Foreword

The Council for Interior Design Accreditation commissioned the following compilation of trend information in 2006. Information was gathered through a call to constituencies for reliable sources of information on trends impacting the future of interior design. Several interior design and related organizations submitted materials and the Council office gathered other sources to fill in gaps. Information collected included a broad range of research studies, periodical articles, and websites focused on future trends and forecasts.

The trend review and summary is the first step of a three-year project to develop standards for interior design education in 2009 and beyond. Trend information sets the stage for Future Vision 2006, a summit of thought leaders from interior design practice, education, industry and related areas. Future Vision participants will consider summarized trend information and determine the most compelling implications for interior design education in 2009 and beyond. These implications will, in turn, guide the Council’s standards development into 2007 and 2008.

The Council hired Cindy Coleman and Katie Sosnowchik as editorial consultants to review and synthesize trend information into an interesting and readable executive summary. The purpose of the executive summary is to inform and provoke thought about trends impacting the future of interior design. The executive summary is not intended to be original research in an academic sense, but rather a succinct, engaging capture of trends identified in (other’s) research and reported in the popular press.
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The mass media proclaims it: This is the century of design! Our global economy has moved beyond the knowledge economy to what is being called the design economy. Never before has the potential for design been so apparent and well accepted. Today, we have the opportunity, as a profession, to define ourselves with purpose and clarity toward a position of value for interior design.

The competition, though, is tougher than ever before. Competition no longer comes from within the built environment—architects, contractors, manufacturers, or other interior design professionals. Now our competition is much more diverse: industrial designers creating “experiences” for clients, management consultants assessing business and real estate goals, and marketing consultants creating appropriate images and branding. All are being called on to do the work of interior design. Why is this happening? Because the stakes are high and the public expects products that perform.

Recent surveys tell us that the public’s expectation of an interior designer is to solve or identify large-scale opportunities within a space. Anecdotal evidence indicates that design professionals enter the profession wanting to make positive change and help identify and solve problems. Today the work of design is
much more strategic; it’s consultative, interdisciplinary and focused on positive performance. Knowledge of business, behavior, sociology, technology, and environmental factors is critical. “A designer,” described Buckminster Fuller, “is an emerging synthesis of artist, inventor, mechanic, objective economist and evolutionary strategist.”

In reviewing numerous sources of information, we are struck by the blurring of boundaries, not just those that distinguish market segments, but those that define who we are and what we want and need. It is obvious that the world can no longer be observed through a solitary set of lenses. Instead we must view the world as a kaleidoscope of images that create shifts in patterns that had previously colored our thoughts and, in many cases, commanded the nature of our actions. What we discovered was a multitude of intrinsic links.

Our aging population, for instance, is naturally expected to influence the dynamics of the healthcare market—how, when, and where medical care is delivered. Yet it also significantly impacts the design—or rather redesign—of our existing homes to accommodate the physical challenges we anticipate will come as we age. Our aging demographic also speaks soundly to the need for multigenerational work environments, where increasing numbers of people can work beyond conventional retirement ages,
whether for economic or creative reasons. The beginning glimpse of a shift in the urban landscape is also being brought about by this same demographic group, who now seek an atmosphere conducive to “hiving,” a newly-identified social concept that emphasizes a growing desire for social interaction and community involvement.

Consider technology, a factor that, more than anything, has been responsible for the transformation of the places where we live, work, play and learn. Research shows that today’s college students, who began using computers more than a decade ago at the age of 5, now think and process information completely differently from previous generations. This creates unlimited possibilities for the design of both virtual and physical classrooms that are accessible to students 24/7, and presents new challenges for educators who must engage students and interact with them on a whole different level and in a brand new language. Technology has also widened the horizons of interaction in the hospitality field, where hotel guests, for example, now enjoy the convenience of multi-purpose “living room” lobbies where Internet access, large screen televisions, fireplaces and comfortable seating encourage them to linger and socialize. The convenience of on-line shopping, which now captures a respectable share of consumer purchases, is being translated into the design of bricks-and-mortar locations by emphasizing convenience and accessibility. Forward-thinking
businesses are no longer confined by geographical constraints, expanding their operations beyond the boundaries that, at one time, may have limited their growth. And someday technology will automate many of the routine tasks of running a household. The smart homes of the future will make their own energy, dispose of their own waste and have, among other things, appliances that talk to one another and carpet that can swallow stuff when it’s dropped. Sound too futuristic? Not when you consider what the rapid advances in technology have already accomplished just in the way we communicate today (think two billion cell phones and nine trillion emails a year). Technology makes anything and everything possible. We have come to expect and depend on the instantaneous gratification and global relationships it delivers.

“Review each trend through the lens of how it might apply to design or how design could be applied to it,” Don Bowden, FASID, once wrote. “This can be an illuminating exercise. You begin to appreciate design as a problem-solving methodology—one that can be applied in many spheres. In doing so, you also begin to appreciate the value of design, and you gain a better understanding of how you can communicate that value to clients and potential clients.”

This report is a testament to the value the interior design discipline brings to the world we know today—and to the world.
that is being shaped for our tomorrows. It is not a scientific study, but rather an anthology of ubiquitous themes, which resonated deeply. As we read through the thousands of pages of press clippings and research studies, we did not attempt to quantify predictions, but rather to synthesize those that we believe will most inform the future of design. We looked for common threads woven throughout the fabric of our lives in fresh and innovating ways. In some instances, the implications drawn are those of researchers; in others, the implications presented are those of the authors of this written analysis as they discovered intersecting relationships among a wide range of compelling subject matter. Together, these assessments will provoke thought and encourage dialogue about the profession’s relevancy to the paradigms that lie ahead.
**Social, Economic, Political & Other Trends**

**Public**

**Fact:** Design reality television shows have elevated awareness of the interior design profession to new levels. However, it has also led to continued misperceptions regarding the role of the professional interior designer (versus interior decorator), boundaries that the profession has struggled with for decades. (The Interior Design Profession: Facts & Figures, 2004)

**Implications:**
- These shows are meant to inspire and entertain, but do not accurately reflect the scope of an interior design project. As a result, viewers have false impressions about the time, cost and benefits of design projects.
- The challenge will be how to make interior design services more accessible and affordable without diluting value or undermining profitability.

**Culture, Population, Demographics**

**Fact:** The majority of homeowners are likely to remain in the home where they currently live into their retirement years. (Aging in Place: Aging and the Impact of Interior Design)

**Implications:**
- When designing for this new generation of people who plan to age where they now live, designers will need to broaden their approach to design to help strategize both short and long-term needs.
- People surveyed want houses that are easy to maintain and have ease of mobility.
Fact: As longevity increases, so will the likelihood of chronic health conditions (increased population with Alzheimer’s) and the need for assistance. The National Center for Health Statistics reports that the life expectancy gap between men and women has shrunk. If the trend continues, in 50 years men and women will live the same amount of time. Having a surviving spouse is going to mean that women do not go as early to nursing homes when they have chronic illnesses. It is estimated that relatives provide 70-80% of care giving for older persons (New York Times: The Bell Tolls for the Future Merry Widow; Aging in Place: Aging and the Impact of Interior Design; World Future Society Home Page: Forecasts from Outlook 2006)

Implications:
• Design accommodations are necessary to support the physical needs or limitations of the ill/elderly family member.
• Modifications to homes usually include strategies that will increase efficiency, convenience and comfort.

