



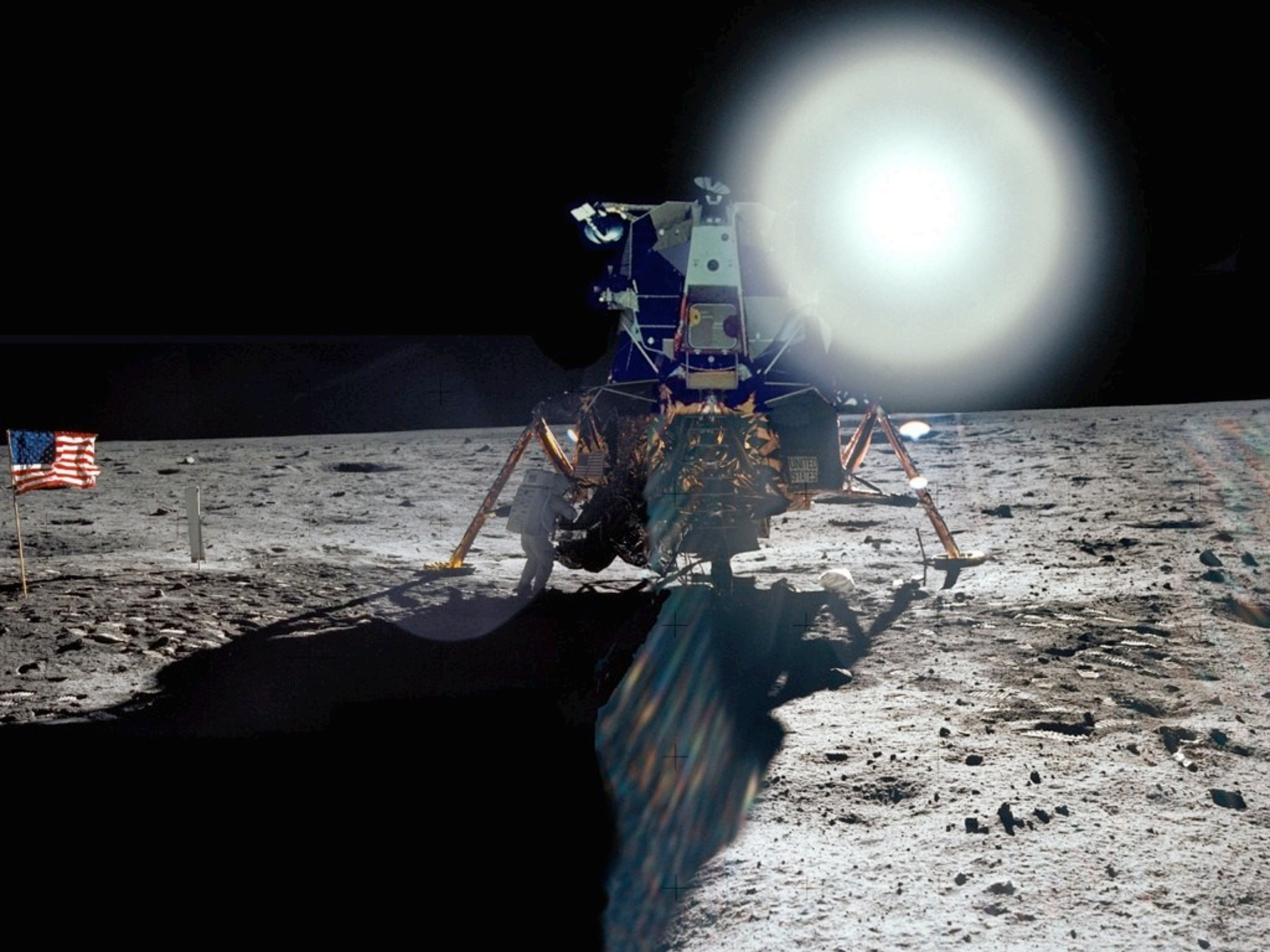
Agentes en dispositivos limitados y Aml

Miguel Rebollo (@mrebollo)
Univ. Politècnica de València



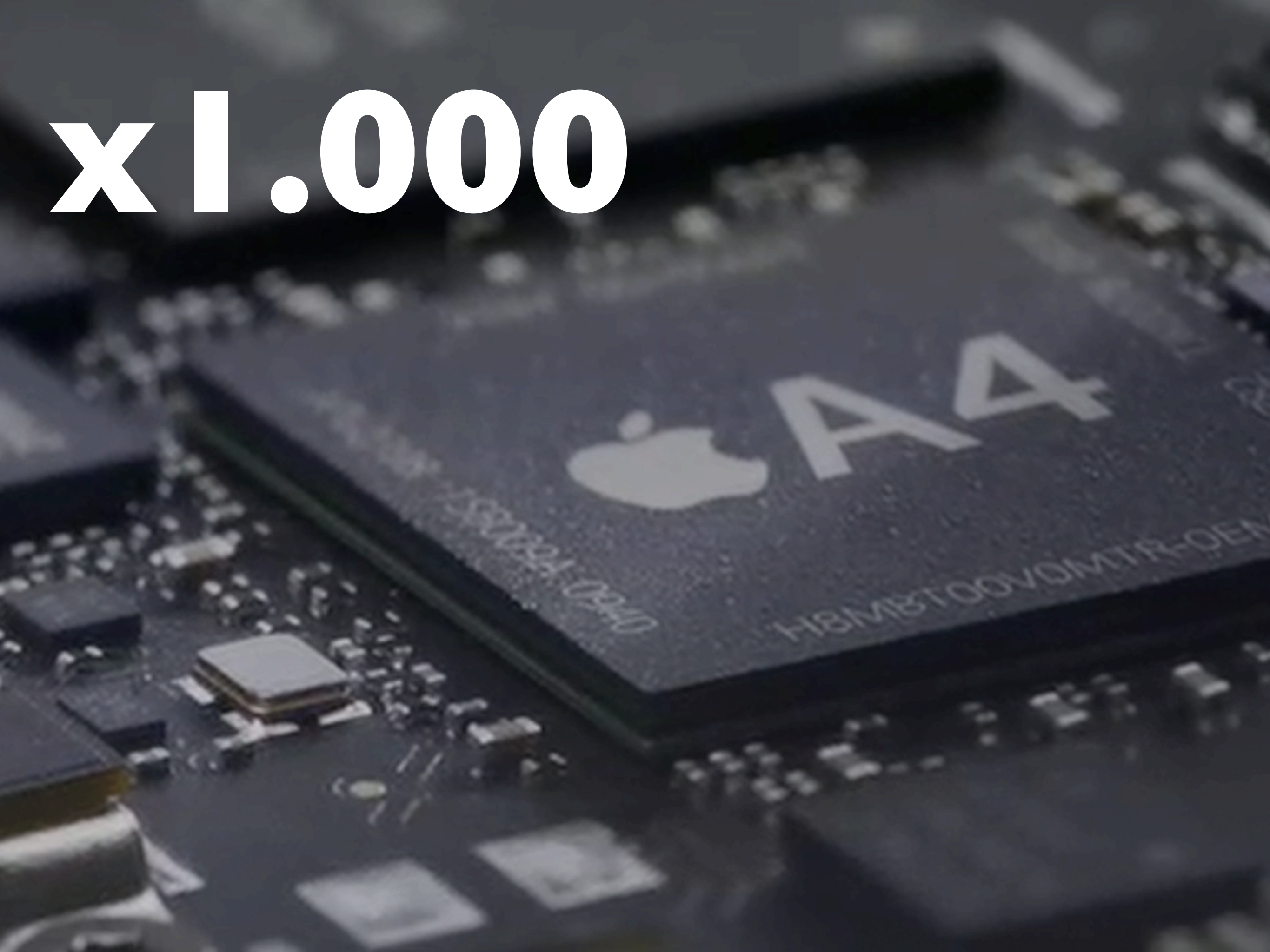


1 Mhz de velocidad
1 KB de memoria RAM
12 KB de memoria ROM
1 programa en ejecución



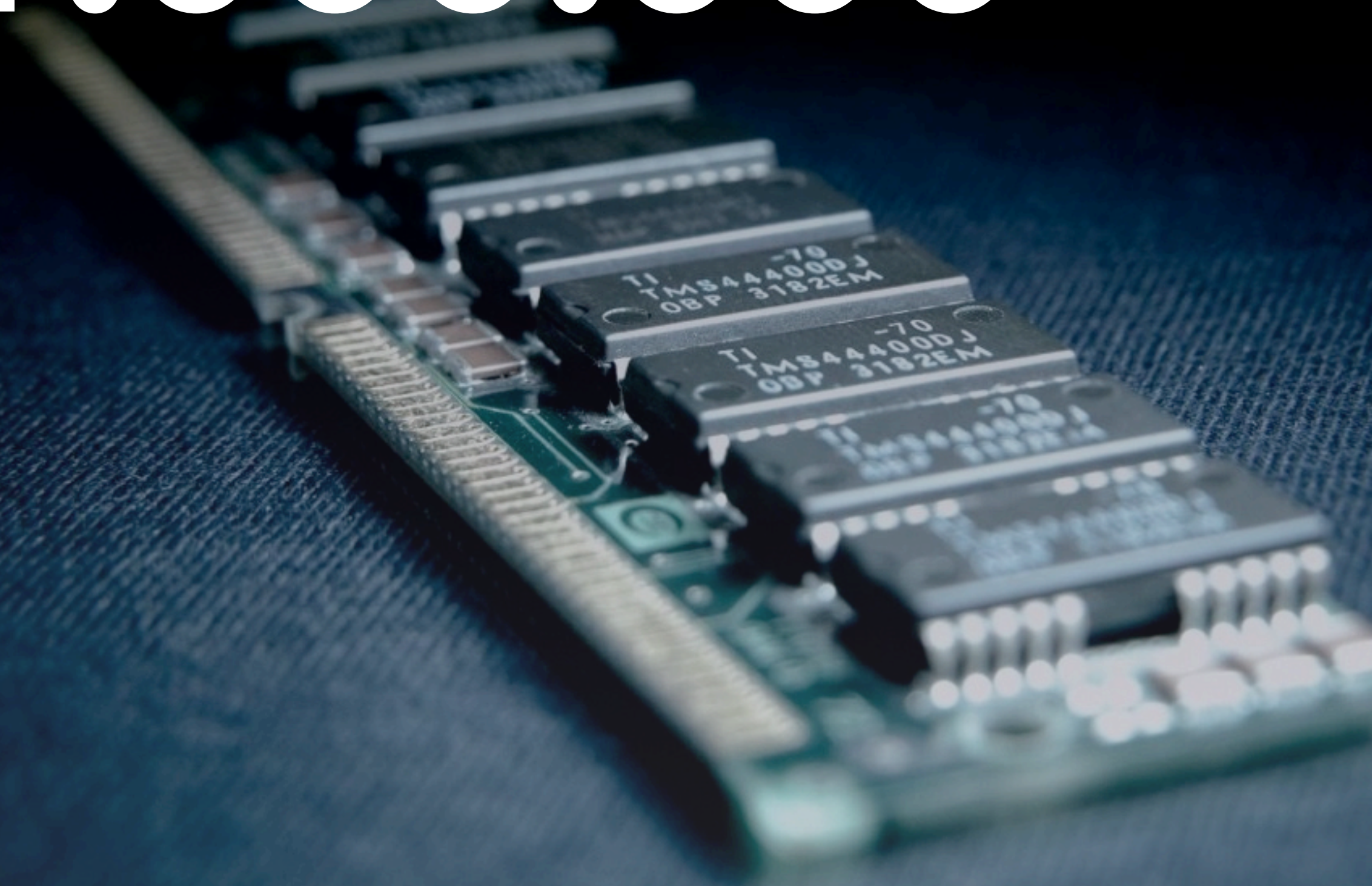
¿qué llevas en el bolsillo?





x1.000

x1.000.000





x5.500.000

“The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.”

Mark Weiser



Inteligencia Ambiental

