



Council  
for Interior  
Design  
Accreditation



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# 2023 Summit Report

A STRATEGIC VIEW TO THE FUTURE

The Council for Interior Design Accreditation's summit activities serve to strategically position interior design higher education to respond to the future needs of practice and society.

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# Foreword

In fall 2022, the Council for Interior Design Accreditation (CIDA) Board of Directors convened a summit of design leaders to consider implications of a 2022 CIDA-commissioned environmental scan and to strategically inform future accreditation standards development. The 2022 environmental scan covered eight areas of inquiry within a specified scope: global and regional, social and demographic, health and wellbeing, mental health, workforce, technology, and built environment. The following report summarizes the: a) overarching trends identified in the 2022 environmental scan, b) broad implications for interior design discussed at the fall 2022 summit of leaders, and 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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# Global and Regional

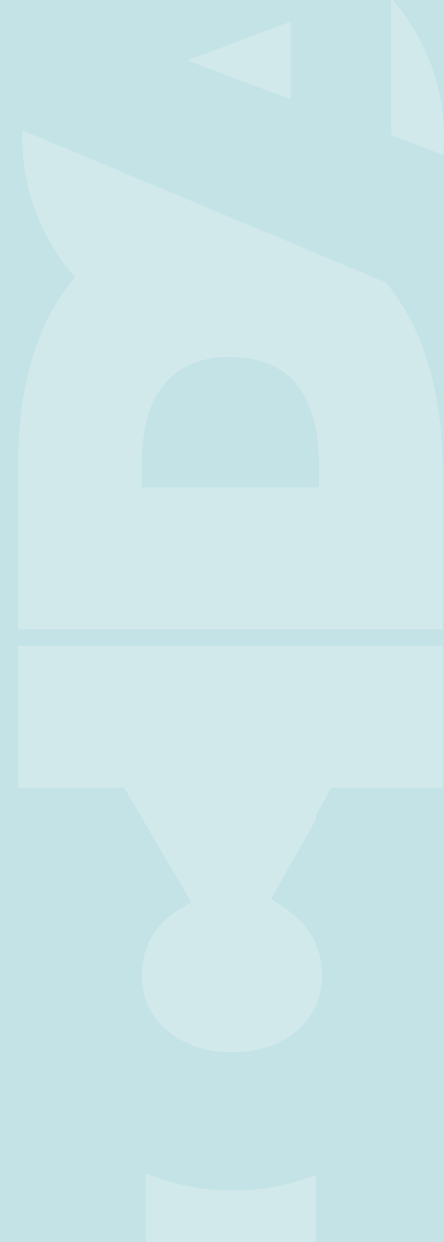
## BIG PICTURE TRENDS

Major economies around the world experiencing slower growth, potentially slipping into recession

Supply chain issues abating in some industries but not in others and continuing to impact production and growth into 2023

Tightening fiscal policies pulling down home prices and slowing home sales; however, homes and rental properties are still not affordable for large numbers of U.S. and Canadian residents

Global trade, communication and exchange under threat, potentially disrupting economies and destabilizing governments



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## BIG PICTURE TRENDS CONTINUED

Public health crises becoming more common and affecting more people worldwide

Climate change resulting in increasingly severe and frequent natural disasters in the years to come if inadequately addressed

Increased aggression and violence, shortages of food and water, natural and man-made disasters, and a lack of affordable housing uprooting and dislocating millions of people each year, creating strains on economies and relations among countries



## Broad Implications for Interior Design

**1 THE LIFE-CHANGING IMPACTS OF THE COVID-19 PANDEMIC ARE STILL IN PROGRESS, WITH MORE GLOBAL CHALLENGES IN THE FUTURE.**

**"With the impacts of climate change and the potential for more pandemic-like events, major disruptions will become much more frequent, influencing our lives and livelihoods in ways we cannot predict."**

While certainly not news, the pandemic unleashed a wave of change of such magnitude that the myriad implications will unfold for years to come. It is indeed rare that such sweeping change happens so globally, impacting entire populations and systems with little forewarning and preparation. Climate change is another life-altering event that is unfolding and unlikely to be reversed without significant global coordination and commitment to restructuring. Add to these macro-challenges the ever-present tensions and strife among countries and governments seeking to protect and advance their own populations, resources, and ways of life.

The above should be considered an overlying framework for everything that follows in this report. Interior design has a significant opportunity as the world grapples with rethinking environments and systems and as populations simultaneously experience (and emerge from) macro-events that

challenge us in ways our world has never experienced. Designing for uncertainty and flexibility is paramount as well as an increased focus on security, safety, spaces for displacement, and understanding of new construction models and materials. Collaboration across multiple professions and disciplines is necessary. Interior designers should be prepared to represent the built environment and work with diverse experts who are called together as problem solvers.

**2 PUBLIC HEALTH AND ENVIRONMENTAL SUSTAINABILITY BECOME TWIN PILLARS OF BUILT ENVIRONMENT POLICY**

One, albeit hard-earned, upside of the pandemic is a renewed recognition of the importance of public health policy and core public health structures. Future interior design professionals will be well served to have an understanding of the public health arena and how these macro-issues can be leveraged to achieve positive impacts and investment in the built environment. Public health will no doubt be a recurring knowledge center as the professions interweave expertise to solve complex problems.

Because of a historically considerable negative impact on climate, the built environment industry has focused significant time and energy over recent decades to become leaders in sustainable design. The responsibility of built environment professionals takes on even greater urgency in the future and interior designers will

be called upon to join other professions to reverse the pace of climate change.

