THE INTERNET OF THINGS

Connected Living: Benefits for Both Landlords and Tenants

Smart appliances and other Wi-Fi-enabled products have features that can appeal to building owners and residents.

BY MATT POWER, EDITOR-IN-CHIEF

ANDLORDS, DEVELOPER/BUILDERS and building owners have used building management software for many years. The addition of new devices and appliances in the connected living space is further transforming the way building owners run their business, along with the way renters live their lives. But to effectively communicate the value of smarter buildings, both parties need to understand specific ways that connected living can improve quality of life.

New products, with enhanced control and communication, are transforming how building comfort is maintained (smart thermostats), how residents get in and out (smart keypads and lock-

ing systems), and what happens when a device fails or needs repair (self-diagnostics, leak detection and remote reconstruction).

As we'll explore in more detail below, the right collection of connected products allows landlords to keep track of most of the important mechanical systems in the building. Residents, on the other hand, can enhance their own comfort and security, save time on tedious chores, and have the easy access to online services that they want.

LANDLORD BENEFITS

Landlords gain immediate cost benefits with connected technology. First, there are the fundamentals: climate control, security and access.

Climate control. With smart thermostats, for example, building owners can establish flexible scheduling that maintains building comfort, yet still allows tenants temporary override capability. Some Wi-Fi thermostats can send an alert to the landlord when humidity levels spike suddenly to an unusually high level, or when temperatures drop to the point where pipes might freeze.

Security. Window and door sensors, surveillance cameras and occupancy sensors can all be integrated into building management. The key for landlords is to strike a balance that allows tenants to feel safe, but without intruding upon their privacy. As this article, "Your landlord turns your apartment into a smart home—now

what?" points out, some tenants who suddenly encounter smart technology in their homes may feel their privacy is being invaded. They may worry that the technology will be vulnerable to hackers and want to know how their "data" is being used. Transparency is key.

Access. Hand in hand with security is entry to the building and its sub-units. For landlords, the level of control can be minimal—or extremely tight. For example, some smart locks record which tenant comes and goes at what time of day. Most allow for multiple keypad codes. Some can be changed or deleted remotely. Other systems offer geofencing, so that the door simply unlocks as the phone owner comes into close proximity. How many of these options do landlords need or want? It depends, naturally, on the building and the situation.

Preferred Features for Connected Appliances	APPLIANCE								
	Washing machine	ve	=	Fridge	Dish washer		Vacuum cleaner	Heater	Cooking hood
FEATURE	Wa	Stove	Oven	iĘ	Dis	≥	Vac	He	<u> </u>
Ability to be controlled remotely	9	8	7	6	10	7	3	7	3
Autonomy	10	9	5	5	6	3	6	4	6
Ability to cooperate	3	9	8	5	4	3	3	3	6
Ability to provide guidance	7	4	6	7	2	2	3	1	1
Multi-fuctionaility	9	2	3	4	3	2	4	1	2
Ability to learn	5	1	1	0	1	5	1	3	0
Ugradability	2	2	1	1	2	5	1	1	1
Adaptability	2	2	2	2	2	1	1	2	2
Having human-like interaction	2	3	0	3	1	0	1	1	0

Remote control matters. Research on what people value most in new, smart appliances points to long-distance control first, with little interest in "human-like" interaction.

SOURCE: INTERNATIONAL JOURNAL OF DESIGN



The really exciting news in the connected living space, however, is the next tier of devices and sensors, which augment and integrate with the basics.

leaks. For example, leak detectors can identify water problems such as leaks before they become bigger, more costly issues. One mitigation company, **Restoration Local**, estimates that when pipes leak, they can cost building owners about \$2,700 in repairs. Then there's the issue of money down the drain. For example, according to **this analysis by Express Sewer & Drain**, a single leaky toilet can waste up to 6,000 gallons of water per month—about \$70 worth of water. And for homes where a centralized leak detecting product is not installed, some connected devices have begun to include their own leak sensor. Samsung's connected dishwasher, for example, includes digital leak detectors.

Air quality. Smart range hoods and bath fans operate automatically when they sense moisture or air pollution, reducing false fire alarms, improving indoor air quality for all tenants, and reducing damage to ceilings and trim from grease, smoke and humidity.

TENANT TURN-ONS

What about renters? Do they actually want smart home technology? According to a 2018 study by Entrata, they do—more than many other amenities, including pools and childcare. But their priorities are not the same as building owners: First, they want good Wi-Fi and cable TV access. Next, they value the ability to manage their laundry in-house. Third, they love the idea of online rent payments, followed by health/fitness amenities, then security and smart locks.

Those opinions are not monolithic, of course. Across a broader sample of demographic groups, consumers may be more open to a wide palette of technology.

As *Multifamily Executive* reports, "Ranked in order of preference (and across demographic groups), these include free Wi-Fi

connectivity, smart thermostats and Energy Star kitchen appliances. Next are features that offer convenience—keyless electronic front entry, built-in USB charging ports, in-unit motion-detection cameras and motion-sensor lighting."

It's safe to say most tenants don't think of climate control as an "extra" any more than healthy air quality. They expect it as a standard. To talk with them about connected living, it's important to approach the topic from a lifestyle perspective. They need to know how products will save them money or time.

For example, in this comprehensive study of how people perceive and use smart appliances, respondents valued "autonomy" highest for washing machines and stoves. Combine that response with their interest in controlling these devices remotely and you see that what they're really seeking is *time saving*. With remote control of self-diagnostic appliances, they can manage many mundane chores while they're waiting at a doctor's office or standing in line at the Department of Motor Vehicles. Another, more esoteric benefits of

connected living that appeals to users is the "mood setting," aspect—part of the urban experience that people are looking for in modern, well-designed apartments.

For example, consider connected living products such as smart refrigerators. A tenant may not seek out this type of technology, but in many ways, it fits nicely with each of those factors. Provided it's not tied to higher rent, they'll inevitably find themselves using it as an extension of their smartphones to save time shopping or preparing meals. And it fits with their modern kitchen. They can check their calendar, chat with a roommate, play music, or figure out what to make with the leftovers in the fridge.

The storyline that will catch the imagination of renters is a practical story about how connected living can keep their monthly costs predictable and modest. Sure, they will pay a little extra for a connected living apartment, but they might save money on water and electric bills, by managing their Wi-Fi-enabled laundry appliances.

CONNECTED CONTROL: EVERYBODY WINS

The market for smart, connected devices in multifamily housing has become much more stable and mature in recent years. For landlords, it's a no-brainer. The ability to monitor and manage energy efficiency, security and damage control remotely greatly reduces the risk to their valuable property. Also, a few insurers have begun to offer discounted rates for certain smart devices, such as Wi-Fi smoke detectors, smart locks and burglar alarms. This trend should continue.

The rental market then, if approached carefully, could be exactly the market niche that tech manufacturers have been looking for. It's a way to normalize connected living in a way that reaches the mainstream by way of cost-conscious renters. Once landlords and tenants find a harmonious balance among products and protocols that integrate comfort, security and convenience, living in a smart, connected apartment will simply become the new normal. **GB**