



Council
for Interior
Design
Accreditation



2019 Summit Report

A STRATEGIC VIEW TO THE FUTURE

Foreword

In April 2019, the **Council for Interior Design Accreditation (CIDA)** Board of Directors convened its annual summit of design leaders to consider implications of a 2018 CIDA-commissioned environmental scan of interior design practice and to strategically inform future accreditation standards development. The environmental scan was the third in a series of five annual scans.

The 2018 scan covered eleven areas of inquiry within a specified scope: social/demographic trends, middle class trends and impacts, dependent populations, health, wellness and wellbeing, emerging technologies, cyber and physical security, neuroscience and the built environment, higher education/design education, interior design and human behavior/occupant-centered design, interior design research trends, additional interior design/built environment trends. The following report summarizes the:

A | Big picture trends identified in the 2018 environmental scan

B | Broad implications for interior design discussed at the April 2019 summit of leaders

C | Relevant content and learning for interior design education

CIDA will use the results of the above activities to strategically inform future accreditation standards development. The content is also intended to help inform interior design continuing education content and identify potential areas for future research.

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Social and Demographic Trends

BIG PICTURE TRENDS

U.S. divided by more than ideology and race

Shift toward "surban" living

Looming exodus of baby boomer homeowners

Increased dependence on technology reshaping workforce and workplace

Millennials pessimistic about their future

Receding tide of economic prosperity

Economic insecurity affecting marriage rates



BIG PICTURE TRENDS CONTINUED

Increase in at-risk youth

Growing complexity of gender and sexual identity issues

High cost of aging

Americans reading less



Social and Demographic Trends

Broad Implications for Interior Design

1 DYNAMIC SHIFT IN LARGEST POPULATIONS (BABY BOOMERS AND MILLENNIALS)

The misalignment between the largest cohort of baby boomers transitioning from independent home ownership (est. 2026-2036) and millennials purchasing starter homes (occurring decades earlier) results in a critical shortage of available and affordable housing on the front end of this time period, and a post-market glut of older homes in later years. Currently, there is high demand for affordable housing in both urban and suburban settings as millennials buy their first homes and start or grow families. In the near future, millennials in large part will have settled into home ownership and large numbers of baby boomers will transition out of home ownership. This will lead to property price/value declines and decay in suburban areas as the largest populations complete a massive generational shift.

“The impending scenario is an inversion of the post-war flight from the cities, which initially led to marked decline and is now fueling urban renaissance. Are the suburbs next for the cycle of decline, transformation, and renewal?”

In the short term, new techniques and technologies that make construction of affordable, entry-level housing practical and attractive for construction companies is needed. At a broader level, an understanding of historic context and the cyclical nature of urban development is critical. Potential lessons from the past create awareness around how current conditions influence the future, and help interior designers use broader contexts to identify and solve problems.

“Interior designers' skills to think creatively and broadly reimagine new uses and/or revitalization for suburban environments is extremely valuable in the future.”

Another highly desirable skill set is enabling baby boomers to age in place rather than moving to alternative age/care appropriate environments and/or creating suitable environments for elder care from existing building stock. Decline in housing value along with eroding social services for seniors will impact baby boomers' ability to afford care, which may redefine how elder care is serviced and delivered. Understanding market trends and social services, as well as using technical knowledge and an empathetic approach to design for aging populations will be key to navigating this shift. Additionally, the ability to mitigate home value loss and decline in marketability of older homes by incorporating systems technology and other amenities desirable to young buyers could help.

2 TECHNOLOGY CONTINUES TO CREATE NEW DYNAMICS IN THE WORKFORCE AND WORKPLACE

Artificial intelligence and robotics will continue to transform the workforce and workplace. Generally, the need for manual and physical skills will decline while the need for cognitive and technological skills will increase. This may result in a structural change in workforce roles and team management. The workplace will evolve to reflect a new structure of smaller teams, a knowledge-based workforce, and the integration of technology as part of the workforce. Interior designers will need to understand programming for this changing work structure, current and emerging workplace technologies, and workplace typologies. Interior designers will also need to be able to apply evidence-based research and produce original research to better understand work flow.

“The built environment will need to support flexibility in team dynamics and empower agency and constant evolution.”

In a different vein, the potential downsizing of businesses and corporations could yield more space available for urban housing development, relieving some of the affordable housing shortage issues aforementioned.

3 YOUTH AND SECURITY ISSUES CREATE WIDE RANGE OF PROGRAMMATIC DEMANDS

At-risk youth issues (especially in the LGBTQ community), including sexually transmitted diseases, sexual violence, bullying, on-campus violence, opioid abuse, and mental illness are rising. Schools, community centers, and other youth facilities need to be designed to offer safe, supportive, and nurturing environments through programmatic elements aligned with security measures. Interior designers need to understand the technical aspects of designing secured environments, including hardware, technology, and code issues, and also various attributes that support and nurture human wellbeing. Programming skills will be needed to deliver spaces that achieve both security and comfort while also adapting to changing user needs. Programmatic understanding of support structures and an awareness of issues surrounding at-risk youth are critical.

"How do you create space that is nurturing, comforting, and supportive while ensuring wide ranging security needs are met?"

4 GROWING COMPLEXITY OF GENDER AND IDENTITY ISSUES

Increased awareness and acknowledgment of the diversity of gender and sexual identity, especially at younger ages, is influencing a new definition and culture of diversity and inclusion. Institutions of various types will reconsider how they ensure that all people are treated with respect and equality relative to gender and identity. This, in turn, will create new considerations for pluralistic security and human wellbeing as cultural diversity and social norms continue to influence user needs. Interior designers will need to understand contemporary trends related to gender and sexual identity as these relate to programming implications, universal design, and building code regulations while continuing to consider social and cultural norms as part of designed environments.

NEXT: MIDDLE CLASS TRENDS AND IMPACTS

Social and Demographic Trends

Related Content and Learning for Interior Design Education:

- A** Skills in conducting needs analysis
- B** Trends and issues impacting specific populations: elderly, at-risk youth, millennials, etc.
- C** Design for inclusivity
- D** Design for secure environments
- E** Design for human wellbeing, both mental and physical
- F** Ability to address human-centered issues
- G** Evidence-based research and fundamentals of original research
- H** Understanding of current and emerging technology and integration into work/life
- I** Balancing privacy and security needs
- J** Augmented reality and virtual reality as tools in the workplace
- K** The impact of technology on the human experience
- L** Design and renovation of suburban homes for emerging user needs/new uses
- M** Design of affordable homes
- N** The attributes and value of empathy
- O** Aspects of gender and sexual identity and influences on the built environment
- P** Modularity and adaptability related to user needs and the built environment
- Q** Historical contexts of urban and suburban development and renewal
- R** Current trends and trajectories of land use and development



Middle Class Trends and Impacts

BIG PICTURE TRENDS

Middle class comprises majority (52%) of U.S. households

Middle income households declined over two decades

Hollowing-out of middle-income wage growth

Variance in standards defining middle-class

Middle class incomes and wages are improving in U.S., lagging in Canada

Close to half of all American families cannot afford their basic needs

Middle class faces many challenges

Middle Class Trends and Impacts

Broad Implications for Interior Design

1 EROSION OF THE MIDDLE CLASS HAS SIGNIFICANT REPERCUSSIONS

Despite modest income growth among middle-class households, the U.S. has the smallest middle class of industrialized countries and the number of households considered middle class is declining. Canadian statistics about the middle class are less clear, but show similar trends in general. Growing disparity between the population unable to meet basic needs and the population considered extremely wealthy, “the 1%,” is occurring rapidly as the middle class dwindles in numbers.

