

ORGANIZATIONAL MODELS

***A Virtual Revolution: Trends in the Expansion of Distance Education.* May 2001. Washington D.C.: American Federation of Teachers.** <http://www.aft.org/higher_ed/downloadable/VirtualRevolution.pdf>

A critique of current trends in education that describes four emerging models:

Model	Description/Example
Existing higher education institutions that have or are developing DE programs	e-Cornell, NYUonline, the University of Illinois On-line, University of Maryland University College, Rio Salado Community College, SUNY Learning Network, Virtual Temple
Corporate-university joint venture	Provide course management systems, such as Blackboard, Campus Pipeline, eCollege, WebCT as well as those that package and distribute courses or content from existing institutions such as UNext.com, Cenquest, Fathom, Global Education Network, Quisic, and Universitas 21.
Full virtual universities	University of Phoenix Online, Western Governors University, Andrew Jackson University, Cappella University, Jones International University, Kennedy-Warren University
Corporate university or training institutions	Corporate University Exchange, Click2learn

DiPaolo, Andy. "The Rise of a New Educational Industry: Lessons Learned in the Evolution of Online Learning." Presented at the *Distance Learning 2001 Conference*, University of Wisconsin at Madison, 10 August 2001. <<http://scpd.stanford.edu/SCPD/js/brandingFrame/externalURL.htm>>

Slide presentation overviews five models of online education with partial examples:

Model	Description/Examples
Higher education collaborations	University Alliance for Lifelong Learning, National Technological University, JuesuitNet, Worldwide Universities Network, California Virtual Campus, Kentucky Virtual University, SUNY Learning Network, Southern Region E-Campus, Universitas 21, U.S. Open University
Higher education profit spinoffs	NYUonline, Columbia Online, Duke Corporate Education, Babson Interactive, eCornell, UMUC Online, GW Learning Solutions, Class.com
Higher education/corporate partnerships	
Corporate university spinoffs	
Corporations, publishers, entrepreneurs	Focus on customer needs, competition. Nimble, flexible, responsive and speedy to market. Commercial grade marketing, sales, design and production skills. Larger investments, more resources. No university bureaucracy. Applies incentives and rewards to attract faculty and experts. University of Phoenix, Unext/Cardean, Jones International, GEN, Concord Law, Thomson Learning, Kaplan Colleges, Pearson PLC, DeVry Institutes, Fathom, Element K, NETg, Quisic, DigitalThink, IBM Mindspan, Hungry Minds, Click2learn, Smart Force, Interwise, NextEd, Powered, Inc., FT Knowledge, Thinq, Online Learning.net, McGraw Hill Learning Network, Barnes & Noble University, Dow Jones University, Harcourt Learning, Global Learning Systems, Motorola University, eCollege, Cisco Academy

Dirr, Peter J. "The Development of New Organizational Arrangements in Virtual Learning." In Glen Farrell et al. , *The Changing Faces of Virtual Education*. London: The Commonwealth of Learning, 2001. <<http://www.col.org/virtualed/>>

A study on the latest 'macro developments' in virtual education, conducted with funding provided by the Department for International Development, London, UK. Historical perspective on the development of distance and virtual education. Provides somewhat vague model structure with some overlap:

Model	Description/Example
Virtual Education Institutions	Mega-universities that provide distance education (not necessary online): Anadolu University (Turkey), China TV University, Universitas Terbuka (Indonesia), Indira Gandhi National Open University (India), Sukkothai Thammathirat Open University (Thailand), Korean National Open University, National Centre for Distance Learning (France), The Open University (Britain), University of South Africa, Payame Noor University (Iran), National Centre for Distance Learning (Spain)
Virtual Universities	Use of ICT to deliver education: African Virtual University, University of the Philippines Open University, Taipei National Open University, Global University of the Assemblies of God (merger between Berean University, ICI University), Open University Worldwide (UK), Monterrey Institute of Technology, Indira Gandhi National Open University (India), Arizona Regents University, Electronic University Consortium of South Dakota, Distance Education Institute (US Native American population), Excelsior College (was Regents College New York),
For-profit University Initiatives	Jones International, University of Phoenix, Sylvan Learning, DeVry Inc., Harcourt Virtual, Kaplan
Virtual High Schools	Telesecundaria (Mexico), Open Learning Agency (Canada), Open School (Canada), Schoolnet India, Schoolnet Africa, Kids-on-the-block (Namibia), EDUNET (Tunisia), Florida Online High School, Indiana University High School, University of Missouri at Columbia High School, Class.com, Virtual High School Project, Bob Jones University
Consortia	California Virtual University, WGU, Southern Regional Education Board's Electronic Campus, Jesuit-NET, Kentucky Virtual University, e-University (UK), learndirect (The University for Industry, UK)
Commerical Initiatives	
Corporate Universities	Motorola University, Arthur Anderson Professional Learning, McDonalds University, Sun Microsystems Educational Services, FORDSTAR
University-Business Alliances	Universitas 21, Learning Network/FTKnowledge (Pearson), DeVry, Pace University (cooperates with NACTEL to offer telecommunications degree), OpenTech (Open Learning Agency in Canada), Univesrity Pathology Consortium, GEN, Bigwords.com, Varsitybooks.com, MathForum.com (subsumed by WebCT), Hungry Minds
For-profit University Subsidiaries	ECornell, Virtual Temple, NYUonline, Columbia, UMUC OnLine,
Government-Education Alliances	SCORM, Army University Access Online, Navy program

Center for Educational Research and Innovation. *E-Learning: The Partnership Challenge*. Paris: OECD, 2001.
<<http://www1.oecd.org/publications/e-book/9601061e.pdf>>

Provides an overview of different types of global partnerships in education, in particular, Byrkjeflot's (2000) four models:

Model	Description/Example
Media-Media Alliance	Reed Elsevier and Harcourt, Simon and Schuster & Lighting Source
Education-education Alliance	Universitas 21, TRIUM EMBA (London School of Economics, Stern of New York, HEC Paris), and the MBA courses partnership between Darden GSBA, Michigan Business School and UCB's Haas School of Business.
Education-corporate universities	Ernst & Young Virtual Business School, and ABB Academy set up in cooperation with Henley College
Education-media-others	Cardean University including Unext, London School of Economics, Stanford, Chicago and Columbia University for business and executive education.

Cunningham, Stuart, Suellen Tapsall, Yoni Ryan, Lawrence Stedman, Kerry Bagdon, and Terry Flew. *New Media and Borderless Education: A Review of the Convergence Between Global Media Networks and Higher Education Provision*. January 1998. Canberra, Australia: Australian Government Publishing Service. <<http://www.deetya.gov.au/highered/eippubs/eip97-22/execsum.htm>>

This report, prepared for the Evaluations and Investigations Program of the Australian government's Department of Employment, Education, Training and Youth Affairs, examines the impact of communications and information technologies, media influence, and the globalized economy on the future of higher education. Provides brief overview with descriptions of seven models of education not confined to regional borders:

Players	Description/example
Corporate Universities	These exist mostly in US, a total of 1600 in 1998, linked to large organizations with concern about enhancing performance and job satisfaction through lifelong learning. Spectrum from re-branding of education and training which is narrowly skill-based and no evidence of higher education level activity to a combination of learning and knowledge-focused activities from education and training to research, consultancy, best practice benchmarking and knowledge management. Available to staff, customers and occasionally the wider public. Provide tailor-made programs to address skill shortages and need for rapid and regular skill updating, no real threat to traditional university. Term “university” can be misleading.
For-profit higher education	Like corporate universities, focus on professional subjects and worker adults (‘earner-learners’), often accredited. E.g., DeVry, Keller Graduate School of Management, University of Phoenix. Often work in partnership with universities and more recent spinoff developments, e.g., NYUonline, Deakin Global, Melbourne University Private Ltd.. Expansion possibilities, e.g., Sylvan purchased 54% holding in private Spanish university, DeVry acquired new US educational providers including Denver Technical College, and University of Phoenix opened a campus in Rotterdam with plans to expand in Germany, Spain and Ireland. Flexible (short, intensive study periods, ability to bank/transfer credit), convenient (location, access to materials), relevant (curriculum taught by practicing professionals). Pose threat to traditional university market. Some act as “diploma mills” and “fly-by-night” operations.
Media Companies	Collaborate with existing universities (e.g., Addison Wesley Longman and FT Knowledge, both part of Pearson) and for-profit education providers (e.g., USA arm of Macmillan Publishing teamed up with Sylvan to provide IT training). Some go it alone (e.g., McGraw-Hill Online Learning, and Harcourt)
Professional bodies and associations	At early stage in development, e.g., Australian Association of Professional Engineers, Scientists and Managers became the University of Technology and Management serving 7500 students in South Africa, India, New Zealand, the US and UK. Also, specialist professional or vocational colleges, e.g., Michigan Virtual University runs seven virtual colleges to provide courseware brokered through existing colleges, universities and private training providers.
Educational services	Services such as student enrollment, training and development, as well as provision of physical facilities are often contracted out (e.g., the University of Durham outsources its academic computing services to UNISYS. IT Companies provide IT training and education through stand-alone courses and modules for delivery within HE programs (e.g., University of Central England is the Cisco Academy Training Centre and 18 other HE institutions in the UK provide Cisco training as part of undergraduate degrees.
Education brokers	Service to individuals and organizations, e.g., Australian Open Learning Agency, the Atlantic Canada Distance and Open Learning Agency, and the UK’s Open Learning Foundation. Also Ufi (learndirect) expects to serve 2.5 million people by 2002. Scottish Knowledge is a consortium of 15 institutions and 20 companies, including General Accident, Shell UK, BP, Ernst and Young, and Bank of Scotland. WGU and California Virtual University have encountered problems, some with technology or lack of direct access and control of interactions with students.
Traditional universities	

Ruth, Stephen, and Jiwani Giri. "The Distance Learning Playing Field: Do We Need Different Hash Marks?" *The Technology Source*, September/October 2001. <<http://horizon.unc.edu/TS/default.asp?show=article&id=889>>

Describes 9 possible models for distance education based on three “tech” and three “touch” classifications. “The tech classifications are relatively straightforward... For touch, the distinctions are more subtle. At the low end, there is little or no contact with the teacher, and all learning is self-paced. However, as the linkages with the teacher/professor ascend the scale, there are combinations of touch techniques that involve the Internet, phone, audiocassette, office hours, meetings with assistants, and—at the high end of the scale—significant levels of personal interaction with the professor, either face-to-face or electronically.”

