

Disruptive Learning Technologies: Overcoming the Innovator's Dilemma in the Management Education Industry

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1 The Competitive Situation of the Management Education Industry

The management education industry is an industry under deconstruction. Traditional players like university departments and business schools are being challenged, and new players like corporate and virtual universities, executive development firms, management consultants, and even media and computer companies are entering the scene (Aubrey 1999; Daniel 1998; Engwall / Zamagni 1998; Ernst / Kieser 2000; Grayden 2001; Keating / Agarwala 2000; Locke 1998; Reid 2000; Rothwell / Kazanas 1999; Rowley / Lujan / Dolence 1998; Spender 2000; Thomson et al. 2001; Van de Ven 2001, 2002). This deconstruction of the traditional management education landscape goes hand in hand with a rapid commercialization of the field driven by demographic changes, technological innovations and the overall globalization of the economy.

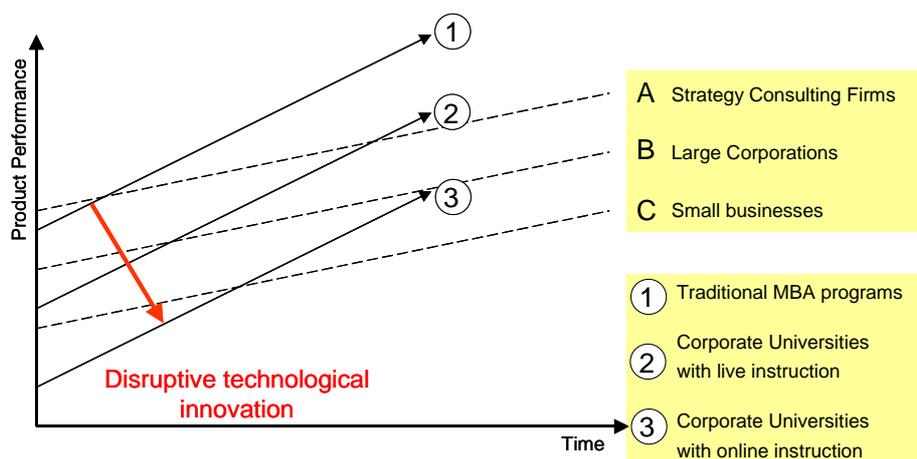


Figure 1: The Disruption of Traditional Campus-based Management Education Programs (adapted from Christensen 2000)

According to Christensen, the competitive situation of the management education industry can be framed from a disruptive technologies' perspective (Christensen 1997, 2000). Building on his well known failure framework - that has been derived from the analysis of repetitive patterns of failure of the industry's more recent leaders in the disk drive industry, the mechanical excavators industry, the steel industry and other industries with very different

characteristics – he points out that leading business schools may run into risk in the actual competitive situation of the management education industry. Figure 1 shows the possible disruption of traditional campus-based management education programs offered by academic actors depicting the performance trajectories of three distinctive supplier segments within the management education industry: traditional MBA programs (1), corporate universities with live instruction (2) and corporate universities with online instruction (3). It also depicts the performance trajectories of three distinctive customer segments of management education: strategy consulting firms (A), large corporations (B) and small businesses (C). It thus points to the fact that leading business schools with traditional MBA programs may ‘overshoot’ the market and that program performance can even progress faster than market demand.

The objective of this working paper is to present a long term research project focusing on the analysis, design and evaluation of competitive strategies for business schools and university departments. Thus, we are presenting work in progress rather than final results. The project’s objective is to address the challenges of disruptive change in the management education industry and to provide strategies to assist the industry’s players in managing disruptive change (see also Reichwald 1998; TUM 1999; Reichwald 2000; Möslein/Piller 2001; Möslein 2002; Piller/Möslein 2002). In this paper, we want to discuss the focus of this research project, its design and methodology and to present some early findings for a current exploratory study. We will concentrate our analysis in this paper on business schools as the traditional providers of management education. By doing so, we want to assess strategic options to enable business schools to cope with disruptive learning technologies and to overcome the innovator’s dilemma within this industry.

The organization of the remaining paper is as follow: Firstly, in section 2 we will briefly discuss some predominant “learning innovations” and their possible disruptive impact on the management education industry in order to sketch an overall framework. We will also identify the need for research in this area within this section. Secondly, section 3 will describe the focus and design of our exploratory study in some detail to answer the research needs identified. The objective is to provide a basis for further discussion. Finally, in section 4 we will outline expected results as well as perspectives for further research.

