

**Business Services for Small Enterprises in Asia: Developing
Markets and Measuring Performance**

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Commercialized Training Product Development: Lessons from the Trenches

By

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**Workplace Training Systems, Open Learning Agency,
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“Commercialized Training Product Development: Lessons from the Trenches”

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Abstract

This paper focuses on how to develop commercial training products and services for the SME (small- to medium-sized enterprise) sector. It describes a product development and commercialization strategy developed by the Open Learning Agency (OLA) for the Mekong Project Development Facility (MPDF) of the International Finance Corporation (IFC) in Vietnam. The strategy includes the use of information and communication technologies (ICT) in product development and a delivery channel of “value-added retailers” (VARs) who provide a variety of services using the product as a foundation but customized to SME client needs.

The paper is divided into three main sections. The first section provides a brief description of a number of the key trends within the newly emerging “learning industry” that are effectively revolutionizing the development and delivery of training in and for the workplace. These include: the entry and rapid growth of significant private sector players in the learning business; pedagogical models which impart primary content via digital media and place instructors in a supporting or facilitating role; the rapid penetration of learning technologies; the transformation of traditional curriculum into reusable software objects; and the challenge and opportunity of aggregating demand for training in the SME sector. The second section describes a proposed strategy for Vietnam, Cambodia and Laos to disseminate a management training program for SMEs across the country in a flexible and commercially viable manner. This section complements John McKenzie’s paper, Creating a market in Management Training for Vietnam’s private firms: MPDF’s experience. OLA proposes to reformat products developed by MPDF for classroom training into a set of modular workbooks which can be used in the classroom, at workshops, for independent study, in training centres and in the workplace. The products will be designed for use in other media as well, such as CD-ROM or internet-based training. To deliver these products to large numbers of SMEs, a delivery channel of an MPDF-authorized VAR network will be established. The network will include both private and public training providers and associated enterprises such as publishers and software producers which will be able to add value to the core products. The third section provides five cautions and insights based on OLA’s experience of developing and marketing similar training products: using technology appropriately and integrating it into a complete learning system; ensuring control and ownership over the training content; considering the option of acquisition and adaptation of someone else’s product; validating that training need constitutes training demand; and ensuring supply-side interventions in the training market produce the desired results.

The paper concludes that the greatest challenge in commercializing training products and services, particularly for the wide-ranging but hard to reach SME sector, is the translation of training need into demand.

1. Introduction

The era of lifelong learning has truly arrived. The confluence of globalization, technological, economic and social change has created an unprecedented demand for individuals, organizations and indeed, entire countries, to continually acquire new skills and knowledge. Within the context of global competitiveness, it is now generally accepted that the capability and capacity of a country to develop its “human capital” through education and training is a key source of competitive advantage. For emerging economies like Vietnam, an enormous challenge will be to implement strategies that enable rapid, cost effective skill and knowledge acquisition and dissemination in key sectors of the economy.

In Vietnam, as well as many other countries that are the focus of this conference, the small- to medium-sized enterprise (SME) sector is now generally regarded as the true engine of future economic growth. Developing the required business skills and knowledge of the SME sector, whether in the industrialized or the developing world, presents an enormous challenge due to the inherent nature of the SME sector. The authors believe that success will

require new, non traditional approaches to training and development predicated upon the informed use of technology, distributed learning strategies, knowledge architecture and the application of commercial principles and concepts drawn from other areas of business practice.

This paper is divided into three sections. The first section provides a brief description of a number of the key trends within the newly emerging “learning industry” that are effectively revolutionizing the development and delivery of training in and for the workplace. The second section describes a proposed strategy for Vietnam, Cambodia and Laos to disseminate a management training program for SMEs across the country in a flexible and commercially viable manner. This section complements John McKenzie’s paper, *Creating a market in Management Training for Vietnam’s private firms: MPDF’s experience*. The third section provides cautions and insights based on our experience of developing and marketing similar training products.

2. Key Workplace Training Trends

Training and education that occur in the context of the workplace are clearly in the midst of a radical transformation. We are now seeing the emergence of a global learning industry that some analysts predict will become a major economic force within both developed and developing nations. This is largely due to the emergence of knowledge-based economies in which education and training systems play an enormously strategic role in the creation and dissemination of new knowledge. While there are numerous forces at play within the industry, the following five trends are perhaps the most significant in reshaping how we create and distribute training content and, most critically, how we learn. These trends include: the entry and rapid growth of significant private sector players in the learning business; pedagogical models which impart primary content via digital media and place instructors in a supporting or facilitating role; the rapid penetration of learning technologies; the transformation of traditional curriculum into reusable software objects; and the challenge and opportunity of aggregating demand for training in the SME sector.

a) Learning As Business

In many parts of the world education and training are traditionally seen as an effective public sector monopoly—as social good that is heavily subsidized and managed by the various levels of government. In recent years, however, due to trends to outsource public service combined with the significant revenue opportunities in all facets of the learning industry, we are seeing the entry and very rapid growth of significant private sector players. In North America new highly capitalized companies such as Knowledge Universe and Provant are pursuing aggressive acquisition strategies, purchasing and integrating large numbers of specialized smaller training firms for their expertise, content or proprietary technology. While their primary target tends to be the \$65 billion annual workplace market, there is also much evidence of their rapid entry into the K-12 and the post-secondary markets.

It is interesting to note that many parts of the developing world are considerably ahead of the trends towards the emergence and dominance of the private sector in all levels of education. A recent report published by IFC on the Global Education Industry details the extent to which private, for-profit organizations now dominate the sectors of the education industry in countries such as India, Mexico and Brazil. While these developments may cause a great deal of concern among public educators and policy makers, the authors found much evidence of excellence and innovation. In fact they advocate the expansion of this education business sector as one means to expand access and quality within environments of constrained public investment. In addition to access to capital, private sector companies in the learning industry have the added competitive advantages of a very strong marketing orientation, access to technology and relative high levels of strategic technology literacy and, of course, general business expertise and discipline that are not always evident in their public sector counterparts. The primary benefits will likely accrue to the consumer who, within a more highly competitive market, will see greater choice, more price competition and higher levels of innovation forced through competition.

b) Learning As Product

Traditionally, educators and trainers have resisted all attempts to characterize their area of endeavor as either a market service or a product. Much of this stems from a view that regards formalized learning as an inherent social good that is, by nature, beyond classification as a commercial commodity. In addition to this more philosophical stance, another form of resistance has come from the traditional nature of classroom learning itself. This is, of course, a paradigm that places the educator/instructor/subject matter expert at the very centre of the learning enterprise with a mandate to impart content that lies for the most part in his/her head to a group of willing and often

passive learners. Some coin this the “mentor at the centre” approach. Documentation of the curriculum, if it exists, is most likely in the form of personal instructor notes backed up by supplemental resources such as textbooks.

