Invitational Engineering--Good Counsel Then and Now

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Looking For a Good Educator-Architect-Social Engineer? Start with Today’s Housing Professional

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Looking Back at Jack Murphy and William Purkey’s “Invitational Engineering in the Residence Halls”

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IF YOU ARE ANYTHING LIKE US, you find yourself frequently walking into a residential environment and wondering, “What were they thinking when this was designed?” In 1981, when Jack Murphy and William Purkey published their article “Invitational Engineering in the Residence Halls” in *The Journal of College and University Student Housing*, colleges and universities were coming off one of the largest higher education population growth spurts in our dynamic history. By the mid-1960s, campus enrollments had been buoyed by the Baby Boomer generation and were further bolstered by passage of the Housing for Educational Institutions bill, the Higher Education Facilities Act of 1963, and the Higher Education Act of 1965 that flooded the industry with $1 billion for campus construction (Blattner, Cawthon, & Baumann, 2013). Simultaneously, the housing profession witnessed the founding of the student development movement motivated by the publication of major philosophical theories that reconceptualized the profession’s purpose for working with college students (Forest & Kinser, 2002). Murphy and Purkey’s notion of invitational engineering reminds housing professionals, then and now, to carefully craft what is built for students inside and out.

Our campus, Virginia Tech, is one example of the changing climate shortly before the publication of Murphy and Purkey’s article. Between 1960 and 1970, our housing population surged from 3,000 to 8,000 students. Concurrently, there were explicit attempts to separate living from learning, at least learning of the intellectual sort. In an article by S. Stewart Gordon published in 1974, Virginia Tech housing officials said, “The incorporation of classrooms in dormitories is very unpopular among students. They want a clear separation of formal teaching and living spaces” (cited in Penven, Stephens, Shushok, & Keith, 2013, p. 108). Like many campuses, we remain strapped with residential environments that were originally constructed with an eye toward high-occupancy efficiency and paid little attention to the potential intersections for learning that can exist between people and environments. Just as
the vestiges of old construction patterns linger in modern day higher education, one can be certain that the outdated mental models that informed those construction projects continue to influence our enterprise (Shushok, Scales, Sriram, & Kidd, 2011).

While physical space is an important variable for students and how they learn, educational philosophies and frameworks that guide thinking, and therefore practice, are equally powerful influences on student learning. While we are not able to rebuild every ill-conceived facility, housing professionals are able to re-examine systems of belief and corresponding practices that inform what is created in spaces that shape student experiences. Put another way, “prior to serious reconstruction of the student experience . . . educators must better understand the unconscious yet often dangerous ruts that limit their potential to shape the educational environment” (Shushok, Arcelus, Finge, & Kidd, 2013, p. 34).

REWIND: INVITATIONAL ENGINEERING—GOOD COUNSEL THEN

At the time of the Murphy and Purkey article, housing professionals were beginning to understand the educational impact of a collective rush to build with disregard for student outcomes. Concurrently, housing was a maturing profession with a growing disposition to use science and theory to guide work. To call housing professionals more than “academic innkeepers,” Murphy and Purkey (1981, p. 13) drew upon what were emerging admonitions (Brown, 1974) to ensure that student affairs professionals emerge as more than “ancillary staff members who have made little progress toward having a primary role in higher education” (p. 13). In three powerful pages, Murphy and Purkey champion a framework called “invitational engineering” to embolden housing professionals to thoughtfully attend to “the messages—verbal and nonverbal, formal and informal—that are transmitted to students and that are intended to inform them that they are valuable, able, and responsible” (1981, p. 13). The original article is reprinted in this edition of The Journal of College and University Student Housing.

Murphy and Purkey make the compelling argument that intentional invitations and a social engineering approach strengthen the likelihood that students will successfully enter and engage in residential communities. The
authors strategically couple the term “engineering” with the words “social” and “invitation” to argue that housing professionals are educators with responsibility for increasing students’ sense of belonging, encouraging their propensity to take ownership for their engagement, and, most importantly, strengthening the probability for participation in their education. Murphy and Purkey urge professionals to view themselves as educators and social engineers with unique opportunities to influence educational outcomes. They explain that even when performing administrative tasks, such as assigning roommates, determining rules or policies, choosing paint colors, or selecting furniture, professionals are engineering environments to enhance student learning experiences. That message from 1981 resonates loudly 30 years later; the environments created today—physically, programmatically, and socially—set in motion a powerful interplay of dynamics that shape everything about a student’s education. Perhaps the wisest question housing professionals can ask is, “Do we accept our responsibility for inviting students to participate in their own education? If so, how? If not, why?”