**"Designers must be leaders, embracing technology and envisioning new ways to live and build, that will transform negative impacts on the environment into restorative impacts."**

As the intensity of climate change disasters become reality, the built environment professions must find avenues to integrate their disciplinary expertise in order to implement transformative, regenerative practices. Interior designers must have and use expert knowledge about sustainability, onsite clean energy and passive design, and develop holistic, interdisciplinary partnerships to address existing challenges. This complex global issue will require committed partnerships among experts.

## **3 A FORECAST RECESSION HAS WIDE RANGING IMPACTS**

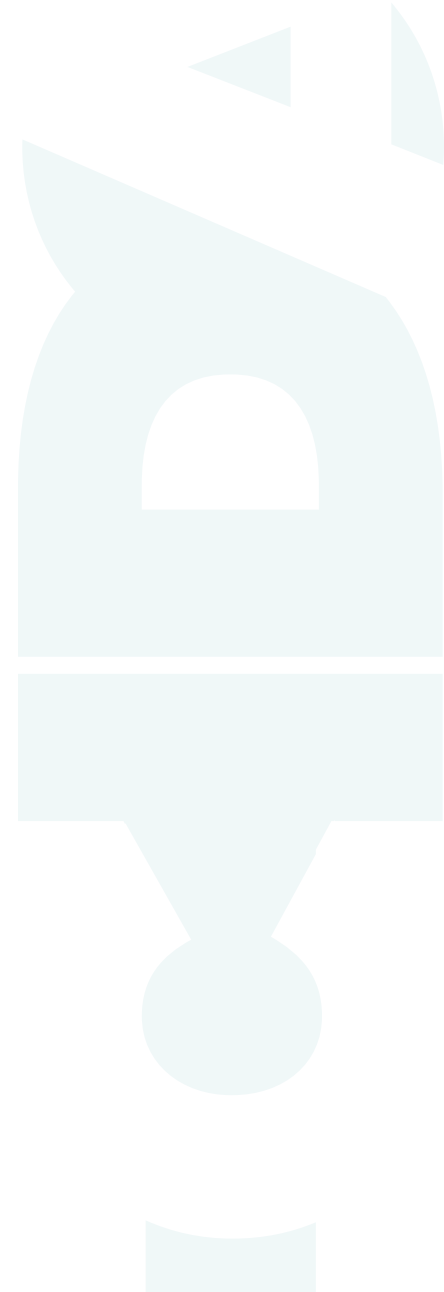
While the forecast global recession may differ or be less severe than some others in the recent past, the interior design profession should look to past patterns and be prepared to experience significant demographic shifts due to widespread job cuts. During recessionary times, interior designers often leave the profession to pursue other career opportunities. It is not uncommon for mid-career professionals to leave the profession entirely during industry downturns because they are unable to find positions with benefits commensurate with their experience. These circumstances may, in turn, provide more opportunities for early-career professionals who place a high value on attaining professional experience and generally have lower entry-level expectations for compensation.

**"Internships will become even more important in terms of exposing students to complexities beyond the classroom and supporting a more integrated, holistic way of learning."**

**NEXT: SOCIAL AND DEMOGRAPHIC**

## Related Content and Learning for Interior Design Education:

- A** Technologies for energy and water resource management
- B** Mental health impacts of climate change
- C** Issues related to affordable housing and the potential for innovation
- D** Concepts and practices for aging in place
- E** Public health history and policy
- F** Universal design concepts
- G** Flexibility in the built environment
- H** Designing for multi and intergenerational households
- I** Understanding the importance of culture and identity
- J** Professional practice and employment opportunities
- K** Integrating work experience with learning





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# Social and Demographic

## BIG PICTURE TRENDS

Migrations increasing, driven by poverty, repression, violence and climate change.

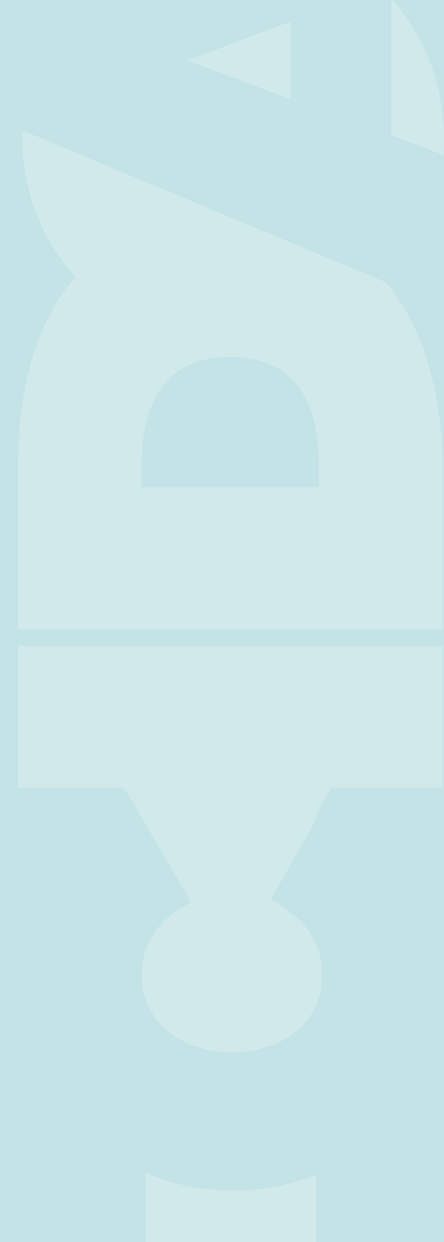
More people moved from mega metro areas to smaller cities, suburbs and rural communities during the first year of the pandemic.

U.S. and Canada populations becoming older and more diverse.

Fewer U.S. and Canadian residents consider themselves middle class.

Multigenerational households on the rise as housing and other living expenses outpace earnings.

Younger generations embracing gender diversity.



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## BIG PICTURE TRENDS

Pledges to address racial injustice and inequality in reaction to the Black Lives Matter movement produced mixed results.

