

The vision from robots as an engineering value¹ is not the only way humans look to them anymore. Robots along the years achieve big transformations, from robots that repeatedly performed the same dangerous tasks from cars industries to robots that interacts with people understanding and responding to human behaviors.

The second case brought a new research in this field: how humans respond to robots and how this relationship can change our behavior with them in a physiologic way. This is called Complex Interactives System (CIS), and is based upon three basic principles: interactivity, equifinality, and multimodality². Now the new challenge is to create a robot that can interacts with humans and pleased them at the same time, creating a bond with us.

That's exactly one of the reasons why architecture is important. Architects want to create at the same time a bond between building and human and be able to move people feelings towards the building. Some architects as Gramazio & Kohler from ETHA are pioneers in find new ways that robots can help build the buildings, it's called Digital Materiality³ where the architect now has control not only of the design but also the construction. This robotics are named "assisting robots" where the machine has an appearance adjusted to the specifics of an executing function⁴, as a drone building a brick wall etc. However, it's still a technological approach.

However according with Heather Knight, even robotics that were constructed to be as just assistants were able to create a bond with them and be looked as companions or artificial partners. Her example was from a bomb-disposal robot that were damaged during an explosion. The soldiers who "worked" with the robot wanted that the company didn't give them a replacement, but fixed the same robot that shared the same experiences with them. Which means, assistant robots can reflect behaviors such as the interactive stimulation robots which consisted in an anthropomorphized appearance or animated form of existing and non-existing beings or objects that are used to entertain or even as a therapy⁵ (robototherapy).

Architecture robotics can performance the same objective. As interventions or objects that make part of the building, the effect of architecture can be improved by robots. The interaction between robot-building-human is one of the key for its success. The second one is design, how its make people want to use it and be engage with it during a long period of time. They are the same issues that usual robots have it.

Nevertheless, one thing It won't change about this artificial creatures⁶: they will continue to enrich human life in different activities or aspects, even and specially in the field of architecture, by being an interactive illuminate wall that changes its color according with

¹ Libin, "Person-Robot Interactions from the Robopshychocologists' Point of View"

² Libin, "Person-Robot Interactions from the Robopshychocologists' Point of View"

³ Gramazio&Kohler, "Digital Materiality in Architecture"

⁴ Libin, "Person-Robot Interactions from the Robopshychocologists' Point of View"

⁵ Libin, "Person-Robot Interactions from the Robopshychocologists' Point of View"

⁶ Libin, "Person-Robot Interactions from the Robopshychocologists' Point of View"

the movements of people bringing them happiness or chairs that auto assembly after broking apart facilitating human's life.

Sources

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