Chapter 8
Current government roles: funding and beyond

This chapter shows how institutions view current governmental activities in e-learning, and what they expect from them in terms of funding and other policies.

In all the countries where sample institutions are based, the state/national governments play a significant role in the strategic direction and funding of higher education in general, and e-learning in particular. Even in countries where institutions have significant autonomy and governments are not expected to play a direct part in institutional management, governments play an important role in influencing the behaviour of institutions by means of strategic funding/policy. This chapter demonstrates how institutions view current governmental activities in e-learning (8.1), and what they expect from them in terms of funding (8.2) and other policies (8.3).

8.1. Current roles of governments (Questions 7.5-7.6)

Sample institutions were asked about state/national government roles/strategies in supporting higher education institutions in e-learning development. They were not asked for a detailed description of government activities as such (although aspects of this emerged in responses), but rather respondents' views about government activity, and how the value of government involvement might be enhanced and improved. It needs to be highlighted that the institutional inputs on these questions only give a partial view – although an important one – concerning governments' role in the funding and support of e-learning in tertiary education. Institutions would, for example, not necessarily take into account the students' interests. Governments need both a supply and demand perspective when developing e-learning in tertiary education. The survey did not directly address funding and strategic efforts related to e-learning from supra-national governments and non-governmental agencies, such as UNESCO, World Bank and the European Union. However, many of the issues raised would apply. To bridge the information gap between the institutional perceptions of the government initiatives and the actual existing initiatives, the major

government policies, programmes/projects and portals concerning e-learning are listed in Annex 4.

The following were identified by institutions as the roles that governments currently played or were expected to play in relation to e-learning:

- Strategic development and provider of special funding for e-learning projects/research.
- Deregulation/regulatory reform to optimise the broader higher education context and its suitability for e-learning.
- Advocate for "non-traditional" learning.
- Broker and funder of partnerships/collaboration and creator of a new e-learning entity.
- Investor in technology infrastructure and regulator of telecommunication services.
- Initiator and funder of faculty development for e-learning.

The role of state/national governments in tertiary education and training differs from country to country and even from state to state within federal systems. Therefore, some of the roles listed above may not be appropriate in some countries: "E-learning" involves a wide range of actors within the government sector (*e.g.* department of education, department of information and communications, department of science and technologies, department of commerce and industry, etc.). It is therefore important to understand that these roles should not stand alone but should be strategically planned and managed across government departments.

8.2. Government and its funding role

Many institutions were very positive about government involvement, most consistently in terms of large-scale cash injection for project funding and research, infrastructure development, and profile-raising. The creation of dedicated agencies (*e.g.* the Joint Information Services Committee in the UK) and new entities (*e.g.* Swiss Virtual Campus – see Box 8.1) was also seen as important by some. The Catalan government was said to have been critical to the development of the Open University Catalunya, not least given the novel status of a virtual university at the outset (1994). By contrast, another respondent (representing a distance learning institution) was broadly positive about the context fostered by national government e-learning/higher education strategy and policy, but considered that specific e-learning funding had made no significant difference to the university's development in this area. Stronger drivers were said to be student demand, employer needs and competition. This

partly reflected the distinctive nature of the institution (large-scale, national distance learning provider). The response from a campus-based university in the same country might have been different.

Box 8.1. Swiss Virtual Campus

The Swiss Virtual Campus initiative (SVC) started in 1999 when the Swiss Parliament granted 30 million Swiss Francs (about US$ 22 million) to the project for the period 2000-2003. The main aims of the SVC is to improve the quality of the student experience, to facilitate collaboration between institutions and to generate high quality online materials. The goal is not to create a separate virtual institution, but rather to ensure the genuine integration of online materials and delivery into mainstream undergraduate teaching. SVC funding criteria have particularly welcomed proposals that seek to develop online alternatives to the conventional lecture, especially in cases where provision is over-subscribed, and have insisted on collaboration between universities. Collaboration is with a view to work with institutions that teach similar content working on jointly developed online alternatives to share between them. The criteria for new projects require at least three institutions to be involved (foreign universities may participate but are not eligible for funding). To date, about 50 courses have been created across a wide range of disciplines, and another 32 are under development. To aid the sharing process, the SVC is working on a national credit structure and is encouraging modularisation. According to Gerhard M. Schuwey, Director of the Federal Office for Education and Science, the Swiss Rector's Conference (the representative body for Swiss universities) intends that about 10% of "all courses should be offered in electronic form" by 2007.