“a digital environment that proactively, but sensibly, supports people in their daily lives”

Entorno Inteligente

“estructura física (sensores, actuadores, redes) que dan soporte al sistema”

"Sistema situado dentro de y formando parte de un entorno que percibe y actúa sobre ese entorno, a través del tiempo persiguiendo su propia agenda para así actuar sobre lo que percibirá en el futuro"

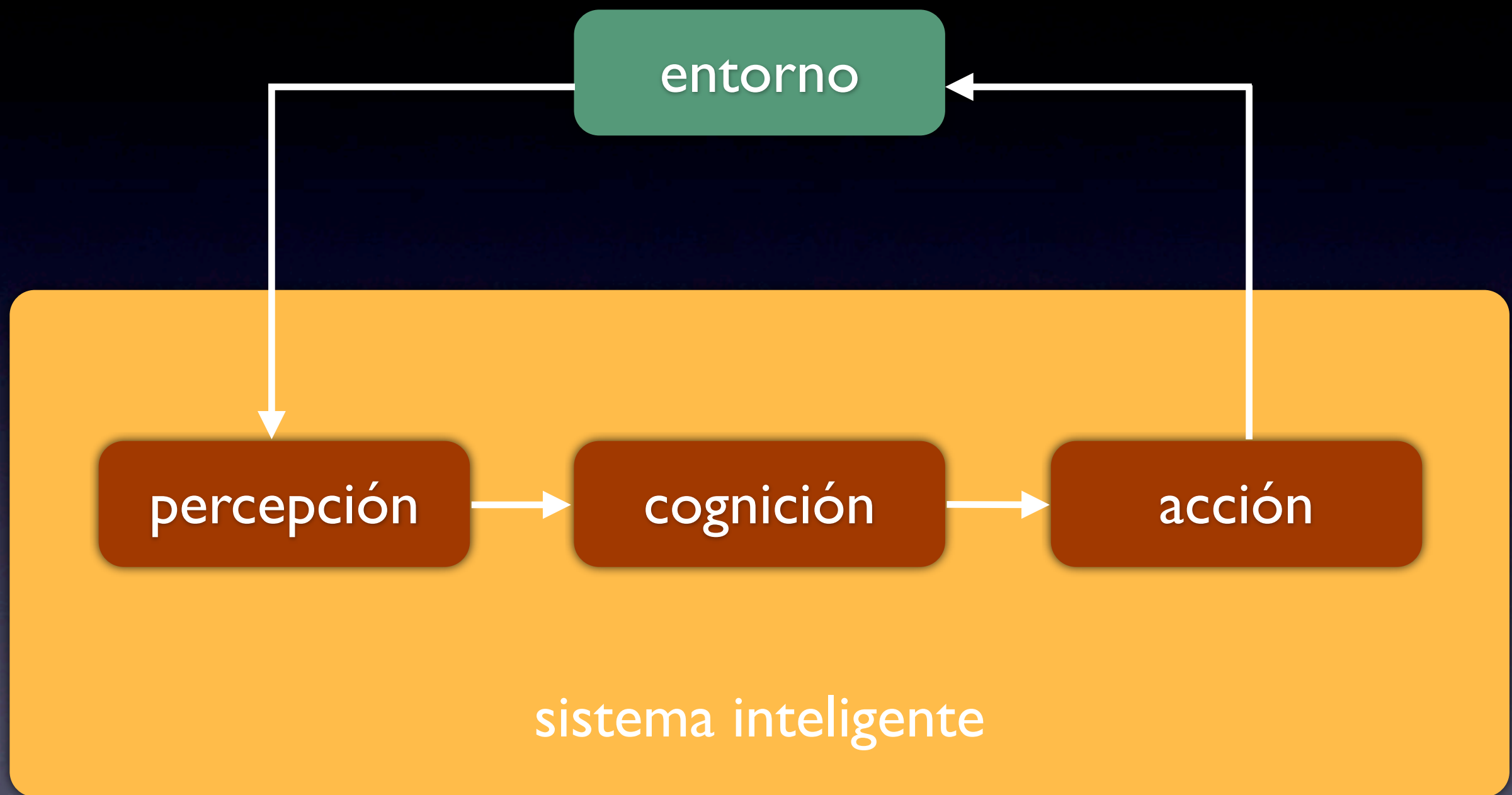
S. Franklin

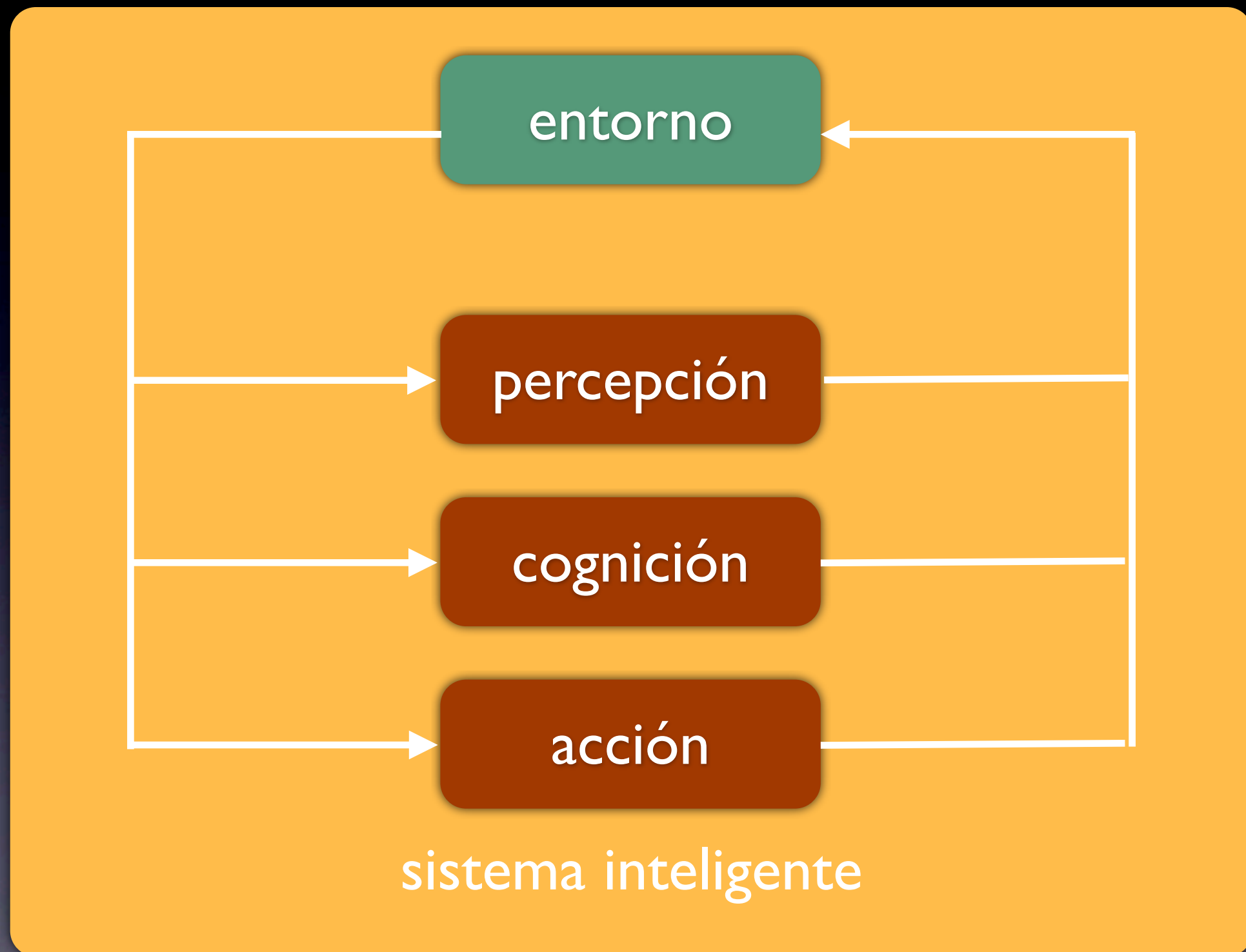
"Una entidad autónoma que percibe y actúa sobre su entorno"

