
A map-based visualization for improving social interaction in conference location

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Overview

- Motivations
- Literature review
- Approach
- SIM System
- Application Scenario
- Conclusions

Motivations

- Creation of new virtual social networks
- Visualization of virtual social networks
- Improve the relationships among people
- Support people in the definition of groups of interest

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Literature review

- MUSICtable system encourages participation and social cohesion
- Map-based interaction is used in collaborative decision-making management during emergency situations
- Agent-based Geographical Information System (GIS) for allowing multiple users to simultaneously interact with it

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Our approach

- **Purpose:** to allow people to detect other people that share the same interests, facilitating their connection and communication activities
- **Approach:** SIM (Social Interaction Map system) system designed for visualizing interests of people in proximity

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SIM System (1)

- Interests of each person are organized in categories

USER	CATEGORY		
	c_1	c_2	c_n
u_1	k_{11}	k_{12}	k_{1n}
u_2	k_{21}	k_{22}	k_{2n}
u_i	k_{i1}	k_{i2}	k_{in}

SIM System (2)

- Categories offer sets of services

SERVICE	CATEGORY		
	c_1	c_2	c_n
s_1	e_{11}^k	e_{12}^k	e_{1n}^k
s_2	e_{21}^k	e_{22}^k	e_{2n}^k
s_j	e_{j1}^k	e_{j2}^k	e_{jn}^k

SIM System (3)

■ Position of users

USER	POSITION
u_1	$p_1(t)$
u_2	$p_2(t)$
u_i	$p_i(t)$

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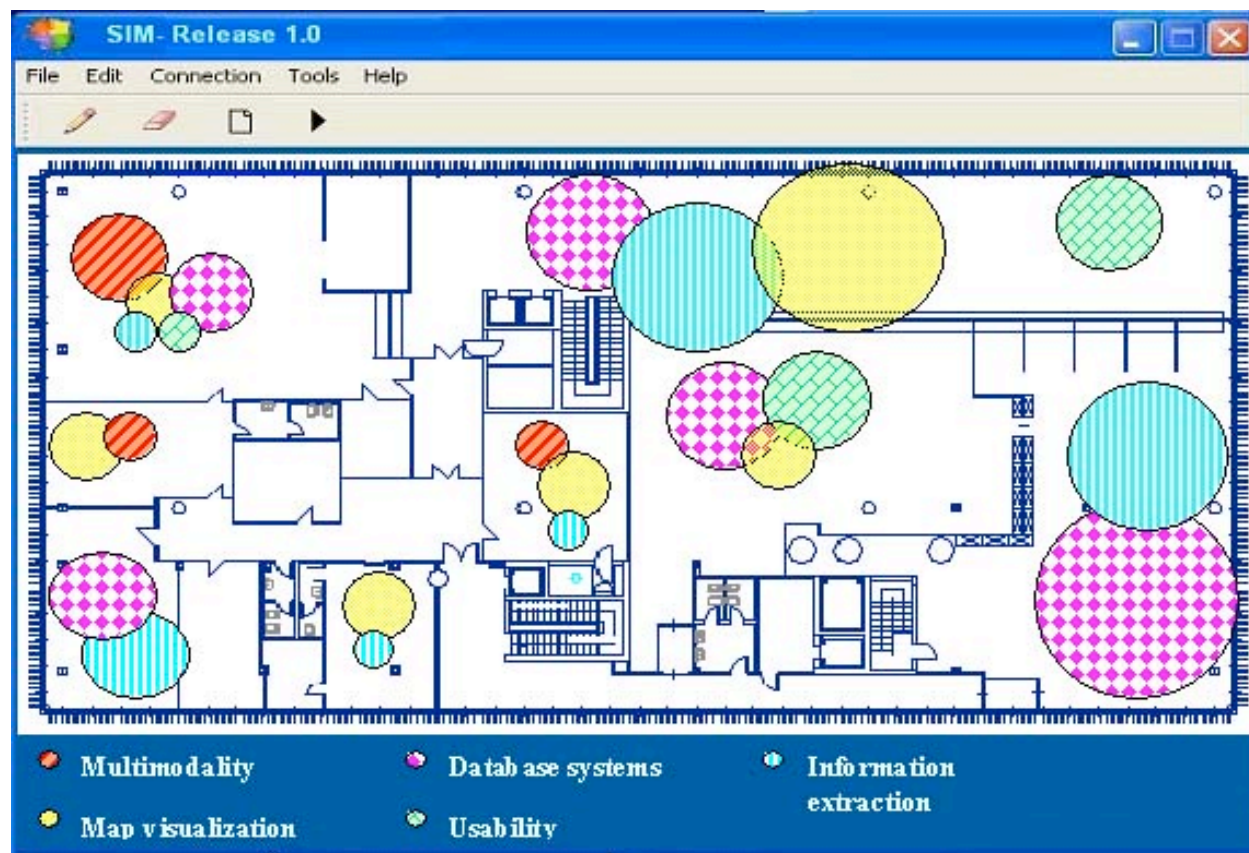
Application Scenario (1)

- Conference location

- User's interestes

USER	CATEGORY							
	multimodality	map visualization	visual languages	database systems	usability	information extraction	user modeling	context-aware computing
u_i	1	1	0	1	1	1	0	0

