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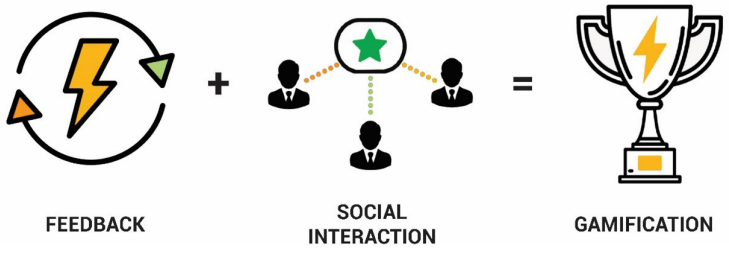
THE SOUTH LANDING DEVELOPMENT: INSPIRING TENANT ENGAGEMENT

The actions of building occupants can impact how building systems run, especially if they are adapting to their environments in ways that negatively impact the overall building performance (i.e., covering sensors, adjusting or altering thermostats, bringing space heaters to the office, etc.). Training and actively engaging with building occupants can empower them to contribute to the performance goals of a building. Behavioral change programs or tenant engagement programs are becoming widely applied to achieve energy savings by teaching building occupants how to properly engage with their environments.

A tenant engagement program is a social intervention plan or campaign that encourages the occupants of a given building to participate in positive energy behaviors by using energy-efficient strategies [1]. In buildings with ambitious energy-performance targets, like the Catalyst building at the South Landing development in Spokane, Wash., engaging occupants through education and behavioral change is especially important to reach and maintain energy efficiency targets through the lifespan of a building. Engagement additionally can leverage individual motivations, green-lease agreements, or incentives to attract participation.

Behavior-based energy efficiency (BEE) programs are becoming widely adopted by utilities and are a source of energy savings as more energy-efficient technologies are adopted [2]. Utility BEE programs consist of strategies that increase energy-efficient behaviors through targeted interventions and information delivery [3], but ultimately are designed to engage with residential customers [4, 5]. Utility motivations to reduce energy consumption stems from the costs of energy production and reducing environmental impacts [6], but little has been done to understand how to engage with building occupants who do not directly pay for their consumption [7-9].



Leveraging building-specific opportunities for education, feedback, social interactions, and gamified experiences, successful tenant engagement programs seek to understand the motivations behind occupant behavior to create change (e.g., energy-use reductions). Incorporating social and psychological considerations in the development of a tenant engagement program will vastly increase the likelihood that it is received. Tenant engagement campaign can leverage a variety of significant factors including motivations, the instinct to compete (or not), and user interests.

Offering occupants control, education, and opportunities to improve their well-being will improve their satisfaction, while also motivating them to positively participate in the building's community and operations [10, 11]. When occupants are left to their own devices to manage their comfort in a highly automated building, there can often be unexpected energy consequences or atypical adaptive behaviors [12]. A tenant engagement program engages with occupants through health and comfort strategies to meet energy performance goals.

The tenant engagement program for the Catalyst building was developed with clear goals to maximize both energy and occupant outcomes:

1. Meet or exceed zero energy goals
2. Create community and a sustainable culture
3. Promote occupant wellbeing, comfort, and health

Ultimately, buildings cannot, and do not, operate well without engagement from the people that occupy them. More research to understand the success rate of developed engagement strategies, development, and assessment of occupant training resources, as well as research surrounding occupant behaviors, can contribute to the growing body of knowledge of human-building interfaces in high-performance buildings.

The South Landing development is sponsored by:

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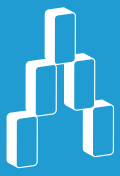

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