"A growing number of 'have nots' and 'super haves' replacing the middle class is a profound cultural shift that will transform the very core of contemporary society in North America."

This cultural shift has many implications. For example, as this trend continues to evolve, more individuals will seek educational opportunities to improve their job capabilities and financial standing; more people will move to urban areas for employment; more individuals will seek employment and residence outside of North

America; and more individuals will rely on social services and government subsidies to meet basic needs.

These cultural shifts will put pressure on the built environment to accommodate denser populations in urban areas as well as more government-assisted housing and affordable communities. Options such as accessory dwelling units will become more commonplace in high density cities. This implies a greater need for emphasis on space planning and design for small spaces, as well as education around the benefits of incorporating prefabricated and modular structures on existing property.

New centers for education may emerge as more individuals seek new knowledge and experience for career and financial stability. The built environment will need to accommodate a workforce that continually seeks knowledge and skill attainment. Opportunities exist for interior designers to be at the forefront of this trend and position businesses and communities to use educational opportunities as a competitive advantage. At odds with this, fewer individuals may have the financial resources to pursue education, so accessibility and affordability will be a priority.

2 MULTIGENERATIONAL HOUSEHOLDS

Currently, more millennials live with their parents than previous generations. Given the trajectory of baby boomers entering elder care amidst economic challenges, it is likely that more families will provide in-home care for one or more elderly relatives in the future. These trends compounded with a shrinking middle class and less economic opportunity create impetus for multiple generations to seek economies of scale in their living circumstances and to become more interdependent. This means that interior designers will need to address complex familial dynamics around privacy, flexible space, and transforming existing space to meet a wide range of purposes and users.

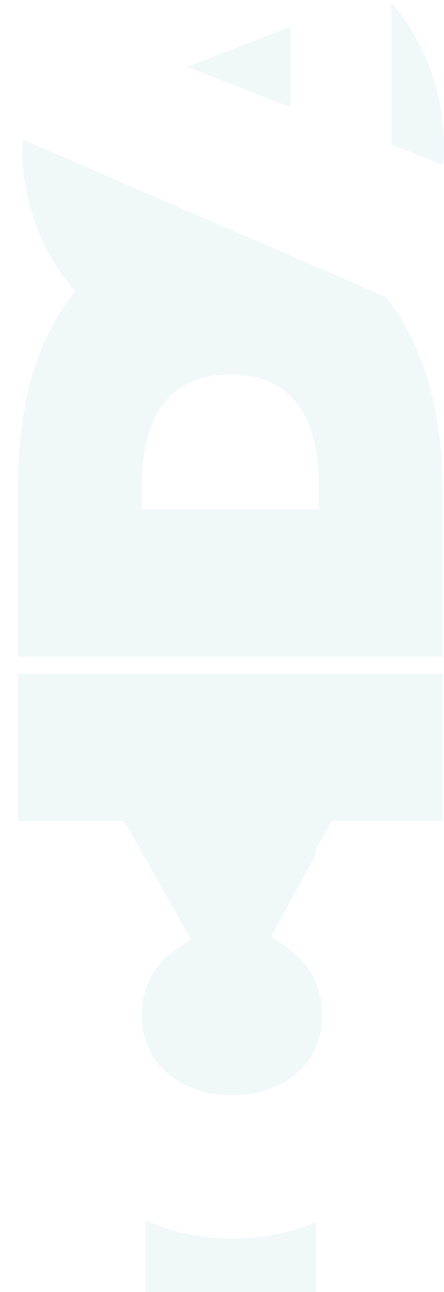
"Generations of families living apart is historically a North American expectation. This is changing and we should look to other cultures for a greater understanding of multi-generational living."

NEXT: DEPENDENT POPULATIONS

Social and Demographic Trends

Related Content and Learning for Interior Design Education:

- A** Systems thinking
- B** Interdisciplinary learning to incorporate holistic approach to social needs
- C** Social awareness through community engagement
- D** Using content expertise for persuasive communication
- E** Design for small spaces and modularity
- F** Understanding of the breadth of human needs: physical/social/intellectual emotional/environmental, etc.
- G** Population shifts and the impact of designed environments
- H** Social and interpersonal dynamics, especially those related to families and multi generational living
- I** Non-traditional housing and co-housing
- J** Design of educational spaces in a wide variety of settings
- K** Educations as a community resource
- L** Urban planning strategies, especially related to high density and affordability



Dependent Populations

BIG PICTURE TRENDS

Approximately 15% of the world's population has some form of disability

Approximately 13% of U.S. population and 15% of Canadian population has a disability

Disabilities tend to increase with age

Disabled Americans earn less than those without a disability

Persons with disabilities are underserved by health care services

More U.S. children and youth are receiving special education services

Dependent Populations

Broad Implications for Interior Design

1 THE RISING NUMBERS OF DISABILITIES AND DISORDERS DIAGNOSED IN THE GENERAL POPULATION COMBINED WITH THE ADVANCING AGE OF BABY BOOMERS CREATES AN URGENT NEED FOR INCLUSIVE DESIGN

"Designers should be able to advocate on behalf of inclusive design beyond law or commonplace considerations. After all, everyone has a unique experience of space -- there is no universal user."

While inroads have been made in universal design and accessibility over past decades, new urgency is placed on addressing the needs of the growing elderly population as well as growing numbers of individuals with physical disabilities and/or a spectrum of cognitive and mental diagnoses. Continued research around how design principles can address these issues is valuable, but more importantly interior designers' practice expertise in creating spaces that accommodate and support all types of users is critical. Consideration of populations who perceive and experience space differently is critical in a variety of public and private settings.

"The rising number of those diagnosed with Autism Spectrum Disorder as

well as the large Baby Boomer generation entering elder care means that more education around sensory sensitivity, the importance of empathy, and the connection between design and wellness is needed. These trends affect all citizens regardless of demographic."

Additionally, design of supportive spaces for mental health treatment and counseling is important, especially in schools, universities, and youth facilities. Interior designers should understand environmental triggers that can heighten stress for those experiencing challenges with mental illness.

