

# Future trends of intelligent buildings

Steve Coster from multidisciplinary design practice Hassell, and Ben Crosby from Australia's telecommunications and media company, Telstra, recently shared their views on changes in the way intelligent buildings operate and trends in the way they function with Pete Greaves, an expertise leader at Aurecon, a provider of engineering, management and specialist technical services.



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Intelligent buildings is a term that means different things to different people. While a building needs to be technically intelligent, it also needs to be emotionally intelligent.

"An emotionally intelligent building understands people's motivations and feelings. Instead of looking at technology first, rather focus on the way people work and interact in these spaces. In that way, people lead the design of the building, rather than technology leading the people. Engineers, designers and consultants need to find out what the future occupants want from a building, how they want to work and interact in this space and design the building and the technology around the occupants' needs," explains Coster.

## Connecting people

"The best buildings get out of the way and let people connect and complete their tasks at the speed at which they want to complete tasks. Technology should not create barriers to doing business. What people want is a building that lets them operate at the real speed of business. Any technology and engineering that can help people do this is an intelligent building," says Coster.

People are not necessarily caught up in the technology of a building, they just want to be able to achieve their desired outcome. "If a person wants to be able to control the temperature in their environment, they don't mind if this is achieved by pushing a window handle or by using technology. Sometimes the most low tech solutions are the most natural and effective for people. The common theme for successful intelligent solutions is simplicity," he says.

Intelligent buildings are usually associated with new buildings, but heritage buildings can also be intelligent. Heritage buildings and the reuse of existing structures can be a powerful feature of organisations, particularly in terms of cultural alignment.

When asked about how intelligent buildings should cater for millennials as the work force ages, he explains that buildings shouldn't be designed for different generations. "Intelligent buildings need to be designed for how different individuals choose to work. Whether the building occupants are Gen Y, Gen Z or baby boomers, the environment you provide needs to work for the individuals while simultaneously connecting them to each other for their common goal."

## **Importance of awareness**

According to Crosby, a building is not intelligent if it is full of technologies that don't communicate with one another. A building is intelligent when it's aware of its inhabitants, aware of their needs and is able to adapt to these needs.

"If a person is able to walk into a meeting room and the meeting starts automatically, or if a building recognises that there are certain patterns in how people use different spaces and automatically adapts the lighting and air conditioning to those patterns, then it is an example of an intelligent building. Technology needs to blend into the background of a building in such a subtle way that people aren't even aware of the technology around them," says Crosby.

Technology continues to evolve at a rapid pace and the way people work will continue to evolve over the next 20 years, which will lead the evolution of intelligent buildings.

## **Remote workers**

"I predict that there will be more remote workers and building systems and technology will need to offer more mobile connectivity in order to accommodate wherever a person chooses to work from. People need to have the same connectivity and experience whether they are working from home, a café, a client site or from the office, so they still need to be connected to instant messaging, video conferencing and all the communication facilities that would be available to them from the office," comments Crosby.

"The trend will shift to fewer large meeting rooms and more social spaces as the younger generation enters the workforce. Millennials place a greater emphasis on work-life balance and people will become more fluid in their decisions regarding which teams they want to participate in, so intelligent buildings will need to accommodate this," says Crosby.