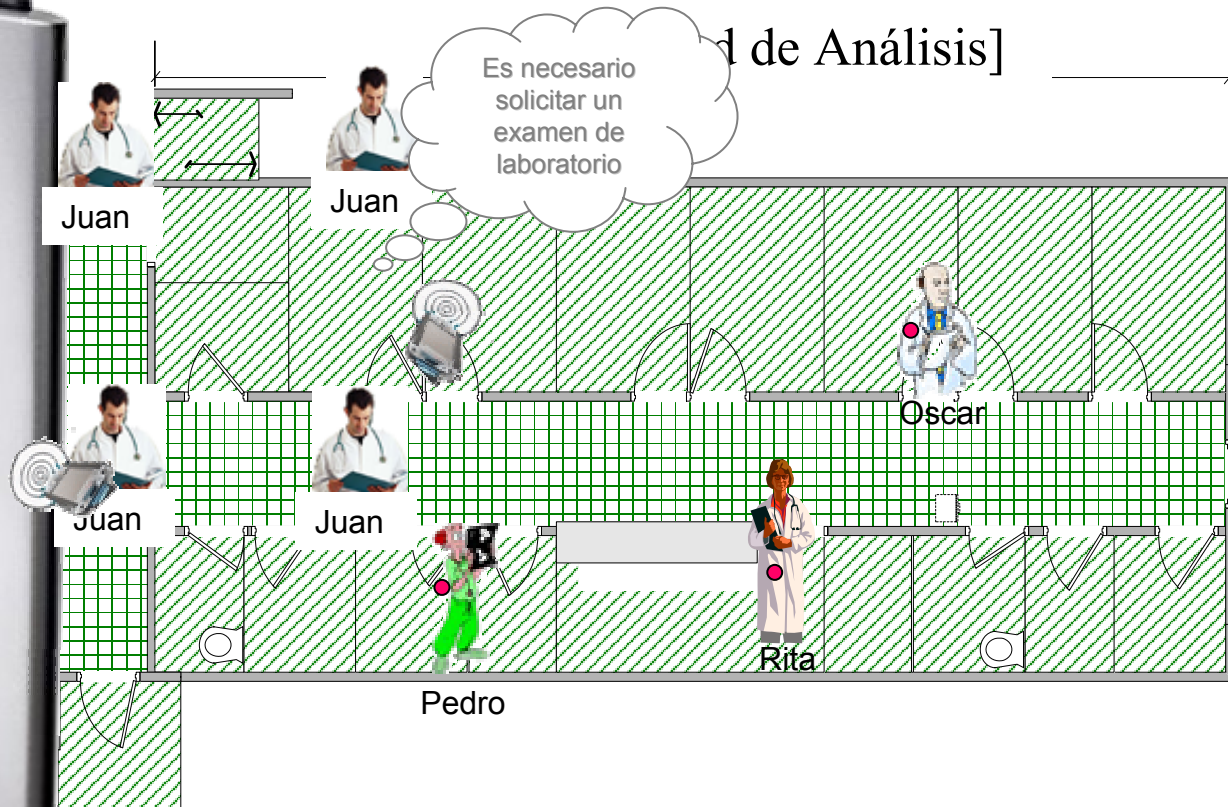
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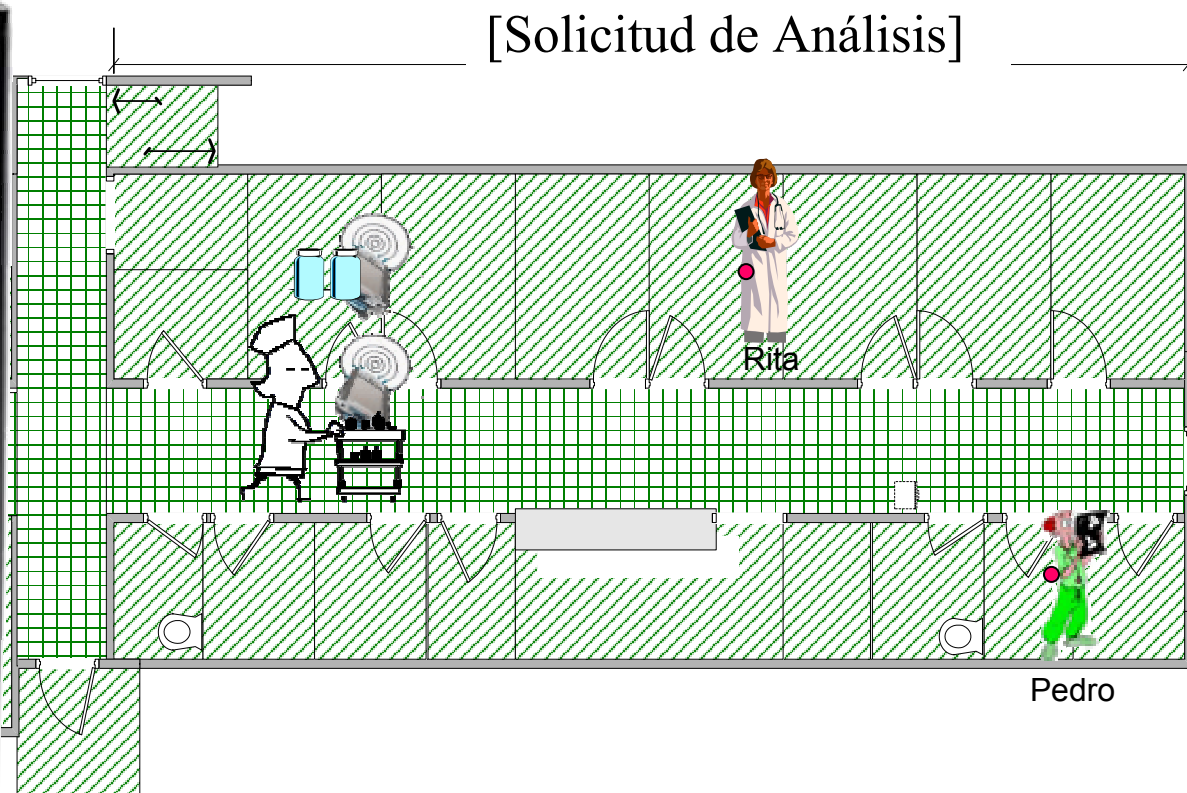
Yo:

Scenario



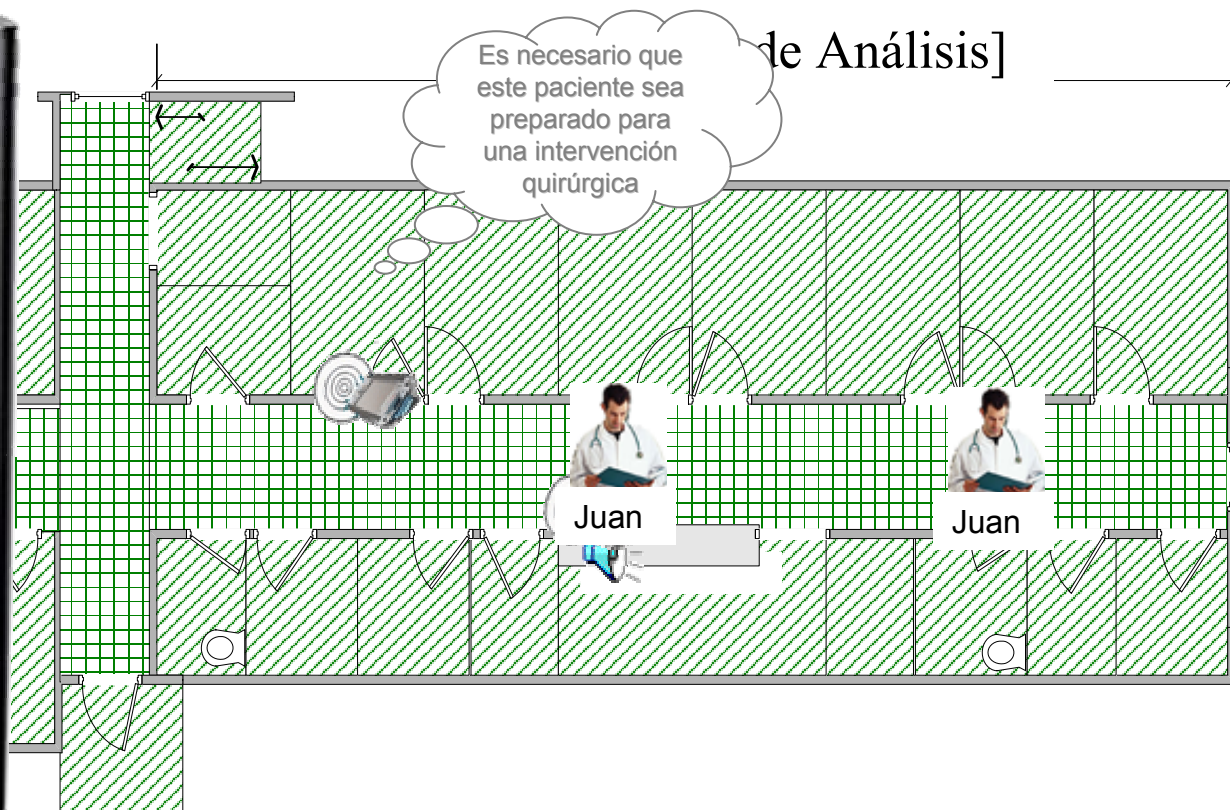
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Scenario