2 INNOVATION IN HEALTHCARE AND SOCIAL SERVICE DELIVERY

As the numbers of elderly and those diagnosed with cognitive and mental disabilities increases, so too will the need for innovative approaches to healthcare delivery. Many of the individuals seeking services will be retired or less likely to be employed, but have the greatest need for continuous care. New methods to deliver health care "in place" will need to be integrated into everyday environments, such as homes/residences, churches, community gathering places, group therapy centers, etc. These types

of spaces will need to be designed to consider a holistic system of services for populations with disabilities.

Additionally, technological advancement is likely to be used as a tool in the delivery of health care and social services to a larger population who may be less mobile. Staying abreast of evolving service models as well as future trends will be important to designing environments that best match users' needs, behavior, and abilities. This increased complexity requires not only understanding of the available tools and models, but also higher order skills of critical thinking, analysis, and implementation strategy.

NEXT: HEALTH, WELLNESS, AND WELLBEING

Dependent Populations

Related Content and Learning for Interior Design Education:

- A** Trends in health care delivery
- B** In-home/place or remote technology related to health care and social service delivery
- C** Human-centered design
- D** Needs analysis related to health and social services
- E** Understanding of mental health issues and services
- F** Inclusive design as a broad context for design of spaces
- G** Inclusive design and how it relates to/is different from universal design
- H** Understanding features of accessibility beyond code
- I** Environmental considerations that promote health and wellbeing



Health, Wellness, and Wellbeing

BIG PICTURE TRENDS

Global health trends: disease outbreaks, new consumer attitudes, pollution, opioid addiction, antibiotic resistance, rise in diabetes and lifestyle-induced diseases, and accessibility and affordability

U.S.: Major health concerns include: substance abuse, tobacco use, HIV/AIDS, mental health, injury and violence, environmental quality, failure to immunize, inadequate access to healthcare

Most Americans likely to face at least one major health issue during their lifetime: cancer, blood poisoning, Alzheimer's, Type 2 diabetes, heart disease, stroke, obesity

BIG PICTURE TRENDS CONTINUED

Canada: most common health concerns include cancer, cardiovascular disease, diabetes, injuries, mood disorders, dementia, tuberculosis, autism, hepatitis, HIV/AIDS, sexually transmitted diseases, high risk drinking, tobacco use, substance abuse, domestic violence, multiple sclerosis, flu, viruses, and Lyme disease

Suicide rates in U.S. increasing for all ages, in Canada for women

Greater focus on wellness and prevention

Technology continues to advance all manner of health care from diagnosis and treatment to access and delivery

Tech-induced health problems increasing

Health care services not ready for "silver tsunami"

Health, Wellness, and Wellbeing

Broad Implications for Interior Design

1 INADEQUATE OR UNAVAILABLE MENTAL HEALTH CARE INCREASES IMPORTANCE OF INTEGRATING WELLNESS IN BUILT ENVIRONMENT

"Mental health is becoming an epidemic. There's a real need for interior designers to understand the issues."

Interior designers and built environment professionals have an opportunity to help address a burgeoning mental health crisis through designed environments that promote human health and wellness. Spaces that encourage and support self-care, mindfulness, connection with nature, positive stimulus, wayfinding, acoustics, good air quality, etc. can be among the tools deployed to address mental health concerns. These considerations should become an integrated component in project planning, and an area of expertise interior designers' can bring to project teams. Interior designers have an opportunity to take leadership of this knowledge expertise and advocate for human wellbeing as a public health imperative. In order to do so, interior designers will need a deeper understanding of mental health considerations and access to data from mental health experts to inform the design process.

2 RISE IN LIFE=STYLE AND OTHER HEALTH ISSUES CREATES INCREASED DEMAND FOR CENTERS AND MODES OF CARE

Given the projections related to health care trends, likelihood is strong that the health care sector will continue to grow and be highly influenced by technological advances. Physical offices, clinics, and mobile units will need to be even more inclusive, nurturing, efficient, welcoming, and available to meet increasing public need. Similar to addressing mental health issues, interior designers have a role to play in ensuring the built environment promotes health and healthy behaviors in general. Specifically, interior designers have opportunities to develop specialized knowledge in health care design as professionals who are able to demonstrate positive outcomes in health care environments will be in high demand.

3 A COMING "SILVER TSUNAMI" OFFERS OPPORTUNITIES TO HARNESS SPECIALIZED KNOWLEDGE

North America's population is aging. This fact offers exceptional opportunities for those who would like to develop specialized knowledge and services for this market, including interior designers. Institutions that provide services are unprepared to handle increasing numbers of aging individuals. Thus, institutions and, more broadly, systems will be seeking expertise in addressing these needs. Interior designers will benefit from specialized knowledge related to the

aging population, including engagement and purpose, financial wellness, mobility and movement, daily living and lifestyle, caregiving, care coordination, brain health, and end of life care.

4 TECHNOLOGY OFFERS INNOVATION, BUT ALSO SOME CHALLENGES

Technology offers the promise of new modes of delivery and interaction, but has also contributed to physical and mental health issues. On the one hand, connectedness can be achieved at any time, any place, offering access and personal choice. On the other hand, individuals can feel more isolated and anxious connecting with a vast landscape of choice as well as interacting with technology versus people. For example, it is well-known that stress from social media connections is creating anxiety among young people as well as individuals who are socially isolated. This phenomenon may encourage people to reduce social media interaction and return to more human interaction. Creating social environments for people within schools, workplace, healthcare and multi-family living is one aspect of bringing people together to diminish mental health issues.

Another aspect of this is the physical toll of using technology in environments that are not well designed for the activity. A myriad of health issues can result from the use of technology without proper ergonomic support or appropriate behavioral cues to relieve physical

Health, Wellness, and Wellbeing

and mental fatigue. Increasingly, all types of built environments are being used as “work places” without any real thought being given to the impact of these spaces as work environments. This provides both opportunities and challenges for interior designers who will increasingly be called upon to integrate work supportive features into a wide range of environments.

“Technology essentially untethers activity from place, bringing work into the public sphere and the personal into the work sphere. Individuals can easily morph space use beyond original purpose or intent. As professionals, it would behoove us to leverage our expertise by documenting the value of designed spaces that are boundlessly adaptable.”

