

W3C Workshop on the Mobile Web in Developing Countries

Position paper

Represent

Tunisia is an emerging country in the north edge of Africa. It's situation is central in the Mediterranean sea which give our people strong cultural ties with Europe, and specially with France . Tunisia was a colony of France during WWII. We are 90% Muslims, we speak a dialect of Arabic. At school we learn literal Arabic and French.

What can it do?

The relation Tunisian people have with their mobile devices can be described as a “utility” relation. Where the mobile, as an object, is strongly assimilated to a tool. The notion of “service” is still not fully understood. What they need is means to use this tool in their everyday life. Their perceived need for information is often very limited, so they don't need to surf the web or use a search engine. What they need is a tool to interact with their environment. They already can talk to each other and they would be happy to do other useful things with it.

Privacy

All of the use cases in this document present evident privacy issues. Being aware of this, i considered privacy issues out of the scope.

Paying with my phone

Credit cards usage is still relatively rare in Tunisia. Suppose I'm in a carpet shop. I pick a carpet and go to the shopkeeper. He asks if i would like to pay with my phone, i say “yes” and give him my number. I take my phone and select “pay”, I'm presented with a bill, i review it and accept to pay it. The shopkeeper receives the payment confirmation, he says “thank you.”

Comparing prices with my phone

Minutes before paying i wondered if i could get the same carpet for less in another shop. I picked my phone, selected the “compare price” function, scanned the bar code with the camera and got immediately the best price for the carpet.

Doing business with my phone

Now, back in my village, I'm going to sell the carpet and make some benefit. I go to my customer, bargain a little bit, once the price agreed on, we both took our mobile and exchanged our numbers. I selected “receive payment”, typed the amount agreed on and his phone number, and waited for the customer to pay. When i received the confirmation, i said : “thank you”.

Later, at home, i sat in front of my TV set, took my mobile and selected “bank account”. I was able

to view my bank account on TV screen.

Voting with my phone

SMS TV games (like for singer stars and others) are very popular in Tunisia. Using SMS for vote is ineffective and difficult as vote is based on keywords and keywords are prone to typos. Using web applications, this kind of games would be very simple. Using the same kind of application for elections and democracy is not less simple.

While usefulness of voting for such a games can be questioned, the popularity of these games illustrate the power of TV as a vector for mobile services. Considering the fact that TV sets are present in most of Tunisian homes, we can assume the same thing for other emerging countries.

For me, this kind of interaction between a mobile device and a home facility is a key for a vision of the future of mobile web.

Convergence of the media infrastructure

There will be one net. And every device will be connected to the net. TV sets, mobile phones and cash registers will be part of the same network. W3c initiative aim to make them speak the same protocol. The implications of this fact is that it will be some functional redundancy between devices , then “sedentary” devices will tend to specialize and mobile devices will tend to generalize.

We will be able to use the same mobile device in most of our regular life situations, and we will have different sedentary devices for different uses.

Mobile devices ergonomic constraints

Mobile devices have ergonomic constraints that make them unsuitable for giving a good sensorial experience to the user. Reading a book, surfing the web or watching a movie is painful.

These functionalities should be “relayed” to more adequate non mobile devices when possible for better experience.

Diminishing application complexity with real life contextuality

Most of Tunisian people don't use all the features of their mobiles. One aspect of this situation is that they use only features they really need, the other aspect is that mobile software is complex. Computers in general are complex. Complexity in computer devices come from the fact that they tend to do everything.

Using the same tool for doing very different work is new situation that people often are not familiar with. Accessing features or applications can be very difficult specially with the constraints inherent to the mobile device.

Web applications tend to be optimized for someone sitting in front of a desktop computer. When the computer is mobile, the context in which the user is (bathroom, pub, work, baby shop, computer shop,...) , can be a strong hint of what he wants to do. Not what he wants to do with the application, what he wants within his environment.

Contextual information can be a combination of position information (GPS), self identification information (phone number) and neighbor identification information (RFID). With enough contextual information, applications can serve the right options at the right time, hiding the profusion of choices.

Mobile phone as a universal remote

My conception of the future mobile phone for the emerging countries can be summarized as a metaphor : the universal remote. A device that can interact with places and other devices. A device that empower the user allowing him to do things he was unable to do before.