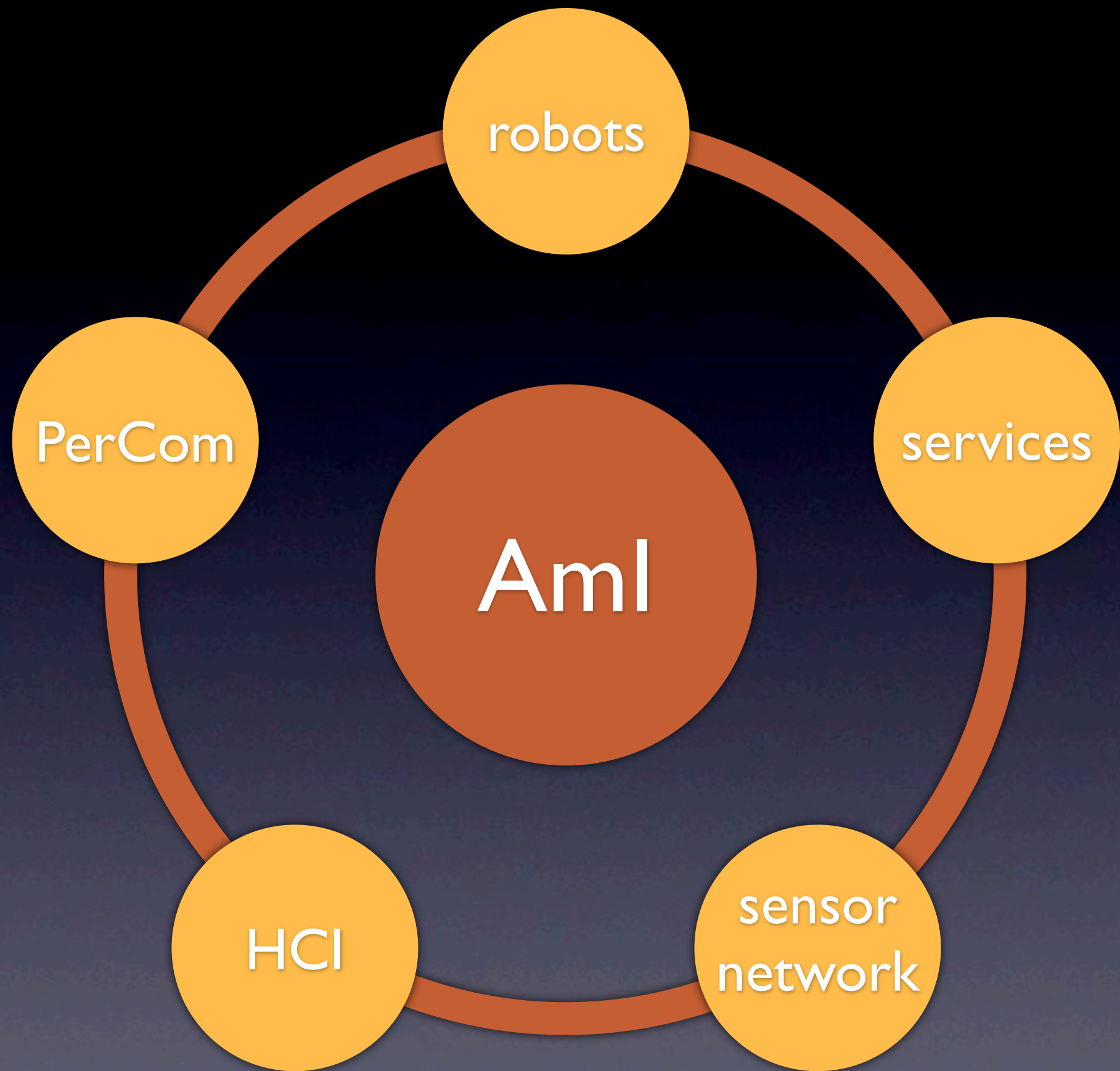
S. Russell

"Un sistema computacional, situado en algún entorno, que es capaz de actuar de forma autónoma y flexible con tal de lograr sus objetivos"

M. Wooldridge







Descubrimiento

“first contact”

protocolo zeroconf (Bonjour)