NEXT: EMERGING TECHNOLOGIES

Health, Wellness, and Wellbeing

Related Content and Learning for Interior Design Education:

- A** Connections between the physical/built environment and mental health
- B** Characteristics and mechanisms that can be added to nurture/educate in health care settings
- C** Potential for using remote means to access health care monitoring and delivery
- D** Broader knowledge of ergonomics
- E** How the built environment can influence healthy life style choices/behaviors
- F** Understanding the eight great challenges for aging populations: engagement and purpose, financial wellness, mobility and movement, daily living and lifestyle, caregiving, care coordination, brain health, and end of life
- G** Understanding the characteristics of communities in crisis and social systems
- H** Multi-disciplinary approaches to needs analysis and problem solving
- I** Breadth of considerations in designing for sensory and perception disorders



Emerging Technologies

BIG PICTURE TRENDS

Growing use of innovative technologies in built environment industry

Growing demand for voice-activated environments

Block chain technology evolving to new uses/industries

Tech fusion fueling innovation



Emerging Technologies

Broad Implications for Interior Design

1 SENSOR TECHNOLOGY AND DATA MINING ARE POWERFUL TOOLS, BUT ALSO MAY HAVE ETHICAL IMPLICATIONS

"Technology is not a magic bullet. We still need critical thinking to effectively deploy technology and understand its impact."

Technology in its many forms is capable of collecting a vast amount of powerful data about users that can be used to advance knowledge and design highly functional environments. Interior designers should understand methods to collect, interpret, translate and use information from sensor technology and other data collection tools that can assist in designing effective environments. It is also important for interior designers to understand the limitations of data and to use data to develop appropriate questions for exploration. A potential pitfall of access to vast amounts of data would be to draw simplistic solutions without deeper analysis.

"Data collection and mining make it easier to gather a plethora of information, so interior designers can pivot and think critically about human behavior and experience."

As these technologies become more commonplace, it will be important for interior designers to stay abreast of ethical and legal issues related to collecting and sharing user information. Additionally, consideration should be given to the potential psychological impact of using sensor technology and any concerns that may arise as these devices are integrated into everyday life. Care should be taken when thinking about privacy and individual control of one's circumstances.

2 NEW TECHNOLOGY IS A CONSTANT

The rapid evolution of technology is one of the most dynamic forces impacting the future. What is important for interior designers to know? Artificial intelligence, robotics, big data, sensor technology, block chain, tech fusion, etc. are highly complex paradigm changers. It will be critical for interior designers to actively monitor and consider these trends, how they are influencing various industries, and how they are used in the built environment.

Even more compelling is having higher-level skills to effectively evolve one's own knowledge and incorporate new tools into practice. Future clients will have expectations for technological expertise (or the knowledge and resources to incorporate that expertise) into projects. Furthermore, interior designers will need to demonstrate the aptitude to position client's for "what's next," which may very well be unknowable.

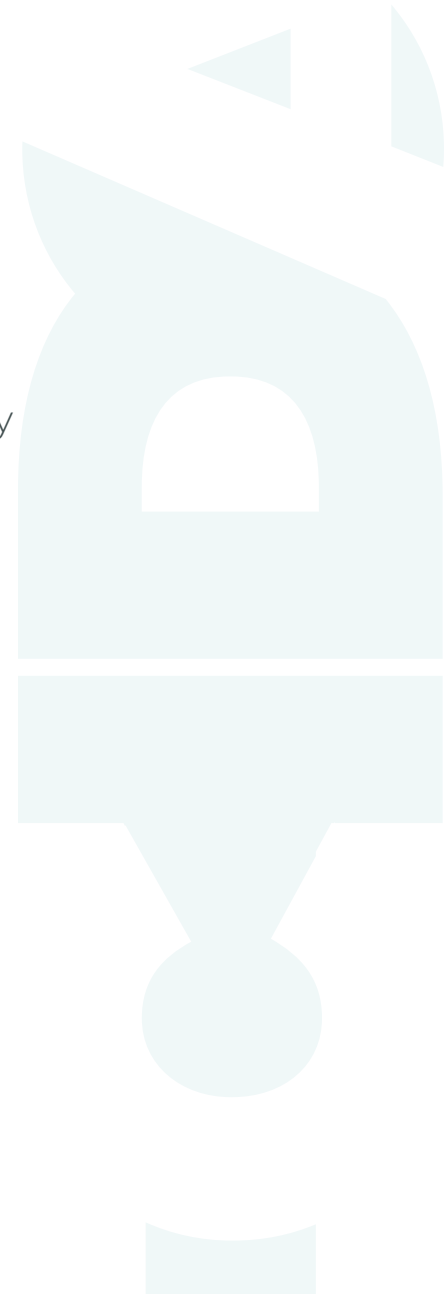
The ability to communicate how interior design can be used as a tool for resilience and adaptability of space will be critical.

NEXT: CYBER AND PHYSICAL SECURITY

Emerging Technologies

Related Content and Learning for Interior Design Education:

- A** Advances in data collection and analysis
- B** Opportunity to enrich knowledge of behavioral human factors, environmental psychology, etc.
- C** Understanding the concept of dashboard indicators, what to continually monitor and how to use the data
- D** Technology trends and resources to maintain current knowledge of technology
- E** Building systems and construction technique integration with technology
- F** Materials, fixtures, and furniture integration with technology
- G** Technology professions and scope of expertise
- H** Current industries most influenced by emerging technology
- I** Importance of life-long learning and CEU's
- J** Using data as a platform for inquiry
- K** The spectrum of data collection methods, including and beyond technological methods



Cyber and Physical Security

BIG PICTURE TRENDS

Design to protect occupants from violent attacks

Methods to address building resilience and cyber security

Information technology giving rise to a new age of cyber warfare and espionage

Increasing vulnerability to cyber attacks



Cyber and Physical Security

Broad Implications for Interior Design

1 BUILT ENVIRONMENT INCREASINGLY EXPECTED TO PREVENT LOSS OF LIFE IN THE EVENT OF VIOLENCE

Built environment professionals are being looked to for expertise in designing and/or retrofitting space to safeguard occupants and prevent loss of life in the event of violence. Interior designers need to understand more complex concepts of physical safety including natural surveillance techniques (windows, lighting and views), natural territorial enforcement strategies, as well as safety systems and strategies, such as locking systems, alarms, etc. This is an area of opportunity for innovation and new materials and methodology.

2 BUILDING RESILIENCE, CYBER SECURITY, AND OTHER CYBER VULNERABILITIES

"What happens when the devices or systems we increasingly depend upon fail? Like electricity and modern plumbing, these systems are so integrated that users are unable to function without them. It is incumbent on interior designers to pay attention to system vulnerabilities and ensure users have an emergency back-up plan."

As the sophistication and integration of technology advance, so too will the need for higher levels of cyber-security to prevent attacks. Interior designers will need to understand how security factors influence technological design solutions and be aware of vulnerabilities and how to mitigate risk. This will be an area of rapid change and innovation, requiring built environment professionals to keep pace with current trends.

3 RENEWED CONCERN FOR INCIDENTS OF SEXUAL HARASSMENT, BULLYING, AND OTHER EMOTIONAL THREATS

Designing space that helps users feel safe from personal or individualized threat has gained visibility. Interior designers are being pressed to create affordable environments that build community, and offer personal security and mental health support. Now more than ever, interior designers must develop the expertise necessary to create safe environments for all occupants and balance a wide array of safety concerns. As standard methods to address occupant safety and comfort can be at odds with one another, it will be important for interior designers to innovate and advance methodology beyond the norms. The ability to work with experts from other fields will be advantageous.

