

How was your experience of Coordinator of a large project like DALi?

Well....tiring. Jokes apart, it has been an awesome experience. I had the opportunity to work with a wonderful team of people, who have engaged in very complex research activities with genuine enthusiasm and spirit of collaboration.

What was the DALi's initial vision and how much of it has been translated into concrete results?

Our initial idea rested on a few clear pillars:

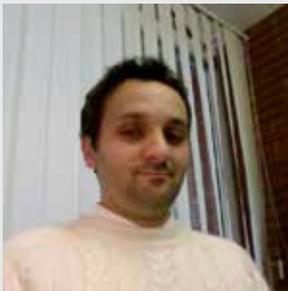
1. *older adults should be encouraged to continue their everyday activities*
2. *a device that supports them should look very familiar and its design should be tailored on their specific needs and psychological attitudes*
3. *in order to be of concrete use, a robotic assistive device should not cost too much (no more than say 1500 Euros).*

We have taken constant inspiration from these principles and translated them into a concrete working agenda. In particular, *the device has been co-developed with the users, accounting for their preferences and concerns.* The need for cost containment has steered our research effort toward system intelligence rather than toward a complex mechanics. Overall, I am happy to see that most of our initial expectations are gradually becoming actual realisations.

What remains to be done?

We have now reached the most exciting phase: testing with real users what we have done and measuring the efficacy of our solution on the ground of the user's satisfaction. This is quite a new experience for most of the researcher in the team, for whom technical soundness is the only usual concern. I have a lot of expectations and I am confident that the users will appreciate the system.

About Luigi Palopoli



Luigi Palopoli graduated in Computer Engineering at the University of Pisa in 1992, and received the PhD degree in Computer Engineering from Scuola Superiore Sant'Anna in 2002. He is Associate Professor of Computer Engineering in the University of Trento. His main research activities are in embedded system design with a particular focus on resource-aware control design and adaptive mechanisms for QoS management. He has served in the program committee of different conferences in the area of real-time and control systems.

What we have found is that older adults require an empathic assistance, to identify their need and fight the varied causes that determine their withdrawal from everyday life. Their most important problem is loneliness. Social networks are great to create communities and fight isolation...

What are the new research directions triggered by DALi?

From the technical point of view, there are quite a few things that we have discovered that will have an interesting academic impact and probably an important follow-up. I am more interested in reasoning about societal challenges.

What we have found is that older adults require an empathic assistance, to identify their need and fight the varied causes that determine their withdrawal from everyday life. Their most important problem is loneliness. Social networks are great to create communities and fight isolation, but they assume a level of literacy in technology that older adults usually not have.

Empathic devices like DALi's c-Walker can contribute to extract their interests and habits and help build a community, which could potentially be intergenerational. For sure an older adult could take joy from the company of younger people, but from a different perspective an isolated teenager with a difficult communication in his family context could benefit as well from the advices of an older mentor.

The fact that putting together assistive robotics and social network could generate active intergenerational social links is tremendously exciting to me. The potential to apply this idea in similar service robots is, in my opinion, huge.