With the advent of the new learning technologies and distributed training strategies, this paradigm has now been effectively reversed. Instructional content can now be captured, organized in accordance with instructional design and knowledge architecture standards. It can then be distributed synchronously and asynchronously using any variety of digital storage and distribution media including CD-ROMs, linear videos, television broadcasts, and, of course, the Web and Internet. New pedagogical models now place the instructor in a supporting or facilitating role with the primary content imparted via the digital media—the instructor effectively becomes the “guide at the side” of the learner. So rather than instruction being what we might consider an ephemeral, one-time instructional event, in the new model it effectively becomes a tangible product that can be valued, and distributed via multiple channels into the global marketplace on a commercial basis. It is this fact and the enormous potential market demand for training product that has captured the attention and imagination of the private sector.

c) Learning and Technology

Perhaps the most pervasive trend that is impacting the learning industry is the rapid development and application of information and communications technologies in order to re-engineer what has been a very conservative field of endeavor. The pace and success of technology innovation has admittedly been disappointing over the past 20 years. Now with the convergence of technologies on the Web and the dramatic expansion in affordable bandwidth, most experts now confidently predict that we are now on the cusp of nothing short of a true revolution in how we create content and deliver it in highly customized and cost effective ways to learners throughout the world.

While the traditional classroom still dominates much practice, recent industry benchmarking analysis reflects the pace of technology innovation and adaptation:

- In 1997 leading edge firms in the U.S. delivered 11.8% of training via technology; the projection for 2000 is to rise to 27%.
- In 1997 82% of all U.S. firms were evaluating the delivery of on-line learning and predictions are that the e-learning market will grow from \$178 million in 1997 to \$1.8 billion in 2001.
- It is predicted that on-line learning will account for over 15% of the global training and education market by 2001.

The migration to technology-based learning systems is certainly not restricted to the developed economies. There is much evidence that developing countries, strongly supported by the major donor organizations are establishing specific strategies to effectively “leap frog” traditional “bricks and mortar” systems and dramatically expand access through strategic investment in telecommunications and information technology infrastructure upon which distributed education models and systems can be built.

In his recent book, *The Digital Economy*, Don Tapscott enumerates five themes for what he terms technology-enabled “new learning”:

- Increasingly work and learning are becoming the same thing.
- Learning is becoming a lifelong challenge.
- Learning is shifting away from formal schools and universities.
- Some educational organizations are working hard to reinvent themselves for relevance, but progress is slow.
- The new media can transform education, creating a working-learning infrastructure for the digital economy.

d) Structured Content and Knowledge Architecture

While the preceding section mentioned a very pervasive trend to migrate learning and instructional content to new technology platforms, new ways of creating, organizing, labeling and retrieving content also promise to revolutionize the learning industry. This future, which has now arrived for commercial industry leaders, entails the transformation of traditional curriculum into reusable software objects. These learning objects or “granules” can then be used in combination with others to provide any and all manner of multi-media training formats customized to the learners’ needs.

While there is enormous support for this direction from major commercial developers, a major breakthrough occurred in August, 1999, with the release by the Instructional Management System of a new global set of meta-data standards for defining and tagging learning content that allows use by competing learning platforms. The essence of the structured content approach is to divorce instructional content from presentation medium thereby allowing the delivery of that content via multiple modalities (e.g., CD-ROM, LAN/WAN, Web/Internet, and even classroom).

e) The Under-Served SME Training Market

One of the great challenges and dilemmas for donor organizations and, indeed, training suppliers is how to develop training services, products and strategies for the small to medium sized business sector. This holds true for this sector in the fully developed economies and those that are emerging. In both the developed and emerging economies it is well recognized that the SME sector is where most job growth and true business innovation occurs. It is also recognized, however, that the managers and employees require training in order to improve the efficiency of their operations. A lack of management and business skills tends to be the greatest impediment to both survival and growth. There remains a chronic under-investment and under-participation in all kinds of formal training. The evidence of this demand weakness can be found in the simple fact that there are very few commercial training suppliers who target this sector, but rather focus the majority of their products and services on larger firms.

Among the major challenges and impediments to commercially developing the SME sector include:

- A lack of reliable research/market data on training requirements and dynamics that can be used to establish services and strategies;
- The simple fact that the SME sector is highly heterogeneous, with firm size often being the only common characteristic;
- A generally weak training culture with very minimal internal allocation of financial and human resources to support training; and
- Enormous difficulties in aggregating demand in order to provide training using traditional off-the-worksites methodologies.

It is precisely this last challenge respecting aggregation of customers that creates new opportunities for donor organizations and commercial suppliers. As mentioned earlier, success in this market is now feasible, the authors believe, through the application of many of the concepts and technologies that have been described in this section. With this context, we can now consider a proposed strategy for SME sector training in the Mekong region.

3. The MPDF SME Training Strategy

The International Finance Corporation (IFC)—Mekong Project Development Facility (MPDF) engaged Open Learning Agency¹ (OLA) during the period September 13 to 25, 1999, to recommend a commercially-based strategy for expanding access to management training for the small- and medium-sized enterprise (SME) sector in Vietnam through the use of both supply and demand stimulus mechanisms. The consultancy was conducted against the backdrop of extensive market demand research done by MPDF regarding SME training needs and subsequent development of a classroom-based management development training curriculum². Upon acceptance of the strategy concept, during a subsequent consultation from December, 1999 to January, 2000, a detailed plan was developed for pilot implementation of the proposed strategy. The strategy is to be tested not only in Vietnam but Cambodia and Laos as well. The pilot will examine two key areas: the re-purposing of curriculum into flexible workbooks that permit training to be tailored for specific groups; and the use of a network of VAR training services in fostering a commercial approach to the dissemination of such training within the Mekong region.

Gibson³ identifies four categories of business development service (BDS) instruments: training vouchers; matching grants; product development; and social venture capital. The BDS intervention proposed by OLA focuses primarily on the third intervention, training product development with multiple providers; however, a sub-strategy related to

¹ See Appendix for a description of the Open Learning Agency

² As described in John McKenzie's conference paper, *Creating a market in Management Training for Vietnam's private firms: MPDF's experience*

³ **Gibson, A. (1999);** *Market development in BDS: where we are and how to go further—A summary paper emerging from real and virtual conferences on business development services for SMEs*; The Springfield Centre for Business in Development, Mountjoy Research Centre of the ILO, Durham, UK, pp 6 – 7

the first intervention, use of training vouchers as an initial stimulus for training demand, is also included.

a) General Description of the Training Strategy

The core business concept of the training strategy entails the establishment of a MPDF-authorized Value-Added Retailer (VAR) network built around a body of digital, core training content for SME managers (“learnware” product). The VAR network is capable of providing quality training services to the SME sector in multiple modalities at competitive prices.