"How can we design environments that not only make people feel safe, but ensure real safety? What methodology helps create these

spaces in balance with myriad other priorities?"

NEXT: NEUROSCIENCE AND THE BUILT ENVIRONMENT

Cyber and Physical Security

Related Content and Learning for Interior Design Education:

- A** Cyber security and impact on the built environment
- B** The ability to design safe spaces for a range of spatial types and populations
- C** The characteristics of (and threats to) emotional and physical security
- D** Awareness of wireless building controls and integrated technology in the built environment
- E** Professional fields that offer expertise in safety systems and technology
- F** Systems thinking in terms of occupant safety



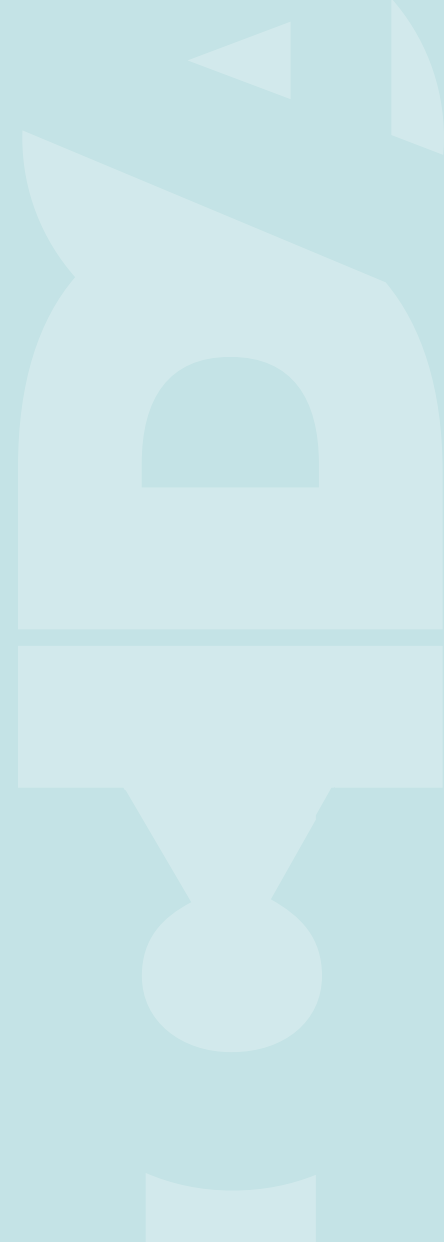
Neuroscience and the Built Environment

BIG PICTURE TRENDS

More programs and certifications in neuroscience for architecture

Increased interest in the application of neuroscience to the built environment

More subject matter expertise being created in the field of neuroscience related to the built environment



Neuroscience and the Built Environment

Broad Implications for Interior Design

1 KNOWLEDGE ABOUT THE CONNECTION BETWEEN NEUROSCIENCE AND THE BUILT ENVIRONMENT PRIMED FOR ADVANCEMENT

"More is known about the brain and how it works than at any time in history, yet the research in the area of neuroscience and the architectural environment is in its infancy."

The field of neuroscience as it relates to the built environment is poised to become a significant area of research and, thus, a knowledge resource for interior designers. As the field develops, more interior designers will need to have research skills and the ability to pursue research on how environments affect people from a neuroscientific perspective. As more neuroscience research becomes available linking human reaction to the built and natural environment, the design of environments will need to respond more closely to desired outcomes (for instance, increased healing, learning, calm or energized, etc.) Interior designers will need to understand how the environment affects the brain and associated implications. Technology will continue to offer new tools that help interior designers monitor, test, and document human reaction.

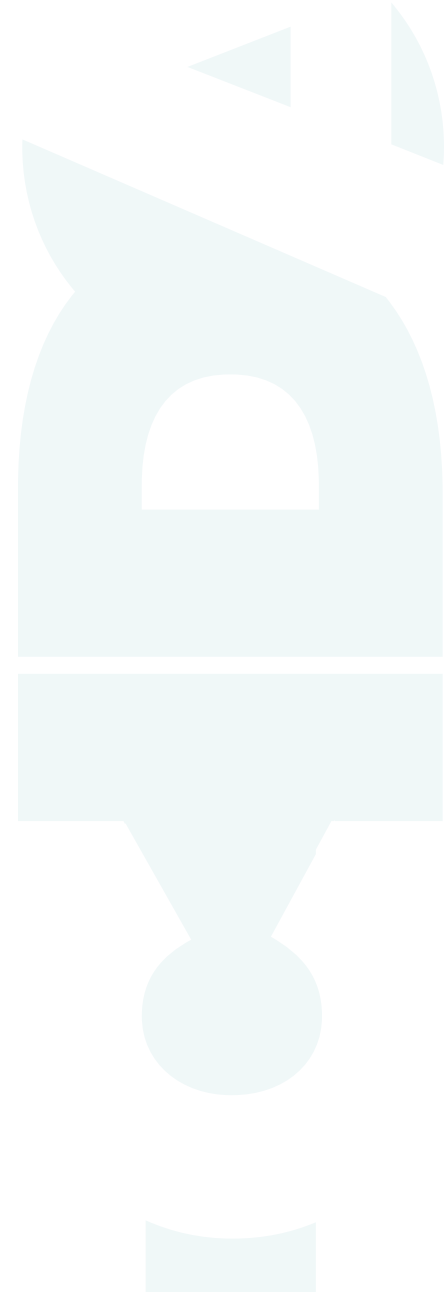
As we learn more about the relationship of the environment to the brain, the responsibility for what is designed takes on new orders of magnitude of responsibility. This elevates the role of interior design and implies that interior designers must understand their responsibility from an ethical and legal standpoint. Additionally, as more is understood about neuroscience and how interior design impacts people, the profession will be able to make a stronger link to return on investment for designed environments. This area has extraordinary potential for interior design to develop research and competitive knowledge expertise.

NEXT: HIGHER EDUCATION/DESIGN EDUCATION

Neuroscience and the Built Environment

Related Content and Learning for Interior Design Education:

- A** Knowledge of the field of neuroscience and related resources
- B** Research methodology
- C** Documenting and using "return on investment" related to subject matter expertise
- D** Sensor technology and its use to track human response
- E** Exposure to current research about the impacts of design on the human brain
- F** Relationship between human response and the built environment
- G** The potential for knowledge creation and expertise in the field of neuroscience and the built environment



Higher Education/ Design Education

BIG PICTURE TRENDS

Decline in state and federal funding of higher education

States addressing ways to assist with student loan issues

Student debt a huge problem in Canada as well as the U.S. resulting in surge freshman attrition

Canadian universities excelling

Higher education on downward slope?