DNS discovery

servicios como interfaz





Redes de sensores

reconfiguración automática

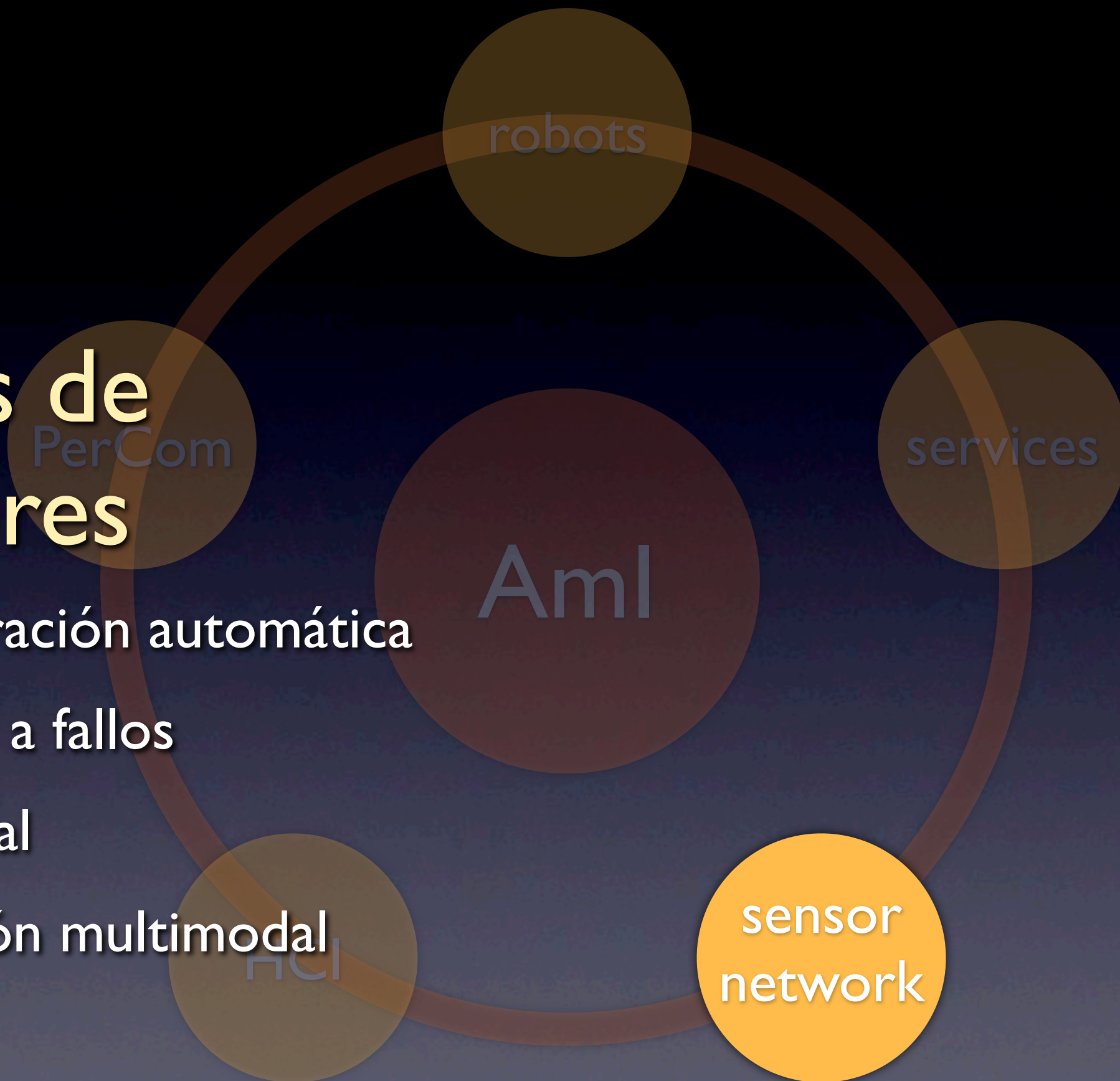
tolerancia a fallos

tiempo real

información multimodal

contexto

ontologías para mundos reales



IA y robótica

agentes físicos

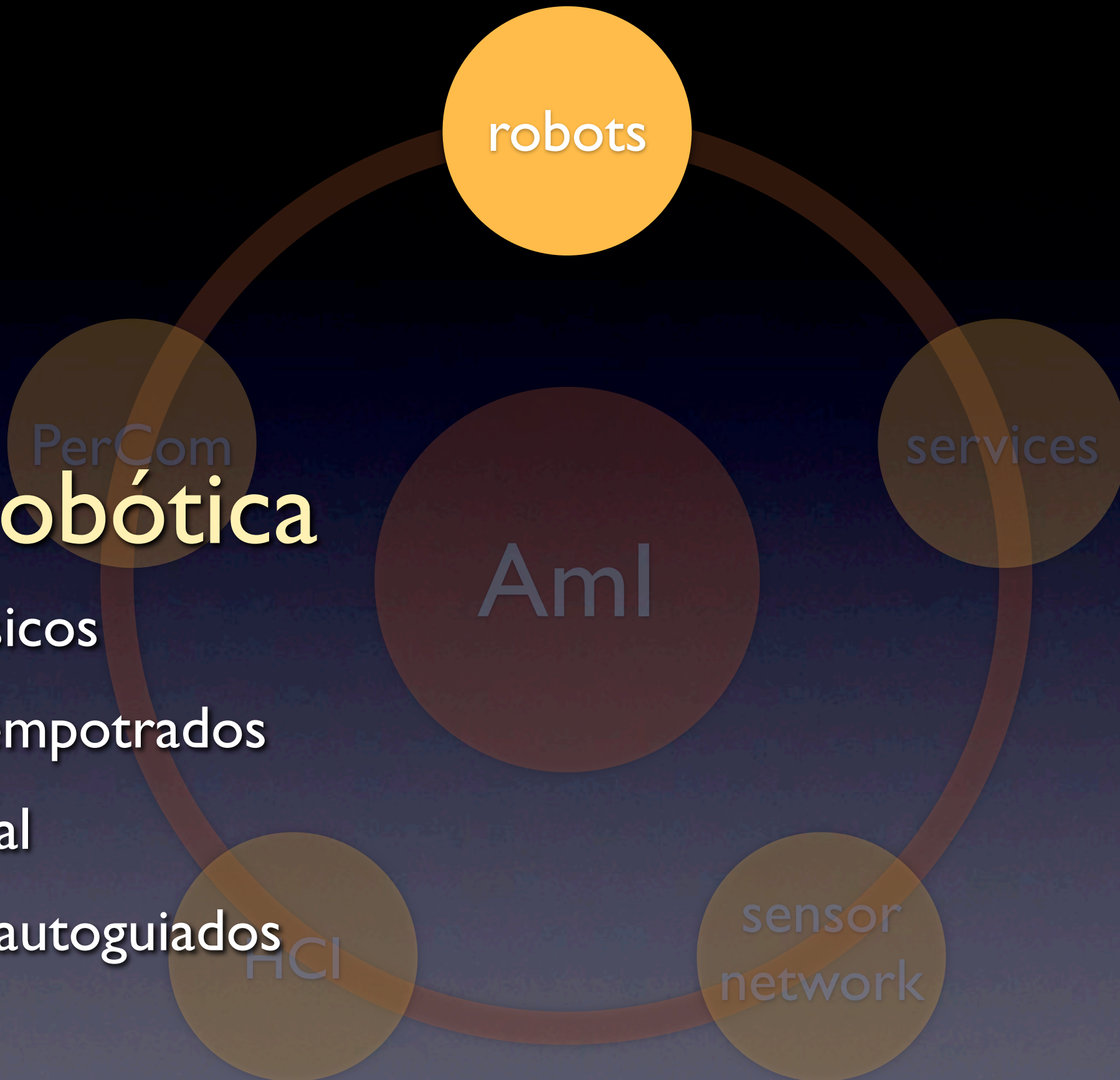
sistemas empotrados

tiempo real

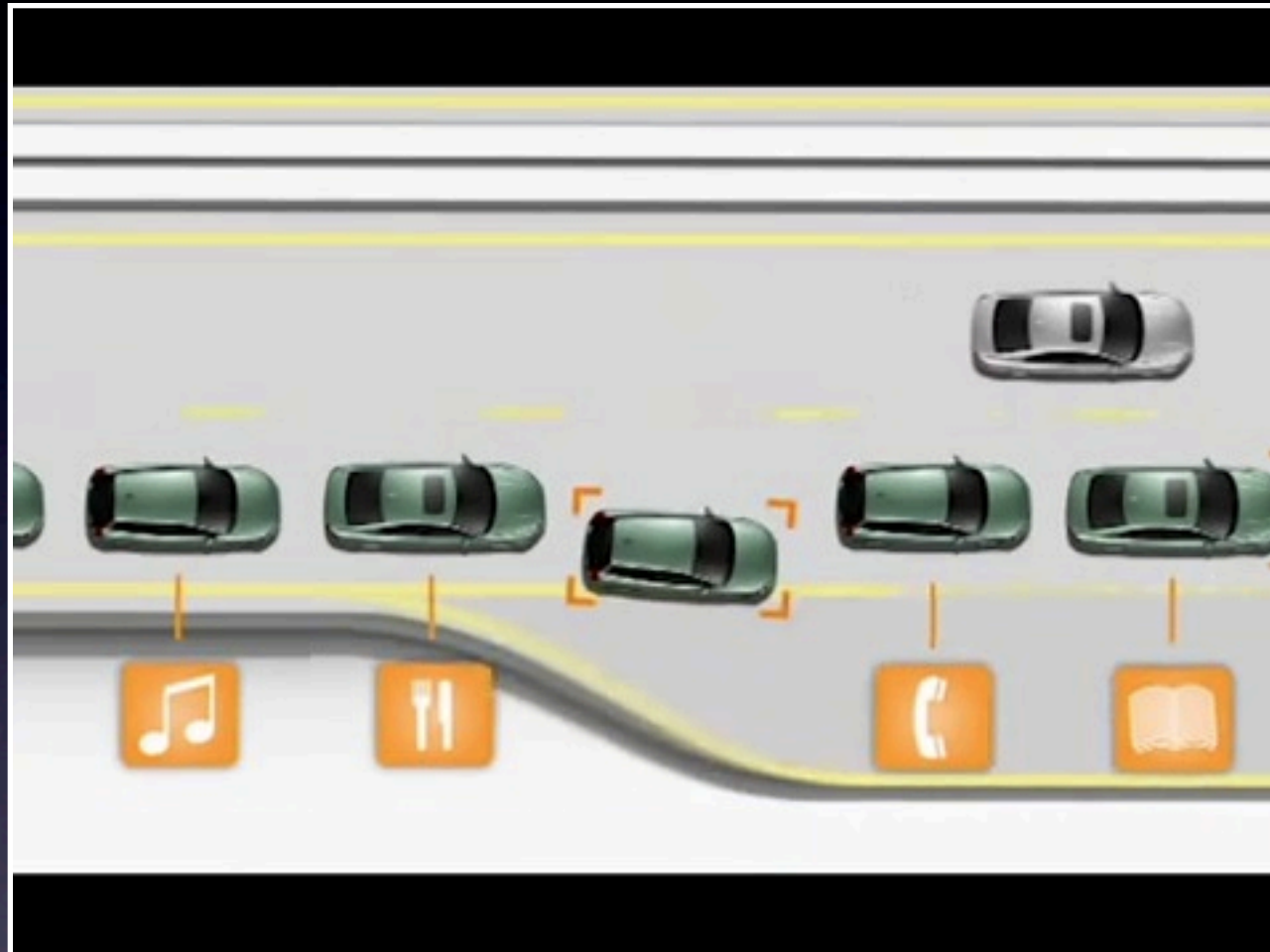
vehículos autoguiados

contexto

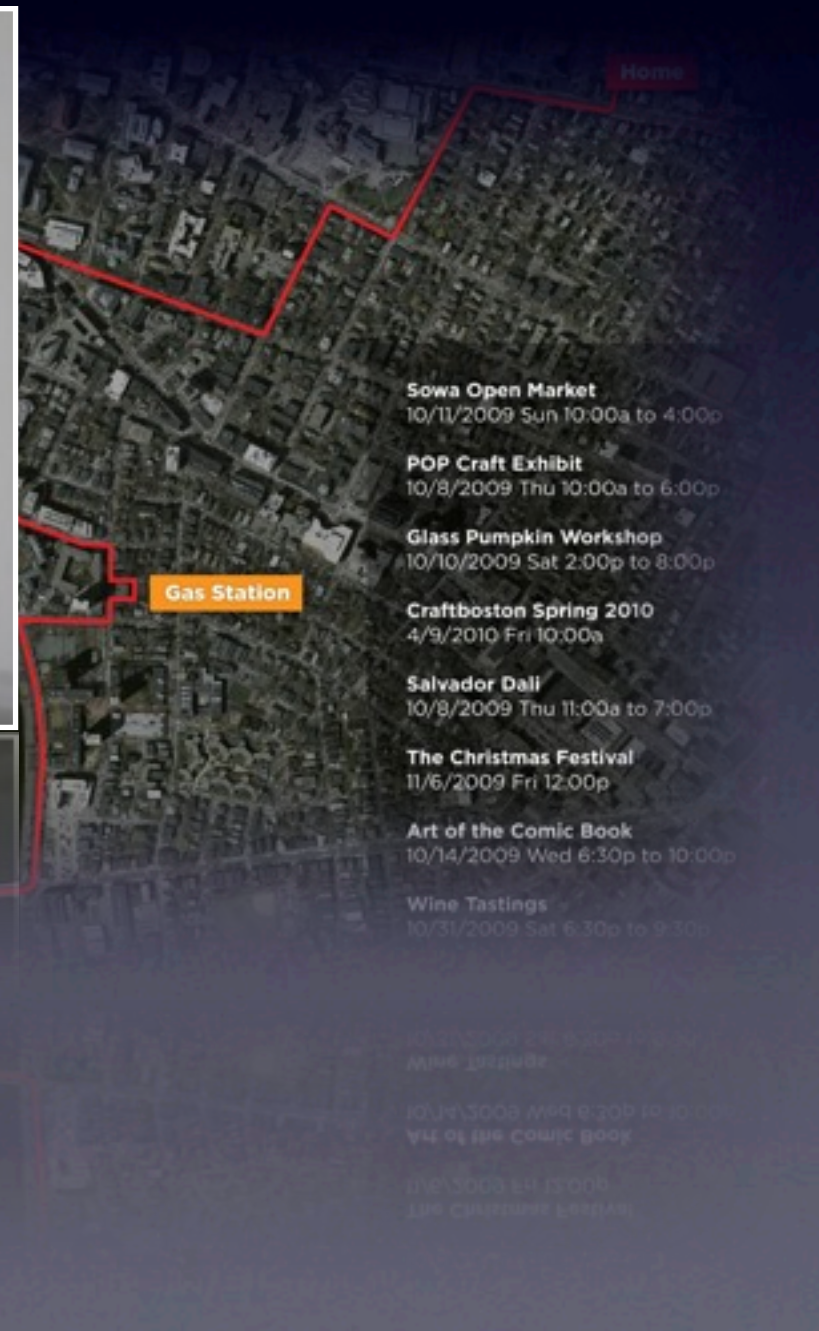
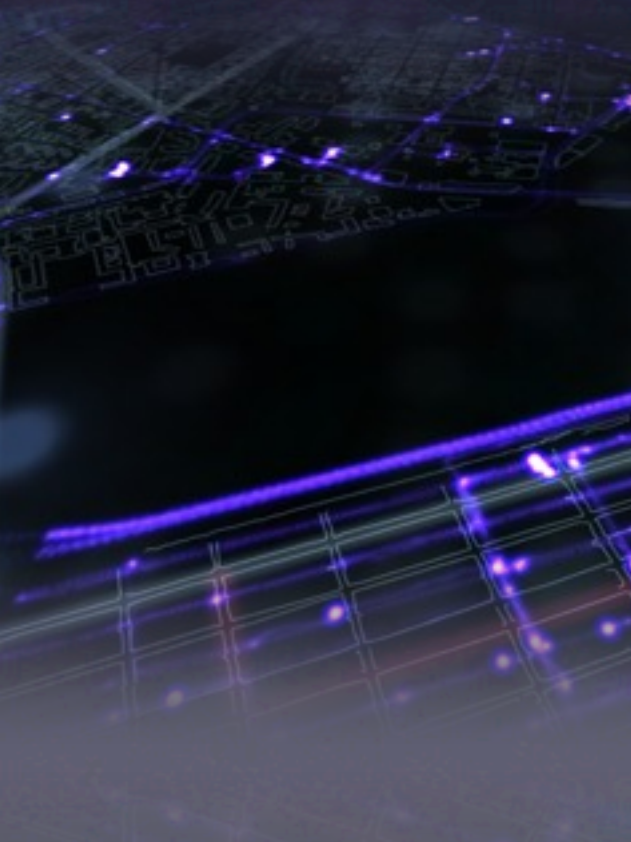
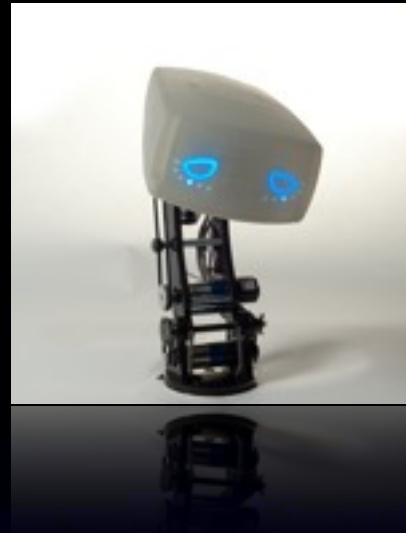
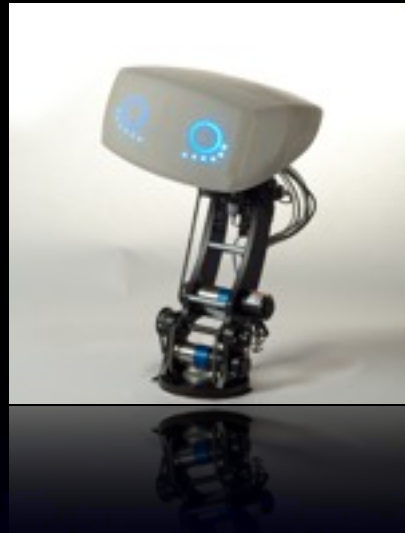
