Ad-me: A Context-Sensitive Advertising System within a Mobile Tourist guide

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Research Motivation

• M-commerce is set to witness phenomenal growth.
• Mobile context-sensitive advertising is at an embryonic stage.
• Existing electronic tourist guides do not take full advantage of context.
• Lack of interoperability with the various wireless devices. (PDAs & cellular phones)
Requirements

• Context definition and utilization;
• Location management;
• User modelling (customers & advertisers);
• Correlating customer and advertiser profiles;
• Incorporating Geographical Information;
• Estimating the sales status of the application;
• Delivering the content with due consideration for the user’s infrastructure capabilities and pricing model for the wireless service.
Proposed Approach

The *Ad-me* system:

- Adopts an agent-oriented (BDI) approach;
- Utilises the Agent Factory (AF) System: a distributed environment for the rapid prototyping of intelligent agents.
- Provides a backdrop of tourist information;
- Offers a context-sensitive advertising capability;
- Provides a simple and effective advert posting capability (push and pull technologies);
- Strives for maximum diffusion (can be hosted on any wireless device with network connection and JVM).
Overall Architecture
Demo

```
--------------COMMITMENTS--------------
COMMIT(Self,Now,query_pwd(greg,pwgreg))
65 ITERATION
--------------BELIEFS------------------
BELIEF(succeeded(greg,52))
BELIEF(name(Sql))
BELIEF(onPlatform(193.1.132.202,2222))
--------------COMMITMENTS--------------
COMMIT(Self,Now,pres_gen(greg,52))
66 ITERATION
..connecting to port num: 4443
--------------BELIEFS------------------
BELIEF(uPresentation(greg,52,240,320,200,250))
BELIEF(name(Sql))
BELIEF(onPlatform(193.1.132.202,2222))
--------------COMMITMENTS--------------
COMMIT(Self,Now,inform(Nat,BELIEF(uPresentation(greg,52,240,320,200,250))))
```
Demo (2)
Demo (3)
Conclusions

- The context-sensitive advertising on wireless devices is emerging issue.
- Ad-me is targeting personalized and location-aware advertisement for cellular phones and PDAs.
- The BDI agent-oriented approach supports for real-time content retrieval, content presentation, user modeling and correlation of customer and advertiser profiles.
- The use of PHP facilitates interoperability ensuring the delivery of content to a rich diversity of devices.