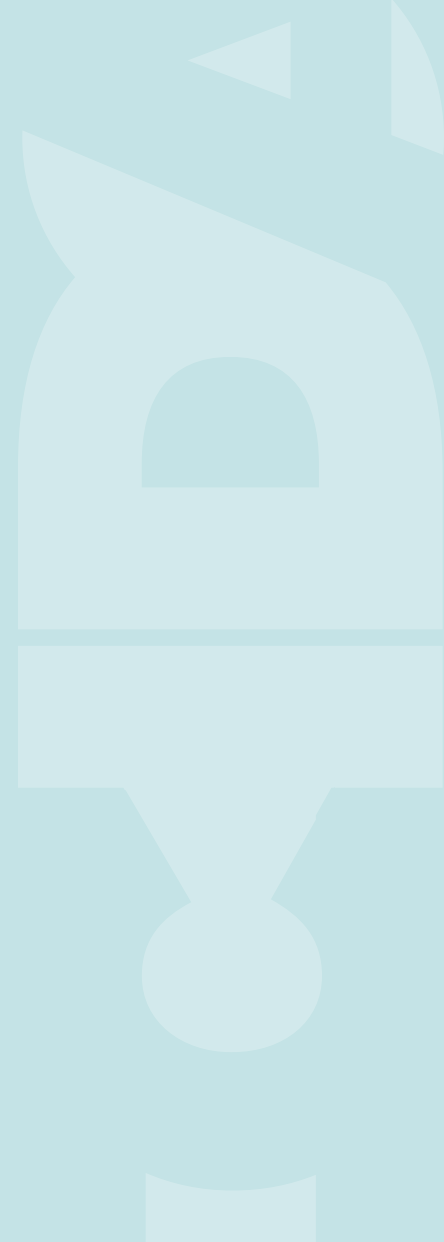


BIG PICTURE TRENDS CONTINUED

Online learning growth expected to taper off by 2020

Growth in higher education employment

Hi-tech being applied to learning



Higher Education/ Design Education

Broad Implications for Interior Design

1 DECLINING ENROLLMENT AND LESS FUNDING LEADS TO COST CUTTING AND INNOVATION

Higher education will be forced to address financial challenges. Closures will become more commonplace as will less severe cost cutting measures. Additionally, institutions will be looking for new sources of revenue and delivery efficiencies. New incentive strategies will be undertaken to increase enrollment, including international enrollment. Programs will merge while also creating more specialized/unique experiences as a means to attract and retain students and also to prepare graduates for a competitive job market.

2 LACK OF QUALIFIED EDUCATORS AN ISSUE FOR INTERIOR DESIGN

The need for interior design educators nationally has risen over the past ten years as enrollments increased and retirements also increased. The general lack of interior designers with advanced degrees means the pool of candidates for academic positions is small.

Given the economic challenges facing the higher education sector and the projected growth in available positions, this shortage of qualified interior design educators could become a very compromising issue for programs facing potential closure. It will be important to elevate visibility of this issue and encourage qualified individuals to pursue careers in interior design education to ensure continued content expertise in the field for future generations. Simply put, qualified interior design educators are critical to the profession's future.

3 INTERIOR DESIGN'S DIFFERENTIATED VALUE

As higher education continues to be subject to macro-trends, both positive and challenging, interior design higher education programs must continue to demonstrate value and elevate the content knowledge that positions the profession as a desirable career choice. As the discipline becomes more complex, interior design education may find more non-traditional students are interested in educational offerings that advance specialized knowledge and make them more competitive in practice. Interior design education also has an opportunity to capitalize on some of the trends previously reported, which have the potential to elevate the

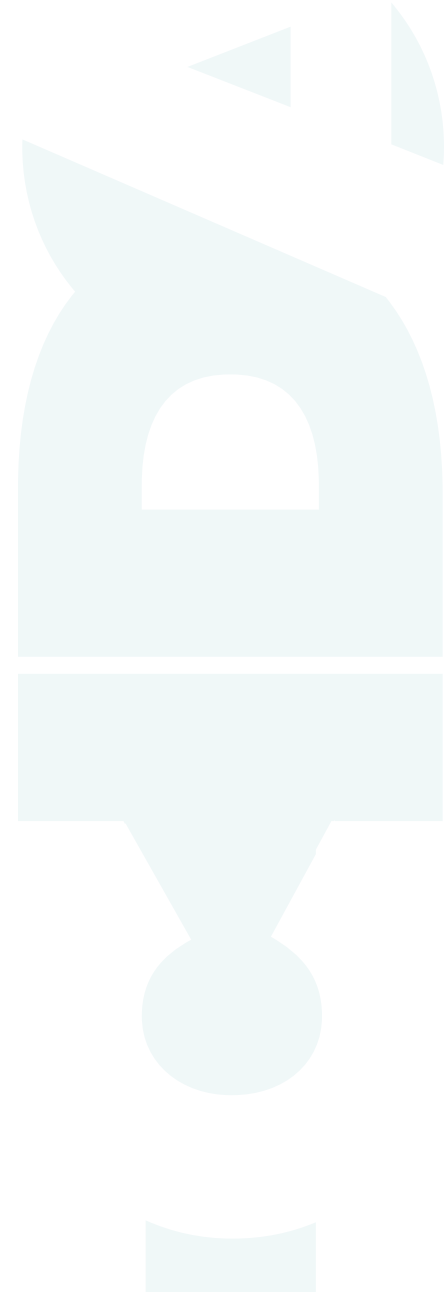
perceived value of interior design in the marketplace. Promoting the value of human-centered design as interior design expertise, and as a marketable differentiator, will be important to recruiting high quality students and educators.

NEXT: INTERIOR DESIGN AND HUMAN BEHAVIOR/OCCUPANT-CENTERED DESIGN

Higher Education/ Design Education

Related Content and Learning for Interior Design Education:

- A** Interior design education as a career track and the job market for interior design educators
- B** Differentiation of interior design, especially related to allied disciplines
- C** Interdisciplinary teams/exposure to working with allied disciplines
- D** How to understand and promote specialized knowledge
- E** Content that emphasizes human-centered methods and outcomes, and the value of both
- F** The value and opportunities an advanced degree offers
- G** Alternative delivery of higher education
- H** Life-long learning as a professional advancement tool
- I** Career paths/advancement options within the discipline (post first job)
- J** Interior design educators as role models and leaders in the profession



Interior Design and Human Behavior/ Occupant-Centered Design

BIG PICTURE TRENDS

Impact of interior design on human health and wellness gaining media coverage

**Designs that improve the quality of healthcare also a media/
industry-specific focus**

Increased interest in how interior design influences behavior

Gender-specific needs and design implications



Interior Design and Human Behavior/Occupant-Centered Design

Broad Implications for Interior Design

1 INTERIOR DESIGN HAS THE OPPORTUNITY TO CAPITALIZE ON HEALTH AND WELLBEING TRENDS

"Popular media and trends are bringing new attention to how design strategies and choices impact health and wellness. Interior design has the opportunity to leverage this moment to increase awareness of our professional knowledge."