ontologías para mundos reales







Sartre: trenes de vehículos



Sowa Open Market
10/11/2009 Sun 10:00a to 4:00p

POP Craft Exhibit
10/8/2009 Thu 10:00a to 6:00p

Glass Pumpkin Workshop
10/10/2009 Sat 2:00p to 8:00p

Craftboston Spring 2010
4/9/2010 Fri 10:00a

Salvador Dali
10/8/2009 Thu 11:00a to 7:00p

The Christmas Festival
11/6/2009 Fri 12:00p

Art of the Comic Book
10/14/2009 Wed 6:30p to 10:00p

Wine Tastings
10/31/2009 Sat 6:30p to 9:30p

Art of the Comic Book
10/14/2009 Wed 6:30p to 10:00p

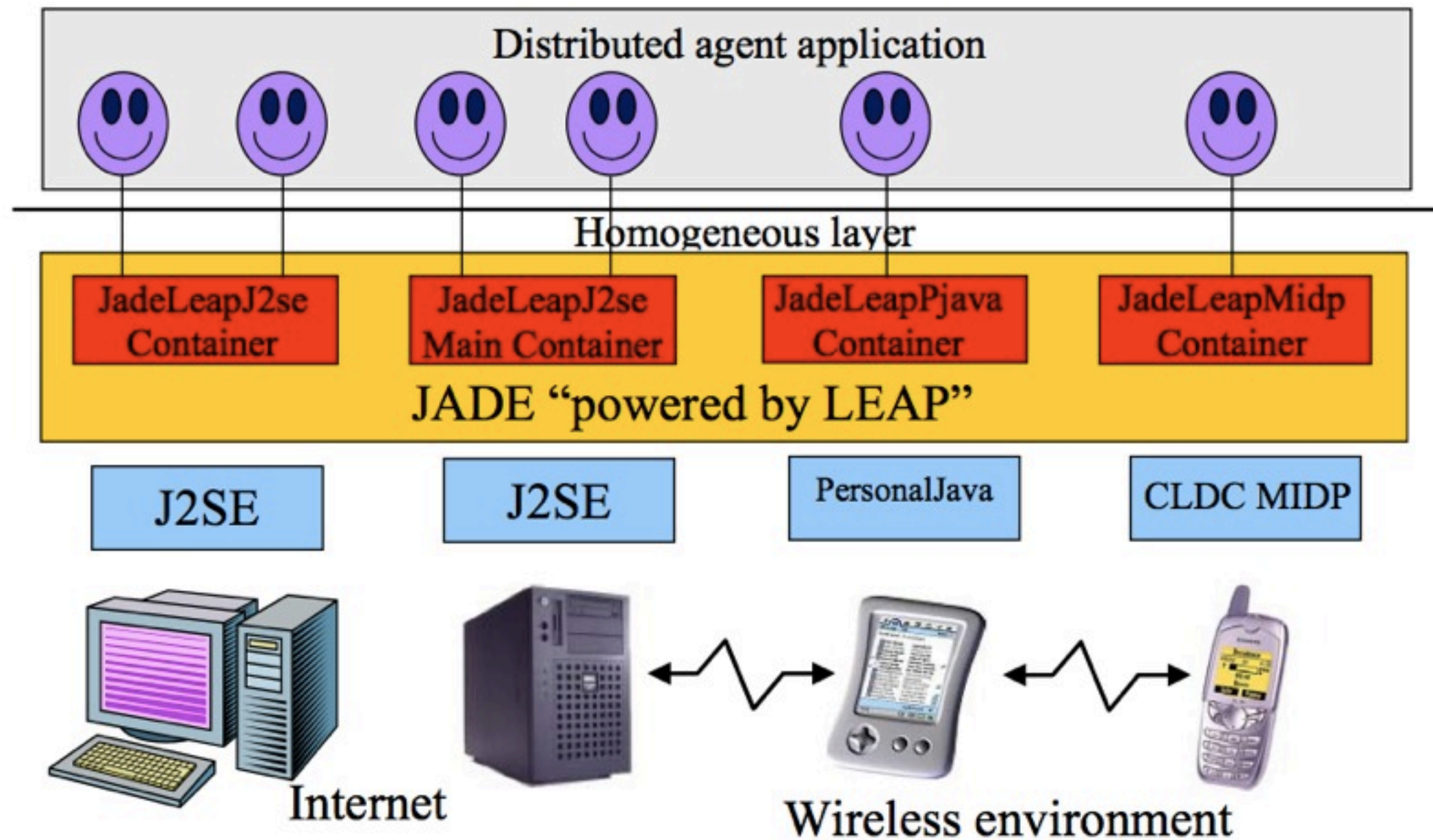
Wine Tastings
10/31/2009 Sat 6:30p to 9:30p

