



DESIGN MANAGEMENT INSTITUTE

ARTICLE REPRINT

**Design
Management
Review**

Launching the Dual Degree: Creating Business-Savvy Designers

Jeremy Alexis, Assistant Professor, IIT Institute of Design

*Zia Hassan, Dean Emeritus and Professor, IIT Stuart
School of Business*

Reprint #07183ALE49

This article was first published in *Design Management Review* Vol. 18 No. 3

The State of Design Management Education

Copyright © Summer 2007 by the Design Management Institute. All rights reserved. No part of this publication may be reproduced in any form without written permission. To place an order or receive photocopy permission, contact DMI via phone at (617) 338-6380, Fax (617) 338-6570, or E-mail: dmistaff@dmis.org. The Design Management Institute, DMI, and the design mark are service marks of the Design Management Institute.

www.dmi.org

Launching the Dual Degree: Creating Business-Savvy Designers

by Jeremy Alexis and M. Zia Hassan

In this program at the Illinois Institute of Technology, students earn both a Master of Design degree and a Master of Business Administration degree. Jeremy Alexis and Zia Hassan elaborate on how this combination generates unique leadership and problem-solving abilities, benefits both schools, and qualifies graduates for an extensive range of management opportunities in corporations and design firms.

The next time you find yourself at a doctor's office, conduct an informal study. Find a recently minted physician (one who has graduated from med school in the past five years), and ask if he or she completed, or at least considered, an MBA. Then, ask the same question to a doctor with 20-plus years' experience. You will likely get different answers. In 1990, there were 10 medical schools offering a dual MD/MBA programs. Today, there are 49.¹

The next logical question is: Why would an individual already spending more than \$200,000 and four sleepless years to finish medical school feel compelled to add the extra courses and student loans required for an additional graduate degree? Recent studies suggest these dual degree holders believe con-



Jeremy Alexis,
Assistant Professor,
IIT Institute of Design



Zia Hassan, Dean Emeritus
and Professor, IIT Stuart
School of Business

trolling the future of patient care requires not only clinical expertise, but also an understanding of the economics and business models of the healthcare industry.² The medical profession, once in almost complete control of the patient care experience, now shares decision-making responsibilities with insurance companies and managers who have no clinical experience. This new breed of MD/MBA grad intends to ensure that physicians play a critical role in the future of healthcare leadership.

1. Association of American Medical Colleges: <http://services.aamc.org/currrdir/section3/degree2.cfm>

2. MD/MBA Students: An Analysis of Medical Student Career Choice. Windsor Westbrook Sherrill: <http://www.med-ed-online.org/res00093.htm>

It is important to note, however, that business education is *in addition to*, not *instead of*, medical training. You would not want your cardiologist to say, “Well, I wasn’t able to take that course on diagnosing heart disease because it was replaced by managerial accounting...”

New demands, a new approach to education

The forces acting on the design professions are not dissimilar to those acting on medicine. The management of design firms, as well as design functions within corporations, requires increasing sophistication related to concepts such as finance, accounting, leadership and ethics, and managerial decision-making. Also, people with traditional business backgrounds are increasingly interested in how design thinking can be applied to business problems and are adopting design methods.³ Design education must adapt to these changes. We need to create a class of business-savvy designers. We should not, however, replace the teaching of fundamental design methods and skills with the teaching of business concepts. Instead, there is the opportunity to train designers in both advanced design practices and advanced business operations and strategy. This can be achieved by offering dual MDes/MBA degrees.

Recently, the Illinois Institute of Technology’s Institute of Design and the Stuart School of Business collaborated to create a dual-degree program that, in two years plus one summer, earns students both an MDes and an MBA. Based on the success of our first class of dual-degree graduates and the level of interest in the program (10 percent of Institute of Design students are now in the program), we believe this educational model represents an important option for designers considering graduate-level studies, as well as other graduate design programs.

In order to outline the structure and benefits of a dual-degree program, we will discuss three topic areas in detail:

The management of design firms, as well as design functions within corporations, requires increasing sophistication related to concepts such as finance, accounting, leadership and ethics, and managerial decision-making.

• **Unique intellectual foundation:** Simultaneous engagement in business and design education provides students the best of both worlds, meaning equal mastery of analytical and synthetic tools and skills. We will identify the key elements of each type of education, and how they work together to create a unique approach to leadership and problem solving.

• **Collaboration and curriculum:** This partnership is a win/win for business schools and design schools. We will describe how our curriculum works and the benefits to both schools.

• **Professional opportunities:** Graduates of dual-degree programs are positioned to be the design leaders (and business leaders) for the future. We will talk about the career prospects for dual-degree graduates, as well as describe their value to design firms and corporations.

A unique intellectual foundation

For years, design schools and business schools have been working on different ends of the same problem: How do we create and maintain a successful business enterprise? Business schools have focused on the economics, financing, operations, and marketing of the enterprise. Design schools have focused on the creation of distinctive products, services, and communications for the enterprise.

