Virtual Centre of Excellence in Mobile and Personal Communications
-Mobile VCE-
CORE 5 Research Area: User Interactions for Breakthrough Services

User Interactions

The telecommunications industry is currently in the midst of one of the most exciting and tumultuous times in its history. Traditional revenue streams are being eroded and new ones emerging, with the beginning of a transition from rigid, stove-piped services, towards flexible ad-hoc composite services which will better meet diverse and unique user needs.

As Mobile VCE's industrial members have looked forward, opportunities have been identified for new genres of service that could become mass markets of tomorrow. Of particular significance are personal lifestyle support services, where contextual knowledge of users' behaviour and intentions is combined with new modes of user interaction (with devices, environment and services), to deliver new services that extend beyond mere communication and/or information.

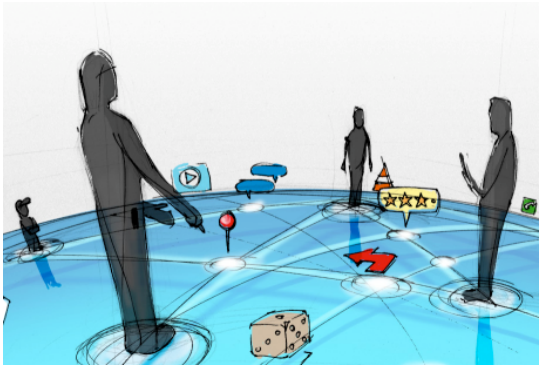

Figure 1: Old Boundaries between Users, Devices and Services are disappearing

Technical Approach

The User Interactions research programme will investigate the following:

- **Novel Interaction with multiple devices**: which belong to the user, the environmental infrastructure , and other users. Depending on the nature and location of these devices, there will be a number of ways in which users could interact with these devices. Interaction using different modalities will therefore be another research focus.
- **Interaction with dynamically composable services**. Attractive and novel services will need to be aware of the user's context and the resources available in order to be truly useful. It will also need to be judged which decisions the user will need to make and which should be made automatically. Contextual awareness and Service transparency will therefore form a central theme of investigation.
- **User Requirements and Service Opportunities**. In order to ensure the research is relevant, it is vital to ensure that it is grounded in emerging user needs and business opportunities. These will be explored and will steer the research as it progresses to enable the target of novel breakthrough services.

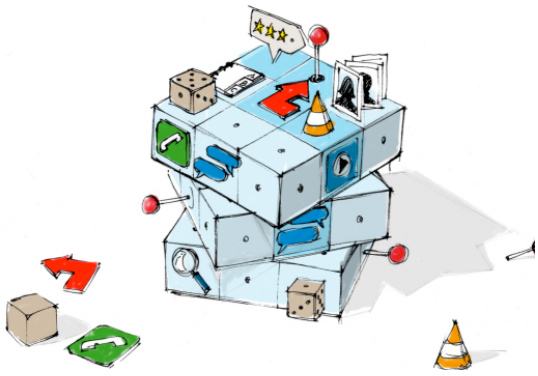

Figure 2: Future Services will be composed on an ad-hoc basis as needed

An important end result of the User Interactions work will be the creation of design principles and toolkits which can be taken by member companies and used in whatever way they desire. A prototype featuring the practical application of the research will also be developed. It is anticipated that the industrial members, whether operators, service providers or suppliers, will build upon the novel mechanisms for user interaction with devices, capabilities and services in ways which support their own particular strategies. The target for commercialisation is the next 7-10 years.

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