2 Identifying Disruptive Learning Technologies

Identifying disruptive technologies is a prerequisite for coping with them. Therefore we firstly have to set the frame for our research and to identify disruptive technologies and the associated disruptive changes in the field of management learning. The term “learning technologies” encompasses in a broader sense all processes along the education industries’ value chain. Thus, the term “*technology*” is not restricted to ‘e-technologies’, media-supported learning systems, or distance learning technologies, but describes rather organizational capabilities and processes for delivering management education. Traditional learning processes from this perspective are mainly classroom-based, textbook oriented, off-site and at best only loosely coupled with day-to-day work environments.

A learning technology is disruptive, if it provides a very different value proposition to the one previously available in the same field. From that perspective the following “learning innovations” can be seen as disruptive learning technologies (Giber / Carter / Goldsmith 2000; Keating / Agarwala 2000; Krattenmaker2001; Möslein 2002; Willoughby 2002):

- the virtualization of learning institutions (which allows for the design of inter-organizational curricula and programs),
- the strategic bundling of learning activities in corporate learning centers and corporate universities,
- e-learning and distance learning environments (which allow for 7x24h access and do not require on-campus presence),
- on-the-job learning and action learning approaches (which allow for a close fit with the actual learning demands and promise a better outcome by integrating learning and learning in real-world working environments),
- customized learning offerings (which address a customer's specific learning needs and allow for a closer evaluation of the learning).

As is the nature of “disruptive technologies”, their exploitation creates the demand for finding and implementing an adequate business model capable of dealing with these innovations. This is also true for innovations of learning technologies: “Deans and heads of schools are looking to move teaching from a cottage industry to the industrial mode” (Cohen / Boyd 1999). The necessity of envisioning new business models for the production and delivery of learning and of reviewing the learning industry's value chain has been noted earlier. Without going into depth at this point (see for a more detailed discussion e.g. Ip 1997; Cohen / Boyd 1999; Hämmäläinen 1999; Seufert 2001; Piller / Möslein 2002), we are building our further analysis on the assumption that “disruptive learning innovations” as presented above also have to be implemented into (new) business models for the production and delivery of management education from all participants of the management education industry's value chain:

- The suppliers of education have to find new markets, combined with new methods and channels for distribution. With better information on market needs and appropriate alliances with suppliers of complementary products and services, they would be better equipped to serve the market.
- As the premier customer segment of management education large corporations need high quality tailored services from a combination of sources with a global solution for delivery via the most appropriate set of distribution methods and channels.
- The distributors (intermediaries) need large volumes of high quality, pre-packaged content to be distributed on complementary channels, with guaranteed continuity and consistency.

However, there is still little knowledge about adequate organization strategies and value chain designs for the provision of executive education. Compared to management routines and procedures of innovation management in other industries, the management education industry seems to have just discovered that they do not only teach “management”, but also have to manage management teaching more thoughtfully in order to react on the disruptive innovation in their market (Huff/Huff 2001, Huff 2002; Van de Ven 2002). The emerging players in this industry are mainly experimenting with new institutional and contractual arrangements, new forms of cooperation and networking, new learning architectures, new models of learning-doing integration, and new pricing, budgeting and investment strategies. In this context business schools - the traditional providers of management education – are at risk of running into the innovator's dilemma.

3 Research Focus and Research Design

The guiding question of our exploratory study is: *How can business schools as traditional providers of management education overcome the innovator's dilemma in the face of the current challenges by corporate universities and online instruction?* Exploratory research is qualitative by nature. It does not permit the derivation of generally applicable assertions. Nonetheless, it justifies the development of hypotheses that can serve as a starting point for further research. As there may be several areas to consider when seeking an explanation to our research question, the case study approach may be a particularly suitable research design as it can 'balance adaptiveness with rigor' (Yin 1994, p. 87). Data collection and analysis can proceed in tandem (Eisenhardt 1989, Yin 1994). Thus, our research focuses on "How?" and "Why?" questions which Yin (1994) argues are suitable for case study work. In this context, we want to provide the necessary starting point for empirical follow-up studies.

Using case studies, the selection of cases is based on theoretical rather than statistical sampling (Eisenhardt, 1989). Based on extensive document analysis, we are currently refining our early blueprints conducting a broad international interview study. Our top-class interview partners stem from demand-side actors as well as supply-side actors within the market for management education. In this way, we will use qualitative interview based research in order to discover not only interesting and promising "best practices", but also "worst practices" of players in the management education industry dealing with disruptive learning technologies.

As for the *demand-side actors* our current interview partners comprise:

- senior partners and chairmen of leading corporate consultancies,
- heads of corporate human resource departments within large global corporations (main focus: 20.000 – 500.000 employees) and
- heads of human resource departments of selected medium-sized corporations with a global reach (main focus: 500 – 5.000 employees).