The approach hinges upon a set of integrated mechanisms to stimulate both supply and demand for SME training. While there are a number of key supporting elements to the strategy, the two most critical are as follows:

- A cornerstone of this strategy is *the reformatting of the existing management development curriculum* into a set of modular workbooks which can be used in a variety of settings (e.g., classroom, workshops, independent study, training centres, workplace). The reformatting process will incorporate the application of knowledge architecture (i.e., the digital creation, tagging, storage and retrieval of content). This will enable the repackaging of content for multiple future applications such as interactive CD-ROM or internet-based training. This will become a critical downstream benefit for Vietnam as its basic information and communications technology (ICT) infrastructure improves.
- A second critical element is *establishment of a value-added retailer (VAR) network* authorized by MPDF. This network, comprising private and public training suppliers and associated enterprises such as publishers and software producers, will have the capability to provide a variety of value-added services related to the core product. These services may include instructional support, consulting, and other product enhancements.

While the VAR concept may be a somewhat non-traditional approach in the Vietnam training market, it is a widely used and proven business concept. For example, in numerous other product categories ranging from computer sales to financial services the value-added retailer model is perhaps the dominant business strategy for efficiently and effectively channeling products and services into highly targeted markets. Moreover, as evidenced by the numerous examples of signage on the streets of Hanoi and Ho Chi Minh City (Microsoft Authorized Dealer, Xerox Authorized Repair Center etc.), the VAR concept is both viable and familiar in Vietnam.

Within the training business, the use of dealer networks rather than a direct sales force has also become a very common and effective strategy for product and content producers/owners to move their products into the training marketplace. Among the numerous examples are Microsoft, Cisco, Sun Microsystems, Novell, Zenger Miller and DDI. Irrespective of product category or market niche, the acknowledged advantages of the VAR strategy includes:

- Reducing sales overhead
- Leveraging the established VAR customer base and market presence
- Expediting product penetration and sales cycles
- Facilitating local customization of products and services to customer requirements

The strategy fulfills most of the key characteristics of Gibson’s definition of market development interventions⁴:

- It is based on extensive *analysis* of existing markets⁵.
- It is *temporary* in nature in that it is intended to spawn eventually a training industry within the country. In this sense, the strategy is a “movie within a movie:” it creates training product for SMEs and then trains VARs in the use of the product to expand or create their own training businesses, as SMEs themselves.
- It pursues a *clear vision* of how the market will work beyond the intervention (namely, the VAR network).
- It envisages working with *multiple private sector providers* through the VAR network, as well as commercially-minded public sector providers.

⁴ *ibid*, p. 2

⁵ Cf. John McKenzie’s paper, *Creating a Market in Management Training for Vietnam’s Private Firms: MPDF’s Experience*

- It is *facilitative* rather than delivery-oriented in that the VARs ultimately find the market balance. MPDF subsidizes developmental and promotional costs but VARs are responsible for their own operational costs and pricing structures.

There is one difference, perhaps, that distinguishes the strategy from a pure market development intervention as defined by Gibson, namely the degree to which MPDF will retain ownership and control over the VAR network. On the one hand, the providers themselves will be engaged in substantial additional training product development and enhancement through value-added services; on the other hand, MPDF will continue to facilitate development of the core training product through its leadership role in the VAR network.

b) Strategy Framework

The proposed business strategy comprises 6 key elements (see diagrams 1 and 2 in the graphics annex):

- **Product Development/Enhancement:** To reformat the current classroom-based materials for multiple, flexible delivery options by applying knowledge architecture and instructional design approaches.

This first stage consists of three interrelated components: the organization of course curricula into discrete standalone modules which are, in turn, broken down into smaller units (called “learning objects” or “granules”); preparation for “meta-tagging” of training content, according to international standards, which enables its output into multiple instructional products such as print workbooks, instructor notes, CD-ROM formats, and web-based instructional delivery; and the storage of all training content in digital format for easy retrieval and assembly

Initially, the instructional product will be a critical mass of short, learner-centred workbooks produced for the pilot. These can be used to support a variety of instructional approaches, including independent study, distributed/distance education delivery, workplace-based delivery, classroom-based instruction from public or private training/education institutions, or any combination of these approaches.

- **Product Distribution:** To distribute the learnware to the broadest possible audience at the lowest possible price.

The distribution strategy will comprise four sub-strategies which are sequenced in order of descending technological availability within Vietnam today: first, to make existing classroom-based curriculum available to all training suppliers at the cost of reproduction; second, to output the learnware into a print workbook series in partnership with a publishing house and distribute them through existing wholesale/retail channels; third, to output the learnware into searchable CD-ROM format which can also be distributed through the existing wholesale/retail channels; fourth, to make learnware available on the MPDF web site for downloading electronically by any client or organization that has the technical capabilities of accessing the Internet. (For the pilot, this strategy will be provided as a demonstration module only.)

While it is acknowledged that there are not many clients who will avail themselves of the latter two distribution options, it is anticipated that, as the technological infrastructure improves in Vietnam, they will become increasingly prevalent.

As training materials will be available through retail outlets of the publisher/distributor chosen for the pilot, VARs will not have exclusive access to them, though they will enjoy wholesale rates and volume discounts. Thus, the quality of the value-added services provided by the VARs to support the materials will be a key differentiator for SME customers in making their selection of training provider.

- **Product Support:** To establish a non-exclusive retailer network comprising public and private organizations that can add further value to the learnware (e.g., “system integrators”).

This strategy proposes a network of value-added retailers (VARs) who are authorized by MPDF. Under this model, all dealers will be expected to meet quality standards for business and training services as established by MPDF.

Among the value-added services that the VARs might provide on a fee-for-service basis to support the learnware are: instructional support via classroom, workplace or distance learning; consulting advice;

credentialling; additional product enhancements and creation of subsidiary products (e.g., conversion of CD-ROM to an interactive version, development of ancillary web-based courses); customized seminars (e.g., for specific sectors; for specific client groups such as women entrepreneurs); and additional content enhancements (e.g., creation of additional content for modules).

With respect to roles and responsibilities within the VAR network, MPDF's primary role will be to establish and support the network through the following activities:

- MPDF/IFC/World Bank branding
- Implementing a national promotional campaign
- Training to enable VARs to make most flexible use of the workbooks and learnware
- Ensuring that VARs comply with standards set by MPDF
- Facilitating networking and sharing of best practices among VARs

The roles and responsibilities of the VARs will be:

- Minimally serving the SME sector through the provision of additional services in support of the workbooks and other learnware. (It is acknowledged that non-SME sectors may also benefit.)
- Adhering to quality standards that have been established by MPDF.
- Collecting, collating and reporting evaluation/participation data to MPDF.

It is anticipated that initially the number of VARs participating in the pilot network in Vietnam will be between 4 to 6. Approximately 3 VARs will participate in each of Cambodia and Laos during the pilot.

- **Product Promotion:** To push/pull the SME clients to the learnware and the VAR network through a two-level strategy.

The first level is self-promotion conducted by the VARs themselves who will benefit from leveraging the MPDF branding and their authorized dealer status; the second level is a more comprehensive national strategy developed, implemented and financially supported by MPDF.

- **Product Introduction/Demand Stimulus:** To create demand in the marketplace for the newly introduced product through the use of a financial subsidy mechanism targeted at the consumer.