Low Tech-Low Touch	This approach is characterized by meager use of instructor and machine resources, emphasizing instead the use of simple structures between the learner and the course material. Representative topics: management, business, psychology, computing, fitness, and health. Many vocational courses also employ this method. Example: Australian Correspondence Schools and the University of Nairobi.
Moderate Tech-Low Touch	This approach is characterized by a relatively small amount of instructor support and some use of machine resources, focusing on simple Web-based structures to link the learner with appropriate material. Representative topics: accounting, economics, and organization management; some of the Web development courses available on CD-ROM such as writing in English, calculus, and computer programming. Example: Center for Distance Education at the Johns Hopkins University and Virtual Training Suites.
High Tech-Low Touch	This approach is characterized by low levels of instructor contact and extensive employment of Web-based tutorials, interactive modules, and course material. Many of the most successful courses offered by major hardware and software vendors employ this approach. Representative topics: Many IT courses on topics such as database, computer networking, application development, HTML, JavaScript, DBA, XML, VB, and e-business. Example: IBM, Oracle University, and SmartForce.
Low Tech-Moderate Touch	This approach is characterized by meager use of machine resources and considerable instructor presence, either through face-to-face interaction or e-mail correspondence. It includes correspondence courses with postal mail feedback from the instructor—still one of the most popular nontraditional teaching approaches in developing nations. Representative topics: aerospace engineering, electrical engineering, health, physics/radiological engineering, and industrial and systems engineering. Example: Middle Tennessee State University, Keller Graduate School of Management, Indira Gandhi National Open University, and Korean National Open University.
Moderate Tech-Moderate Touch	This approach is characterized by adequate use of machine resources and solid instructor presence through classroom meetings, occasional course seminars, e-mail correspondence, or audio and video conferencing. Representative topics: e-commerce, technology management, and telecommunications. Example: Western Governors University, Kent State University, and the Tennessee Board of Regents Program.
High Tech-Moderate Touch	This approach is characterized by extensive use of technology resources with a solid instructor presence via some classroom lectures, seminars, e-mail, real audio and video, as well as use of a discussion board, bulletin board, and I-Chat. Representative topics: business management, organizational learning, project management, business ethics, and computer programming. Example: The University of Phoenix, the University of Columbia, and New York University (NYU).
Low Tech-High Touch	This approach is characterized by extensive use of instructor support and a meager application of machine resources. It also represents the so-called "traditional" approach, offering some course materials online but also requiring regular interaction between the instructor and the learner in a face-to-face classroom setting, occasional labs, and designated office hours as well as by telephone and e-mail. Representative topics: all disciplines employ this approach. Example: Webber College and York County Technical College.
Moderate Tech-High Touch	This approach is characterized by extensive instructor involvement in a Web-enabled classroom setting with traditional use of online learning resources (e.g., e-mail, "town halls" for discussion, use of online training software like WebCT and Blackboard, etc.). The learners work with well-structured course materials and enjoy regular interaction with the instructor either in a classroom or via e-mail or I-Chat. Representative topics: journalism, poetry, decision science, e-commerce, and information technology. Example: management courses at NYU, software engineering and information technology courses at Carnegie Mellon University, and the University of Idaho.
High Tech-High Touch	This approach is characterized by extensive use of instructor support with exceptional leveraging of machine resources, high bandwidth, and well-structured course materials in a high-tech "virtual classroom" with streaming video technology, real audio, and multimedia. The instructor is available via e-mail, telephone, and electronic conferences. Representative topics: electronic engineering, aerospace engineering, management science, and management information systems courses for the MBA. Example: Stanford University and the Duke University MBA Global Executive Program.

Collis, Betty, and E.M.Gommer. *Stretching the Mold, or a New Economy? (Results of the C@mpus+ 2005 Study)*. 20 December 2000.

By combining dimensions of location (global vs. local) and quality control (control with the individual vs an expert/institution) four profiles were derived, which can be used to describe the future plans for the higher education institutions. *Four profiles for flexible learning in 2005+ (B. Collis and J. Moonen, 2001)*.