Health, wellness, and human vitality are trending social imperatives that have the power to elevate recognition of interior design's impact and value. The profession has the opportunity to capitalize on these trends through thought leadership, advocacy, and knowledge expertise in human health and wellbeing in the built environment. The interior design profession's scope offers vast opportunities for content development and to leverage human health and wellbeing knowledge with clients looking for expertise. Critical and strategic thinking as well as business acumen are beneficial tools in harnessing these, and any, trends that fuel public interest and recognition of interior design's specialized knowledge.

2 NEW TOOLS FOR EVALUATING OCCUPANT-CENTERED ENVIRONMENTS EMERGE

Just as interior designers work to elevate recognition of their expertise in human behavior, health, and wellness, so too will the public (and clients) increasingly expect complex and robust outcomes. As common knowledge advances, interior designers will be expected to offer more advanced, specialized solutions that go beyond the baseline. As the sector evolves, interior designers will need to continually advance their knowledge in order to maintain a competitive edge.

3 INCLUSIVITY TRENDING ALONGSIDE HEALTH AND WELLBEING

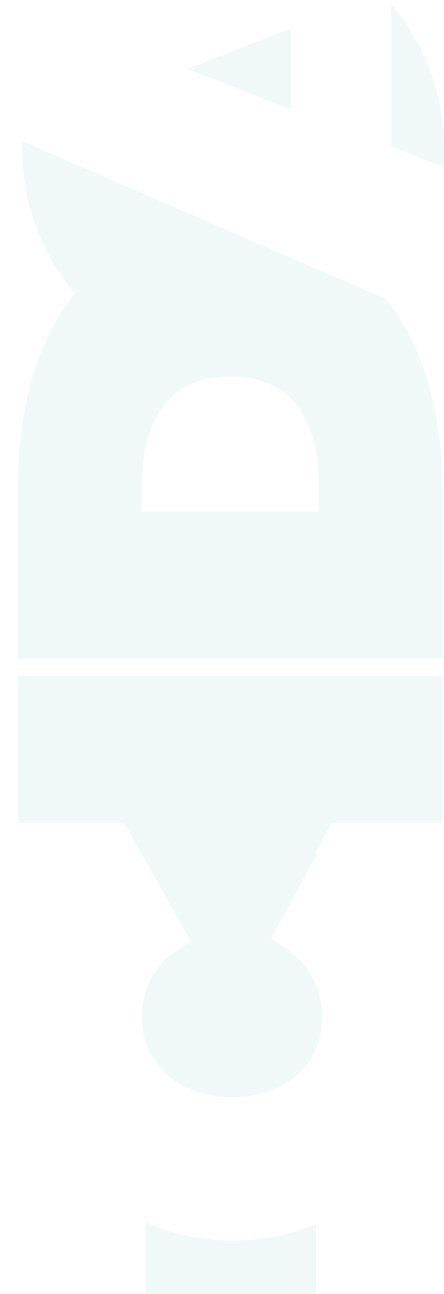
As sensitivity to gender and identity becomes part of the common consciousness about design, clients will expect these factors to be addressed. Interior designers will need to have the skills to meet inclusivity requirements in all designed environments. This is also an area where interior designers can advocate on behalf of all users in instances where clients are not as in tune to these issues. Interior designers will also need to understand how to balance cultural norms with design for inclusivity and how to support imbedded social systems and structures while creating an inclusive, supportive environment.

NEXT: INTERIOR DESIGN RESEARCH TRENDS

Interior Design and Human Behavior/Occupant-Centered Design

Related Content and Learning for Interior Design Education:

- A** Understanding the facets and breadth of human experience
- B** Critical and strategic thinking
- C** Understanding the role of maturity, self-reflection, and empathy in design
- D** Methods of human-centered inquiry
- E** Exposure to trends and other information about health care and the built environment
- F** Understanding emotional intelligence and its role
- G** Specialized, advanced knowledge in human behavior
- H** Human behavior, health, and wellness as client investments
- I** Designing for inclusivity and with sensitivity to place and culture
- J** Attributes of leadership and advocacy
- K** Using expertise in persuasive communication



Interior Design Research trends

BIG PICTURE TRENDS

Healthcare and workplace environments remain the most researched

Most studies examine the effect of the interior environment on occupants (e.g. behavior, health and wellness, cognition and creativity, or satisfaction with or response to the visual environment)

Focus on health and wellness

Color dominates residential design research

Using virtual environments as a design research tool

BIG PICTURE TRENDS CONTINUED

Few interior design researchers

Expanding applied research to include creative practice?

Architecture and design firms adding research components



Interior Design Research Trends

Broad Implications for Interior Design

1 OPPORTUNITIES EXIST TO BROADEN AND EXPAND SCOPE OF RESEARCH

Given that the majority of design research is focused on only two sectors, it stands to reason that there is a need for an expanded scope of research in other environments. More analysis of existing research may lead to hypotheses that expand the applicability of outcomes to other designed environments. There is significant opportunity for expansion in this area and those who have research skills may find it possible to market knowledge generation to untapped sectors. This is an area for strategic exploration and development.

"There is a huge opportunity to educate interior designers to be researchers and expand upon the body of knowledge."

2 BRIDGING THE GAP BETWEEN THOSE WITH RESEARCH SKILLS AND THOSE WHO WOULD BENEFIT FROM RESEARCH

Design education and design practice often produce different types of research, both of which have value, but are not necessarily related to one another. A sustainable, coordinated

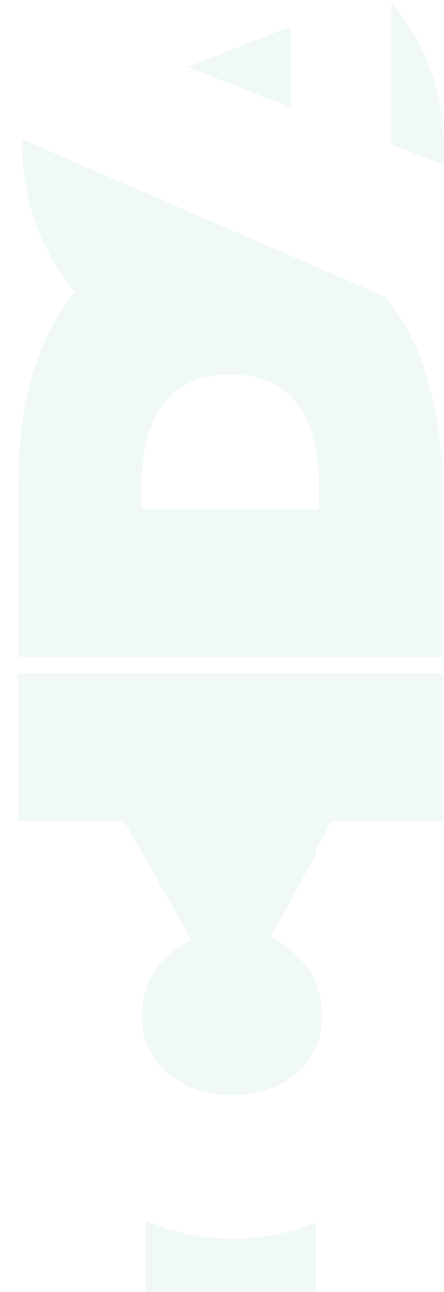
approach to accessing and categorizing this research as well as assessing areas that need further research would be beneficial. The interior design profession needs a viable, robust, resilient framework and mechanism to gather, codify, and share the profession's current research and strategize future research priorities.