This element of the strategy differs from previous elements that have focussed on the supply of training and related services. A voucher program will be established through which MPDF would share in a portion of the costs of the training with SME employers and employees. This voucher would be contingent upon the utilization by the employer of both the learnware and the VAR network. Following on lessons learned regarding similar voucher systems in Paraguay, Kenya and elsewhere⁶, this component will only be made available as a limited-time, introductory offer in order to stimulate initial demand within the training market place.

- **Product Evaluation:** To assess whether the business strategy is achieving its stated objectives and to serve as a basis for improvement of strategy/products.

The envisaged evaluative framework will comprise four levels of ascending complexity and cost: first, data collection regarding SME reaction to learnware as well as related VAR services; secondly, determination of whether SME learners have achieved objectives as set out in the various workbook modules (or other learnware products as they become available); thirdly, the transfer of knowledge and skills gained through the training to SME's own work processes; fourthly, determination of whether the training has had the desired impact on business performance of SME sector.

⁶ See **Goldmark, L. (1999)** ; *The Voucher Training Model: What Next, After Paraguay?*; Inter-American Development Bank, Washington, D.C., and **Riley, T. and Steel, W. (1999)**; *Kenya Voucher Programs for Training and Business Development Services*; World Bank, Washington, D.C.

c) Detailed Pilot Implementation Planning

As previously mentioned, OLA was retained for detailed planning of a pilot implementation. This phase seeks to draw upon lessons identified by Gibson⁷, namely:

- Plan a scalable pilot that is sufficiently detailed to develop a “sustainability” picture for the future. The implementation plan seeks to establish a “critical mass” to test each stage of the strategy.
- Specify intervention instrument(s)—and their interrelationship—clearly. The entire pilot project has been described using a “logical framework” approach incorporating performance indicators and means of verification for each output and activity.
- Identify carefully selection criteria and approaches for prospective providers (VARs). Key selection criteria include: demonstrated knowledge of education and training; financially stable organizations with demonstrated business acumen; existing connections or demonstrated capacity to develop connections into target market; organizations with sufficiently low cost structures to serve SME market (and to keep price points within an affordable range for SMEs); willingness to innovate in terms of educational delivery and a willingness to learn new delivery options; and demonstrated connections to SME target market. It is recommended that VARs be selected through a “Request for Proposal” (RFP) process whereby they respond to standard list of questions and demonstrate to MPDF how they meet the VAR requirements. This process clarifies for prospective VARs the nature of the business relationship and the performance expectations and standards. The preparation of a response (proposal) allows the prospective VAR to evaluate their own strengths and likelihood of success in this relationship. This process also ensures that those candidates that submit a proposal have a better understanding of what is required of them and an idea of how they will deliver. Key elements for RFP and evaluation would include: VAR partner’s capabilities as they relate to project needs; VAR experience in education and technology; a budget detailing cost to VAR; revenue projections; product pricing strategy; human resource requirements; product enhancement strategy; marketing strategy; long-term business plan of VAR; and SME access (based on past relationships, etc.).
- Determine evaluation criteria and success indicators, particularly those that will involve VARs in the collection of evaluation data as a condition of support from MPDF and also as good practice, in their own best interests as SMEs themselves. The “logical framework” serves as the basis of evaluation for the pilot, outlining performance indicators and means of verification for each output and activity. Evaluation measures will be kept straightforward and simple, focussing upon the following key elements:
 - Number of retail sales of participant workbooks in Vietnam, Cambodia and Laos
 - Number of SMEs who were VAR customers in each of Vietnam, Cambodia and Laos
 - Type of SMEs reached i.e., representative participation in the pilot project by SMEs across diverse subsectors
 - Ability of VAR to recover costs i.e., percentage of VARs who were able to provide services on a cost-plus basis
 - Percentage of SMEs who were satisfied with training content
 - Percentage of SMEs who were satisfied with VAR services
 - Percentage of SMEs who indicated program participation was contingent on access to vouchers
 - Diversity (number and type) of value-added services provided by VAR network

4. Insights and Examples—Implications for Donor Organizations

While the preceding strategy is currently being piloted and tested, OLA has had experience with the development and marketing of similar training products over the past twenty years. There are five key insights and cautions that emerge in considering alternative, technology-assisted training as product: using technology appropriately; maintaining control and ownership over content; considering the option of acquisition and adaptation of someone

⁷ Gibson, A. (1999); *Market development in BDS: where we are and how to go further – A summary paper emerging from real and virtual conferences on business development services for SMEs*; The Springfield Centre for Business in Development, Mountjoy Research Centre of the ILO, Durham, UK, pp 8, 9, 13

else's product; validating that the training needs do indeed translate into demand; and ensuring supply-side interventions in the training market produce the desired results.

a) "Beware of the seductiveness of technology"

The glamour and promise of new information and communication technologies (ICT) that are having such an impact in the industrialized world can be seductive and charming, like the Sirenes of mythology who shipwrecked unwitting sailors. It is impossible to pick up a journal from the training industry without seeing reference to the Internet as the panacea for training large distributed workforces across the globe. It is also a trend identified among innovations in BDS instruments used at the micro level.⁸ Indeed, even at our own institution, we have made a conscious decision to use web-based training as the foundational delivery methodology for our course offerings aimed at the primary, secondary and post-secondary levels. When our clients hear the Sirenes of technology, however, alarm bells go off in our heads. From our experience at OLA, there are a number of cautions that must be addressed regarding use of ICT in BDS interventions: the *appropriate use* of ICT in training; the *integration* of ICT into learning systems; and the *selection* of ICT media.

First, it must be understood that the use of newer learning technologies is still in its infancy. While there are rapid gains being made in friendly user interfaces and speed of transmission through compression technologies and broader bandwidth capability, examples of good *application* of the technology to learning are rare. Much of what is currently called training on the Internet is little more than information dissemination; that is, it is still relatively passive from the learner's point of view and requires little interaction. The power of the Internet and other technologies for tailoring training to specific learner profiles has yet to be fully harnessed. Indeed, there are new learning paradigms to be explored using this technology that transcend traditional instructor-led methods of training. They should be different – the intent is not to replicate classroom training but provide more accessible, and perhaps more efficient and effective, alternatives. As an example of effective transition to newer technologies, in the mid-1990's, OLA developed a satellite videoconference on managing diversity for seven of the crown corporations in the province of British Columbia. The day-long seminar would have been tedious had we adopted a "talking head" lecture format. Instead we chose a variety of techniques and created an interactive design including expert panels, role plays, and several breaks throughout the day for facilitated site discussions among trainees with follow-up opportunities to send in questions to the content expert hosting the program. We used the satellite videoconferencing technology in the most appropriate way, capitalizing on its strengths (high penetration, ability to demonstrate abstract concepts, opportunity to transmit standardized and consistent training over a short timeframe to a large audience) and minimizing its weaknesses (passive trainee participation).