down

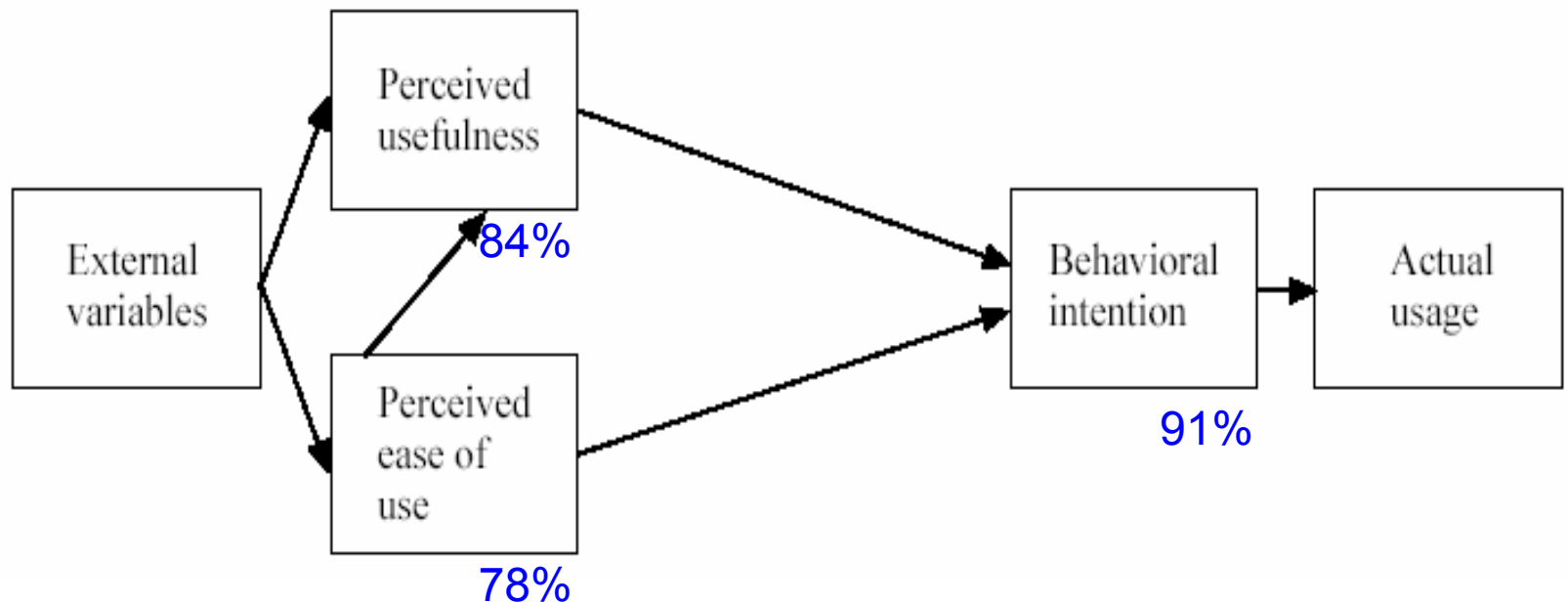
Scenario



down

Evaluation

Technology Acceptance Model (TAM)



Current and future work

- setup (jan-apr)
 - Continue previous research, assignment of roles, logistic aspects
- 1st phase (may)
 - Project rollout, train interviewers
- 2nd phase (jun-jul)
 - Introduction to handheld devices, simple applications

Current and future work

- 3rd phase (aug-sep)
 - Wireless phase, collaborative applications
- 4th phase (oct-nov)
 - Electronic patient record
- 5th phase (dec)
 - Context-aware applications, post-CUDI development

* I-2 videoconferencing in different phases, supporting collaboration and training

Thank you.....

Questions?