Fact: The United States of 2016 will find itself in the throes of demographic shifts that will upend our political, economic, and technological priorities and redefine our markets. From age distribution to the color of skin, the U.S. will look dramatically different. The “hourglass society” (baby boomers at the top, the Gen-Xers in the middle and the millennials at the bottom) will bring an avalanche of new social challenges, cultural norms, and business opportunities. (Fast Company: Demographics: The Population Hourglass; Fast Company: Scenes from the Culture Clash)

Implications:
• Business is already on board designing products for the opportunity this shift presents. For example, Vodafone is designing a mobile phone specifically for the aging boomer population.
• Interior designers will need to be aware of this demographic phenomenon and create a balance between the idea of designing age-specific spaces that support activities for entertainment, retail, hospitality, medical, and workplaces with designing spaces that embrace the diversity of this hourglass population.
• In their own practices, design firms will need to balance an intergenerational workforce, as do their clients: different work styles, values and cultures will influence how and what will be designed.
Fact: People are living longer, largely due to healthier living, better medicine and vaccines and sanitation that have helped to eliminate many fatal infectious diseases. Nearly 80 percent of the population now lives past the age of 65. The U.S. Census Bureau estimates that the number of persons aged 65 and over will grow to almost 40 million by the year 2010. By 2020, the Census Bureau estimates that seven to eight million people will be over the age of 85 and 214,000 will be over the age of 100. The population in Canada is experiencing similar trends. According to the 2001 Canadian census, there were 3.9 million people (or 12.7 percent of the population) 65 or older. In 25 years, this is expected to double to 7.8 million, or more than one in five. Upwards of 400,000 will be over 90, almost three times as many as now, and Canadian seniors will outnumber youths by about half a million. (ASID 2004 Strategic Environmental Report; AIA, 2006; Trends: Design for the Aging; Census Canada)

Implications:
• An aging population means more people are now living with a disability. 1994 estimates report that 53.9 million people in the United States (20.6% of the population) had some level of disability, and 26 million (9.9%) had a severe disability. As increasing numbers of people desire to “age in place,” this may result in a corresponding increase in renovations to existing homes—wider hallways, fewer steps, etc.—to increase mobility.

Fact: By the end of this decade, more than half of the world’s population will live in cities, making humanity a predominantly urban species for the first time in its history. Six hundred million to one billion urbanites lack adequate shelter, living without easy access to clean water, toilets, or electricity. (World Watch Institute, Research Library: People; Institute for the Future: 2005 Ten-Year Forecast Perspectives)

Implications:
• Knowledge about design strategies that close water and waste loops, boost self-reliance in food and energy and link transportation and land use will be critical for the sustainability of these urban centers.
**Economics**

**Fact:** Innovation is the lifeblood of all organizations. Innovation has become recognized as a pivotal management tool across virtually all industries and market segments. Innovation is also a tool for transforming entire cultures within an organization. Innovation is all about people implementing new ideas that create value. (Fast Company: The 10 Faces of Innovation)

**Implications:**
- Designers will be increasingly asked to create environments designed to promote positive results and/or changes that support a culture of innovation—what is being referred to as “360 degrees of innovation.”

**Fact:** The role and behavior of big business will come under increasingly sharp scrutiny. As businesses expand their global reach, and as the economic demands on the environment intensify, the level of societal suspicion about big business is likely to increase. The tenets of current global business ideology [capitalism] are not necessarily understood or accepted in many parts of the world. (The McKinsey Quarterly: Ten Trends to Watch in 2006)

**Implications:**
- All business leaders (designers included) will have a greater burden to demonstrate the intellectual, social, economic and environmental case for business [design] decision-making and to support and communicate contributions to social welfare.

**Fact:** Ubiquitous access to information is changing the economics of knowledge. New models of knowledge production, access, distribution, and ownership are emerging. Knowledge production is growing: worldwide patent applications rose from 1990-2004 at a rate of 20% annually. (The McKinsey Quarterly: Ten Trends to Watch in 2006)

**Implications:**
- Design professionals and their clients will need to learn how to leverage this new knowledge universe or risk drowning in a flood of too much information.
- Finding reliable sources of information and knowledge in easily digestible and applicable forms will be increasingly important in navigating design-specific sources of knowledge.
Technology

Fact: In spite of technological connectivity, where you choose to live and work is still important. Talented people are congregating in cities because they understand intuitively that working with other talented people spurs them to be more creative. (Fast Company: Fast Cities)

Implications:
• Talent is shifting to geographic regions that offer dense concentrations of other talented people, tolerance of differences, and a great quality of life.
• Labeled the “creative class”, these scientists, engineers, [designers], artists, cultural creatives, managers, and professionals together comprise more than 30% of the total U.S. workforce and nearly half of the economy’s wage and salary income.
• In the past, a design firm’s geography was often based on where the client was located. In the future, in order to attract and retain good talent, firms may need to relocate to thriving centers that are deemed desirable for the creative class.

Fact: More than two billion people now use cell phones. Approximately nine trillion emails are sent annually. A billion Google searches are conducted each day, more than half of those in languages other than English. (McKinsey: 10 Trends to Watch in 2006)

Implications:
• Today, we work not just globally but instantaneously, forming communities and relationships in new ways.
• Geography is no longer the primary constraint on the limits of social and economic organization.
**Sustainability**

**Fact:** Demand for natural resources will grow, as will the strain on the environment. As economic growth accelerates, particularly in emerging markets, we are using natural resources at unprecedented rates. (McKinsey Quarterly: Ten Trends to Watch in 2006)

**Implications:**
- Innovation in technology, regulation and responsible use of resources will be central to creating a world that can both drive robust economic growth and sustain environmental demands. Those responsible for the built environment will be relied on to lead project decisions that reduce or remediate strains on the environment.

**Fact:** LEED certification has transformed the built environment industry, moving the practice of green building beyond the notion of a “fad” to an increasingly important new way of doing business in both the private and public sector. By 2010, between 5 and 10% of new non-residential construction starts are estimated to be designed using the principles of green building, with a projected market value of between $10.2 billion and $20.5 billion. (Trends in Higher Education; Green Building SmartMarket Report)

**Implications:**
- The built environment design industry will be more aggressive in seeking out graduates familiar with and trained in the tenets of green design.
- More graduate-level programs will be established that focus on the principles of sustainability and smart growth.
- Education and government are the sectors where most building professionals, government leaders and product manufacturers expect growth, with healthcare ranked third (although the increasing awareness of evidence-based design in the healthcare sector may stimulate additional green building practices there).
Fact: Indoor air quality (IAQ) lawsuits are on a dramatic rise, with an estimated 10,000+ lawsuits currently pending across the U.S. alleging mold-related injuries. That represents a 300% increase since 1999, according to the Insurance Information Institute. An independent study of indoor air quality illnesses by the U.S. Department of Energy confirms this trend.

Implications:

• Presently, defendants in these lawsuits primarily include insurance companies, property management companies, homeowner associations, and contractors and sellers of single family residences. However, almost any party associated with a building’s construction or maintenance—building owners, managers, real estate developers, architects and interior designers, engineers, general and HVAC contractors, manufacturers of building products, and leasing agents—can be named.

• As the prevalence of these lawsuits spreads, and the ability to get mold coverage as part of a broader insurance policy lessens, the chain of litigation will likely engulf builders, architects and designers, and the makers of construction and furnishing materials.
**Trade Media**

**Fact:** All of the major design periodicals now operate interactive web sites, a venue they use to engage practitioners on a regular, consistent basis beyond the monthly delivery of a printed publication. These magazines recognize that approximately 90% of designers use the Internet to search, research or source products for their projects; 84% of them use the Internet at least once a week. (2006 Universe Study)

**Implications:**
- As the percentage of Gen-Xers grows within the practitioner population, the use of the Internet as the primary method of information gathering is certain to increase because this group uses it as an integral part of their daily lives.
- Because more and more designers will access the majority of their information via the Internet, the role of trade publications as information sources could change dramatically, as could their operating procedures, as circulation and advertising revenues from their printed products decrease.
- Trade publications will likely see increased “competition” not only among themselves, but also from the millions of information sources available on the World Wide Web. As a result, trade magazines (and their Web sites) may rethink their role as a primary deliverer of information, instead choosing to strengthen their role as interpreter of data, providing a critical analysis of all the elements involved in the creative design process.
Healthcare

Fact: The United States is facing one of the largest hospital building booms in its history. As a result of a confluence of the need to replace aging 1970s hospitals, population shifts in the United States, the graying of the baby boom generation, and the introduction of new technologies, the United States spent an estimated $16 billion for hospital construction in 2004, a number that is expected to rise to more than $20 billion per year by the end of the decade (The Boom Goes On; The Role of the Physical Environment in the Hospital of the 21st Century; How Design Can Improve Standard of Care)

Implications:
• These hospitals will present a once-in-a-lifetime construction opportunity to rethink hospital design, and especially to consider how improved hospital design can help reduce staff stress and fatigue and increase effectiveness in delivering care, improve patient safety, reduce patient and family stress and overall healthcare quality.