Secondly, technology should be seen as a tool in support of learning and training, a means to an end rather than an end in itself. It is a medium through which training takes place. In the same way that blackboards, flipcharts, overhead projects and VCRs support the trainer in the classroom, new technologies support the learner. An inherent risk is permitting the technology to drive the training, that is, choosing the technology first and then forcing the instruction to fit. In fact, technology is only part of a learning system that combines content learner support and assessment for credentialing purposes (see diagram 3 in graphics annex). As such, it must be integrated into, and supported by, the system. OLA runs a number of learning centres to assist individuals in re-entry into the workforce (either changing jobs or making a transition from welfare to work). While computer-based training in basic skill development is a significant part of our training program, it is supported by a complete learning system which includes the use of facilitators, counsellors and peer support. To avoid the danger of technology-driven training solutions, adherence to the principle of demand-driven training products is key: identify the objectives of training and needs of the target audience first; from this, all other instructional decisions are derived, including selection of technology.

The question of how to select appropriate technology for training interventions has a multi-faceted answer. One model which we have found particularly useful was developed by Dr. Tony Bates, world-renowned expert in instructional media and a former Executive Director of OLA, currently at University of British Columbia. The salient factors that need to be considered when selecting technology for use in instructional products are encapsulated

⁸ **Committee of Donor Agencies for Small Enterprise Development (1998);** *Business development services for SMEs: Preliminary guidelines for donor-funded interventions—Summary of the report to the Donor Committee for Small Enterprise Development*; World Bank, Washington, D.C., p. 14

by the following convenient acronym, **ACTIONS**: **A**ccess, **C**ost, **T**eaching functions; **I**nteraction and user-friendliness; **O**rganizational factors; **N**ovelty; and **S**peed of modification.⁹

- *Access*: Where will the training participants learn? At work, home, educational institution, local centre? What technologies are already available to trainees?

In Vietnam we learned that while CD-ROM and Internet technologies certainly exist, they are currently available to very few. In a country of 80 million, one million own computers and only 400,000 had access to the Internet, and approximately 25% of those were foreigners. Moreover, only available since 1998 in Vietnam, the use of Internet is heavily regulated and monitored by the State. While speed of access is acceptable within the country, access to sites external to the country is slow. Interestingly enough, we did find that television was prevalent and popular within Vietnam (the country has a dubious distinction of highest number of viewers of t.v. commercials per capita). Also, owing to high literacy rates among the Vietnamese people and cultural (Confucian) emphasis on the merits of education, print is a popular medium.

- *Costs*: What capital and recurrent costs will be incurred by using the technology? What will the fixed and variable costs be?

Some technologies, such as television or computer-based learning, require high initial capital expenditure e.g., purchase of equipment. Recurrent costs are those that are required to continue to run the system e.g. staffing, money spent on production or purchase of training materials, cost of instructional delivery. OLA is in the enviable situation of having its own television broadcast station, providing educational programming to the public of our province in Canada; however, it is a costly enterprise to run, particularly maintaining currency of capital equipment in an ever-evolving digital world, and fully consumes one-third of our total operating budget.

The distinction between fixed (production) and variable (operational) costs is also an important one. Different training media require different levels of preparation time and cost. High fixed/production costs can be more easily justified if there are large numbers of trainees over a number of years. Technologies can also differ considerably with respect to variable costs. The cost of delivery of a television broadcast is the same whether there is one viewer or a million; the cost of provision of a videocassette training program, on the other hand, will vary in direct proportion to the number of trainees.

It is curious to note that costing of technology-assisted learning is frequently the reverse of costing for more traditional classroom-oriented training. In the latter case, the development costs are relatively low: essentially instructors are assigned a curriculum and left to devise their own lesson plans, handouts, readings, etc. The operating costs, however, are relatively high due to the ephemeral nature of classroom-based training; that is, in order to offer the course, ongoing costs of the instructor and classroom facility must be considered. In the former, there is considerable expenditure on development of the technology-assisted learning (e.g., CD-ROM, videocassette, Web-based course design); however, once developed, the ongoing operating costs are relatively small. This is a particularly important point to bear in mind when comparing costs between traditional and alternative training methods.

- *Teaching functions*: What are the presentational requirements of the training content?

Media differ in the extent to which they can represent different kinds of knowledge, particularly in their ability to handle concrete or abstract knowledge. Computers, for example, are excellent for presenting and testing rule-based procedures; video, on the other hand, is a rich medium that can deal with representation of more ambiguous concepts.

- *Interaction and user-friendliness*: What degree of interaction is desired between trainer and trainee as well as among trainees?

Some media are “one-way”, such as print or broadcast television, and may require supplementing by “two-way” interaction with facilitators. Other media, such as computer conferencing, may provide significant opportunity for open-ended two-way communication under learner control. Such interaction is made even more flexible

⁹ **Bates, A.W. (1991);** *Technology in open learning and distance education: A guide for decision-makers*; Commonwealth of Learning/Open Learning Agency, Vancouver, Booklet 3, p 8

through asynchronous communication, that is, the learners need not necessarily share the same time (or space) in order to interact.

- *Organizational factors:* How well can the existing organizational (or at a macro-level, country) infrastructure support the use of the technology? What changes may be required to facilitate the use of a particular technology?

The existing technological infrastructure within a country or an organization is a major factor in the selection of media. Even though the acquisition of computers and use of the Internet are increasing at a rapid pace within Vietnam and the country has an excellent telecommunications backbone (among the best in world according to Telstra), the country faces difficulty in delivering the “last mile,” that is, connecting the consumer to the telecommunications backbone.

- *Novelty:* To what extent will the “trendiness” or “sizzle” of the technology chosen stimulate funding and innovation and attract potential trainees?

One of the least important criteria, novelty of a new technology may be attractive to donors and potential trainees. The challenge is ensuring that one does not end up with a fad technology that becomes obsolete within several years. Large 12” videodisks were a fad 5 years ago that are rarely seen today; OLA chose not to jump on that particular bandwagon despite enticements by provincial government funders to find ways of applying this technology. Sustainability of the technology in the long-term is an important issue.

- *Speed of modification:* How quickly and easily can the material be updated and changed? How quickly can volatile training content be modified using the technology?

Some media lend themselves to updating and change better than others. Many of us are familiar with how quickly video footage can date itself; web-based training content, on the other hand, can be updated very rapidly. Application of instructional design to learning technology also plays an important role here. Creating visuals and graphics that are insensitive to changes in fashion and hairstyles and separating potentially volatile content from instruction are examples of clever techniques instructional designers use to maintain training course currency. Also, the emergence of digital storage and retrieval of media and the dissection of learnware into smaller modules and “granules” enable content changes for a variety of media through a single source.