As for the *supply-side actors* our interview partners stem from:

- 'traditional suppliers' (heads of business schools and leading professors in business schools in the US, Europe and Asia) and
- 'disruptive suppliers' (heads of corporate universities with a strong focus on management education mainly selected from the Europe-based "Corporate University Learning Network" (CULN) and the US-based "Executive Development Network" (EDN)).

We are aiming at a total of between 80 to 100 in-depth interviews with a duration of between 60 to 180 minutes. Up to now we have conducted a total of 39 face-to-face interviews covering 35 different players within the market of management education. To ensure internal validity of the study all interviews are conducted by a team of 2 to 3 interviewers; interview protocols are subject to a feedback process with the interview partner; reflective notes of the interviewers complement the data recording (Merriam 1988; Marshall/Rossman 1989; Bogdan/Biklen 1992). As for the external validity, an expert circle has been established to discuss the research approach throughout the research process and to comment on preliminary findings during our research project.

The main focus of our semi-structured, open-ended interviews on the demand-side as well as on the supply-side is on the following three topics:

- the *status-quo* of providing and organizing the provision of executive education,
- the *experienced changes* within the provision of executive education during the last 3 to 5 years,
- the *expected changes* for the provision of executive education during the next 3 to 5 years.

4 Expected Results and Outlook

As stated above, this paper's objective is to present a promising field for more research rather than conclusions. It is work in progress. Based on our current interviews, we will be able to present first results at the conference on

- how *corporate actors* change their learning and leadership architectures and consequently transform their executive development programs, how they reframe traditional make-or-buy decisions and supplier selection strategies in the field of management education and
- how *academic actors* cope with a changing demand and supply landscape, how they build on selected disruptive learning technologies and integrate these disruptive innovations within their established learning portfolios.

Thus, we will be able to derive first hypotheses on how business schools as traditional providers of management education can possibly overcome the innovator's dilemma with regard to the current challenges posed by corporate universities and online instruction.

Taking on board findings from other industries (e.g. Boynton/Victor/Pine 1993; Victor/Boynton 1998), it is, however, possible at this stage to conclude with the preliminary assumption that

- the modularization of education programs and learning architectures as well as
- the modularization of stable development and delivery processes

seem to be a core element of coping with disruptive change. Further research will be needed on the future interplay of the different players within the management education industry, as well as on potential differences in relevant sub-sectors of the market. We would like to discuss the results from our study with the audience and to identify jointly future research topics.

REFERENCES

- Aubrey, B. (1999), Best practices in corporate universities, in: Neumann, R. / Vollath, J. (Eds.), Corporate universities, A&O: Hamburg, Zurich 1999, p. 33-55.
- Bogdan, R.C. / Biklen, S.K. (1992), Qualitative research for education: An introduction to theory and methods, Allyn & Bacon: Boston 1992.
- Boynton, A.C. / Victor, B./ Pine, B.J. (1993), New competitive strategies: Challenges to organizations and information technology, IBM Systems Journal, 32 (No. 1/1993), pp. 40-64.

- Christensen, C.M. (1997), *The Innovator's Dilemma*, Harvard Business School Press: Boston, MA 1997 (reprint: HarperCollins: New York 2000).
- Christensen, C.M. (2000), Entrepreneurial mind set and innovation: bringing them together in the new economy, Plenary Session, 20th Annual International Conference, Strategic Management Society, Vancouver, British Columbia, Canada, October 15-18, 2000.
- Cohen, E. / Boyd, E. (1999), Providing (web) resources can affect an entire profession, white paper of the Espoo-Vantaa Institute of Technology, Espoo, Finland 1999, available online at <http://www.enable.evitech.fi/enable99/papers/cohen/cohen.html> [April 1, 2002].
- Daniel, C.A. (1998), *MBA – The first century*, Bucknell University Press 1998.
- Eisenhardt K.M. (1989), Building theories from case study research, *Academy of Management Review*, 14, 4, 532-550.
- Eisenhardt K.M., (1991), Better stories and better constructs: the case for rigor and comparative logic, *Academy of Management Review*, 16, 3, 620-627.
- Engwall, L. / Zamagni, V. (1998), *Management education in historical perspective*, Manchester University Press: Manchester, New York 1998.
- Ernst, B. / Kieser, A. (2000), How consultants outcompete management scientists on the market of management knowledge, Workshop of the Kommission für Organisation, Zurich, March 3-4, 2000.
- Giber, D. / Carter, L. / Goldsmith, M. (Eds., 2000), *Linkage's Inc.'s Best practices in leadership development handbook*, Jossey-Bass: San Francisco 2000.
- Grayden, E.D. (2001), The diffusion of management education: an examination of the drivers and implications of the growth of sub-sectors within the management education industry, Plan B Paper, University of Minnesota, Human Resources and Industrial Relations, Minnesota 2001.
- Hämäläinen, M. (1999), Enabling electronic markets for education and training, white paper of the Espoo-Vantaa Institute of Technology, Espoo, Finland 1999, available online at <http://www.enable.evitech.fi/enable99/papers/hamalainen/hamalainen.html> [March 29, 2002].
- Huff, A. / Huff, J. (2001), Re-focusing the business school agenda, *British Journal of Management*, Vol. 12, S1, 2001, pp. 49-54.
- Huff, A. (2002): What is the future of management education?, 2nd Annual Conference of the European Academy of Management, Stockholm, May 8-11, 2002.
- Ip, A. (1997), Higher education & web-based learning: five challengers and a proposed solution, *Education Object Economy*, Multimedia Education Unit, The University of Melbourne, 1997.
- Keating, M. / Agarwala, R. (2000), *E-Learning – An overview of the market and top ten sites*, Bertelsmann Foundation: Gütersloh 2000.
- Krattenmaker, T. (2001), While you were out ...: A key to a successful executive education experience is sharing the knowledge you've gained, in: *Harvard Management Communication Letter*, September 2001.
- Locke, R.R. (Ed., 1998): *Management Education*, Ashgate: Dartmouth et al. 1998.
- Marshall, C. / Rossman, G.B. (1989): *Designing qualitative research*, Sage: Newbury Park, CA 1989.
- Merriam, S.B. (1988): *Case study research in education: A qualitative approach*, Jossey-Bass: San Francisco 1988.