FORWARD: INVITATIONAL ENGINEERING—GOOD COUNSEL NOW

A scan of the campus housing landscape today reminds housing professionals to celebrate the progress made since Murphy and Purkey offered their challenge in 1981. Many campuses have embraced a philosophical approach undergirded by an emphasis on student learning. This shift toward student learning has ushered in a renaissance of efforts to mobilize residence halls as mechanisms to merge students’ in- and out-of-classroom experience and to strengthen holistic learning. It is not unusual to find classrooms, faculty offices and apartments, and other common space designed to engage the intellectual lives of students living in residential halls. Moreover, programmatic initiatives that include living-learning programs, academic advising, tutoring, faculty-in-residence programs, and residential colleges have profoundly impacted the nature of the college and university residential experience. In the best practices, campuses and the designers hired to work with them on new construction or large-scale renovations are guided by a social ecological approach (Strange & Banning, 2003) which embraces the complex and critical interaction that physical space has on learning outcomes. In their chapter on facilities design
in ACUHO-I’s recently published book series, *Campus Housing Management*, Wright, Marquardt, and Baumann (2013) highlight today’s best practices, which include careful attention to the aesthetic and psychological impact of the design, including features such as furniture, color, amenities, quality, flexibility, and goals for interaction. The housing profession has come a long way indeed!

Even so, housing professionals still experience pressure to construct, staff, and program residence halls with the efficiency paradigm while crowding out the learning paradigm (Tagg, 2003). In a constrained financial environment, it is dangerously tempting to forgo thoughtful consideration of the long-term consequences of a short-sighted plan that places student learning outcomes behind other goals. It is not surprising that many campuses remain limited by the decisions made between 1960 and 1970, which were informed through a lens that failed to be learning-centric. Here again, Murphy and Purkey’s words remain as instructive today as they did in 1981, saying that “all too many institutions of higher learning continue to gear their residential programs toward a reaction to problems rather than an anticipation of them and to intervention rather than prevention” (p. 13).

Today housing professionals must continuously strive to align articulated philosophies about housing and student learning with day-to-day practice. In order to facilitate learning environments that engage students most effectively, the same question remains paramount: How do social engineers best invite and engage students? The good news is that the science surrounding the importance of engineering space continues to reinforce ideas that Murphy and Purkey offered in 1981. While new literature continues to inform the housing profession, there is also a forever-changing demographic of learners. In order to appropriately meet the educational needs of present and future students, housing professionals must remain committed to thoughtful pedagogical practices while guarding against the fast-paced, single-focus pressure to be efficient.

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**FAST FORWARD: NEW WAYS TO BE AN INVITATIONAL ENGINEER IN THE 21ST CENTURY**

While the numbers of ways to participate in invitational engineering are manifold, there are at least three broad categories offered for consideration.
Explore Technology

The most dramatic change since Murphy and Purkey’s 1981 article is the way technology has invaded educational environments. While this new culture creates educational challenges, it also offers enormous potential for invitational engineering. While social networking platforms are an obvious way to engage students in the residential context, the possibilities for technology-based learning continue to expand almost daily. For example, community-based blogs—where students can write and respond to one another concerning a variety of topics ranging from calculus to dining halls to religion—engage tech savvy students in the community.

W. Gardner Campbell (2011) provides a specific framework for blogging in residence hall contexts that he coined “Narrate, Curate, Share.” Campbell argues that creativity is all too often treated like a limited natural resource requiring a sort of educational mining to find it among students. Instead, Campbell suggests, creativity is like a gene that is expressed in the right conditions. Blogging done well in a residence hall turns on that gene to catalyze learning.

I believe these three imperatives [narrate, curate, share] underlie some of the most important aspects of an educated citizen’s contributions to the human record. And in my experience, blogging offers a uniquely powerful way of becoming a self-aware learner in the process of making those contributions. (para. 2)

In short, Campbell’s blogging framework is a new way to invite students into new levels of participation in their learning.

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Technology has also given us new ways to stay in touch with students, their needs, and their progress toward achieving educational outcomes. Many housing professionals, for example, have mobilized technology to strengthen assessment efforts, bolster communication, and afford students access to learning tools from the convenience of their residence halls. There is no shortage of ways to utilize technology in residence halls; the challenge is to move beyond simply incorporating technology into environments and instead emphasize how this powerful tool can be used to invite students into their learning.

Become a Choice Architect

Reinforced by a growing research base, Richard Thaler and Cass Sunstein (2009) advocate the potentialities in being what they call a “choice architect,” the implications of which could be profound for the housing profession. A choice architect understands that small environmental details have enormous impact on human behavior. As corporations vie for the attention
of consumers, researchers on choice architecture have learned to harness the power of human defaults (a concept that Thaler and Sunstein term “nudges”) to steer people toward choices more likely to improve their lives. Thaler and Sunstein’s (2009) book *Nudge: Improving Decisions About Health, Wealth, and Happiness* lends insight into how housing professionals can design nudges that invite students toward learning and engagement in new and powerful ways.