Fact: Healthcare design is increasingly guided by rigorous research linking the physical environment of hospitals to patient and staff outcomes. Healthcare design is moving toward “evidence-based” design where the design of the hospital facility/space can affect specific clinical outcomes: reduced staff stress and fatigue and increased effectiveness in delivering care; improved patient safety; reduced stress and improved patient outcomes; and improved overall healthcare quality. (Center for Health Design)

Implications:
• The hospital environment is extremely important to patients and has been found to be a significant predictor of overall satisfaction, ranking only below perceived quality of nursing and clinical care.  
• Hospital planners may begin looking at process first before physical layout, exploring how technology and structure best serve effective and efficient delivery of care.
Fact: The way healthcare is being delivered is also changing with an increase in the number of outpatient treatment facilities. One estimate suggests that outpatient care now accounts for about 70% of some hospitals’ business, compared with 10 to 15% twenty years ago. (ASID 2004 Strategic Environmental Report)

Implications:
• While there remains an increasing need for hospitals, earlier estimates have been downscaled to account for the increase in outpatient services and home-based care.
• Hospital admittances may decline as outpatient services rise, perhaps resulting in the need for fewer beds. However, hospital facilities will most likely see patients when they have already reached a more acute phase of their illness at a more advanced age.
**Hospitality**

**Fact:** The hotel industry has moved beyond the practice of providing bland consistency in design and is now focused on creating memorable lifestyle “experiences” with unique approaches to the provision of service, décor, amenities and comfort. For example, theme park-like features are increasing at resorts, especially those relating to water entertainment. Guest rooms are becoming more business-friendly with bigger desks and increased workspace, extra outlets and high-speed or wireless Internet access, and bathrooms are becoming more spa-like with hip lighting fixtures and upgraded materials. Seldom-used bathtubs are being replaced with generous sized shower stalls.

*(Business of Hospitality; The Inn Thing)*

**Implications:**

- Gen-Xers, though a smaller percentage of the total customer base, will likely drive many design decisions as Baby Boomers continue to adopt their trends. Expect to see technological enhancements such as hand-held check-in devices that can eliminate front desks; flat screen televisions that eliminate the need for armoires, etc.
- The desire to socialize is increasing. As a result, the traditional uses of public spaces may change (i.e., lobbies becoming multipurpose, often serving as “living rooms” or gathering spaces for groups).
- As energy costs rise, hotels will be forced to implement energy saving devices such as central control of guest room temperature; energy efficient lighting; motion sensors in public areas; and hotel keys to activate lighting in the guest rooms.
- Lower-priced brands will continue initial efforts to upscale amenities in an effort to attract the loyalty of the budget-conscious travelers.
Restaurant Design

Fact: The number of remodeling and redesign projects of fast food restaurant interiors is on the rise: McDonalds, Arby’s, Carl’s Jr., Pizza Hut and Quiznos are among those that are undertaking major remodeling initiatives. McDonald’s alone is redesigning 30,000 eateries around the globe in a 21st century makeover. (Nation’s Restaurant News; McDonald’s Wants a Digital-age Makeover)

Implications:
• Fast food restaurants are attempting to create a more pleasant dining experience and to compete with “fast casual” restaurants such as T.G.I. Friday’s, Applebee’s and Chili’s.
• Expect to see fast food restaurants that cater to multiple customer segments: hangout spaces for young adults to socialize and linger (think Starbucks); “grab and go” zones with TVs for customers who eat alone; and family zones with comfortable seating.
• The success ratio of using the design of a physical space to reflect a company’s shift in brand identity and image will likely generate additional redesign projects on an international scale.
Sports/Entertainment/Leisure Design

Fact: Local governments and major developers are working together to design and build sports venue entertainment complexes in an effort to reinvigorate urban areas. (Sports and Resorts; The Leisure Principle; Leisure Time Mobility)

Implications:
• Sports venue entertainment provides the foundation for generating tourism and increasing sales tax revenue.
• Sports venue entertainment can build fan loyalty and attract a broader audience.
• Venues can trigger economic growth in the surrounding community by creating part-time and full-time jobs.

Fact: The U.S. has recently enjoyed a boom in stadium and arena building. Additional major projects remain on the horizon, all with a sports/entertainment component as a crucial element. In just one year, four major franchises opened new facilities or refurbished old ones with a sports/entertainment venue. (Sports and Resorts; The Leisure Principle; Leisure Time Mobility)

Implications:
• Though once considered added amenities, stadiums and arenas now include assembly, sport, recreation, cultural, arts and educational spaces as necessities to compete for consumers’ leisure time pursuits (and dollars).
• Entire facilities are being designed around sports venue entertainment, or sports venue entertainment features can be placed within existing architecture, often without knocking down walls.
• Environmental graphics, statues and art installations are being used within already-built spaces, along with technologies such as video walls, to enliven concourses and other public areas.
• Staying on top of sports venue entertainment trends will continue to be necessary as technology evolves and fans increase their demand for experiences they can’t get anywhere else.
Retail Design

Fact: The U.S. Dept. of Energy reports that retail buildings occupy more space than any other segment of the commercial market, with an estimated 20,000 retail stores opening each year, accounting for about 20% of all new structures (excluding homes). Once predicted to capture half or more of all purchases, online shopping has flattened out at around 15% to 20%. (Trends in Retail Design; A Green Light for Retail?)

Implications:
• Retailers must discover new ways to make online sites and bricks-and-mortar locations balance and complement one another.
• Retail destinations are being used as drivers for economic development by both large and small cities in an effort to generate additional sales tax revenue, create job opportunities, and improve the quality of life for residents.

Fact: Traditional categories such as regional malls and power centers are breaking down. Stores that previously were only located in malls are now showing up in lifestyle centers, while stores considered “junior” anchors are heading to the malls. (Trends in Retail Design)

Implications:
• Outward facing stores are part of the move toward new categories of malls, stores and centers, which combine traditional mall features with non-traditional approaches, and Main Street centers, which evoke images of traditional downtown settings.
• Malls are reorganizing store locations according to themes so that retailers offering similar merchandise (i.e., children’s clothing, sporting goods, etc.) are located near each other or in a distinct “zone.” The architectural and design elements of zones complement the themes.
• Entertainment venues, such as restaurants and movie theatres, may continue to become prominent additions to shopping destinations in order to increase visitor traffic. Some malls are even experimenting with adding grocery stores to the mix.
Government

Fact: The U.S. General Services Administration’s (GSA’s) Public Buildings Service owns, leases or manages over 330 million square feet of U.S. real estate. Because of its size, and the fact that in 2003, it began requiring that all building projects must meet criteria for basic LEED certification, the GSA is now the leader in green building policy and practices. Other federal agencies have adopted similar practices: the Department of Interior supports the use of LEED-EB by its facilities and all partnered projects; the Department of State now requires all embassy construction for the next 10 years to use LEED guidelines; and the U.S. EPA requires all facility construction and new building acquisition projects larger than 20,000-square-feet to meet LEED Silver standards. Two government agencies—the U.S. Air Force and the U.S. Army—have both adopted LEED principles into their construction guidelines. Additionally, 23 states and 44 municipalities have formally established some sort of green building legislation or recommendations. (GSA web site; U.S. Green Building Council; state and municipality web sites)

Implications:
- Design firms and manufacturers must be well educated about the emerging and evolving practices associated with green building in order to maintain ongoing business relationships with the GSA.

Fact: Acts of terrorism have proven how important building security and life safety are. Lessons learned from these tragedies have impacted the design of new government facilities as well as changed the operation of existing ones. (The Evolution of Government Buildings)

Implications:
- Facilities professionals and building team members now must balance their decisions to increase security while still providing accessible, user-friendly spaces for the citizens they are designed to serve.
- Access control and perimeter security (i.e., the use of turnstiles and metal detectors, limits on entry points, set back distances from streets, use of shatterproof or blast-resistance glass) will be increasingly important factors in design decisions.
**Corporate Design**

**Fact:** There is little to no Frederick Taylor-like research on knowledge worker productivity. Independent surveys indicate three factors that determine white-collar performance: management and organization, information technology, and workplace design, with the latter having the most measurable effect. [Note: Frederick Taylor, an efficiency expert at the late 19th/early 20th Century, established theories of efficiency for the assembly line and later applied these same principles to the workplace.] (Fast Company: Death to the Cubicle)

**Implications:**
- In the heated competition for attracting talented workers, design professionals will be increasingly called upon to support an organization’s goals in both performance and attraction/retention.
- The effectiveness of the employee is worth more today than the real estate a company occupies. Design professionals must expand their knowledge beyond real estate issues (efficiency) to understand what makes people perform and happy at work (effectiveness and desirability).