Companies and institutions increasing efforts to include neuro-diverse individuals.

Availability of affordable housing short of meeting demand; impacting low-income households, persons of color, and single women with children the most.

Need for more affordable assisted living options for low-income and middle-income individuals increasing.

Access to a quality education eluding large numbers of people of color and low-income individuals.

Millions of U.S. and Canadian households regularly experiencing food insecurity and hunger, especially racial and ethnic minority households and single women with children.



## Broad Implications for Interior Design

### 1 AFFORDABILITY CONTINUES TO BE A BARRIER AND INCREASINGLY IS A KEY ISSUE FOR RESIDENTIAL DESIGN

Affordability is an urgent matter in residential design. With rising inflation compounding already problematic wealth disparity, it has long been forecast that family members who traditionally may have been located in separate households will cohabitate in one household and share resources. Single family homes that previously had been designed primarily for one familial structure and user(s) will need to be redesigned to accommodate a broader, and more complex range of needs.

New construction/housing models will become less static and more flexible in terms of design-build templates and zoning will change in order to address the reality of population shifts and ever-increasing income disparity. Interior designers have an important role to play in leading innovation and advocating for the positive impacts of affordable housing that is well-designed and environmentally and socially responsible.

**"Interior design graduates will need a broad understanding of generations, culture, and diversity, especially in the aging baby boomer population and the "sandwich generation" of caregivers,**

**where demand is outpacing supply and begs for innovative problem solving. It is important to have expertise in aspects of privacy (i.e. audible, visual, technological), interaction, and universal design (dexterity, hearing, vision, mobility)."**

### 2 SOCIAL JUSTICE AND EQUITY CONTINUE TO EVOLVE AS INTEGRAL CONSIDERATIONS IN DESIGN AND THE BUILT ENVIRONMENT

The focus on social justice and equity continues to be strong with ongoing calls for action across all facets of culture and human experience. Higher education, business, and industries will find or enhance pathways to increase and demonstrate diversity. Professionals who are themselves representatives of underserved populations or who have a track record of positively impacting diversity, equity, and inclusion (DEI) through metric-based outcomes will be in high demand. Inclusive design will be one method by which corporations seek to demonstrate their attention to DEI issues.

**"Emerging professionals must be adept cultural explorers and problem solvers in order to bridge gaps of wellbeing across cultures and sociological differences, and reconcile present systems with equitable approaches to wellness."**

Similar in evolution to environmental sustainability, social justice and equity content will become more dynamic and complex as systems respond with new methodologies and metrics to measure impact. Information about inclusive design may proliferate in response to market demand and interior designers will need to maintain current knowledge of and/or know sources for reliable data about inclusive design from process to product selection to design methodology.

### 3 AGING POPULATION IS CREATING DEMAND FOR MORE AND DIFFERENT TYPES OF HOUSING STOCK

The aging population is a macro-issue that impacts across many areas of interior design, as reflected elsewhere in this report. Housing remains a major issue for the aging population, particularly in the middle-income bracket. Housing and care are available, if only of minimal quality, for very low income individuals and at optimal levels for high-income individuals; however, there are fewer options for those who are not eligible for assistance and who cannot afford premium care.

**"Those in the middle income cohort have little to choose from that offers decent quality of living at an affordable price."**

# Social and Demographic

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This gap offers a significant opportunity for built environment professionals who find profitable avenues to serve this market. Currently, there is limited interest by private-sector builders and declining funding for social housing at the government level for the middle-income aging population. Interior designers may play a role with developers and as advocates for policy initiatives that take advantage of this market opportunity while also serving a broader societal need.

**“Incentives for builders, as well as changes in zoning, would positively impact the affordable housing supply.”**

**NEXT: HEALTH AND WELLBEING**

## Related Content and Learning for Interior Design Education:

- A** Aging population demographics, forecasts, needs and opportunities
- B** Housing and caring for seniors
- C** Neurodiversity, what it is and how it plays a role in design
- D** Designing for gender diversity
- E** Interior design's role and opportunities in complex problem solving
- F** Creative housing solutions and outcomes
- G** Understanding of design in high density environments
- H** Diverse needs in housing populations
- I** Multi-generational housing solutions
- J** Integrated communities, i.e. not segregated by culture, life-style, and/or ability
- K** How design impacts human experience, both positive and negative
- L** Material life-cycle and impact



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# Health and Wellbeing

## BIG PICTURE TRENDS

Health and wellness industries poised to rebound strongly as the pandemic transitions into endemic.

Mental health the number one concern for employers and human resource professionals looking to protect and retain employees (see page 17, Mental Health).

Pandemic results in a priority of having a healthy home that supports wellness for many homeowners.



## Broad Implications for Interior Design

### **1 THE GLOBAL PANDEMIC AND HEALTH AND WELLNESS CONTINUE TO HAVE A SIGNIFICANT INFLUENCE ON THE BUILT ENVIRONMENT INDUSTRY**

**"The physical workplaces' role in mental health (anxiety, depression, etc.) should be defined clearly and examined carefully in relation to design strategies."**

The built environment industry's focus on health and wellbeing as a way to address issues such as mental health and social inequity has reached a level of prominence similar to that of environmental sustainability in addressing climate change. The issues designers must consider have become more complex, coinciding with dramatic changes in work and life style as a lasting result of the global pandemic. Furthermore, the trajectory of the workplace remains in flux and somewhat uncertain as COVID-19 becomes endemic and employers consider "what's next" for their dedicated office spaces and workforce. This historic juncture presents a fairly unique opportunity for interior designers, with design thinking and creative problem solving needed to transition and transform workplaces.