From 2004, the initiative entered its second phase, the Consolidation Period, which will run until 2007. The aim is to offer additional funding in support of the integration of online provision into mainstream undergraduate teaching. Central to this process is the establishment in every public institution of "centres of competence, service and production", that is, centres of local expertise in all aspects of online development. Funds are also been made available for new projects. Institutions wanting to develop a course are required to make a substantial financial contribution – typically 50% of development costs. SVC-funded provision must be multi-lingual, typically French, German and English.

The SVC is viewed as a vehicle for pedagogical and culture change in Swiss higher education. Indeed, the initiative fits neatly with the country's commitment to the Bologna Process. The SVC is attempting to overcome many of the problems that have curtailed its counterpart "national virtual universities" elsewhere – lack of ownership by higher education institutions, poor connection with mainstream provision, lack of sustainability. The requirement that institutions pay half the development cost might be particularly important in ensuring commitment and longevity. As a relatively small and wealthy country, with a primarily public higher education sector, Switzerland is well-placed to initiate this kind of sector-wide reform. Nonetheless, the emphasis on linking ICT development with mainstream provision and trying to address the limitations of conventional delivery are certainly worthwhile goals for any national strategy. It is fair to say, in conception at least, that the Swiss Virtual Campus can lay claim to the accolade of one of the most integrated, reform-minded and radical national virtual universities initiatives in the world.

For further information see: *www.swissvirtualcampus.ch/*

Sample institutions made a number of suggestions on what governments might fund, and how funding might best be organised. Key general issues included:

- Raising the amount of funds available (predicated on persuading governments to give a higher strategic priority to e-learning), not least to improve the underlying telecommunications infrastructure. This was mainly an issue for institutions in the developing world – specifically the Asian Institute of Technology, University of Sao Paulo and the Virtual University of Tec de Monterrey.

- Shifting the emphasis from the theoretical to the practical – funding for infrastructure, applications and staff development, rather than "research" into e-learning (Kyoto University, Multimedia Kontor Hamburg)

- Governments often only invest in physical facilities and equipment as targets of a *capital* investment in e-learning facilities. It was argued that it is equally important to invest in the human infrastructure. As mentioned in Chapter 6, many institutions expressed a strong need for staff/faculty development. One institution proposed that governments fund such activity, and another mentioned staff development as a way to increase the impact of government strategy.

- Improved coordination between government departments and other agencies, both nationally and internationally. For example, the Asian Institute of Technology was keen to see the formation of a genuinely regional approach to IT development.

- Funding to encourage disciplinary breadth in e-learning. This implied a role for public funding to support less marketable provision.

- Funding to encourage the internationalisation of institutions through e-learning cooperation.

- One respondent called for government intervention to secure cheaper e-journal pricing.

- Funding to encourage the formation of disciplinary clearing houses for e-learning materials. The Monash University respondent argued that initiatives of this sort started during the 1990s had failed because of insufficient funding and lack of clarity on copyright. It was suggested that an intellectual property regime that allowed authors to receive some recompense when material was used by others would introduce a more sustainable (if only partial) cost-recovery mechanism. The University of British Columbia respondent also emphasised the importance of

dedicated funding for the production of high quality materials, and staff development to support this.

Funding for sustainability was a major issue. The Carnegie Mellon University respondent praised the work of two of the main US federal funders of e-learning development (the National Science Foundation and the Education Department's "Fund for the Improvement of Tertiary Education"), but cited lack of dissemination. Many worthwhile department/institution-led initiatives had been supported, but "dissemination of these projects beyond their home institutions is rare". Faculty were said to have a poor record on successful commercialisation of e-learning activity, and the private sector was said to typically have an inadequate understanding of how to market the most promising academic developments. Government funds to "study the problem of sustainability and dissemination of quality e-learning progammes are badly needed". Certain US foundations (such as the Mellon and Hewlett foundations) were said to be supportive of this agenda.

Similar comments were made by another respondent. "With the exception of their investment in national and institutional infrastructure, which has been helpful, government strategy has been dominated by the 'easy solution' of grant schemes which are focused on short term 'products' which fail to be mainstreamed because there are no ongoing funds for maintenance and further development."

