SYSTEM FOR OPTIMIZING THE USE OF SHARED RESOURCES WITHIN A PHYSICAL SPACE

P-0019/TEC-0054

A system for efficiently orchestrating use of limited physical resources by a number of users within group dynamics

BACKGROUND

Efficient use of limited physical resources shared by a number of users in changing conditions represents a problem of coordination management between users and resources. The magnitude of the problem is increased when different dynamics are involved in the assignment of users to the different resources. Examples of these situations include organization of work meetings, collaborative learning activities, activities in the playground, and academic conferences and symposia taking place in conference centers.

THE TECHNOLOGY

The system promotes dynamic orchestration of users in constrained face-to-face environments to improve resource distribution, experimentation, exploration, collaboration in physical spaces. The system includes one control device managed by a facilitator and signaling devices that can be worn by users or associated to shared resources. The facilitator using the control device can flexibly assign users to resources (or to other users) according to certain input parameters by remotely configuring their signaling devices. Thus, by consulting their own signaling device as well as the other's and the signals displayed in the resources, users can have up to date indications about which resources are available for them, which areas of the physical spaces they are supposed to visit, or with which other users they are supposed to collaborate.

ADVANTAGES

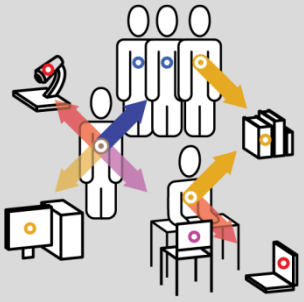
- Easy to operate
- Allows optimal use of physical resources (or spaces) through on-the-fly assignation of users to resources
- Allows dynamic group formation
- Decrease coordination overhead
- Standard communication equipment for both control and user devices

STATE OF DEVELOPMENT

Two prototypes have been built and tested several times in a classroom environment. Currently, a smaller and user-friendlier version of the prototype is being built.

INTELLECTUAL PROPERTY

A Spanish patent covering the system was filed in 2011.



COMMERCIAL OPPORTUNITY

We are looking for a commercialization partner.

CONTACT

Marc Santandreu
Technology Transfer Unit
(+34) 93 542 28 96
marc.santandreu@upf.edu

KEYWORDS

Shared physical resources, dynamic optimization, physical spaces, group dynamics

TECNIO
Be tech. Be competitive

SEE MORE TECHNOLOGIES AT:

http://knowledge.upf.edu/