Present circumstances demand systems thinking well beyond the traditional workplace and past typologies and also require new outcome metrics beyond typical wellness, productivity, or sustainability measures. Today's market is ripe for

experts in interior design's impact on health and wellness (alongside other expert knowledge), and individuals who can apply that thinking to transform pre-pandemic spaces and workplaces into spaces that support current and evolving practices with cost-effective design solutions. The built environment industry has an important role to play in designing the collective "what's next" in a direction that best serves human beings and the planet.

**"The connection between built environments and life-centered design practices that inform decision making will only grow in prevalence."**

### **2 INCLUSIVE DESIGN PRACTICE AND RESEARCH WILL CONTINUE TO ADVANCE AND BE INTEGRATED AS PART OF HUMAN HEALTH AND WELLBEING**

**"The importance of inclusive design has come into sharp focus due to the global pandemic and a societal awakening to racial inequalities and gender diversity in recent years."**

Because social justice and equity are front of mind culturally, inclusive design is increasingly being called upon as a tactical remedy and, therefore, is an advancing area of professional knowledge and expertise. Inclusive design requires a deep understanding of human factors and is distinct from universal design, although both are similar

in scope and refer broadly to designs' support of all human beings in the built environment. Inclusive design is about enabling people of all backgrounds and abilities to participate equally, confidently, and independently in activities. This broadens human health and wellbeing not only to be about how an environment impacts the physical or mental health of the individual, but also to be about how the space fosters social cohesion.

**"Interior designers must become more familiar with systems thinking in order to analyze the interdependent needs associated with social cohesion and ensure the built environment addresses the factors that can cause the best of (design) intentions to fail."**

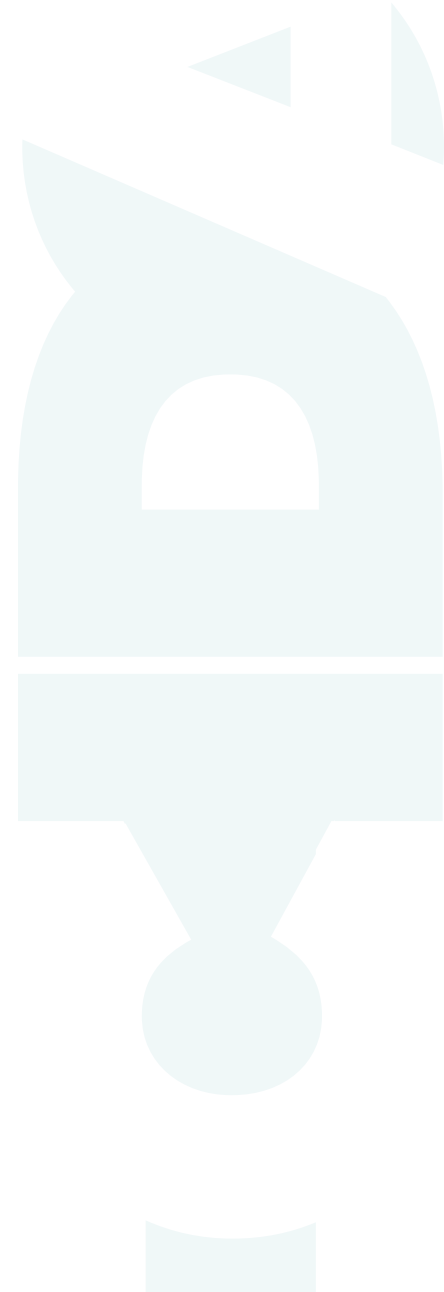
**NEXT: MENTAL HEALTH**

# Health and Wellbeing

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## Related Content and Learning for Interior Design Education:

- A** Interpersonal communication and listening skills
- B** How the physical environment impacts wellness
- C** Sources for population data and forecasts regarding health and wellbeing
- D** Biophilic design
- E** Prospect-refuge theory
- F** Aspects of inclusive design and universal design
- G** Designing for flexibility
- H** Ergonomics
- I** The impact of color and light
- J** Sensory spaces





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# Mental Health

## BIG PICTURE TRENDS

More people experiencing anxiety and depression than in any other recent decade.

Suicide rates declined during the first two years of the pandemic (2020-21), but rates among teens and young adults on the rise.

Finding ways to improve mental resilience crucial as the world faces mounting challenges resulting from the pandemic and political upheaval.

Violent crime increasing in some large cities, but not rising substantially overall.



# Mental Health

## Broad Implications for Interior Design

### 1 INTERIOR DESIGN AS A TOOL TO SUPPORT MENTAL WELLBEING CONTINUES TO GAIN TRACTION

**“With the exponential rise in anxiety, depression, and other mental health issues, the built environment industry is increasingly being called upon to demonstrate how occupants’ mental wellbeing is supported in designed spaces.”**

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. are among the tools that can be deployed to address mental health concerns. These considerations should become an integrated component in project planning, and an area of expertise that interior designers bring to project teams.

Additionally, as the community impact of mental health issues becomes better understood, healthcare will seek new models of wellness care within communities and for design solutions that best serve specific community needs. In this

process, hospitals will increasingly de-centralize and establish stand-alone chronic mental health facilities embedded within communities, providing more holistic care to patients and families.

**“New community models of care imply that interior design graduates will need to understand theories of patient/family centered engagement, design for calming spaces, and construction methods for flexible multi-purpose facilities.”**

Interior designers have an opportunity to play a leadership role as knowledge experts and advocates for human wellbeing as a public health imperative. In service to this, interior designers will need a deeper understanding of mental health considerations and access to quality data from mental health experts to inform the design process.