**Fact:** Inevitable changes in demographics of workers and influence of technology in a workplace will have significant implications for designers. Quality of life, productivity and sustainability will become the driving force of future work environments. (Future Work 2020: Presenting the Future of the Workplace Phase One)

**Implications:**
- Designers will be asked to provide environments that can sustain human attention, nurture collaboration, ensure health and motivate a changing population of workers.
- Designers will be required to balance smart building technology with natural building technology to ensure environmental, organizational, ecological, and individual sustainability.
• In order to design effective work environments, designers need to focus on key social and cultural values: the breakdown of hierarchy, increasing diversity, baby boomer retirement, simplification of work processes, personal freedom and control, environmental awareness, and increased security issues.

• To best prepare for this future, design professionals should: understand technology and its impact on the work environment and the worker, build relationship-based business practices rather than project-based practices, take a consultative approach to design challenges, have interdisciplinary cross-training, and focus on lifelong learning.

Fact: Environments are active agents in our lives, not merely backdrops. Knowledge [and innovation], its creation, its dispersion, and protection are becoming the dominant factors of economic value. The knowledge sector represents up to two-thirds of the nation’s gross domestic product and nearly 90 percent of corporate profits. (The Future at Work: Preparing for the Workplace of Tomorrow; Future Work 2020: Presenting the Future of the Workplace Phase One and Two)

Implications:
• Design professionals must be literate in the following areas:
  • Integrated design: effective design for seamless, anytime, anywhere work.
  • Research: productivity and other research that demonstrates a design’s performance benefits.
  • Cultural learning: create a constant understanding of social, cultural changes and demographic trends.
    • Collaboration is key with small, temporary teams (who may not even be in the same location) tackling projects together.
    • Socialization is an important organizational objective.
    • Keeping people emotionally connected is critical.
    • Designers will need to rethink the purposes of an organizational headquarters.
    • The new workplace is characterized by flexibility, an emphasis of innovation, decentralized decision-making and an entrepreneurial culture.
Fact: While technology has revolutionized the nature of work and altered the definition of a “workplace,” certain traits of human behavior remain constant. (Future Work 2020: Presenting the Future of the Workplace Phase One and Two)

Implications:
• Those responsible for the workplace design will need to understand issues of privacy and personal space.
• Territorial instincts and the desire for status are still basic human conditions.
• Socialization is critical and designers need knowledge of human behavior to create places that help people accomplish their goals in positive ways.
• To accomplish these goals designers require broad knowledge and education grounded in the principles of psychology, business, behavior and change management, communications technology, sociology, motivation and planning.

Fact: Research is critical to building a knowledge base to meet future challenges. (Future Work 2020: Presenting the Future of the Workplace Phase One and Two)

Implications:
• Research that documents the effect of the physical workplace on the satisfaction and productivity of the worker will help designers meet this challenge.
Fact: One of the most dramatic trends affecting workplace design is the rapid aging of the workforce. For the first time in history there are more people over the age of 40 than under in the western world. Today’s workforce is remarkably diverse and will continue to increase in diversity in the future. Medical advances will keep people healthy longer, allowing workers to postpone retirement later. As people live longer and are healthier, increasing numbers are maintaining employment beyond conventional retirement ages. While only 13% of the U.S. workforce was 55 or older in 2000, the U.S. Dept. of Labor’s Bureau of Labor Statistics reports that this figure will likely increase to 17% by 2010 and to 19% by 2050. Additionally, an AARP survey shows that 70% of workers age 45 to 74 say they plan to work in some capacity in retirement. (Trends: Design for the Aging; The Future at Work: Preparing for the Workplace of Tomorrow)

Implications:

• The design of spaces for both work and play will need to address “multi-generational” elements: barrier-free access, increased and glare-free lighting, non-slip flooring, use of handrails, careful use of color, areas for recreation, environmental comfort, communication methods for hearing loss, and safety measures.

Fact: Technology continues to transform the workplace. (The Future at Work: Preparing for the Workplace of Tomorrow)

Implications:

• The Internet, email, and instant messaging now allow instantaneous communication—and the expectation of instant responses.
• These and other technological developments (notably the cell phone) have transformed workers into nomads able to work anywhere, anytime.
• Designers must consider this transformation when designing all types of spaces and reconsider the purpose of the workplace.
**K-12 Education**

*Fact:* Brain development between 5 and 12 years of age is significant. Research by cognitive psychologists and neuroscientists has shown that regions of primary functions in the brain mature first (e.g., primary motor cortex); complex/integrative task regions mature later (e.g., temporal lobe); and the superior temporal cortex, which contains association areas that integrate information from several sensory modality, matures last. (Children’s Brains Are the Key to Well-designed Classrooms)

**Implications:**
- Presently, there is an intuitive, but not well documented, understanding that the architectural attributes of classroom spaces affect cognitive ability. Neuroscience research underway may provide evidence to support this intuition, including the advantages of classrooms geared to specific stages in brain development.

*Fact:* A 2005 survey sponsored by Turner Construction (of building owners, developers, architects, engineers, corporate owners/occupants, consultants and educational institutions) found that more K-12 school districts are recognizing the importance of the physical environment to the health and performance of students and teachers. Executives at organizations involved with “green” K-12 facilities rated them more highly than traditional facilities as follows: ability to attract and retain teachers: 74%; reduced student absenteeism: 72%; improved student performance: 71%. (Turner Construction Co.)

**Implications:**
- Design firms need to educate the decision-makers (at this level usually the superintendent and board of education) about the long-term value and total life cycle costs of green building versus the traditional emphasis on initial first costs.
**Higher Education**

Fact: Nearly three-quarters of college students say they use the Internet more than the library for information searching. About half of all college students are required to use the Internet to contact other students in at least some of their classes. Almost half agree that email enables them to express ideas to a professor that they would not have expressed in class. (Pew Internet; Trends in Higher Education; Educating the Net Generation)

**Implications:**

- The changes catalyzed by technology make it clear that the term "classroom," at least in its traditional sense, can no longer encompass where learning takes place. In fact, the space where learning takes place is not just physical, it is virtual as well. Virtual space is any location where people can meet using networked digital devices. Unlike physical spaces, virtual spaces can come and go, they can be spontaneous as well as deliberate. Participants in virtual learning spaces also can multitask, "inhabiting" more than one virtual space at a time.
- Learning spaces—virtual and physical, formal and informal—and their effects on learning are being explored. Efforts are being focused on creating a sense of place inside classrooms as well as in student unions, libraries, dormitories and open spaces to better instill learning and provide learning opportunities in all student environments on a 24/7 basis.
- These efforts are being made collaboratively by faculty, technologists and designers of the built environment as they work together to examine what students do and where they do it 24/7.

Fact: A 2005 survey sponsored by Turner Construction (of building owners, developers, architects, engineers, corporate owners/occupants, consultants and educational institutions) found that more higher learning institutions are recognizing the importance of the physical environment to the health and performance of students and teachers. Executives at organizations involved with “green” college and university facilities rated them more highly than traditional facilities as follows: ability to attract and retain teachers: 71%; ability to attract students: 70%; improved student performance: 59%; and ability to secure research funding: 59%. (Turner Construction Co.)

**Implications:**

- Design firms need to educate the decision-makers (typically the board of directors and administrators at this level) about the long-term value and total life cycle costs of green building versus the traditional emphasis on initial first costs.
Urban Development

Fact: The U.S. population will increase by 2.7 million people a year, fed by more than four million births per year and over 900,000 new immigrants annually. By 2010, the U.S. population is expected to total nearly 310 million people—with about 75% of the growth occurring in 14 states. Thus, the demand for housing will continue to grow as young people form households and new immigrants establish their own households. (Housing Policy for the 21st Century; Building Greener, Building Better; Smart Growth, Smart Choices)

Implications:
- “Smart growth” concepts will become increasingly critical as cities plan for increased housing and infrastructure needs. According to the Urban Land Institute, smart growth “is about ensuring that neighborhoods, towns and regions accommodate growth in ways that are economically sound, environmentally responsible, and supportive of community livability—growth that enhances the quality of life.”
- Communities will need to address the “supply and demand” equation associated with a growing population to ensure that families have access to affordable housing.
- States are recognizing the need to implement programs that encourage brownfield redevelopment (building on abandoned, idled or under-used sites that are often contaminated) by offering both liability and enforcement protections against possible legal actions resulting from remediation of these sites.