So, it is no surprise that business schools have developed competencies in teaching and applying analytical methods. Business-school students are trained to break a problem into its constituent parts and look for key problem drivers. Although business-school students are required to present solutions to these problems, the time

3. Design Thinking and How It Will Change Management Education: An Interview and Discussion with David Dunne and Roger Martin,” *Academy of Management Learning & Education*, 2006, vol. 5, no. 4, pp. 512-523.

spent on recommendation development is usually minimal compared to time spent on unpacking the problem.

Design schools, on the other hand, have focused on developing and teaching synthesis methods. Design-school students are trained to create a range of possible solutions, leveraging creativity and innovative (and sometimes even polemic) thinking. While design students often do problem analysis, the energy spent on this activity pales in comparison to the energy spent on the development of creative alternatives.

It is possible to further oversimplify this difference by noting that when presented with a problem, business students ask, “Why is it broken?” and design students ask, “How can we fix it?”

We do not mean to say that one type of education is better than the other; actually, the differences exist for good reason. These educational silos have produced highly focused, uniquely skilled individuals. MBA education can be credited for the generations of managers responsible for creating the global economy and for stock markets that have demonstrated increasing returns, with only a few drops, for several decades. Design education can be credited with creating easier-to-use, compelling, and increasingly useful new products, services, and communications.

Success on both these fronts, however, is making organizations more complex and harder to

The market is demanding that we create business-savvy designers.

manage, as well as providing fewer obvious opportunities for great new products and services. It can be argued that the existing silo-style education has not adapted quickly enough to these changes in the landscape. It is clear that we need to create a new class of designer prepared for the complexity and competition in the connected global economy, but

we do not want to break down the silos, which could result in diminished learning on both sides. We propose that students receive the best education they can get—from separate, but simultaneous, learning areas.

The market is demanding that we create business-savvy designers. These individuals should be equally comfortable in the boardroom and the design studio. Dual-degree graduates offer the best of both worlds—a designer skilled in analysis and synthesis, innovation and control, prototyping and finance.

Companies recognize that innovation is increasingly important not only for growth but also for survival.⁴ We believe that business-savvy designers will have the skills required to become innovation leaders at global corporations. Much of the challenge of innovation comes from bridging the gap between business analysis and creative synthesis. Having an individual who understands both sides will be a necessity in this new competitive reality.

4. *McKinsey Quarterly* 2006, no. 3: “Going from Global Trends to Corporate Strategy.”

Key Differences Between Design School Education and Business School Education		
Area	Business School	Design School
Focus for value creation	Stakeholders	Product end-users
Focus of technical skills taught	Analysis	Synthesis
Focus of people skills taught	Leadership	Teamwork
Primary teaching method	Business cases	Design projects
Focus of tools	Making decisions	Making things
Cognitive preferences	Certainty & proof	Richness & complexity

Collaboration and curriculum

For the purposes of this article, we wish we could say that the idea for the IIT dual degree came from the IIT faculty. However, it came about because several students began pursuing the two degrees simultaneously on their own. We recognized that they were getting a unique education and that through several refinements we could make the experience more seamless. In short, the formation of the dual-degree program resulted from student pull, not from faculty push. This is important, since collaboration between academic units at most universities is like a ghost—often talked about but rarely seen. In this case, however, since we already had an existing, highly motivated market for the offering, it was easy to get the separate administrations to agree on structure, content, and cost.

At the beginning of program development, we laid out a set of conditions for the program:

- Students should be able to graduate in two full years plus one summer with two separate master’s degrees (MBA and MDes). We did not want to create a new joint degree, or a watered-down existing degree. Students in the program get the full benefits of graduate education in both design and business, without sacrificing anything (except their free time).

- Students will meet the acceptance criteria of both schools, but should follow a single application process. We wanted the admission and advising processes to be straightforward. We did not want, however, either school to accept someone it would not ordinarily accept. To simplify the challenges associated with these processes, we have a faculty lead and a staff lead at the Institute of Design, both with an extensive understanding of the programs and processes at the Stuart School of Business.

- We wanted to create efficiencies from class overlaps. Again, we did not want to provide an incomplete education experience, but there was the opportunity to reduce the requirements (from 16 to 14 classes at the business school, and from 54 to 47.5 credit hours at the design school) for students in the process of pursuing the dual degree.

The benefit for design students and the design school was clear. We could create business-savvy designers without fundamentally altering our existing graduate design program. For our business school, and for business schools in general, the value proposition was not as obvious.

In terms of number of students, business education overwhelms design education. In 2004, 140,000 people earned an MBA from an AACSB

The program of study for the dual degree demonstrates the learning required for the best-of-both-worlds education.

Institute of Design Classes	Stuart School of Business classes
<p><i>Four semesters of classes, including:</i></p> <ul style="list-style-type: none"> Observing Users Cognitive Human Factors Design Planning Design Synthesis Service Design Interface Design Interactive Media Product Design Workshop Lifecycle/Sustainable Design 	<p><i>Nine core courses:</i></p> <ul style="list-style-type: none"> Financial and Managerial Accounting Organizational Behavior Managerial Economics Statistical Methods Marketing Operations Management International Business Business Policy <p><i>Plus five electives</i></p>

Note: The list of classes above is a sample of required/elective classes and is not a complete program of study.

accredited school.⁵ In the same year, fewer than 1,000 students earned an MDes. Also, MBA graduates earned, on average, much more money than MDes graduates (MBA starting salaries average about \$30,000 more). MBA schools seem to be doing well on enrollment and salaries; why would they want to attract designers—a relatively small, poorly paid population?