Model	Description/Example
Back to the Basics	<p><i>Local and face-to-face transactions are highly valued. Institution offers a programme and ensures its quality.</i></p> <p>In this scenario, students, including international students, will prefer to come to a campus-based institution. The international learning setting takes place through face-to-face contacts with their fellow students from different countries and through direct interaction with instructors. <i>Virtual this and that</i> are seen as just a hype; real learning takes place in a fine campus setting with its library, computer labs, instructors with office hours, and other students to interact with. The basic assumption is that experts in the institution are in a better position than the student to indicate what courses are useful and in which order they should be taken. Technology appears here in sensible ways; using word processors, email and WWW browsers, getting course information via WWW environments. WWW sites are also good for consultation of external and international course resources and to make communication within the institution and with foreign students and institutions easier. But the basics are still what matters: a well planned curriculum and regular face-to-face contacts.</p>
The Global Campus	<p><i>Global and network-mediated transactions are the norm. Institution offers a programme and ensures its quality.</i></p> <p>Students want to study in a well-planned program, probably from a foreign institution, but they want to stay in their own locations and continue their own lives at the same time as they are studying. They are able to participate on-line in the program of a foreign university, even if they don't physically ever come to that institution (or only come once or a few times). Technology here becomes very important. First of all, the student will need to use technology to find out about the programme of the university. Second, the student needs to use the technology to register for the programme. And third and foremost, the student will need technology for stable access to all the course materials, assignments, and for communication and interaction with fellow students and instructors.</p>
Stretching the Mold	<p><i>Local and face-to-face transactions are highly valued. Learner chooses what he wants and thus takes responsibility for quality assurance.</i></p> <p>The student has no particular interest in being involved in a program or course abroad or at a distance, but would appreciate more flexibility in his local study setting. He or she might like to substitute some courses from the home institution by courses from a foreign institution. This choice may be related to the fact that the foreign course takes another academic, pedagogical, cultural or linguistical approach, or to student's desire to interact with the international environment. The student may also think that the foreign course is more efficient, relevant, or of higher quality. For all of these options technology is an important if not essential condition. The institution responds to the learner by increasing flexibility in a number of ways, not only relating to place and time, but also to content, assignments, prerequisites, resources, and other aspects of course participation. It may cooperate with foreign partner institutions in order to widen the choice for international on-line options within a common course management and credit transfer and recognition system.</p>
The New Economy	<p><i>Global and network-mediated transactions are the norm. Learner chooses what he wants and thus takes responsibility for quality assurance.</i></p> <p>The student wishes to make his or her own decisions about what, when, how, where, and with whom he or she learns. The student will often be a working professional, and has a good idea of the types of courses or learning experiences that would be useful to his work setting. The employer is stimulating and supporting lifelong learning efforts. The student approaches an intermediary or advisory person (via the WWW), who provides assistance in defining level and learning needs. The student will search the WWW himself (or use a portal) to locate appropriate learning options. These may come from different institutions around the world, according to their particular profile and expertise. The student will choose on the basis of the relevance, quality, efficiency, and flexibility of the various options. The student can stay at home and continue professional and family responsibilities. The student is a life-long learner looking for just-in-time internationally competitive provision. In principle the student does not study for a degree, but he or she will require certification of acquired competencies and/or credit accumulation for professional recognition purposes.</p>

FUNDING MODELS IN E-LEARNING

Matkin, Gary W. "Notes on Financing University Distance Education." *Continuing Higher Education Review*, Vol. 65, 2001.

Appendix with descriptions of six funding possibilities for emerging e-learning ventures:

Forms of Capital	Description/Examples
Venture Capital	venture capital-funded firms contract or form partnerships with universities Impatience for high returns can lead to shortcuts, compromises, and shifting business plans that could threaten academic quality
Internal Capital	Funding universities devote as part of an operating budget or from existing reserves (not from institutional treasuries), used to fill in gaps left by other financing methods or "seed capital" to attract other funding. Development of delivery infrastructures. When used for development of courses, results vary.
Patient Capital	Comes from outside the university (university-related foundations or long-term institutional investors) or from a university's endowment or investment pool. Returns expected in 3-5 years at rate of 10-15% after that period; does not intrude upon management or academic decisions
Smart Capital	Patient capital provided by an individual or organization that brings value to the enterprise over and above monetary investment. Provides funding as well as special expertise and capacities in marketing, distribution, technology, audience assessment, or definition of needs
Free Capital	Capital that does not expect a financial return, such as from foundations Can jump-start program planning. Requires upfront investment in proposal preparation with no guarantees, often provided for specific and narrow purposes/programs, rarely provides funds for infrastructure or marketing. Difficult to plan, and once received, often forces alteration to previous plans
Substitution Capital	Investor does not provide money, but some element lacking in universities' capacity in return for a share of future income stream, e.g., d-e portals take on marketing functions for a percentage of income. Strategic selection of partner can provide opportunities in place of scarce capital. Difficult to choose appropriate partner.