Fact: Despite a slip in some downtown populations following 9-11, several urban areas have experienced downtown population increases since 1990. The U.S. Census Bureau statistics show that Houston, Seattle, Chicago, Denver, Portland, Atlanta, Memphis and San Diego all experienced greater percentage increases in their downtown populations than in their entire Statistical Metropolitan Areas over the past decade. Other cities, including Cleveland, Baltimore, Philadelphia and Detroit, incurred downtown population increases while losing population as a whole. (A New Urban Legend)

Implications:
- While city cores once relied heavily on manufacturing and industry to fuel economic activity, they are now increasingly reliant on residential development to trigger a 24/7 atmosphere energized by shopping, dining and entertainment.
- Buildings that once housed downtown industries are now being converted to lofts, apartments, live-work units and condominiums to accommodate the urban population growth.
Developers who previously focused on commercial real estate or suburban residential housing are becoming increasingly involved in downtown housing.

**Fact:** The increased development of housing in downtown areas is fueled by a demand from childless households (estimates suggest that by 2010, 75% of U.S. households will be childless). These households seek living environments conducive to “hiving,” a social concept identified by the Yankelovich market research firm that satisfies consumers’ desire for social interaction and community involvement. According to Yankelovich, hiving has three key elements: the home becomes “command central” for social activities; hivers are on a quest for more “connectedness” with family, friends and neighbors; and hivers put family, friends and neighbors first on their social priority list. (A New Urban Legend; The Right Mix)

**Implications:**
- Americans are now more apt to use their homes as a base for making social connections, a marked turnaround from the concept of “cocooning” where homes were considered hideaways from the rest of the world.
- More consumers are seeking housing that is closely connected to community amenities, including housing that is mixed with, adjacent to, within walking distance of, or connected by transit to recreation, culture, entertainment and work.
- Consumers want places they can go to have fun—places where they are entertained and comfortable walking around. Thus, diversity is key; successful mixed-use developments include apartments/condos, restaurants, shops, fitness clubs, office space, hotels, and public spaces.
- The look of multi-family urban homes and communities is evolving. More sophisticated consumers desire all the amenities and appointments of upscale single-family homes.

**Fact:** An important phenomenon taking place in urban settings is the “heat-island” effect. The combination of heat absorbing roofs, auto exhaust and large islands of exposed concrete, blacktop roads and parking lots is heating up large urban areas. A new Harvard study shows that in the largest urban areas, this phenomenon is so powerful that it can interact with other environmental factors to the degree that it literally creates a unique weather system in the city. (ASID 2004 Strategic Environmental Report)

**Implications:**
- Roof gardens, urban parks, tree-lined streets and the use of bicycles and public transportation are being recognized and utilized for their ability to significantly reduce heat island effect.
**Residential Design**

**Fact:** The National Association of Home Builders estimates a modest yet consistent decline in new housing starts over the period from 2005 to 2007, along with similar declines in existing home sales. The remodeling market, however, has almost doubled in size over the past decade, now accounting for more than 2% of the nation’s economy, as well as for 40% of all residential construction and improvement spending in the United States. Almost 30 million homes were significantly upgraded over the past decade, with large projects—having unique design challenges—capturing a growing market share. Activities are concentrated in the upper-end markets, with 52% of all spending coming from households spending $10,000 or more on improvements, and 31% from households spending $25,000 or more. (AIA, 2006; Housing Policy for the 21st Century)

**Implications:**
- As the existing housing stock ages, demand for renovations will continue as middle- and upper-income households seek to incorporate modern amenities.
- An aging population will result in an increasing demand for greater accessibility and single floor design to promote easier mobility.

**Fact:** A convergence between home entertainment and computing systems is becoming increasingly prevalent, especially as the use of WiFi systems gains momentum. (ASID 2004 Strategic Environmental Report)

**Implications:**
- The challenge of dealing with increasingly integrated electronic homes will lead to a high level of professional specialization.
- Technology integration and convergence will begin to drive the form and function of space.
Fact: A small but growing development (described by the NAHB as a “quiet revolution”) in home building is the voluntary efforts by homebuilders to build green. These efforts seek to preserve the natural environment and minimize land disturbance, conserve water and energy, develop sites so as to reduce erosion and minimize paved surfaces, protect vegetation, increase the use of recycled materials and reduce waste. (Building Greener, Building Better)

Implications:
• Builders realize this is not an “all or nothing” proposition; even modest strategies can result in significant gains.
• Efforts are uniquely local as climates, customs, availability of materials and preferences vary by region. Some actions essential for one area may be inappropriate for another.
• Building green does not require sacrificing comfort, convenience or style, or using complicated or expensive technologies. Green homes are indistinguishable from others.

Fact: As our lives become more automated, so too will the places where we spend most of our time, including our homes. The move toward creating “smart” homes that do the thinking for us is realistic and not all that far away. (CNN; Building Greener, Building Better)

Implications:
• Homes will be net energy producers rather than consumers.
• Appliances will be interactive (i.e., the refrigerator will communicate with the stove).
• Technological advancements will allow robotic vacuums to zoom around homes unattended; counter tops to be self-cleaning; homes able to process their own waste; and carpet that can suck up stuff where it’s dropped.
Interior Design and Related Disciplines

Architects

Fact: Employment of architects is strongly tied to the activity of the construction industry and cyclical changes in the economy. (U.S. Dept. of Labor, Bureau of Labor Statistics)

Implications:

- Current demographic trends support an increase in demand for architects. As the population of Sunbelt States continues to grow, residents will need new places to live and work; as the population continues to live longer and baby-boomers begin to retire more healthcare facilities, nursing homes, and retirement communities may be needed; in education, buildings at all levels are getting older and class sizes are getting larger, which will require many school districts and universities to build new facilities and renovate existing ones.
- Architects seeking design projects for office and retail construction will face especially strong competition for jobs or clients during recessions, and layoffs may ensue in less successful firms. Those involved in the design of institutional buildings, such as schools, hospitals, nursing homes, and correctional facilities, will be less affected by fluctuations in the economy.

Fact: Design-Build now constitutes more than a third of all building design, up from only 10% a decade ago. This estimation is reinforced by the fact that the Design-Build Institute of America has experienced double-digit membership growth in most years since its inception in 1993. (National Real Estate Investor)

Implications:

- In this construction model, architects are removed from the process; instead, contractors are responsible for building design.
- This trend could also impact the interior design profession. On one hand, it could provide a new career path for designers. On the other hand, contractors may pursue the employment of non-degreed and non-licensed designers, which would negatively influence the profession.
**Landscape Architects**

**Fact:** Employment of landscape architects is expected to increase faster than the average for all occupations through the year 2014 as their expertise will be highly sought after in the planning and development of new residential, commercial, and other types of construction to meet the needs of a growing population. (U.S. Dept. of Labor, Bureau of Labor Statistics)

**Implications:**
- With land costs rising and the public desiring more beautiful spaces, the importance of good site planning and landscape design is growing.
- New demands to manage stormwater run-off in both existing and new landscapes, combined with the growing need to manage water resources in the Western States, should cause increased demand for this occupation’s services.
- New construction, which is increasingly contingent upon compliance with environmental regulations, zoning laws, and water restrictions, will spur demand for landscape architects to help plan sites that meet these requirements and integrate new structures with the natural environment in the least disruptive way. Landscape architects also will be increasingly involved in preserving and restoring wetlands and other environmentally sensitive sites.
- Continuation of the Transportation Equity Act for the 21st Century (TEA-21) also is expected to spur employment for landscape architects, as it provides funds for surface transportation and transit programs, such as interstate highway construction and maintenance, and environment-friendly pedestrian and bicycle trails.
**Engineers**

**Fact:** Overall engineering employment is expected to grow about as fast as the average for all occupations between 2004 to 2014. Engineers will continue to be needed to design, build, test, and improve manufactured products. However, increasing employment of engineers in faster growing service industries should generate most of the employment growth. (U.S. Dept. of Labor, Bureau of Labor Statistics)

**Implications:**
- Overall job opportunities in engineering are expected to be favorable because the number of engineering graduates should be in rough balance with the number of job openings over this period.
- Engineers must continue their education throughout their careers because much of their value to their employer depends on their knowledge of the latest technology.