- Möslein, K. (2002), Management education excellence, internal project report, Technische Universitaet Muenchen, Munich 2002.
- Möslein, K. / Piller, F.T. (2001), Management Education in a Technology-driven Economy: Challenges and Possible European Answers, EURAM 2001: European Management Research: Trends and Challenges, Founding Conference of the European Academy of Management, Barcelona, Spain, April 19-21, 2001.
- Piller, F.T. / Möslein, K. (2002), Are we practicing what we preach? - Strategic perspectives for the management education industry, 2nd Annual Conference of the European Academy of Management, Stockholm, May 8-11, 2002.
- Reichwald, R (1998), Universitätsstrukturen und Führungsmechanismen für die Universität der Zukunft. In: Küpper, H.-U.; Sinz, E. (eds.): Gestaltungskonzepte für Hochschulen: Effizienz, Effektivität, Evolution, Stuttgart 1998, p. 237-258.
- Reichwald, R. (2000): Der „Technische Diplomkaufmann“ - Eine neue Betriebswirtschaftslehre als Innovation an der Technischen Universität München, Bildungsforum der SZ, Munich, October 2000.
- Reid, I.C. (2000), The web, knowledge management and universities, Proceedings of the AusWeb2K, Sixth Australian World Wide Web Conference, Cairns, June 12-17, 2000.
- Rothwell, W.J. / Kazanas, H.C. (1999), Building in-house leadership and management development programs, Quorum Books: Westport, London 1999.
- Rowley, D.J. / Lujan, H.D. / Dolence, M.G. (1998), Strategic choices for the academy, Jossey-Bass: San Francisco 1998.
- Seufert, S. (2001), E-Learning Business Models: Strategies, success factors and best practice examples, Annual Meeting of the Academy of Management, Washington D.C., Washington D.C., August 6, 2001.
- Spender, J.-C. (2000), Underlying antinomies and perpetuated problems: An historical view of the challenges confronting business schools today, New York Institute of Technology, Old Westbury, NY 11568, February 2000.
- Thomson, A. / Mabey, Ch. / Storey, J. / Gray, C. / Ires, P. (2001), Changing patterns of management development, Blackwell Publ.: Oxford 2001.
- TUM (1999): Memorandum zur Zukunft der Wirtschafts- und Sozialwissenschaften an der Technischen Universität München, June 15, 1999
- Van de Ven, A.H. (2001), Why do we need to learn about corporate universities?, Annual Meeting of the Academy of Management, Washington D.C., August 7, 2001.
- Van de Ven, A.H. (2002), Presidential Address: Strategic Directions for the Academy of Management: This Academy Is for You!, Academy of Management Review, Vol. 27, No. 2, April 2002, p. 171-184.
- Victor, B. / Boynton, A.C. (1998), Invented Here, Boston: Harvard Business School Press 1998.
- Willoughby, K.W. (2002), The virtualization of university education: concepts, strategies and business models, internal project report, Westminster College, USA, January 2002.
- Yin R K, (1994), Case Study Research: Design and Methods, 2nd ed, Sage, USA.