### 2 MENTAL HEALTH AND WELLBEING CONTINUE TO PROGRESS AS AN "INDUSTRY," CREATING OPPORTUNITIES FOR INNOVATION

Industries are increasingly incorporating wellness and mental health in product development and marketing strategies. As a result, new practices and services are continually emerging in the wellness market. For example, service animals, once a very limited exception to the rule in public

spaces, are now more broadly defined and commonly allowed as a means to support human wellbeing, especially in hospitality and travel environments, but also by employers and in group housing environments.

Interior designers are in a prime position to build on the momentum of the emerging health and wellness market through staying attuned to developments, understanding user behavior, and designing accommodations for new wellness practices, products, and services. Changing norms also have the potential to create systemic issues that require problem solving and thoughtful, holistic redesign of environments to meet emerging needs

**NEXT: WORKFORCE**

# Mental Health

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## Related Content and Learning for Interior Design Education:

- A** Models of patient/family care for chronic mental health conditions
- B** The relationship between physical and mental wellbeing
- C** Cultural and social aspects of mental wellness
- D** Environmental factors influencing stress and anxiety
- E** Sources for data and forecasts about mental health in various populations
- F** Health and wellbeing industry standards and trends



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# Workforce

## BIG PICTURE TRENDS

US employment growth remains strong overall, while employment in Canada declined slightly.

The “Great Resignation” mostly a “Great Switch” as workers left lower-paying, less desirable jobs in the hope of transitioning to improved circumstances.

Employee satisfaction and engagement declined, prompted primarily by changes in working conditions and workload during the pandemic.

Despite resistance from some employers, remote work has become mainstream and increasingly plays a role in employee recruitment and retention.

Automation, including artificial intelligence, will potentially displace tens of millions of workers, including some professionals, who will need to be trained and transitioned into other jobs and/or occupations.

## Broad Implications for Interior Design

### **1** GREATER DEFINITION OF WORK TYPES (i.e. REMOTE, HYBRID, ETC.) ARE EMERGING AND HAVE BECOME AN INTEGRAL PART OF RECRUITMENT AND RETENTION OF EMPLOYEES

**“Interior design graduates need to understand how to solve complex challenges resulting from global events that impact interior environments. They need to know how to innovate and problem-solve and how to manage client expectations when clients are under pressure to make decisions they had not foreseen having to make.”**

A result of the pandemic was, of course, the immediate shift to virtual work for the vast majority of office workers as well as virtual delivery of education for the vast majority of students. Both of these sectors have experienced lasting change. Professional offices, in particular, are experiencing an emergent workforce demanding virtual/remote/hybrid work models be adopted as the norm. In response, employers are using remote work as an incentive for hiring in a tight labor market, recognizing that individuals are most likely to find an employer willing to offer flexibility.

While some employers have jumped at the opportunity to disinvest from costly infrastructure and redesign their work processes around the virtual “workplace” other employers remain concerned about productivity, synergy, brand continuity, and the opportunity costs of abandoning in-person employee interaction. Many employers are experimenting with hybrid models and are making decisions in real time about their future workplace, including how to size their brick and mortar foot print and/or reconfigure their current property assets and/or leased space(s).

This current phase of “return to work” again presents an incredible opportunity for interior designers who can offer analysis and synthesis of the complex issues regarding space, user needs and expectations, and metrics for measuring outcomes even in the absence of familiar patterns and time-tested models. Interior designers have an opportunity to help define new work typologies, configurations of workplace across very diverse “places”, and create meaningful metrics for future decision makers in a transformed environment. Additionally, interior designers have the opportunity to design and document how environments are shifting to support different modalities of life as personal residences now also serve as workplaces and learning environments, and offices or work spaces outside of the home are used differently than before the pandemic.

**“Interior design graduates will need to understand 1) how to create a sense of**

**place that is also flexible and adaptable to workers’ needs, 2) how to repurpose space for the availability of different groups (for example, community and equitable spaces that create a sense of belonging, third spaces, etc.), and 3) how to connect space through technology with consideration to privacy and acoustics.”**

### **2** WORK LIFE BALANCE AND BETTER PHYSICAL AND MENTAL HEALTH ARE PRIORITIES FOR WORKERS AND THIS CONTINUES TO CREATE SHIFTS IN OFFICE AND COMMERCIAL ENVIRONMENTS

**“Interior design graduates need to understand the importance of physical and mental health and how a workplace can be designed and built to support this requirement. Courses in biology, psychology, and/or sociology may become requirements prior to graduation. An understanding of the industry standards and guidelines (such as the WELL Building Standard) will also become increasingly important.”**

Much has already been discussed about health and wellness as overall trends with impacts across market sectors. These trends not only influence public spaces, residences, and communities but also have implications for workforce behaviors and expectations. Employers increasingly understand the value of flexibility to workers who seek not only to earn a living but also to have a balanced life with time for other activities that contribute to personal fulfillment, health, and wellness. Employers also increasingly understand the importance of creating a workplace that is engaging and contributes to employees' wellbeing in order to attract and retain high value workers.

As employers seek to build an engaging workplace that balances productivity with individual needs and fulfillment, interior designers will be called upon to gather information, assess needs, and restructure existing spaces to better support desired workplace outcomes and employee engagement.

## **3 DECLINING ENROLLMENT IN HIGHER EDUCATION PAIRED WITH AN AGING POPULATION LEADS TO FEWER GRADUATES TO FILL PROFESSIONAL POSITIONS**

**“We will start seeing the promotion of younger and younger people into management and leadership positions. Are we teaching students the skills they need to move up the ladder more quickly?”**

Referred to as “the cliff” it has long been forecast that higher education will experience reduced enrollment due to changing demographics. Those declines are now exacerbated by shifting attitudes about higher education in a competitive labor market, generally meaning that individuals can find good paying jobs with advancement opportunities and are less likely to pursue higher education and/or change careers. This results in entry-level interior designers entering a competitive job market and finding ample opportunity for advancement.