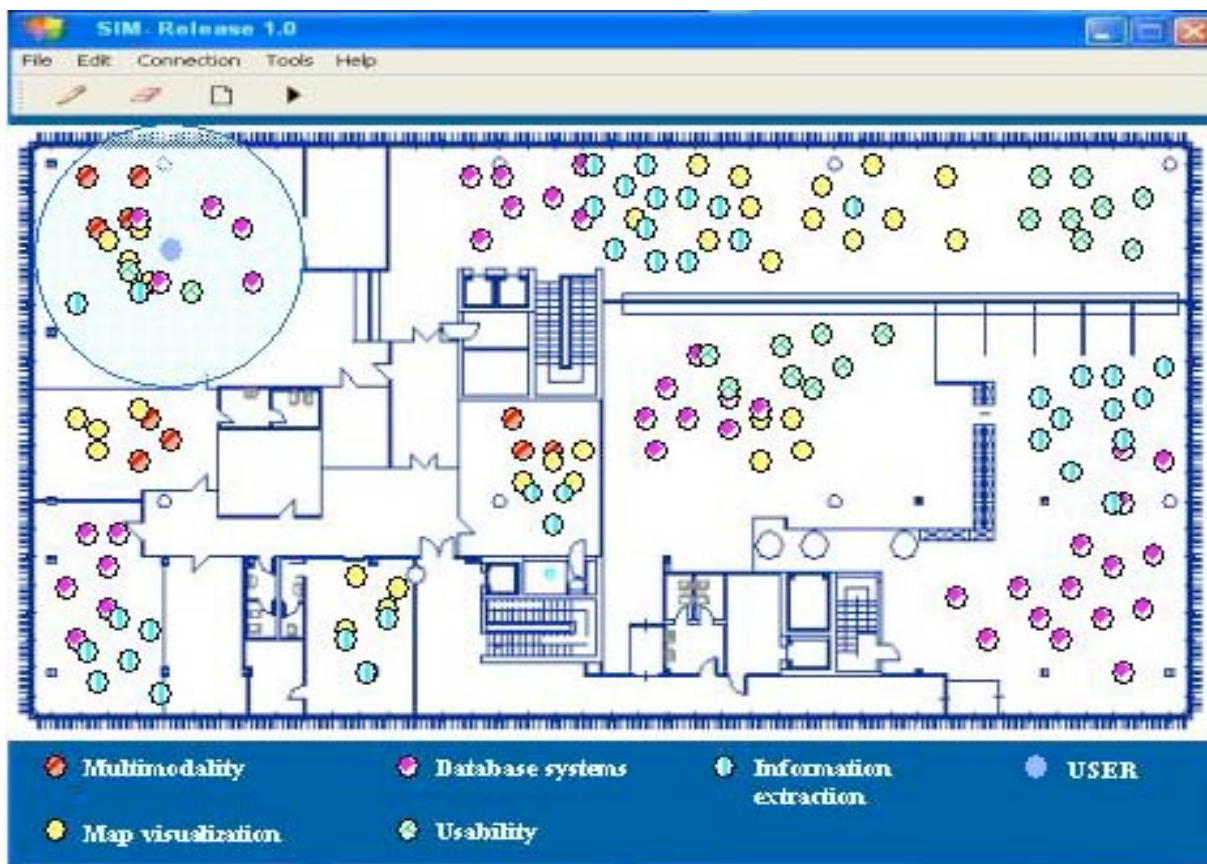
Application Scenario (2)



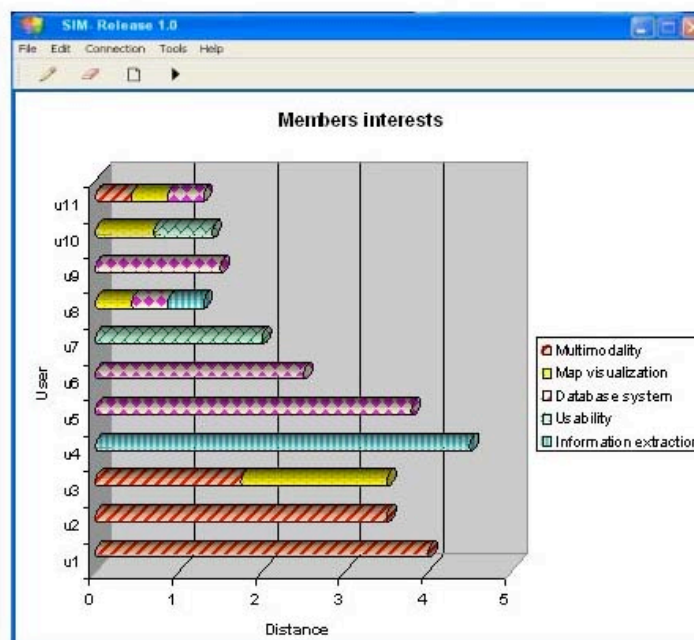
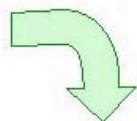
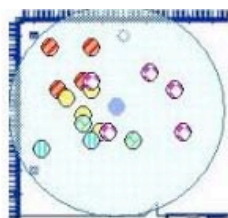
Application Scenario (3)



Application Scenario (4)



Application Scenario (5)



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Conclusions

- SIM is map-based system for supporting people participating to a scientific conference to detect other people sharing same interests
- It can be used to evolve topics for the next conferences
- It can be used to observe the distribution of specific categories of interest among several conferences and for analyzing the distribution of each specific category