**Industrial Designers**

**Fact:** Employment of industrial designers is expected to grow about as fast as average for all occupations through 2014. An expanding economy and an increase in consumer and business demand for new or upgraded products will spur employment growth. (U.S. Dept. of Labor, Bureau of Labor Statistics)

**Implications:**
- The best job opportunities will be in specialized design firms which are used by manufacturers to design products or parts of products.
- Designers with strong backgrounds in engineering and computer-aided design, as well as extensive business expertise, may have the best prospects.
- Increasing demand for commercial and industrial designers will stem from the continued emphasis on the quality and safety of products, the increasing demand for new products that are easy and comfortable to use, and the development of high-technology products in consumer electronics, medicine, transportation, and other fields.
Fact: Manufacturers have been increasingly outsourcing industrial design work to design service firms in order to cut costs and to find the most qualified design talent. Some companies use design firms located overseas, especially for design of high-technology products because these firms are located closer to their suppliers, which reduces the time it takes to design and sell a product—an important consideration when technology is changing quickly. (U.S. Dept. of Labor, Bureau of Labor Statistics)

Implications:

• Offshoring of design work, particularly for high-technology products, could continue to have a negative impact on domestic employment of commercial and industrial designers.
• Most design jobs—particularly jobs not related to high-technology product design—will still remain in the U.S. because design is essential to a firm’s success, and firms will want to retain control over the design process.
• As the demand for design work becomes more consumer-driven, designers also will need to closely monitor, and react to, changing customer demands. Designers will increasingly have to come up with innovative new products in order to stay competitive.
• Domestic designers also will be required to work with marketing and strategic planning staffs to design products that will be more usable and appealing to consumers and that accurately define a company’s image and brand.
• As strategic design becomes more important, employers will likely seek designers with project management skills and knowledge of accounting, marketing, quality assurance, purchasing, and strategic planning.
Graphic Designers

Fact: Employment of graphic designers is expected to grow about as fast as average for all occupations through the year 2014, as demand for graphic design continues to increase from advertisers, publishers, and computer design firms. Among the different design occupations, graphic designers are expected to have the most new jobs. (U.S. Dept. of Labor, Bureau of Labor Statistics)

Implications:
- Demand for graphic designers should increase because of the rapidly expanding market for Web-based information and expansion of the video entertainment market, including television, movies, video, and made-for-Internet outlets.
- Graphic designers with Web site design and animation experience will especially be needed as demand for design projects increases for interactive media—Web sites, video games, cellular telephones, personal digital assistants (PDAs), and other technology.
- Demand for graphic designers also will increase as advertising firms create print and Web marketing and promotional materials for a growing number of products and services.

Fact: Some computer, printing, and publishing firms have, in recent years, outsourced basic layout and design work to design firms overseas. This trend is expected to continue. (U.S. Dept. of Labor, Bureau of Labor Statistics)

Implications:
- Employment growth for lower level, technical graphic design workers may be negatively affected by outsourcing.
- Higher-level graphic design jobs will likely remain in the U.S., focusing on the development of strategic communication design, which requires close proximity to the consumer in order to identify and target their needs and interests.
**Professional Associations**

**Fact:** In the United States, the interior design profession is currently served by two professional associations: ASID, with 38,000 members, and IIDA, with 12,000 members. Combined, these two organizations represent anywhere from 30% to 70% of all estimated practitioners. This stands in contrast to the AIA, a single group that represents nearly 90% of the 91,000 estimated licensed architects in the U.S. (The Interior Design Profession: Facts & Figures; ASID and IIDA web sites; Coming of Age; The Business of Architecture: 2003 AIA Firm Survey)

**Implications:**
- Though the goals and mission of both organizations are similar, talks to unify as a single united organization have failed as each association has its own culture and identity that it seeks to preserve.
- Advocates of a single, unified association say it is a necessary sign of a maturing industry.
- A recent collaboration among associations to produce the Careers in Interior Design web site, and the joint sponsorship of the Body of Knowledge Report-2005 Edition, are seen as initial groundbreaking efforts to advance a broader vision of the profession as a whole.

**Fact:** The profile of professional association activity and participation in Canada is markedly different than in the United States. Canada’s national interior design organization, Interior Designers of Canada, operates with the wholehearted support of its seven provincial association members in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and Nova Scotia. In the architectural field, however, one national organization exists (the Royal Architectural Institute of Canada), but is operated without formal ties to and financial support from independent provincial associations in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia and Newfoundland. (Canadian Architecture Online; Interior Designers of Canada)

**Implications:**
- By establishing the methods and organizations needed to provide a cohesive national “face” to the interior design profession in Canada, the interior design field is able to vigorously protect and promote its professional interests.
Higher Education, Educators, Students & Future Students

Fact: The outlook on student aid varies by location. States that have capped tuition increases have experienced steady growth. Some states modeled after Indiana’s “21st Century Scholars” program cover the cost of tuition for students with merit. Other states aren’t faring as well. Spiraling costs of homeland security and defense spending have crowded out education spending. More students, especially those with low-incomes and average academic records, who don’t meet requirements for merit-based aid, must borrow money to finance their college education. Faced with the prospect of debt, more low-income students forgo higher education. This rise in university tuition has also translated to a rise in enrollment at community colleges—learning institutions that provide students with the ability to take core requirements at a lower cost. (The Chronicle of Higher Education: The Future of Student Aid; The New York Times: Tuition Rise Tops Inflation, But Rate Slows, Report Says; The New York Times: Many Transfer from a 4-Year Campus to a 2-Year One)

Implications:
- Lower income diverse populations absent from the demographic of college bound students diminish the opportunity to build a diverse population for the design industry.
- Lower financial aid translates to higher private loans. Considering the entry-level pay scale for interior designers, paying off a private school loan will take many years and potentially deter students from entering this profession in favor of a higher paying profession.

Fact: Congress is poised to remove a restriction on distance education that will spark a boom in online programs at traditional colleges as well as the creation of for-profit businesses specializing in cyber-education. Critics argue that it will lead to an increase in diploma mills. This action provides new opportunities for investors interested in reaping the profits of on-line educational programs. Accreditation agencies will ultimately be responsible for making sure the programs meet highest standards. (The Chronicle of Higher Education: Rule Change May Spark Online Boom for Colleges)

Implications:
- Positive Implication: Online programs provide additional opportunities for people to learn about and experience design. Additional continuing education for design can be a great communication vehicle to support a body of knowledge for interior design. (Duke University and Stanford are currently establishing the infrastructure for and implementing podcast archiving of lectures.)
• Negative Implication: Online programs provide additional opportunities for more confusion and lack of clarity about interior design. The gaps in pedagogy could negatively influence the body of knowledge and public expectations of the interior design profession.

Fact: For more than 100 years, the accreditation system in the U.S. has been used as the primary vehicle for defining and assuring quality in the delivery of higher education services. A complex public and private service, accreditation organizations develop quality standards and manage the process, acting as a gatekeeper in higher education. (Assuring the Quality in Higher Education: Key Issues and Questions for Changing Accreditation in the U.S.)

Implications:
• The growing debate over how to improve accreditation centers on three major sets of issues: Assuring Performance, Open Standards and Processes, and Consistency and Transparency.
• Because most higher education institutions are dependent on federal and state student grants and loans, accreditation is a requirement for doing business.
• Students, who are increasingly earning credits at multiple higher education institutions and through many different types of delivery, place additional pressure on educational institutions to recognize and grant transfer credit.
• Because accreditation is generally accepted by state regulatory bodies as educational quality assurance, students attending non-accredited programs (who desire an interior design license) may experience increased difficulty in becoming registered or licensed.
• For an ill-defined profession like interior design (better known for what it is not than what it is), accreditation can help clarify and standardize educational goals.
Fact: The old pattern of attending college from 18-22 and going directly to a career is evaporating. Three quarters of today’s college students are non-traditional in some way. The rigid sequencing is being replaced with a new pattern where education spreads out over a 12-year period and is more closely integrated with work, allowing young people to experiment with career choices to find the best fit with their practical needs. (The Chronicle of Higher Education: Ferment and Change: Higher Education in 2015)

Implications:
• Preparation for work/career is now divided between “education”—the task assigned to school and colleges, and “training”—the task assigned to the workplace or to professional trainers.
• More integration between higher education, training, and work to allow new hires to better integrate into practice, faster.
• To expand its outreach, higher education will want to strengthen existing programs for the growing number of adults who wish to add new areas of competence.