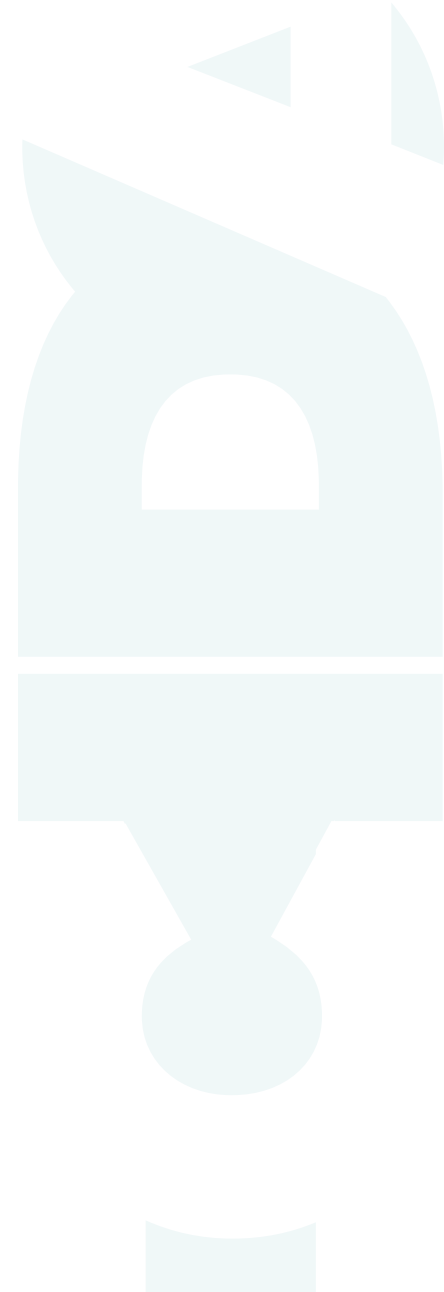
Graduates entering the field will need an exceptional level of professional education in order to competently perform professional responsibilities and address increasingly complex challenges. Professional mentoring will be key to supporting early-career

professionals, even during the time these individuals are enrolled in higher education. Greater and more seamless collaboration between higher education and professional practice is needed. The interior design profession would also be well served by creating design-focused educational pathways beginning in the K-12 curriculum. Outreach to K-12 education also serves as a means to support diversifying the profession, which ultimately lends itself to growing the profession.

**NEXT: TECHNOLOGY**

## Related Content and Learning for Interior Design Education:

- A** Work models and support systems
- B** Information gathering and needs analysis
- C** Workforce demographics, characteristics, and behaviors
- D** How workplace impacts social equity
- E** The intersection of residential design with workplace design
- F** Change management
- G** Career path opportunities
- H** Professional practice and business management
- I** Mentorship and leadership



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# Technology

## BIG PICTURE TRENDS

Artificial intelligence (AI) and machine learning is being integrated into most industries and professions. New tools and applications are offered to businesses and consumers, enhancing some functions while further eroding privacy and integrity of information/communication.

Robots and robotics becoming more ubiquitous in more sectors, including services and the home.

Metaverse, is the next major development in how we communicate and interact using digital media, but at present is still at the experimental stage.

Proliferation of misinformation and disinformation through social media, the internet and other communications channels increases in coming years, with little success of abatement through regulation or legislation.





## Broad Implications for Interior Design

### 1 THE INCREASING USE OF ARTIFICIAL INTELLIGENCE TO MONITOR HUMAN BEHAVIORS LEADS TO INSIGHTS ABOUT THE IMPACTS OF DESIGN FEATURES AND EXPERIENCES

As the availability and integration of artificial intelligence (AI) increases, so too will interior designers' ability to compile data about human behavior. Data gathering through AI, in theory, will result in interior designers' ability to develop more robust and efficient evidence-based design methods. Findings from this advancement could be particularly relevant in assisting individuals who need support in their living and work environments (e.g. design for the aging population, supporting the neuro-diverse worker, etc.) Building environments may be designed in ways that seamlessly integrate emerging and ever-changing technologies and systems. Interior designers would adjust planning processes to integrate new systems and use emergent data sources to inform design thinking. The opportunities to acquire new knowledge are both exciting and daunting in terms of the analytical skills required and the ethics associated with responsible use of human data and information.

**“Design educators and researchers will need to expand students’ ability to critically think about the sources and quality of evidence used in the design process.”**

### 2 ROBOTICS AND AUTOMATION INFLITRATE ALL ASPECTS OF DESIGN

Across all sectors, robotics and automation will increasingly replace human activities with technological systems. Interior designers will need to understand both the technical and experiential aspects of automation within environments including the implications of automation and robotics during the programming phase of design as well as physical design considerations for robots (i.e. wayfinding, pathways, access, etc.) Additionally, understanding the evolving nature of these technologies and how to design for flexibility will be essential along with considering safeguards for system failures (e.g. back-up systems and power sources).

The other aspect of automation is that interior designers will increasingly be focused on higher-level, critical thinking and analysis versus production or technical skills that can be automated.

### 3 ROBOTICS AND AUTOMATION INFLITRATE ALL ASPECTS OF DESIGN

An obvious implication of the Metaverse is that interior design has an opportunity to expand their professional sphere to include virtual spaces and user experiences. Pioneers in this field are already being recognized with Interior Design announcing the industry's first Metaverse Architecture and Design Awards in 2023. Designed virtual environments will likely continue grow as a professional field. Interior design graduates will be well served to understand the implications and opportunities of designing for virtual spatial experiences and will need to understand the tools and processes one needs in order to design a virtual environment.

