

How 'smart' is your property?

Expert lists what will impact future building technology



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Every so often, a quantum shift of sizable proportions descends upon the commercial property market.

When such a phenomenon occurs, previously desirable properties are often rendered functional obsolete, wreaking havoc with occupancy, valuations and investor fortunes.

In the Agrarian Age we built barns in the Industrial Age, factories in the Information Age, towering office buildings. Today, as the Internet Age envelops us, the undeniable wisdom of "smart" or "intelligent" buildings is upon us. Eventually, all buildings will feature and operate according to smart principles and applications without exception.

What are smart buildings and why will they have a profound impact on the marketplace for the foreseeable future?

While a clear-cut definition or standard has yet to emerge (although many relevant industry groups are diligently

working on such standards at this time), intelligent real estate involves the cost-effective, comprehensive aggregation and application of existing, low-risk technologies to a property in order to enhance the value proposition of that property for its owner and its occupant.

Exactly which technologies should be aggregated and deployed at which properties and when depends on many factors, such as market conditions, vacancy rates, current cash flow, retrofit vs. new construction, user demand, competitive pressures, ROI dynamics, risk tolerance, etc.

Potential intelligent features

Potential features of intelligent real estate include:

- robust, redundant infrastructure (broadband, HVAC, power, water)
- IP-based building automation and controls (which enables remote building management in real time)
- a central network for converged communications (wired and wi-fi)
- integrated fire/life/safety and visitor management (essential in a multi-tenant, multi-use environment)
- a comprehensive digital signage strategy (rather than disparate flat panel displays)
- paperless e-operations on/off site (e-leases anyone? just click "I Agree")
- robotic parking (sensor guided to the nearest open space)
- self-cleaning glass (enabled by new coatings technology)
- flexible/sustainable design and construction techniques (planning

occurs at least two — three years out)

- nanotechnology innovations (new composites and materials)
- and environmentally sensitive/efficient "green" considerations ("LEED" certification).

Such features should bring benefits to those that partake, including extreme efficiencies for owner and user (time and cost savings)

- enhanced productivity/creativity from a more satisfied workforce (hard to measure but real nonetheless)
- overall operating savings (equates to big dollars when compounded over a long-term lease)
- safer environment (resulting in longer stays/more frequent visits)
- greater convenience (more amenities with public transportation in place)
- interactive community (supports new relationships and strengthens existing ones)
- enhanced collaboration and innovation (will provide tangible and intangible advantages)
- and, its all located in an engaging, sophisticated, dynamic 365/24/7 live-work-play destination.

The end game

The end game is an enhanced tenant experience (overall value proposition, amenities, community, flexibility) AND an enhanced owner experience (sustainability, product differentiation, new revenue streams, superior credit/cash flow), which, over time will lead

continued on opposite side

to happier tenants and higher values.

Why now? Primary drivers include:

- current/future iterations of the Internet (more, faster, better)
- increased appetite for converged, centralized communications (the infrastructure to move considerable volumes of voice, data, and video securely at high speeds)
- evolving data management strategies (off-site vs. on-site, reduced storage and retrieval costs)
- sustainability/flexibility (ability to withstand further technological change with minimal disruption and nominal cost)
- security (everyone's issue)
- international competition (the growing chasm of the Digital Divide)
- also impacts the real estate industry via off-shoring and outsourcing)
- the rising cost of fossil fuels (not going away)
- 'LEED' certification is widely projected to be government-mandated by 2010)
- the documented emergence of successful, sophisticated mixed-use developments, especially those with an emphasis on public transportation initiatives (24 hour usage/ revenue vs. eight hour usage/ revenue)
- catering to Baby Boomers, Bloomers, and Knowledge Workers (the last true 'analog' generation vs. the ability to recruit essential job talent)
- the fast-approaching reality of truly ubiquitous computing (the ability to do anything with anyone from anywhere in the world at any time, and them with you)

- and, the aggregation of like-minded thinking users that prefer to form progressive, collaborative communities (rather than working in yesterday's buildings and cubes).

Like any major force, the advent of intelligent real estate is not without obstacles. Drawbacks include:

- the aging U.S. infrastructure (may not be able to handle the exponential electrical load growth reliably)
- antiquated zoning laws (most communities still operate according to planning principles that have been unchanged for over 50 years)
- a lack of industry data standards (without which we remain stuck in the slow lane)
- rigid underwriting/lending parameters (must change somewhat before real money flows into "smart" mixed-use developments)
- unproven valuation/ROI dynamics (few if any case studies off which to base rational decisions)
- analog vs. digital decision-makers ('analog' executives often do not have the technological aptitude or insights necessary to make relevant 'digital' decisions)
- and ultimately, the broken U.S. public education system which is not churning out globally competitive Knowledge Workers on a par with other foreign countries (this should be raised to a national crisis level of action).

Examples to study

Two very different local examples should be studied to best understand what strategic combinations of technologies and best practices might withstand the test of time:

DuPage National Technology Park, West Chicago (CenterPoint Properties, developer), an 800 acre collaborative mixed-use business park, master planned with robust, redundant aggregated infrastructure to enhance any mission-critical network-sensitive enterprise operation

- targeted users include office, industrial, retail/commercial, data/call centers, and academic/research uses.

Also, 108 North State Street, Chicago (Mills Corp., developer), a multi-story, multi-building, mixed-use development situated directly over the CTA's new mega-station with direct connections to O'Hare and Midway including luggage check anchored by WBBM-TV CBS 2's new broadcast center and street-side digital media wall will include retail/entertainment, office, hotel, residential units now under construction.

One of my favorite quotes of all-time comes from Dianne Giacovelli, National Director of Business Smart-Moves, who said, "A smart building is one that is fully leased. It doesn't ever need to be smarter than that." While this adage is indeed true, one must wonder when the market means (demand) will justify the ends (supply).

After all, it was Henry Ford who once said "If I had asked them what they wanted, they would have said faster horses." So how smart is your building?

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