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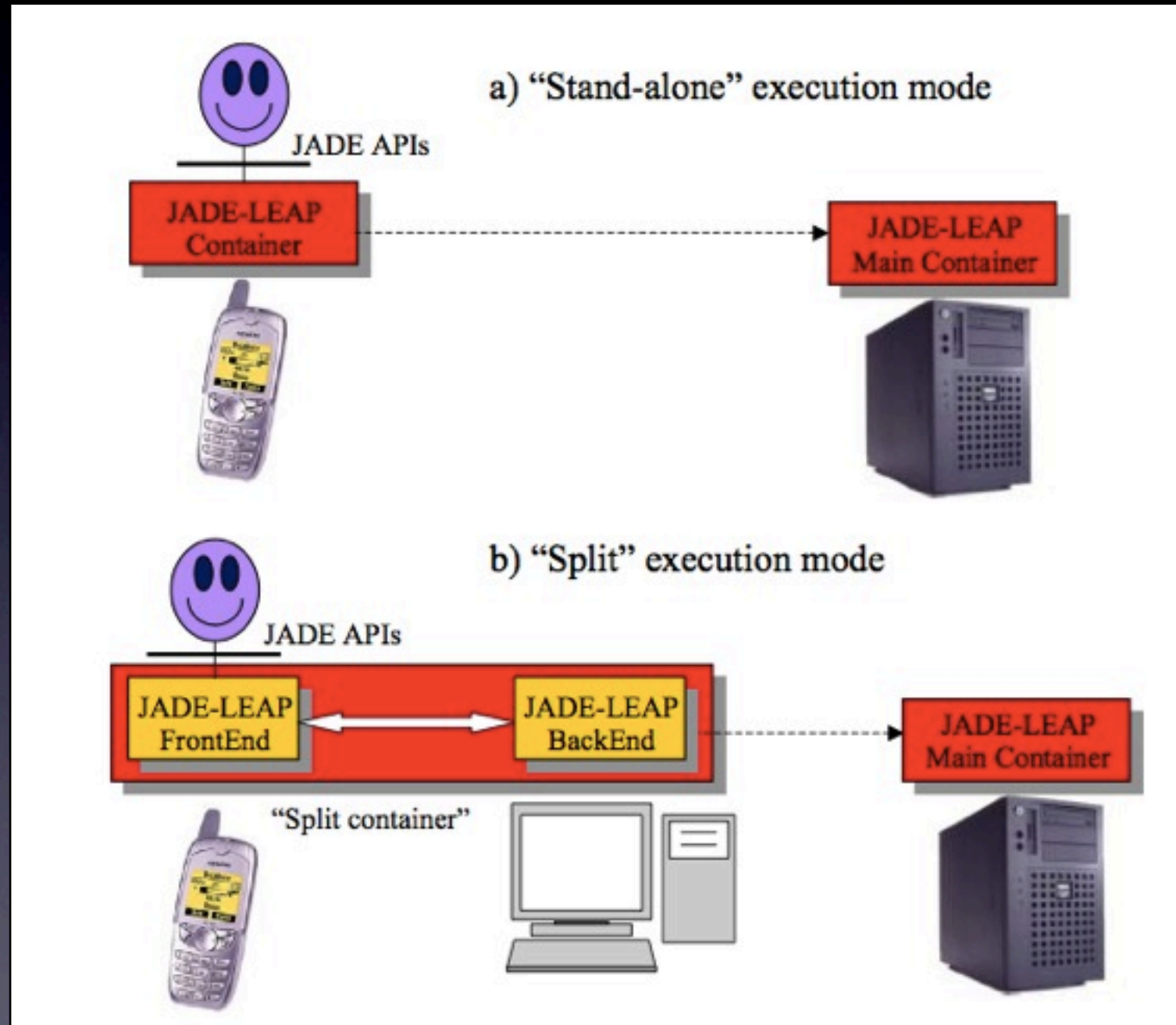
Wine Tastings
10/31/2009 Sat 6:30p to 9:30p