The following caveats can be made regarding the selection of technological media:

- The ACTIONS acronym is a useful tool in making technology decisions for training and presents media selection criteria in a relative order of importance.
- Instructional design decisions rarely require selecting one medium over another but, rather, combining media to optimize their advantages and minimize disadvantages. Again, support systems that surround these tools are as important as the tools themselves. At OLA, we hold that media selection represents a spectrum of choices, *including* face-to-face instruction. Indeed, almost all of our learning system designs involve human interaction.
- It is easy to fall into a “default” mode, making technology decisions on the basis of the least common denominator i.e., what is accessible to all in the country rather than considering all the criteria together. Institutional systems in place can sometimes drive the agenda and force media decisions rather than basing them upon the needs and objectives of trainees. OLA’s print facility is a case in point, driving much of course production in the 1980’s and early 90’s at OLA; strategic policy decision-making was required to propel the Agency forward into the use of newer technologies.
- The risks in media selection decision-making are diminishing due to the convergence of computer, telecommunication and broadcast technologies. At some point in the future, separation among media as we know them today may become quite seamless. Nevertheless, for developing countries, the selection of media may still represent a significant decision. It is necessary to find the balance between building upon existing technological infrastructure within the country and positioning the country to take advantage of future technologies (the so-called “leapfrog effect”).
- Finally there is the issue of knowledge transfer about use of learning technologies in the developing country. Donors are often interested in this question as it relates to sustainability of the intervention; they naturally desire SMEs within the country to gain this knowledge for themselves rather than continue dependence on foreign expertise. While understandable and laudable, it is important to gauge the readiness of the training organizations within the country, not only from a technical but also a cultural perspective. The technical perspective relates to a point already made, the ubiquity and accessibility of the technology within the country. The cultural

perspective, however, is something deeper, relating to the teaching traditions of the country and attitude toward learning with technology. In Vietnam, non-classroom-based training enjoys less stature than education received via rote copying of lectures given in the classroom. It is said that the Vietnamese attribute quality of education to the physical size of the training campus (“power of the emperor” syndrome). It appears, however, that attitudes toward passive learning approaches are changing among educators and students¹⁰. Nonetheless, there is a significant job to be done in the training of prospective training providers in the techniques of open learning approaches, use of learner-centered (rather than teacher-centered) instructional design and use of learning systems before inroads can be made to successful transfer of knowledge concerning effective and efficient use of learning technologies within the country. It is for this reason that the VAR network is so attractive: it can be used to stimulate new thinking in the area of flexible training approaches using technologies while at the same time adjusting to the realities of the country’s economic and cultural drivers, testing the most appropriate and suitable channels for distribution of the training product. The need for change in the Asian passive learning paradigm has been identified as a major impediment to economic growth, compared with those countries that accentuate greater creativity in their learning approaches. Whether this BDS strategy can or will make a difference is an important question to be answered by the pilot.

b) “Content is king!”

Within the learning system model (diagram 3 in the annex), one of the key components is content. As web-based training approaches become more ubiquitous and global barriers become less challenging, distinctiveness of content will become a major force in consumer decision-making about the kind of training in which they wish to engage. Imagine a world where you as consumer have choices of taking courses from multiple educational organizations based upon fit with your particular needs and the prestige or expertise of the content provider. In a knowledge-based economy, content becomes a knowledge asset of a training provider that has more than intrinsic value; it has financial value. The ability to effectively use, trade or sell learning assets in the future will depend on the provider’s ability to match assets to the needs of learners, other institutions or vendors who wish to use them. Not only will ownership of content be a critical factor, but adherence to international standards which facilitate flexible usage of content will become paramount.

A method for preparing learning assets for use, re-use or commerce involves breaking down training materials into discrete learning objects and associating them with learning outcomes or competencies using a standard classification system (meta data) that facilitates their customization, reorganization, storage and retrieval. As previously mentioned, the Instructional Management Systems (IMS) consortium is currently setting meta data standards.

Porter¹¹ sees this trend toward modularity in learning systems as a key to providing ultimate flexibility for learners. The term “granularity” describes the degree of precision with which learning objects can be described in a learning system. The learning objects (text, image, audio, video) can be “granularized” at a fine level and described as competencies, outcomes, lesson presentation elements, assessment items and other instructional elements. They can then be broken down and reconstituted by a knowledge management system into a variety of different instances of the training course for different audiences. Granularity in learning systems provides opportunities for “mass customization” that can allow an organization to repurpose its learning assets for individuals or groups. Furthermore, when learning materials which are organized in a granular fashion form a common database accessible in different ways by different clients, a scalable model emerges that can be used to service niche applications as well as mass audiences. Granularity and scalability are influenced by the degree to which common standards are observed. Separation of content and its independence from presentation mode create ultimate flexibility in the development of diverse training products. Consequently, as a conscientious organization looking ahead to the future of training, we would urge analysis of training products into learning objects or granules and adherence to international standards for the purposes of their meta-tagging.

Of course, the great advantage of making a rather small additional upfront investment in this conversion is the many downstream benefits that accrue from tailoring the training product. What kind of training services can be derived

¹⁰ In conversations during September and December, 1999, with Vietnamese educators who provide business training to SMEs, as well as SME owners themselves, many indicated success with, and desire for, more participative approaches to learning. **Mekong Project Development Facility (2000); Pilot Implementation Plan for SME Business Strategy**, Open Learning Agency, Vancouver, p. 19

¹¹ **Porter, D. (1998); Learning and technology trends, Moving toward distributed learning**; Unpublished working paper. Open Learning Agency, Vancouver, p. 3

from mixing and matching training “granules”? One provider may wish to aggregate granules in a certain content area to provide a special weekend seminar to targeted SMEs. Another provider may wish to use the granules in a distributed learning enterprise, networking a number of cross-country learning centres hosted by instructional facilitators. A third provider may simply wish to select those granules pertaining to assessment instruments and use these as the basis of a consulting practice which provides tailor-made training solutions for clients. Yet a fourth provider may wish to integrate various granules into an interactive CD-ROM or web-based course. The key here is that the “white elephant” of single mode delivery is avoided. Furthermore, the market dictates the most appropriate modes of delivery and identifies customized and scalable solutions clients want.

One critical issue is the degree of control or ownership over content. It is our belief that, because of the criticality of content and the need to ensure that it remains current and relevant, control and ownership of core content (learning objects) are best left to the donor organization, rather than service providers. The ability of providers to add value to content is where the creativity emerges in the interface with the country’s market. In the case of Vietnam, Cambodia and Laos, the pilot will address “mass customization” – providing options based on core training workbooks but tailored to the needs of SMEs from different subsectors – in two ways. First, the modular format of workbooks will permit greater mixing and matching of topics than would a typical full-length course offered through a traditional educational institution. Secondly, VAR services will complement the workbook content and provide the necessary interface between customer and content. A third opportunity for customization, reorganization of granules to create new training materials, will not be tested during the pilot though some VARs may choose to exercise this option.

In essence, this strategy permits the donor organization to distill best practices through provision of core training content while permitting training providers within the country to tailor the training information to current and emerging needs. It also suggests a symbiotic relationship between the donor organization and the training provider in the sense of action research; that is, it is to both parties’ advantage to update on emerging practices in order to enhance the content of the training.

c) “To buy or to build?”