In the spirit of choice architecture, Virginia Tech made a decision to nudge students toward using one main entrance to a residence hall in an effort to strengthen community. The assumption was that the many entries and exits of the building were reducing human contact and ultimately eroding the sense of community. By simply altering most doors as exit-only and re-shaping activity at the main entrance, student patterns shifted, and opportunities for face-to-face interaction skyrocketed.

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**Encourage Diversity Through Invitations**

Facilitating persistent invitations that draw students into diverse encounters is critical when seeking to enhance learning environments. Peter Block’s *Community: The Structure of Belonging* (2009) suggests that these diverse interactions begin by inviting students to gather in ways they are not accustomed to when socializing. When people with different perspectives are able to join together, the potential for innovative and creative thinking is significantly increased. Understanding this truth, housing professionals have the responsibility to create community structures that promote diverse encounters. Block (2009) explains that these diverse encounters, leading to true transformation, originate with an authentic invitation to engage. The unique nature of invitations offers an opportunity for people to dedicate themselves to community without consequences if they decide to disengage. Invitations in their purest form are personal, risk-oriented, and honest—and they produce unpredictable results. With these components in mind, housing professionals can promote a deep, self-directed sense of engagement through authentic invitations.

Persistent invitations to weekly hall-based dinners at Virginia Tech have resulted in deeper engagement. The consistency in the time and location of the meals makes it easy to create an open standing invitation each week. Maintaining a diverse group of attendees is achieved by inviting all types of community members: residents, the hall’s faculty advisor, and student resident hall advisors. Block (2009) reminds us that the diversity of those who are invited and participate also increases the potential for learning and growth;
Imagine taking on the true challenge to craft environments that are more learning centered, more intentional, and more purposeful. Operating within a social engineering paradigm awakens us to the possibilities of student learning in residence halls. Working inside this context of intentionality, we can make important changes that affect student engagement. When housing professionals leverage the use of technology, nudge students toward growth, and invite opportunities for diverse encounters into everyday life, living spaces become laboratories where students learn to create thoughtfully, reflect meaningfully, and act intentionally. What if the final result does not end with housing professionals creating thoughtful, reflective, intentional environments but that through this design students become positioned to re-create their own transformative learning spaces over and over again in the world?

Therefore, it is imperative that a wide range of residents and advisors share in this weekly meal. By promoting open invitations toward diversity, living and learning community environments are strengthened.

Student needs are dynamic, along with our social climate and institutional structures. Knowing this, housing educators must serve as social engineers and respond accordingly with meaningful, thoughtful actions that reflect our changing climate. Sometimes, an intentional invitation to join in community is the nudge needed toward a student’s engagement. By coupling recent perspectives on invitational engineering with traditional models of social engineering, we are reminded that housing professionals have an undeniable responsibility to enhance the living and learning experiences of our students.

**REFERENCES**


Discussion Questions

1. The authors cite a powerful quotation from the 1981 article when they describe Murphy and Purkey as championing a framework called “invitational engineering” to embolden housing professionals to thoughtfully attend to “the messages—verbal and nonverbal, formal and informal—that are transmitted to students and that are intended to inform them that they are valuable, able, and responsible.” How does this apply to residence halls on your campus? What messages are conveyed to students by the building designs and programmatic offerings? Was/is there attention given to invitational engineering and the social ecological approach proposed by Strange and Banning in Educating by Design: Creating Campus Learning Environments That Work (2001)?

2. The authors assert that “housing professionals still experience pressure to construct, staff, and program residence halls with the efficiency paradigm while crowding out the learning paradigm.” What factors might impact this? Given that learning in the residential setting is valued, how can it be measured in a way that compels design and programmatic decisions?

3. The authors propose the use of technology as one means of engaging the current population of students. What are the challenges associated with inviting students to engage through online environments? Do you believe the promotion of online communication might suppress and counteract efforts to promote diverse encounters among students? If so, how might you mitigate this?

4. In addition to technology, what other significant changes have occurred within the higher education environment since the Murphy and Purkey article was first published? How might housing professionals take advantage of these changes in the name of invitational engineering?

5. Consider the question posed by the authors: “Do we accept our responsibility for inviting students to participate in their own education?” Give specific examples of how to invite students to participate in their own education.

6. Review Kurt Lewin’s formula for human behavior (B=f [P,E]), which is predicated on the idea that behavior is a function of both the person and their environment. Use Lewin’s four components of environment—human aggregate, structural, physical, and perceptual—as described in A Dynamic Theory of Personality (1935) to consider how all the aspects of your housing program impact student behavior.