**“The definition of the built environment is evolving and there is a potential and growing application for virtual design environments.”**

Secondary to the actual “designing of virtual space” is how professionals may use the Metaverse as a tool for problem solving. Virtual platforms could replicate complex societal scenarios and allow for diverse experts to work together on issues without physical barriers or real-world implications.

# Technology

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**“Trends toward creating/designing virtual worlds provide opportunities to creatively address broader global needs for housing (or other humanitarian efforts) by bringing diverse thinkers from around the world and from multiple disciplines into problem-solving scenarios.”**

Entry into virtual platforms would require the technological capacity, both skills and connectivity, to contribute effectively. Interior designers will need advanced communications skills related to device use, software platforms, and the cultural nuances of working on diverse teams.

**4 AN EVEN GREATER DIGITAL DIVIDE MAY EMERGE AS NEW TECHNOLOGIES ARE ACCESSIBLE ONLY TO THOSE WITH THE MEANS TO AFFORD AND MAINTAIN THEM**

**“Built environments must not evolve into machines that cannot function without advanced systems. Sustainable solutions should provide both hi-tech and low-tech viability.”**

The adoption of new technologies is occurring alongside a growing divide between the upper class who can afford access and a diminishing middle class who are experiencing increasing food insecurity, displacement, and are unable to afford quality housing. While advances in technology and robotics create opportunities and could better support many users, the growing divide between those who have connectivity and access and those who meet basic needs is worth considering in respect to designed environments.

Additionally, technology and systems rapidly change and require frequent upgrading and/or replacement as well as adopting new ways of “thinking and doing.” This continual upgrade cycle compounds the potential barriers for users due to cost, technological savvy, or other factors such as declining cognition (e.g. aging populations). This, in turn, may further exacerbate already existing social equity problems.

**“Interior design graduates must have a broad understanding of both ends of the spectrum and understand the implications of global social dynamics and basic human needs addressed through the built environment.”**

**NEXT: BUILT ENVIRONMENT**

## **Related Content and Learning for Interior Design Education:**

- A** Emerging technologies and opportunities for interior design
- B** Using technology as a tool for problem solving
- C** Built environment systems to support technology and security, including for system failure
- D** Technology as a “basic need” and social equity issue
- E** How technology integrates with evidence-based design
- F** Virtual space and designing for virtual spatial experiences
- G** Multidisciplinary collaboration
- H** Cultural diversity and inclusive problem-solving



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# Built Environment

## BIG PICTURE TRENDS

Non-residential construction rebounding as residential construction stumbles.

Demand for remodeling services remains strong in 2022 then tapers off in 2023.

Hybrid environments combining elements of residential and commercial design become more standard.

The pandemic and concern about climate change elevate sustainable and green design to project essentials.

Commercial designers working with clients to decarbonize workplace and other environments.

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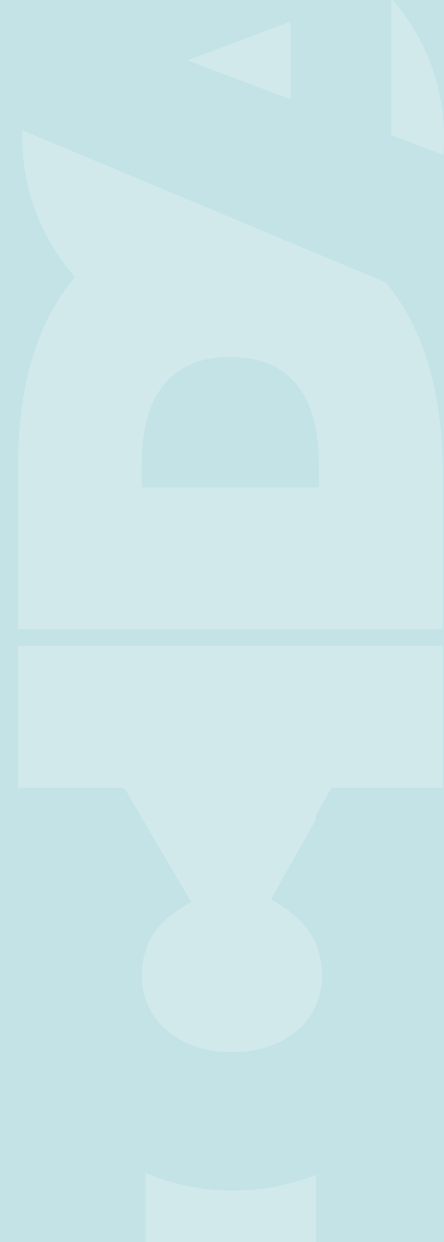
## BIG PICTURE TRENDS

Designers contribute to future-proofing buildings to increase their longevity and usefulness by designing more flexible and adaptable interiors.

Next generation of smart technologies for the home will be more interconnected and integrated into a single control system.

Wider adoption of digital technologies in the construction industry makes it possible to network multiple devices to improve communication, management and safety.

Integrated knowledge of research findings, case studies and best practices may help reduce upfront programming and design time for specific project types.



# Built Environment

## Broad Implications for Interior Design

### 1 SUPPLY CHAIN ISSUES AS WELL AS INFLATION CONTINUE TO IMPACT THE BUILT ENVIRONMENT IN MULTIPLE WAYS IN THE NEAR TERM

Supply chain issues, both from ethical and disruption standpoints, are affecting the built environment, from lack of availability and escalating costs of materials to complex impacts on environmental sustainability and human health. This results in the need for interior designers to be more knowledgeable and critical than ever before when specifying products and materials for interior spaces.