As mentioned earlier, the use of distributed learning technologies suggest a change in costing considerations, as compared to more traditional training approaches. Typically, for distributed learning, the front-end costs are significantly higher while operating costs are significantly lower (calculated to be as much as one-third to one-half the cost when all variables are considered). For this reason, acquisition of existing training product developed elsewhere that matches or approximates the needs of trainees within the country can look like an attractive first option, representing considerable savings. In the early 1990’s, OLA looked to replace its small business management training program and chose to acquire a popular print and audiocassette series from the U.K. rather than develop its own. While adaptation of the series to the North American context cost \$250,000, its costs were substantially lower than that of original development estimated at \$750,000.

“Whether ‘tis nobler to buy or build?” has is no right or wrong answer; it depends to a large extent on the investor’s objectives. If return on investment is a significant factor (i.e., it is desirable to own content for possible resale elsewhere), the investment in original development may be well worthwhile; conversely, if the objective is meet a short-term demand for limited training, acquisition may be the more appropriate option.

There are, however, several issues associated with acquisition:

- Respect of copyright and/or licensing provisions is a significant factor and can represent major costs, particularly as training is increasingly seen as a knowledge commodity. In some countries, such as Vietnam, violation of copyright is quite flagrant and it may be difficult to resolve a mutually satisfactory copyright agreement or licensing arrangement in such countries as compared to industrialized counterparts.
- Cultural sensitivity is a major issue. If acquired training products do not match trainee needs well, they may be considered irrelevant and may in fact achieve the opposite training result intended. Sometimes adaptation of an acquisition can mitigate this sensitivity but developmental and production cost factors may offset the initial advantage of low-cost training product acquisition. Much like home construction, “renovation” of existing materials may be as expensive as starting anew.
- To go the acquisition route infers dependence on a supplier. If the training content is strategic, the risks increase. Our experience with suppliers is that content may change or terms of our agreement may change in ways which make it unpalatable to continue with that supplier. This requires a contingency plan (such as identification of alternative suppliers). Or, put in another way, the further down the food chain, the more at risk one is of being eaten.

d) “Need is not demand”

Most trainers, whether they work in the public or corporate context, tend to be both attracted and strongly committed to the principle that their professional mission is to serve learners’ needs. While this social agenda is indeed laudable, once you move education and training into a commercial or business context, significant problems can occur. The distinction between learning needs and market demand often become painfully clear.

A couple of examples from our own North American experience perhaps can best illustrate this point.

The first pertains to the provision of basic skills or literacy training for the workforce, which in the North American context, represents an enormous learning need. The basic skill level of many blue-collar workers in the North American economy is a critical issue. An inability to read, write and do math at a minimal functional level can cause serious production and safety issues and effectively prevents many workers from participating in further workplace-related training. Despite an enormous body of documentation that quantifies the extent of the problem and the implications at the individual, firm and national level, the provision of workplace literacy programs is at an extremely low level. From time to time various governments do intervene with programs that can be very effective in stimulating the supply of literacy training from both private and public providers. This was indeed our own experience in Canada where, due to such a program and the subsequent increase in demand from our client, we had no fewer than seven full time literacy educators on staff managing multiple projects on behalf of our corporate clients. The problem, of course, is that once the stimulus program was discontinued, the demand in the marketplace for this type of training disappeared overnight. We have learned that, despite the enormous need for literacy training, individuals, companies, unions, and governments are not generally prepared to pay for the service. In short, a well-identified social and economic need is not necessarily a marketplace demand.

We learned a similar lesson several years back in the area of supervisory training for frontline staff in the British Columbia tourism industry. In this case, the industry and the government had commissioned a number of extensive studies of the industry that concluded that the lack of frontline supervisory skills among existing employees was negatively impacting quality and the further expansion of the industry. The reports recommended the development of a major work-based training program that could be delivered in a highly flexible manner in the workplace and lead to recognized academic and industry accreditation. Given our organization’s mandate and capabilities we enthusiastically invested close to \$750,000 in the creation of such a program only to find that once launched, there was virtually no uptake from the target audience despite an extensive marketing campaign. Our post mortem on this failed product development was that the tourism industry tends to place a low value on formal credentials as a basis for job progression. Instead, as in the banking industry, there is as a very well developed system and culture of “working your way up from the bottom.” This is evident in the fact that most managing directors of major hotels started out on the front desk. The consequence, in terms of our program, was that there was virtually no incentive for the target group to invest their money or time in acquiring a supervisory credential since it would not expedite their career progression. Again, a well-documented training need did not translate into a market demand. The product we developed remains on the shelf.

The lesson we have learned from both of these experiences is to force ourselves into a much more formal and rigorous market assessment phase prior to building new products and services for the training market. This can include a variety of practical strategies including benchmarking, surveys, focus groups, the formation of commercial alliances and incremental product introduction strategies—all in order to mitigate risk. The proposed pilot for MPDF is an example of the latter method of testing our strategy before ramping it up on a larger scale. Still, formal “academic” analyses are very useful in identifying potential areas of opportunity, but should never be used as the sole basis for initiating product development.

e) “The marketplace is the best mechanism for picking winners”

A final implication that needs to be considered is the degree to which any interventions by development agencies or governments lead to market distortions. Traditionally state intervention and direct provision in the field of public education and entry-level training can be well justified on the basis of equity, access and national interest. For training that is provided in the context of the workplace, within most market economies it is argued that the primary responsibility properly rests with the employer or firm with costs shared by the employer and employee. Using a variety of mechanisms, governments in both developed and emerging economies do continue to intervene in workplace training. The intervention rationale tends to focus on apparent market failures that take the form of inadequate quality and/or quality of workplace training or inequitable access to specific target groups (e.g., youth,

women, visible minorities). Almost without exception, the mechanisms for intervention focus on demand stimulus in the form of vouchers and subsidies.

The problem for many developing countries such as Vietnam is much more fundamental: the domestic training market is either non-existent or still in its infancy. The implications within a global economy that increasingly values and rewards high levels of human capital are profound, thereby providing a strong rationale for targeted and temporary intervention on the supply side as well as the demand side in order to “prime the pump.” In many cases this involves either government or development organizations identifying specific suppliers within the marketplace and assisting them through a variety of financial and non-financial mechanisms to expand their capacity and capabilities to serve the training market. While certainly well intentioned, the problem with this strategy of “picking the winners” tend to soon become evident:

- Negative reaction from and impact upon competitors
- Price distortion
- Complacency and reduced market innovation
- Dependency on government/donor assistance.

The authors believe that the VAR model that lies at the core of the proposed SME strategy for the SME sector in Vietnam may hold some promise to resolving the problem of supply side intervention. Rather than “picking the winners,” the proposed strategy, if well executed, should allow MPDF to create the necessary conditions and supports for the winners to emerge within a competitive market dynamic.