AIDA

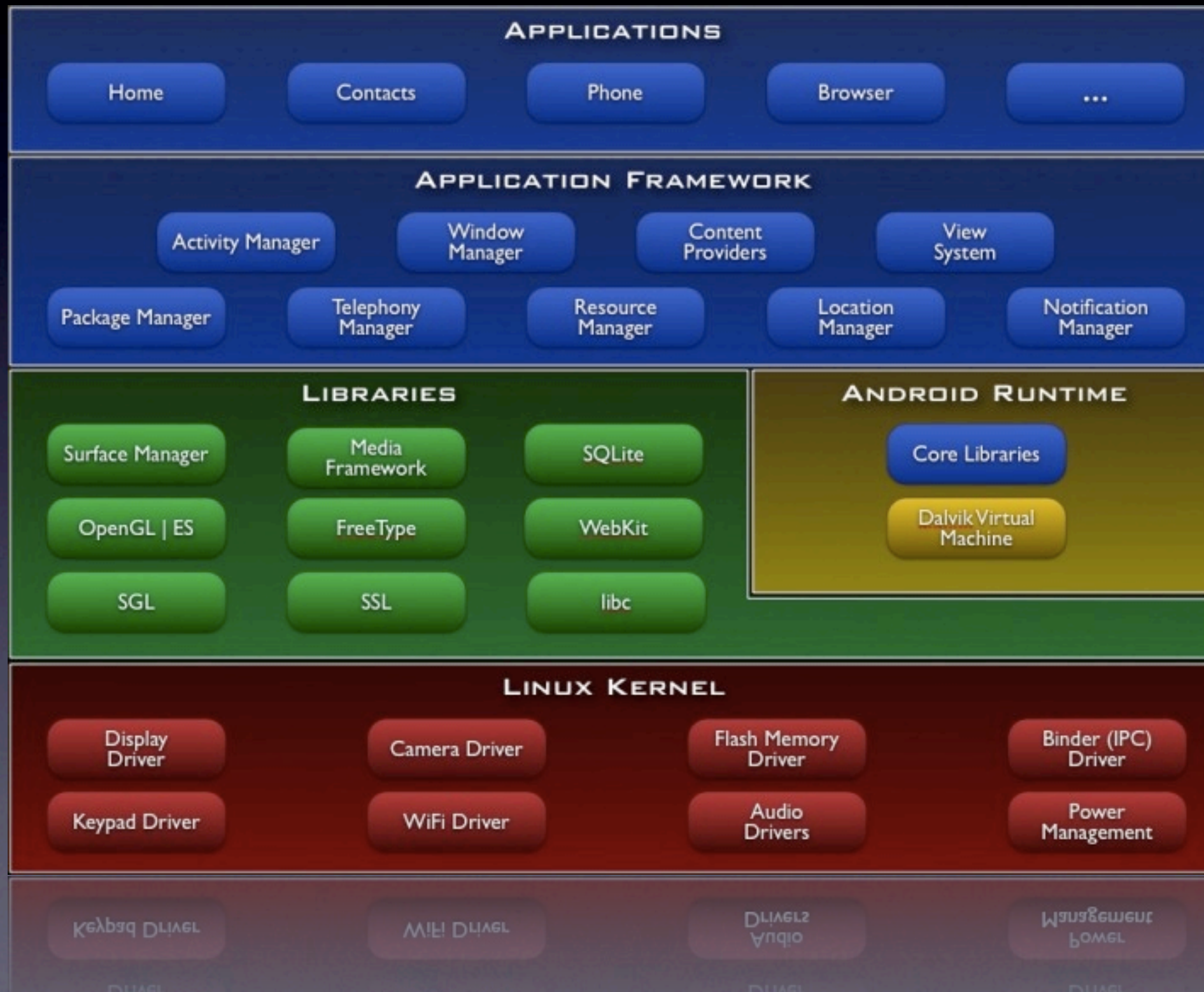
JADE-LEAP



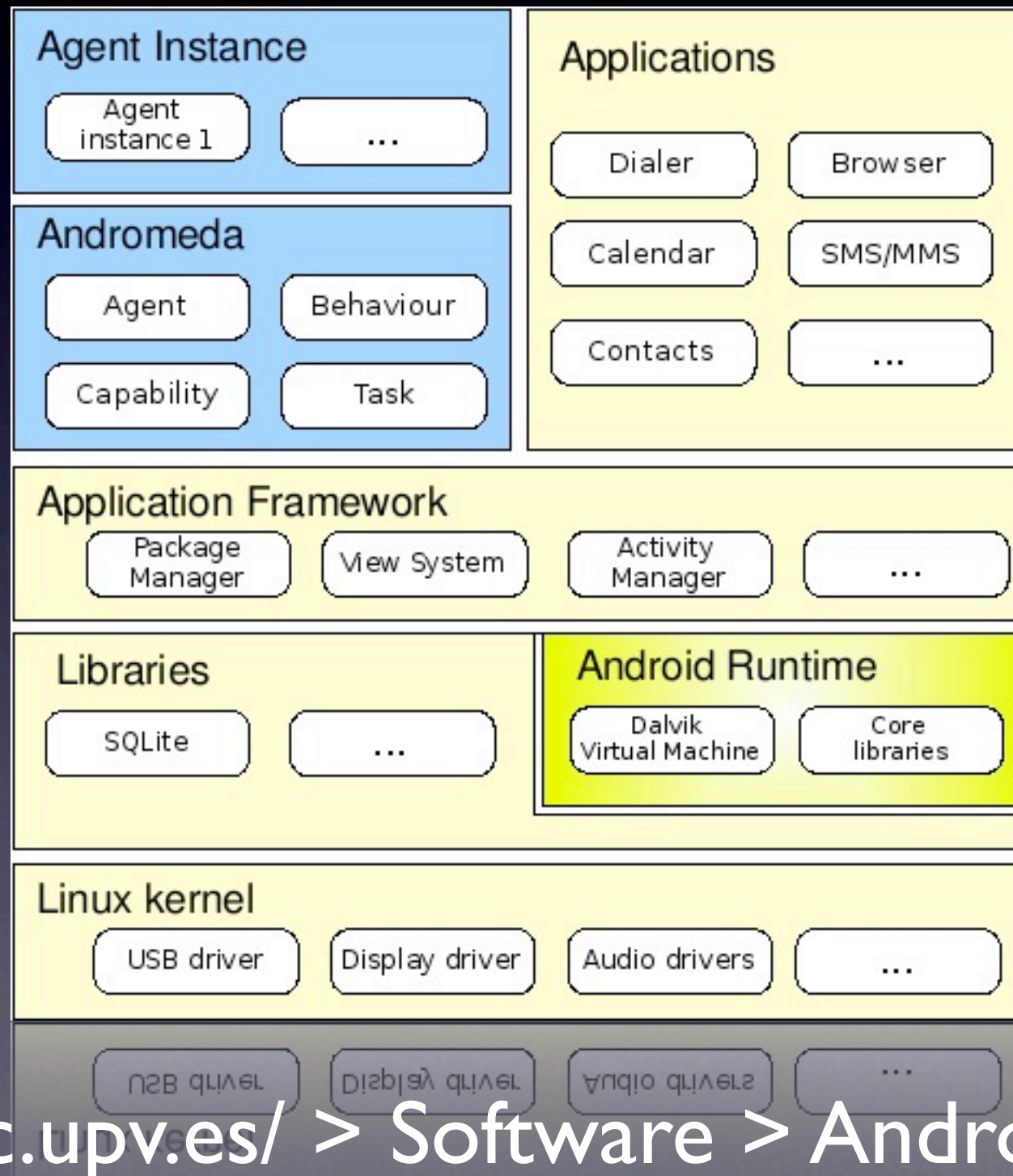
Modos de ejecución



Arquitectura Android

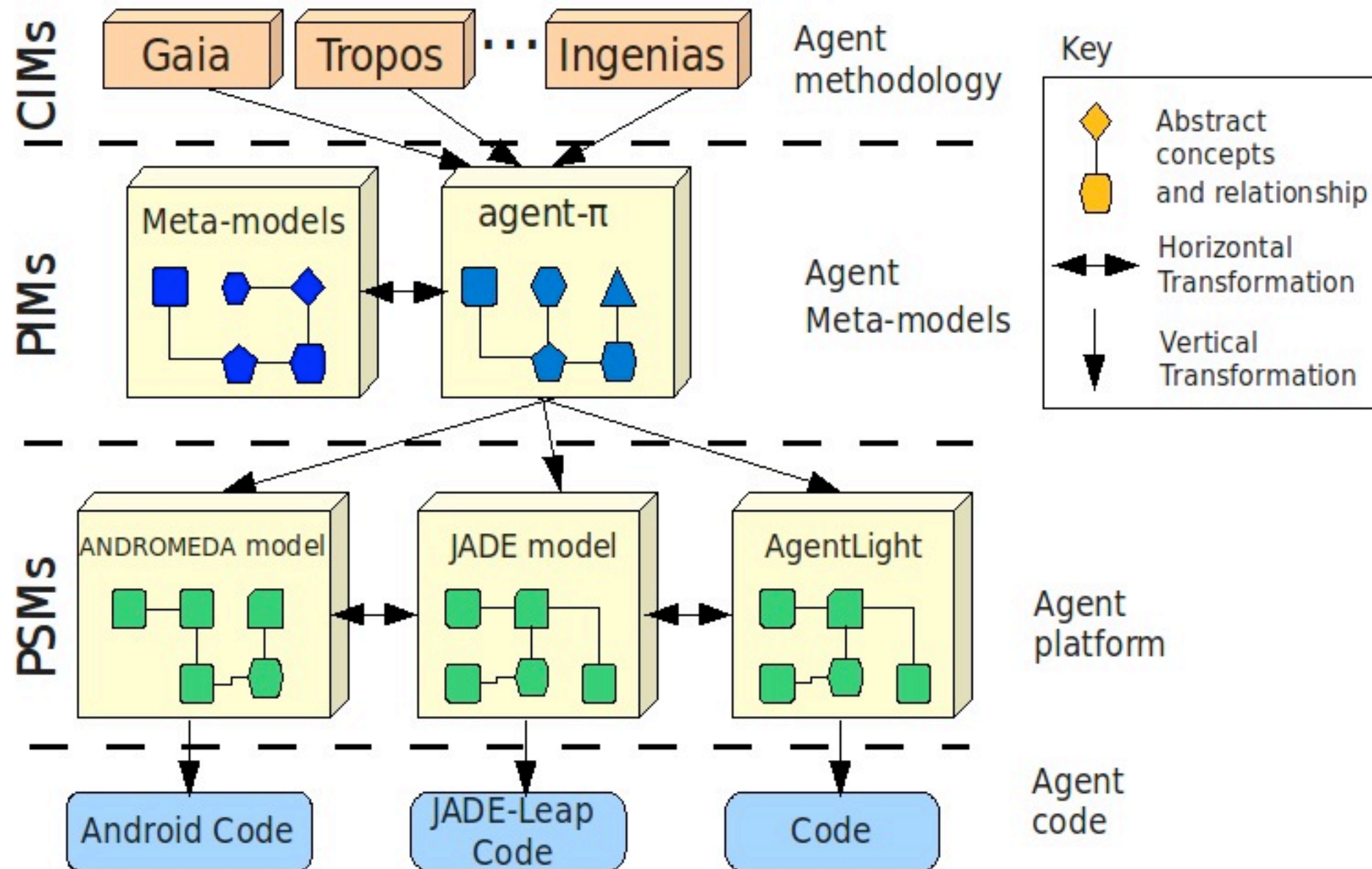


Arquitectura Andrómeda



<http://gti-ia.dsic.upv.es/> > Software > Andromeda

Desarrollo con MDD



Generación de código

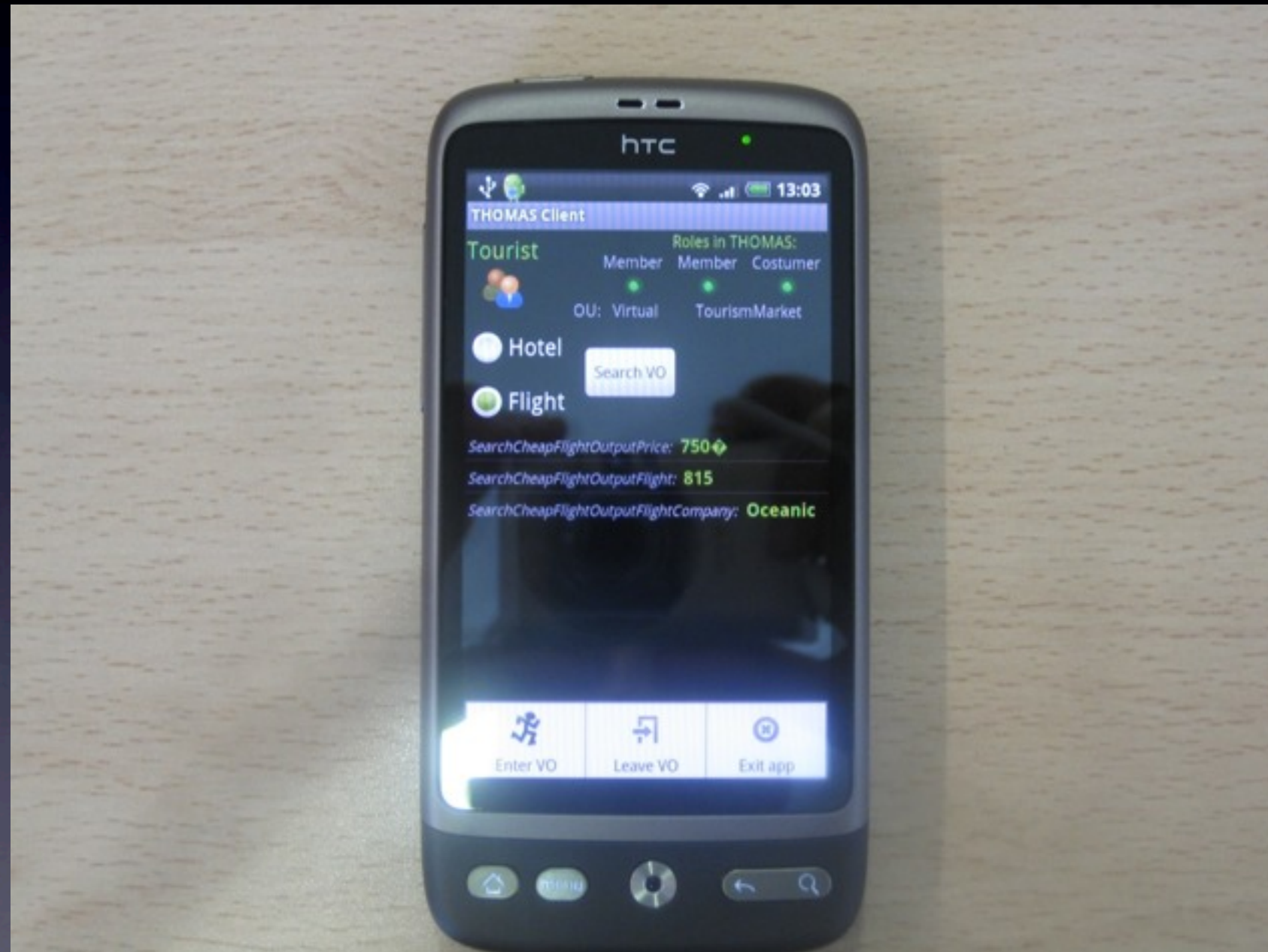
```
public class my_Customer extends Agent {  
    ...  
    protected void setup(){  
        ParallelBehaviour my_FlightClient =  
            new ParallelBehaviour( ParallelBehaviour.WHEN_ALL );  
  
        my_FlightClient.addSubBehaviour( new my_Service(this) );  
        ...  
        addBehaviour(my_FlightClient);  
    } // ----- end setup()  
}  
  
class my_Service extends OneShotBehaviour {  
    public my_Service(Agent a) {  
        super(a); }  
  
    public void action() {  
        ... //check condition == true  
        addBehaviour(new my_TaskService(this) );  
    }  
} // ----- end OneShotBehaviour  
  
...  
class my_TaskService extends Behaviour {  
    public my_TaskService(Agent a) {  
        super(a); }  
  
    public void action() {  
        //...this is where the code Task goes !!  
    }  
} // ----- end Behaviour  
  
} // ----- end class Agent
```