**“Research has found that interiors have a much greater carbon footprint than originally understood... graduates will need to specify more sustainable products, understand emissions and their impact on the environment, begin looking at embodied energy costs, and be mindful of the downstream implications for low-income and marginalized communities.”**

Interior designers must have the critical thinking and research skills to navigate multiple aspects of ethical specification alongside budgetary considerations. Information gathering, analysis, documentation, and the ability to communicate the cost to value ratio of design decisions are important skills for graduates. Additionally, basic

understanding of how supply chain impacts the construction, design/build process and how to problem-solve for disruption will be beneficial.

Another aspect of supply chain, is how to better design systems and environments for potential disruption. For example, a lesson learned from the pandemic is that a functioning society relies on essential workers and that our systems should be better designed to support their health, safety, and welfare. Interior designers have an important role to play in building back better with such lessons learned and understanding how design plays a role in emergency response.

### 2 BUILDING FOR LONGEVITY AND "FUTURE PROOFING" BECOME NECESSARY FOR SUSTAINABILITY AND CLIMATE WELFARE

The concept of “future proofing” and building for longevity is deeply intertwined with many other macro-issues already discussed, such as sustainability and social equity. Building for longevity is worth mentioning as a stand-alone concept under built environment because it has significant implications for the future of the built environment. This concept reinforces the need for interior designers to holistically understand how to plan for flexibility and reuse, as well as how to repurpose space for multiple potential users, activities, and potential system changes.

**“Interior designers are thinking more and more about how to “future proof” the built environment by designers spaces that are able to adapt to technological, social, and economic changes through an extended lifetime. Design education will need to teach young designers how to create spaces that can be transitioned easily as changing needs and functions dictate.”**

### 3 EMERGING PRACTITIONERS BRING NEW THINKING AND TECHNOLOGICAL INNOVATION TO THE PROFESSION

As in all industries, technology plays an increasingly important role in the future of the interior design profession, from smart “connected” construction processes to centralized access to shared knowledge and research being key to best practices, time, and cost efficiencies. As digital natives, design students are increasingly exposed and educated on the potential of emerging technologies, such as the Metaverse. In order to advance the profession, interior design practice should be intentional about integrating new technologies and strategically engage young designers in the implementation process.

**‘Interior practices will need to keep up with the advanced technological skills of the emerging workforce.’**

This infusion of innovation in the built environment could be supported through new models of cross-generational mentorship and/or different types of team-based approaches within the design disciplines. Additionally, new educational programs may emerge to address innovation in professional practice. As traditional-age enrollments decline, higher education and other educational providers will be seeking non-traditional ways to tap into new content markets.

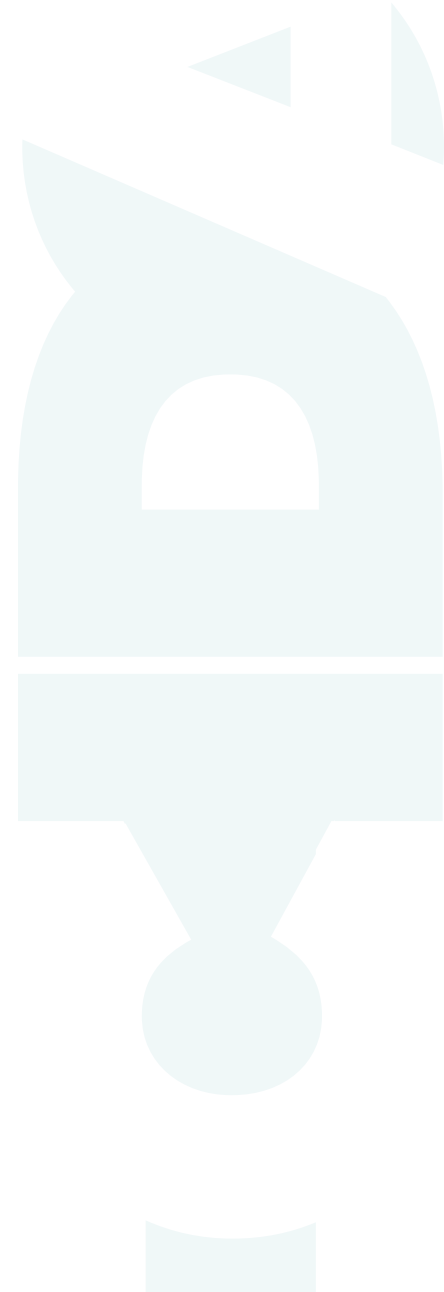
**NEXT: ACKNOWLEDGEMENTS**

# Built Environment

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## Related Content and Learning for Interior Design Education:

- A** How supply chain impacts the design and construction process
- B** Ethical specification
- C** Circular economy
- D** Embodied energy cost
- E** Downstream implications of design choices, e.g. for low income or marginalized communities
- F** Manufacturing industry and working with representatives
- G** Construction processes and innovations
- H** Affordable and low-income housing
- I** Design for disruption, i.e. accommodation of essential workers/tasks, back-up power supplies/systems, etc.
- J** Collaboration, both cross and inter-disciplinary
- K** Emerging technologies and integration within the built environment practice
- L** Mentorship models and resources





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# Acknowledgments

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**ANGELITA SCOTT**, Ph.D., Allied ASID, IDEC  
International WELL Building Institute, New York, NY

**LISA WAXMAN**, Ph.D., FIDEC, ASID, LEED AP ID + C  
Florida State University (Emerita), Tallahassee, FL

## Guest Speakers

**SUSAN CHUNG**, Ph.D., WELL AP  
HKS interiors, Washington, DC

**KHOI VO**, ASID, IIDA  
American Society of Interior Designers,  
Washington, DC

**IAN ROLSTON**, ARIDO, NCIDQ, IDC, LEED GA  
Founder, Decanthropy, Toronto, ON

**KIA WEATHERSPOON**, NCIDQ, ASID  
President, Determined by Design,  
Washington, DC

## Host

American Society of Interior Design,  
Washington, DC