Fact: America is experiencing a growing vulnerability in science and technology. In Japan, 66% of undergraduates receive their degrees in science and engineering, and in China, 59%. This compares with only 32% in the U.S. In order to maintain our world leadership in these subjects, higher education must overcome obstacles that now discourage students from pursuing these careers. (The Chronicle of Higher Education: Ferment and Change: Higher Education in 2015)

Implications:
• Many of the obstacles are cultural and include outdated curricula, a lack of qualified teachers, difficult subject matter, and negative stereotypes.
• Many college courses are designed to winnow people out, not draw them in. Colleges often make undergraduate courses too tough for students whose high-school experiences leave them poorly prepared for rigorous work in science and technology.
• Colleges need to become more proficient at framing the appeal of science and technology to students. Some countries have developed science narratives to capture the excitement of the scientific endeavor.
Fact: Recent events have driven home how important it is that we learn to see the world from the perspective of others. With each passing year, it grows more obvious that colleges must prepare North Americans to deal more competently with people from other parts of the globe. Our culture needs to be less ethnocentric, less patronizing, and less ignorant of others. (The Chronicle of Higher Education: Ferment and Change: Higher Education in 2015)

**Implications:**
- Knowledge, teaching, and research about cultural diversity need to be integrated into higher education, not compartmentalized.
- Responsiveness at a graduate level would mean expansions of Ph.D. programs and schools of international studies.
- Cultural isolation and ignorance will undermine our efforts at world leadership. Higher education’s role in this is indispensable.

Fact: Key issues for colleges and universities are affordability and developing new competencies. In the new global economy, the imperative that they maintain and improve the quality of their education will not come cheaply. The stakes are so great that the focus will be on achieving results rather than reducing costs. (The Chronicle of Higher Education: Ferment and Change: Higher Education in 2015; The Chronicle of Higher Education: Businesses Have Remedies for Sale, but a Cure is Not Guaranteed)

**Implications:**
- By 2015 new contractual relationships may emerge that encourage employers to pay for employees to gain new competencies through higher education (and reimburse their employers for assistance if they don’t stay at the job for a reasonable period of time).
- Better integration between high school and college is also necessary to help deal with poor student motivation, remediation, and better preparedness on the part of the students.
Fact: Twenty percent of today’s college students (millennials) began using computers between the ages of 5 and 8. Today’s average college graduates have spent less than 5,000 hours of their lives reading, but over 10,000 hours playing video games as well as 20,000 hours watching TV. Millennials are known to thrive in informal and nontraditional learning environments. They prefer group study situations, real-world problems, experiential learning, and improvised study environments. They are deeply engaged with technology. (The Chronicle of Higher Education: Campus Planners Have a Tech-Savvy Generation’s Needs to Consider; The Chronicle of Higher Education: Education and Entertainment Merge in One Whimsical View of Colleges Future; Digital Natives, Digital Immigrants; Pew Internet 2003; Visual Literacy in Higher Education)

Implications:
- Spaces designed for the new generation of learners should be designed around their needs and their cognitive style of learning.
- Today’s students, kindergarten through college, represent the first generation to grow up as digital natives who think and process information fundamentally differently from their predecessors.
- Teaching digital natives requires redesigning both the methodology and content. Today’s teachers need to communicate in a language and style of their students. Legacy content (reading and writing) needs to be replaced with Future content, content that is technological and digital but includes ethics, politics, and sociology.
- The rise in visual literacy—and the subsequent decline in textural literacy—is predicted to herald the end of the Information Age and the beginning of the Concept Age, where people will use right-brain capabilities (creativity, empathy, pattern recognition and the making of meaning) in how they work, entertain, communicate and educate.

Fact: As design professionals continue to morph and blur boundaries, professional practices and other organizations have an underlying bias toward educational programs that offer integrated discipline options. Three primary elements for evaluating the strength of a program are pedagogy, faculty, and resources. (Design Intelligence: America’s Best Architecture & Design Schools 2006)

Implications:
- Surveys indicate that today’s practices are expanding their employee bases to include professionals from both inside and outside the design fields.
- The intrinsic link between professional practice and design education necessitates the discovery of new means of communication and new methods of strengthening our leadership and value propositions.
**Academic Administrators**

**Fact:** In recent years, colleges and universities are formalizing collaborations and alliances across national boundaries in greater numbers than ever before. This cross-border higher education is a multi-faced phenomenon that includes the movement of people (students and faculty), providers (higher education institutions with a physical move and/or virtual presence in a host country) and academic content (such as the development of joint curricula). These activities take place in the context of international development cooperation, academic exchanges and linkages, as well as commercial initiatives. (Sharing Quality Higher Education Across Borders)

**Implications:**
- A growing imperative for higher education to internationalize means higher education institutions will need to integrate an international/intercultural dimension into teaching, research and community service in order to enhance their academic excellence and the relevance of their contributions to societies.
- As a result of increasing collaborations across borders, efforts to standardize accreditation processes and standards across national boundaries will increase.
Fact: The perceived and real price of a degree is increasing (average college tuition has been growing more quickly than overall inflation), as are the costs borne by students and their families. This has resulted in increased scrutiny and criticism of traditional higher education institutions and the 100-year-old accreditation process used to define and assure quality in the delivery of higher education services. (Trends in Higher Education; DOE Futures Commission; Tuition Rise Tops Inflation, But Rate Slows; Key Issues and Questions for Changing Accreditation in the United States)

Implications:

• Accreditation is being called upon to move beyond minimum or adequate quality to performance excellence, and away from an emphasis on process to an emphasis on outcomes.
• The accreditation system is being held more accountable for assuring performance, including student learning outcomes.
• The accreditation system needs to explore how standards and processes can be changed to be more open to and supportive of innovation and diversity in higher education, including new types of educational institutions and new approaches for providing “consumer-friendly” educational services (i.e., distance learning).
• The accreditation system is being called on to determine how standards and processes can be made more consistent to support greater transparency.
• The creation of a National Accreditation Framework proposes to help ensure that the accreditation process holds higher education accountable for results.
Students

Fact: Almost 9,000 students have graduated from interior design programs in the last three years. This represents a growth of about six to eight percent annually. About one-third of student enrollment is part-time. (Who We Are: Beginning Markers of Accredited Interior Design Programs)

Implications:
- Competition for entry-level design jobs will become increasingly fierce, thus forcing new graduates to explore multiple career opportunities in the design field instead of just that of a practitioner.
- Educators must teach and provide guidance to students in ways of searching out related careers that reflect their strengths.

Business of Design, Design Process & Design Practice

Fact: Design is seen as a form of critical competitive advantage. The successor to the information economy is being labeled the “design economy” where all professionals (business, medical, etc.) realize the need to think like designers. Included in this is the ability to work in teams, combine analytical thinking with horizontal thinking: intuitive, experimental, and empathetic approaches to problem solving. Good design is the output of good design thinking, and companies will be looking to apply design thinking in many places where it hasn’t been applied before. (Fast Talk: What’s the Biggest Change Facing Business in the Next 10 Years? Fast Company: How Smart People Work, Taking the Public Pulse on Design, The Business of Design, A Prescription for Innovation)

Implications:
- In a rapidly globalizing world economy, the advantage goes to those who can out-create their competitors. There will be growing demand for designers to understand the criteria for creating environments that encourage innovation.
- For the designer, the ability to document, prove, and/or measure the performance of a space will become the leading criteria for success.
- Any business problem that has an audience and a tangible outcome is a candidate for design thinking.
- Branding, innovation, collaborative environments are all areas that require design thinking. Designers (or their competition) will be increasingly asked to support these new expanded applications of design.
Fact: Security, sustainability and an integrated cross-disciplinary approach to design are three critical aspects under the umbrella of design practices today. (Creating the Built Environment: Issues and Trends in Design)

Implications:
• The complexity of the influences of global economic change, cultural diversity, technology, urban growth, security and environmental sustainability suggests that successful solutions will require designers to be skilled in working among multi-disciplinary teams. Skillful collaboration is key.