NEXT: ADDITIONAL INTERIOR DESIGN/BUILT ENVIRONMENT TRENDS

Interior Design Research Trends

Related Content and Learning for Interior Design Education:

- A** Understanding different types of and sources for research
- B** Research as a tool in practice
- C** Research as a professional pursuit
- D** Strategies for assessing and using research
- E** Methods of data collection and analysis
- F** The state of research in the interior design profession and opportunities to advance the body of knowledge
- G** Understanding research funding and common barriers



Additional Interior Design/Built Environment Trends

BIG PICTURE TRENDS

Design for social innovation

Design for manufacturing

Design for transformation

Intelligent buildings



BIG PICTURE TRENDS CONTINUED

Improving communication about interior design

Office environments innovating beyond open concept

Thinking spaces on the rise

Popularity of open-plan homes waning



Additional Interior Design/ Built Environment Trends

Broad Implications for Interior Design

1 DESIGN AS A MEANS NOT AN END

Increasingly, design is discussed relative to processes, systems, and the evolving interactions between occupants and the designed object or space now and in the future. This is a shift in thinking about design as something that occurs and then is left for use until a replacement is needed or sought. This paradigm shift provides interior designers the opportunity to offer more meaning and impact if they understand how to guide a conversation around resilience. Elements such as modality, flexibility, affordability, and inclusivity are perceived to offer long-term value and thus open the door to dialogue about design's ongoing vitality versus immediate needs.

"Often we are asked to meet specific programming requirements without a conversation about broader, long-term value. More recognition about environments as "living states" provides a window of opportunity to steer a better conversation."

2 NEW TOOLS FOR EVALUATING OCCUPANT-CENTERED ENVIRONMENTS EMERGE

Technology, methodology, materials, trends, etc. are evolving so rapidly, it is not possible to respond to these changes individually or systematically with thought, care, and reflection. It is more important than ever for interior designers to have a solid grounding in principles, theory, and history that allow them to navigate ever-changing aspects of contemporary culture and available resources. Critical thinking, again, is highly important to not only surviving, but thriving in a professional environment that involves continuous experimentation with evolving techniques and technology. Understanding methodology and design process as both art and science is vital, as is curiosity and openness to new ideas.

"While students should have the right technical skills to land their first job, education's primary focus should be on those skills that allow graduates to thrive as designers – design process, critical thinking, needs analysis, willingness to innovate and risk take, etc. We need

designers who can assimilate to new developments and are comfortable designing for adaptability despite many unknowns about the future."

3 KNOWLEDGE ABOUT OTHER DISCIPLINES, AND SPECIFICALLY BUILT ENVIRONMENT DISCIPLINES, IS CRITICAL

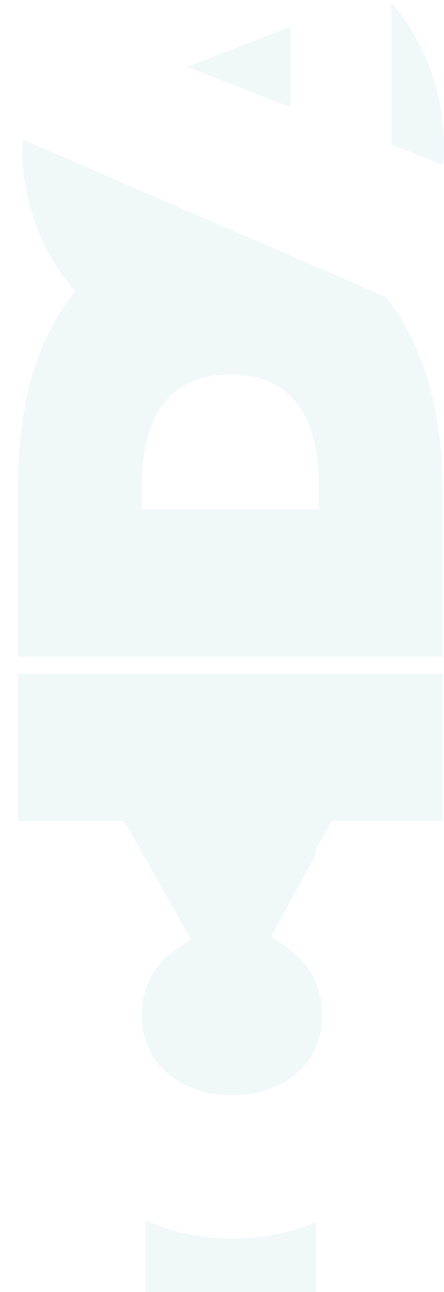
Interior designers must be savvy about the built environment profession as a whole, and specializations that influence the built environment. Multi-disciplinary collaboration is unavoidable as technology and industry specializations permeate the professional landscape. Understanding how these professions interrelate and can/do work together is key to being a valued team member, leader, and mentor. Additionally, interior designers will benefit from understanding how disciplines outside of the built environment, such as neuroscience and anthropology, may offer insights that elevate built environment outcomes. More specifically, interior designers should maintain current knowledge of contemporary building systems and construction practices in order to contribute effectively on project teams.

NEXT: ACKNOWLEDGMENTS

Additional Interior Design/ Built Environment Trends

Related Content and Learning for Interior Design Education:

- A** Understanding historical movements and trends
- B** Design principles and theories
- C** Designing for resilience
- D** Concept of design as a living state versus an end product
- E** Design process and how it can be used to problem solve for uncertainty
- F** Concept of design for long-term value versus immediate needs
- G** Iteration and experimentation
- H** The range of disciplines related to the built environment
- I** Multi-disciplinary teaming and collaboration
- J** Roles on teams and opportunities for interior designers
- K** Leadership attributes and the value of mentorship
- L** Contemporary building systems and construction practices
- M** Importance of life-long learning and maintaining contemporary knowledge to work effectively with professional peers and colleagues



Acknowledgments

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