iSpeechNews is a prototype which delivers a real-time news service, in the form of graphics and speech news, based on user location for Ubiquitous Computing Environment. The prototype is based on a protocol that requires five important hybrid stacks, i.e. 1. User identity, 2. User location, 3. A real time news feeder, 4. Speech and dictations systems and 5. Lips phonetic synchronization. The aim is to prove easy interactions in the form of speech between user and the mobile computing environment while the user is on the move.

METHODS

iSpeechNews architecture : iSpeechNews hybrid protocol stacks:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Hybrid protocol stack</th>
<th>Program application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who (user identity)</td>
<td>User identity (mobile user)</td>
<td>User identity: java</td>
</tr>
<tr>
<td>Where (user location)</td>
<td>User location (information user location based on MT992 17 or Bluetooth)</td>
<td>MT992, java (dynamic as left algorithm)</td>
</tr>
<tr>
<td>Response from Environment</td>
<td>rays synchronization (phonetic speech)</td>
<td>rays synchronization java Synch graphics image and phonetic speech</td>
</tr>
<tr>
<td></td>
<td>RSS feed Classification of feed</td>
<td>RSS feed: java</td>
</tr>
<tr>
<td></td>
<td>Speech and dictation (phonetic speech)</td>
<td>Speech java</td>
</tr>
</tbody>
</table>

SpeechNews: A Real Time Speech News Service For Ubiquitous Computing Environment

OBJECTIVES

- To provide easy interactions between a user and the mobile computing environment in delivering specific form of news in speech
- To provide solution/facility for users to get real-time news updates, using a push concept, rather than a pull concept
- To develop iSpeechNews as a life scenario on how computing environment can deliver intelligent responses, directly, to the user, based on user location, in the form of graphics animation and speech news

RESULTS AND DISCUSSIONS

Speech News and lip graphic animation

CONCLUSIONS

- iSpeechNews attempts to simplify the daily user load. It delivers the news to the user in the time needed, and therefore saves the user the effort manually searching for news
- iSpeechNews delivers a real-time based news service using the push method as compared to the previous pull method
- This attempts to change the way news and information are delivered to the users by providing advanced interactive methods in the form of facial interactivity and lip graphic animation directly to the current user location

REFERENCES


IIUM Research, Invention and Innovation Exhibition 2010

‘Enhancing Quality Research and Innovation for Societal Development’