4. Concluding Remarks

To put all of this in a much sharper perspective, it seems evident that there is a major need for business support services, including training, for the SME sector in developing economies. As in the case of the Mekong region, the criticality of this sector for economic and social development has been well researched and documented. The lack of business skills among owners and managers has been identified as a key impediment to the sector’s expansion as has the need for flexible, relevant and sustainable training programs that can address these “needs”. As we develop policies, strategies and products we all need to contemplate the fundamental question of whether, through highly strategic interventions, these well identified needs can be successfully translated into market demand. Given the very nature of this sector, the jury, we suspect, is still out.

Appendix

About the Open Learning Agency

The Open Learning Agency based in Vancouver, Canada, has approximately 450 full time employees and an annual operating budget of \$60 million. Open Learning Agency is a very unique organization both in terms of our working commitment to lifelong learning and the subsequent scope of our operations. In order to meet its unique mandate OLA has developed the following core competencies:

Learning Systems Design and Instructional Design

OLA is a leader in the design and implementation of open, flexible and cost effective learning systems to support learning at the primary, secondary, post-secondary levels and in communities and the workplace. Specialized expertise in the use of a broadening range of instructional technologies enables OLA to develop very creative and cost-effective solutions for our own students and our external clients. These technologies include broadcast television, satellite video conferencing, 2-way compressed video conferencing, audio conferencing, computer-based/multi-media systems, linear video, the Internet and specialized learning centres in both communities and the workplace.

Distributed and Distance Learning

Over the past 25 years OLA has been using distributed and distance learning methods to create virtual classrooms for individuals who, for a variety of reasons, cannot access the traditional classroom. While our primary distance education methodology has been based upon the use of print materials combined with telecommunications support, we are now quickly migrating much of our delivery to the Web. At present, we serve approximately 25,000 students directly and 50,000 indirectly through our distance learning capabilities. Programs are offered in a variety of disciplines (e.g., business, management, information technology) at the certificate, diploma, degree and post-graduate degree levels.

Curriculum Materials

In order to support our extensive distance learning enterprise, OLA has developed specialized expertise in developing curriculum materials. These include materials for the K-12 system, the post-secondary system and the workplace, all in a wide variety of formats. In some cases these materials can be translated and modified for use in other countries. Materials formats include print, video, CBT, CD-ROM, and Web-based.

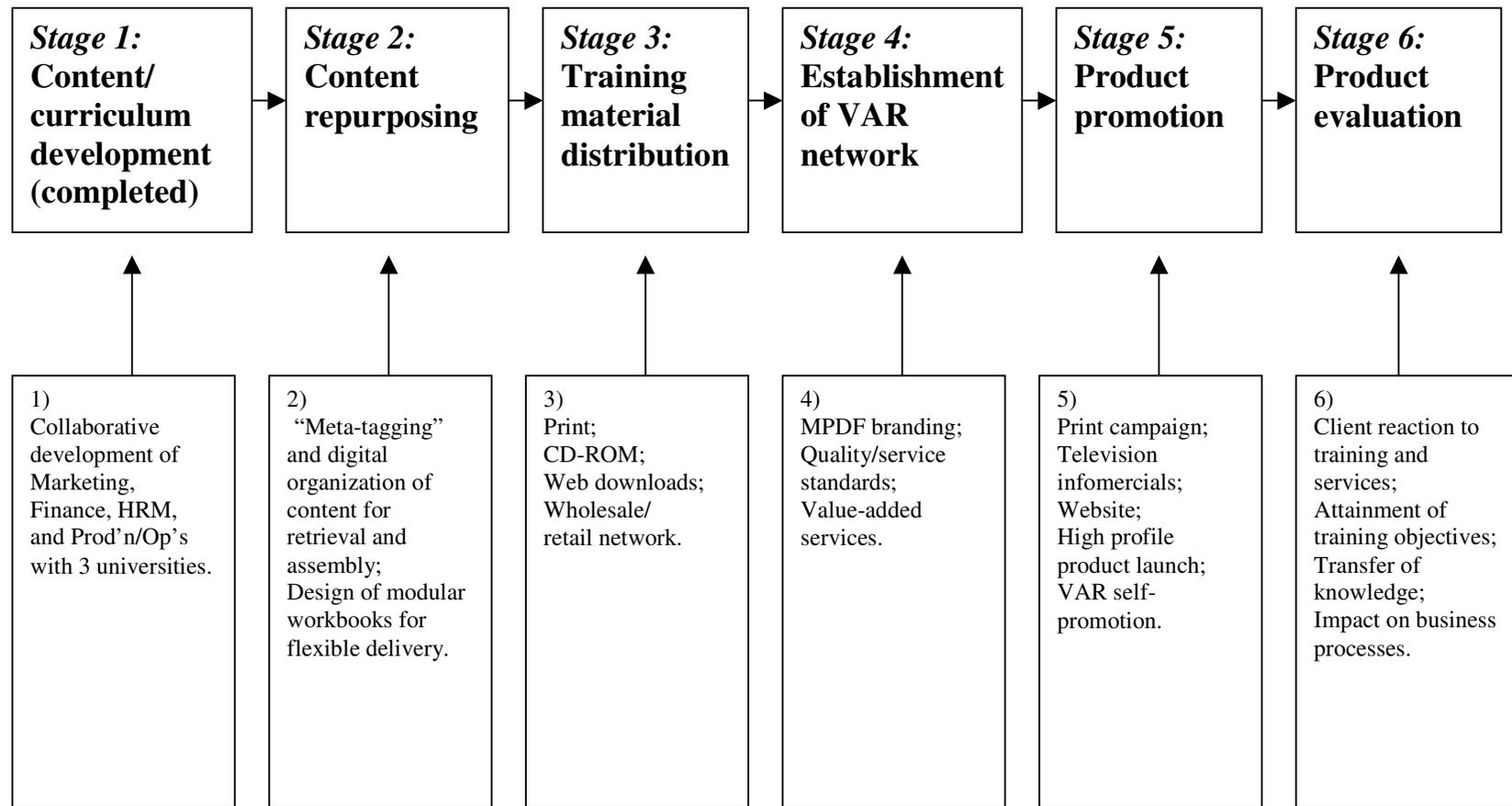
Workplace Training

The fastest area of growth within the Open Learning Agency is in our Workplace Training Systems Division. This growth reflects the growing trend throughout the world to integrate more training into the workplace to minimize travel costs and disruption to the production process (i.e. "just-in-time training"). The WTS group has also developed significant expertise in the development of programs and services for unemployed persons who need to re-enter the workforce. Finally, since in Canada these kinds of services are typical delivered on a cost plus basis, the WTS group has developed considerable commercial expertise in establishing these kinds of services as profitable lines of business.

International Consulting

Finally, OLA has been very successful in transferring the expertise that we have developed in all of the above-mentioned areas to countries throughout the world that are themselves attempting to transform their education and training systems. Some recent projects include a management training strategy for the Russian Federation, a distributed training strategy for Malaysia Telecom and, of course, the SME training strategy for MPDF which is the focus of this paper.

Graphics Annex
Diagram 1: Strategy Implementation Model (Pilot Stages)



Graphics annex

Diagram 3: A SME Learning System Model