We would argue that business schools should be welcoming designers. First, our experience has proven, at the level of the individual class and classroom, that designers can not only handle the workload and assignments, but also bring a unique perspective to the case discussions and team work. The professors they learn from and the teams they work with have told us that having a designer in the room means increased innovation and quality of discussions and assignments. Much of the benefit of graduate education comes from the diversity of colleagues present. Adding designers to the mix increases this diversity and improves the educational experience for everyone.

Professional opportunities

In terms of professional opportunities, it is helpful to break our discussion into two parts:

- Why are prospective students interested in the dual-degree program (and, as a natural extension of this topic, who is the ideal candidate)?
- What are the likely career paths for dual-degree graduates?

Why are people interested? Who is interested?

Quite a few people are interested in the intersection between design and business these days. As such, we get inquiries from individuals directly out of undergraduate design school, as well as from seasoned professionals with 20-plus years' experience. Although there is no ideal candidate, the best candidates usually fall somewhere in the middle of that range. Someone with three to seven years of working experience is generally prepared for the intellectual rigor of the program and will likely have the right mix of education and experience that employers are looking for upon graduation. Of course, there are numerous exceptions to this. Some of our best students have come directly from undergraduate

studies, and we also have a number of people without a design background in the program (these individuals are required to take a foundation year of design training in addition to the two-year Master of Design program).

People with significant experience (10-plus years) interested in this type of education have other, less resource-intensive educational options that we will discuss at the conclusion of this article.

The reasons people have for their interest in the program share a similar theme, but differ in detail (usually based on level of design experience). Designers fresh out of undergraduate school, or with just a few years' experience, feel the dual degree program is a way to add legitimacy to their careers without sacrificing their love of design and design thinking. They recognize that an MBA on a resume suggests a certain level of practicality and employability. They also recognize that an MBA alone does not mean as much as it once did in the job market, and want to continue their studies of design methods and process.

More-experienced designers note that an MBA has always been a likelihood, but they never wanted to convert completely to being a "businessperson." These highly experienced individuals recognize the need for a deep understanding of finance and economics, but do not want this acquisition of new knowledge to replace or dominate their understanding of design thinking and practice.

One of the few absolute requirements for the ideal dual-degree candidate is dedication. This is an intellectually (sometimes even physically) challenging program. We have made it possible, not easy, to get two graduate degrees in a reasonable period of time. Successful students flourish by jumping between and bridging two disparate, but not conflicting, modes of thinking.

Likely career paths

Graduates of the program have found jobs in two categories:

1. *Design firms (and design departments in corporations) looking to add more business rigor to their operations, but who recognize*

5. AACSB Pocket Guide to Business Education 2006: <http://www.aacsb.edu/publications/PocketGuide/guide06/B-SchoolGuideFinal.pdf>.

that simply hiring more people with an MBA is not going to work. When we originally conceived the program, this was the career path we felt most dual degree graduates would choose. Many design firms have added a strategy function to their practice. Experience has proven, however, that just hiring someone with an MBA does not solve the problem. Firms need someone who feels equally comfortable in both analysis and synthesis, someone who can inspire and guide designers but also work closely with marketing and finance people on the client side. The dual degree was intended to educate these people to play the bridge role.

2. *Traditional business roles that require innovative and creative thinking.* Somewhat surprisingly, a number of dual-degree grads have opted to pursue more-traditional business opportunities (such as marketing and management consulting) where design thinking is not the norm, but rather a novel addition. In these roles, the dual-degree students are seen as adding unique value, or ideas and methods not common to most MBA graduates.

The ongoing conversation about design education

The demands on the design professional are increasing. Clients and managers are requiring new design methods at the same time that they are asking designers to know more about the business context. From an educator's point of view, this is a challenge. We do not want to sacrifice learning related to design skills and design thinking, but we also recognize the importance of preparing our graduates to deal with the critical business issues they are likely to face.

The MBA degree, once exotic, is now a standard requirement for many careers and for career advancement. We believe that, for well-qualified design professionals, an optimal course of study includes both the required MBA, as well as the more specialized graduate degree in design.

As noted earlier, other fields have pursued dual degrees for years. In fact, IIT's Stuart School of Business and Chicago-Kent School of Law have offered a dual-degree option for many years. Students who graduate with a dual MBA/JD degree eventually take on leadership and management roles in law firms; the MBA provides them the tools and knowledge required to run a successful firm. In addition, many graduates move on to become corporate counsel and do consulting, eventually taking leadership roles in the companies for which they work.

It is often noted that there are no designers among the ranks of Fortune 500 CEOs. When the first individual with a design background does take the helm of a large corporation, we would not be surprised if he or she also has an MBA. ■

Reprint #07183ALE49