Behaviour

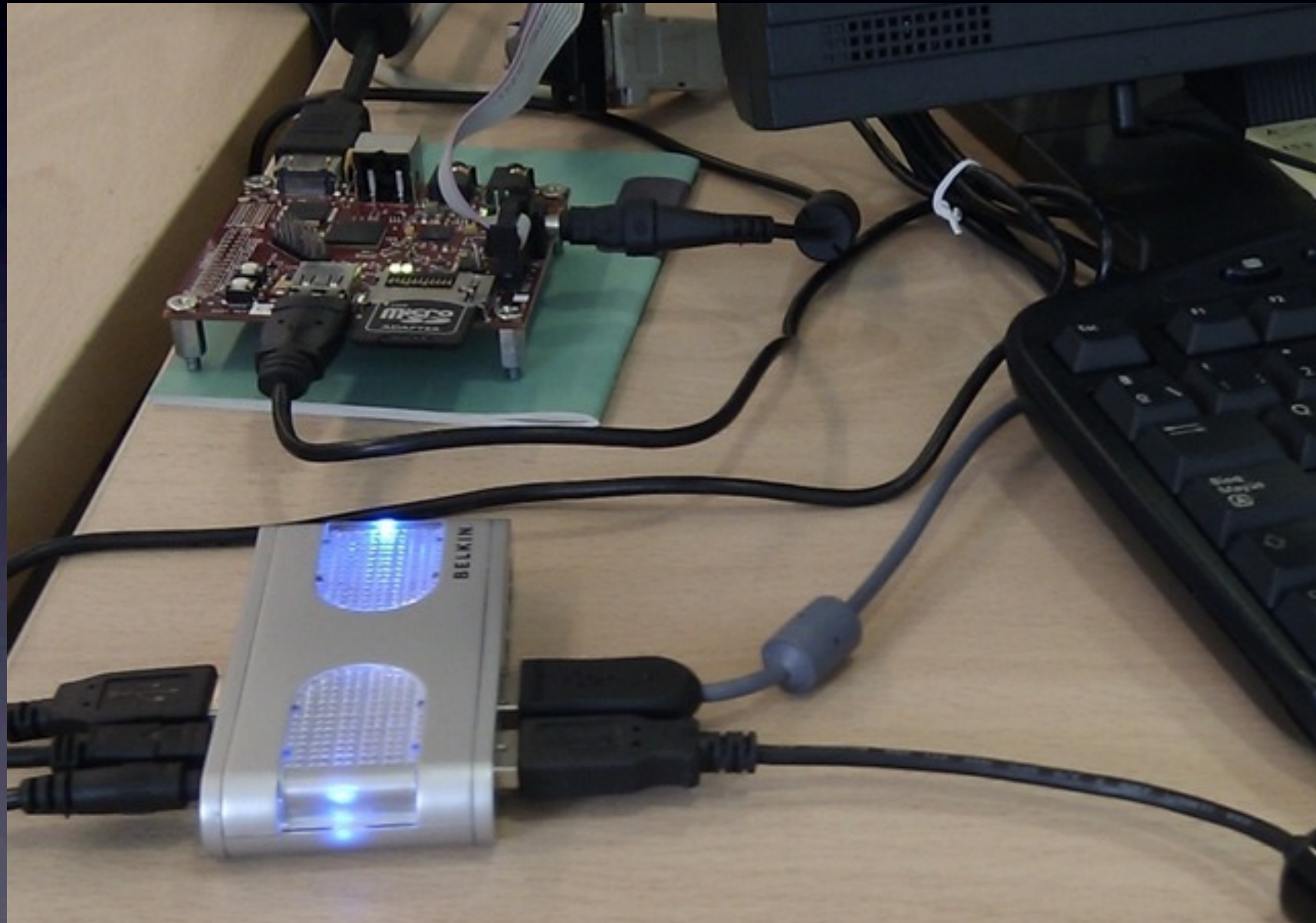
Capability

Task

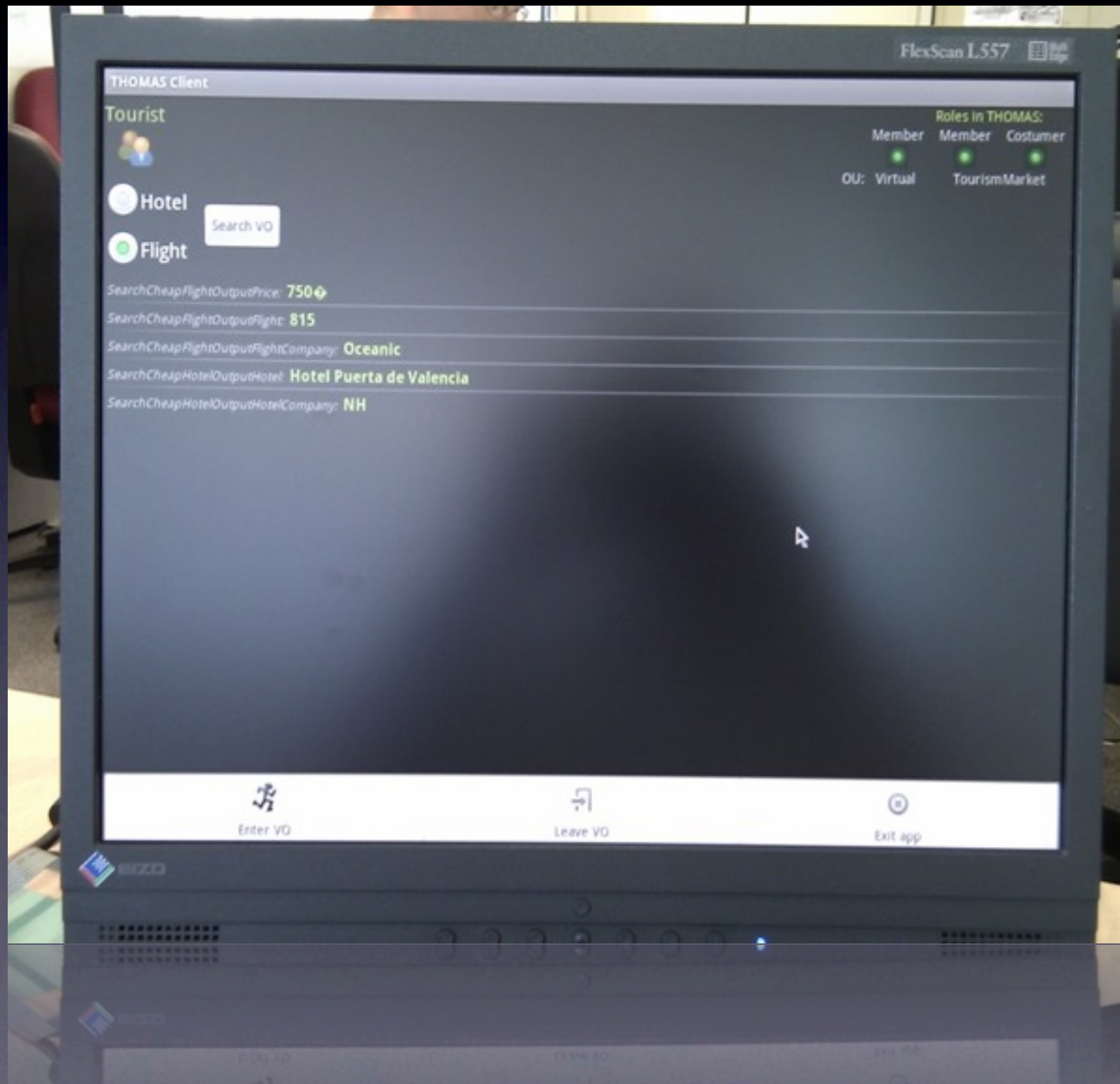
Agente en un HTC



Agente en BeagleBoard



Agente en BeagleBoard



Información de contacto

Miguel Rebollo

Dept. Sistemas Informáticos y Computación
Univ. Politécnica de Valencia

<http://www.mrebollo.es>

mrebollo@dsic.upv.es

 [twitter/mrebollo](https://twitter.com/mrebollo)

 [facebook/mrebollo](https://facebook.com/mrebollo)

 [linkedin/mrebollo](https://linkedin.com/mrebollo)



... y alguno más en <http://about.me/mrebollo>