Fact: According to Dun and Bradstreet (2005), there are approximately 11,000 small design firms along with an estimated 21,000 sole practitioners of interior design in the U.S. Combined, they make up about two-thirds of all the interior design business in the U.S. Four out of five are women, two out of three are age 45 or older, 95% have a college degree, 74% have a degree from a four-year college, 27% passed the NCIDQ exam, and 80% of projects are residential. (Inside Small and Medium Design Firms: An ASID Research Report)

Implications:
• Personalized service, a distinct design style, and professional experience provide these professionals with their competitive advantage. Good business skills are required to manage the simultaneous demands of project work, marketing, and running the day-to-day management of the practice.

Fact: More transformational than technology itself is the shift in behavior that it enables. Technological connectivity is changing the way people live and work. For the first time in history, geography is not the primary constraint on the limits of social and economic organization. (McKinsey Quarterly: Ten Trends to Watch in 2006)

Implications:
• Technology is influencing behaviors among people. Communities and relationships are being formed in new ways. (12% of U.S. newlyweds last year met each other online.)
Fact: The shift to knowledge-intensive industries highlights the importance and scarcity of well-trained talent. Future predictions place the 33 million university-educated young professionals in developing countries at more than double the number in developed ones. (McKinsey Quarterly: Ten Trends to Watch in 2006; Business Week Online: Thinking the Future, with IBM)

*Implications:*

- The design industry will experience a war for talent, where outside industries looking for young “creatives” will place a drain on our best and brightest. Increasingly, traditional design firms are looking for new ways to attract and retain young and mid-age level talent.

Fact: Management will go from art to science. Long gone is the day of “gut instinct” management style. Today’s business leaders are adopting algorithmic decision-making, scientific management techniques, and using highly sophisticated software to run their organizations. (The McKinsey Quarterly: Ten Trends to Watch in 2006)

*Implications:*

- In order to participate among the “big guys” design firms will need to reassess their own management techniques. Smaller profit margins, faster project cycles, and increased and ongoing needs to invest in technology will all play critical roles in managing practices from a fiscal point of view.
- Issues of competition and competitive advantage will move beyond the boundaries of the design industry into other related fields of real estate consulting, strategic management, marketing, communications, and branding—industries that are emerging as interior design’s new sources of competition.

Fact: Work cycles are not simply longer today—they merge with other cycles of life. (Creating the Built Environment: Issues and Trends in Design)

*Implications:*

- The challenge for design professionals is to have the knowledge necessary to create flexible workplaces that support multiple modes of work and contribute to the humane balance between work and life.
Fact: Technology is redefining our perceptions of public and private space. (Creating the Built Environment: Issues and Trends in Design)

Implications:

- Those responsible for the built environment will be increasingly called upon to find new ways to create a balance between virtual and natural settings.
- Design professionals will be responsible for the design of diversified settings that simultaneously support private and quiet activities with more active and connected activities. Understanding the ongoing changes in new technologies, influences of human behavior, and the human condition are critical knowledge areas for the future.

Fact: Today’s corporations are reconsidering the viability of the suburban-based corporate campus and looking for settings within urban centers that offer open, accessible spaces that better integrate into the cityscape. (Creating the Built Environment: Issues and Trends in Design)

Implications:

- The drivers of change are technology issues, concern for the environment, economic factors and lifestyle issues—all knowledge areas critical to those responsible for the built environment.
- These urban centers, typically hi-rise facilities, require high levels of flexibility in design and programming to support an increasingly diverse workforce population with wide-ranging customs and expectations.
- Design professionals require the skill and knowledge to work closely with communities, end-users and the variety of stakeholders to respond to aspirations and needs.

Fact: Design professionals working to create a built environment for the future are faced with a host of complex challenges including global economic change, cultural diversity, technology, urban growth, security, and environmental sustainability. (Creating the Built Environment: Issues and Trends in Design)

Implications:

- Successful solutions will require an integrated, multi-disciplinary effort.
- Future professional collaboration will be driven by a variety of factors, including cross-disciplinary education, technologies that make it easier to share information and ideas, and an increasing number of clients demanding packaged, coordinated services to address their needs.
- Environmental considerations are effective in requiring the design professionals to work together. LEED criteria and documentation provide a framework for integration.
Practitioners

Fact: There is no general consensus as to the number of interior designers practicing in the United States. Dun & Bradstreet estimates that there are approximately 112,965 interior designers, while the Bureau of Labor Statistics puts that number much lower at about 61,670. What is generally agreed upon, though, is that the interior design field is growing at a rate faster than other occupations. (BLS reports a 35% increase just from 1999 to 2002.) And the rate of growth is expected to continue. (The Interior Design Profession: Facts and Figures; 2006 Universe Study; Bureau of Labor Statistics)

Implications:
• The employment outlook for interior designers is expected to remain strong. Demand from the healthcare industry is expected to be especially high because of an anticipated increase in demand for facilities that will accommodate the aging population. Demand from the hospitality industry—hotels, resorts, and restaurants—also is expected to be high because of an expected increase in tourism.
• Recent increases in homeowner wealth have increased demand for residential design services. Homeowners have also increased activity in renovation/remodeling efforts. Many baby boomers are interested in staying in their existing homes and thus want homes to accommodate greater accessibility and easier mobility as they age.

Fact: Recent statistics disagree about the average ages of practicing interior designers. Both ASID and Dun & Bradstreet estimate that roughly half (55%) of all U.S. practicing designers are between the ages of 35 and 54. ASID, however, estimates that 25% are 34 or younger, while Dun & Bradstreet puts that number at 15%. In Canada, ARIDO estimates that more than 60% of its practicing designers are between 35 and 54, with 28% younger than 34. (The Interior Design Profession: Facts and Figures; 2006 Universe Study; ARIDO Comprehensive Industry Survey)

Implications:
• As the general population ages and the number of students graduating with interior design degrees increases, the percentage of interior designers under the age of 34 will rise as well. This could be problematic if the number of new jobs for this less experienced age group doesn’t grow at a corresponding rate, or if these younger designers are not interested in careers in those market segments (healthcare, hospitality, residential) estimated to experience higher than average growth rates.
Fact: Two out of three practicing U.S. interior designers hold the title of owner, president or principal of the firm (with half of those self-employed). Nine in ten had five or fewer total employees, and more than half (52%) were sole practitioners. (In Canada, ARIDO reports that 72% of firms have less than ten employees.) Almost three-quarters, including sole practitioners, had only one designer on staff, and another one-fifth employed only two or three. On average, designers reported spending about 25% of their time attending to business matters. They list the following as the five most challenging aspects of their business: managing clients, getting new customers, paperwork/contracts, working with vendors and keeping up with technology. (Inside Small and Medium Design Firms; ARIDO Comprehensive Industry Survey)

Implications:
• Small and medium-sized firms will continue to comprise the larger share of interior design businesses.
• Knowledge of sound business practices, especially marketing, is a critical aspect to running a successful interior design firm.

Fact: Few consistent statistics are available regarding the education levels of practicing interior designers. While ASID estimates that between 40 to 45% of all practicing designers have completed a four-year program, Dun & Bradstreet puts that number a little lower at 36%. The biggest discrepancy, though, surrounds the estimates for designers with graduate degrees: ASID estimates that 16% have graduate degrees, while Dun & Bradstreet puts that figure at 39%. In Canada, ARIDO reports that 49% have university degrees, and only 5% have graduate degrees. (The Interior Design Profession: Facts and Figures; 2006 Universe Study; ARIDO Comprehensive Industry Survey)

Implications:
• Individuals with little or no formal training in interior design will find it very difficult to establish and maintain a career in this field, as they will be competing with an increasing base of interior designers with at least a bachelor’s degree, along with an increasing percentage undertaking graduate study as well.
Fact: Both ASID and Dun & Bradstreet report that office design (77%) and residential (67%) are the top two categories of projects worked on by designers. Other design specialties and their percentages include: hospitality (49 to 55%); healthcare (41 to 44%); retail (40%); institutional (23 to 30%); government (24 to 28%); and other (3 to 7%). (The Interior Design Profession: Facts and Figures; 2006 Universe Study)

Implications:
- Practitioners tend to be generalists and work in more than one area.
- Practitioners need to have a broad education regarding specific elements of many kinds of design.
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