The Multimedia Kontor Hamburg respondent noted that the main disadvantage of large-scale government funding was that it acted as a disincentive for institutions to think through their own strategic positioning, and to develop long-term sustainable funding for e-learning. "It is a paradox that some universities who did not avail themselves of the opportunity of public funding and instead found their own approach and financing are now much more advanced in e-learning than others who have benefited from public funding". The respondent called on government to promote self-sustaining initiatives by funding institutional strategy development. The Virtual University of Tec de Monterrey respondent characterised the problem as the need for cultural change, requiring institutional ownership of the development process and long-term planning.

A number of recent government funding initiatives (*e.g.* the "e-learning Collaborative Development Fund" in New Zealand) have attempted to overcome some of these concerns. For example, institutional cooperation is a pre-requisite, and project outcomes (*e.g.* e-learning materials) must be made available to the tertiary sector as a whole. New Zealand's "Tertiary Education Commission" has also funded a national e-learning portal to facilitate the sharing of information, and to promote materials and

programmes. Several institutions mentioned advantages of government involvement in promoting and funding collaborations/partnerships. Advantages were identified as: 1) the sharing of limited funding, 2) the transfer of knowledge and expertise across institutions, 3) the reduction of unnecessary duplication of effort, 4) the stimulation of best practices, and 5) the avoidance of conflicting objectives. However, one respondent complained that government commitment to cooperation sometimes verged on the ideological – *e.g.* stipulating a minimum number of partners – and was not always appropriate.

One respondent argued that government funding should move away from competitive tendering for a fixed amount, to purely merit-based funding. "This may require a boost in funding in some years but with the assurance that extra investment is based on the strength of business cases rather than an arbitrary figure and perceived relative merits of competitive bids for a slice of the pie." A non-contestable merit-based system would also "avoid the perception, warranted or not, of the 'politicisation' of the process… – that funding is allocated to some degree with considerations such as spread across institutions and geographical regions".

Another comment concerned inconsistency between successive governments. For example, state-level e-learning strategy was said to be much stronger under one administration, and then weaker under the next. There was also seen to be inconsistency between state governments within a nation, said to undermine any notion of national strategy. A proposed solution was for the federal government to fund state governments to develop e-learning strategies within a specified period, and to share thinking and practice.

8.3. Non-funding roles of governments

Some respondents raised a number of non-direct funding issues relating to governments:

- **Higher education regulatory reform.** One respondent pointed to future federal agreement to tuition fees as a potentially significant enabler of sustainable e-learning. Fees would provide institutions with a cost recovery mechanism. The same respondent also called for reform to enhance the legal framework for academic employment (*e.g.* the balance between individual and institutional authority and ownership). The low status of distance learning was addressed by some respondents. For example, the Virtual University of Tec de Monterrey respondent attributed the relative lack of state government commitment to e-learning in Mexico partly to concerns about the quality and standards of non-traditional delivery.

- **National strategy on open standards.** One respondent argued that governments can play an important role in the adoption of open standards – facilitating the economies of scale to leverage the advantages of open standards at sector level.

- **Forging connections between dedicated virtual/distance institutions and campus-based operations.** This was seen as vital to avoid the perception that e-learning was somehow separate from conventional higher education. On the other hand, another respondent complained that governments over-emphasised the role of campus-based institutions as vehicles for e-learning. This was said to be due to enduring scepticism ("fuelled by traditional academics") about the value and quality of e-learning, and an "out-of-date view" that "traditional" campus delivery was still the experience of the majority of students. The respondent cited the so-called "50 per cent rule" in the United States (currently under review) that bars access to federal student aid to institutions that offer more than half their provision outside the traditional classroom.

- **Telecommunications regulation** – on privacy, security, intellectual property and negotiating special rates for educational institutions. Stable electricity, reliable technology infrastructure and networks, as well as moderately priced Internet access, are necessary conditions for the development of e-learning. This area, typically outside the remit of the Ministry of Education (or equivalent), emphasises the need to orchestrate collaboration across different government departments.

Other government roles/strategies that were not stressed by the institutions can also be mentioned. Bates (2001, p. 29) distinguishes six roles for governments to consider in promoting e-learning in tertiary education:

- Deregulator and streamliner of planning and oversight processes.
- Stimulator of "best practices" and "choice".
- Enabler, funder and broker of partnerships.
- Creator of "utilities" or technology networks.
- Informer and protector of consumers.
- Strategic investor on behalf of the state and its under-served "customers".

The first four roles have been addressed, to a large extent, in the institutional responses. The last two roles were, however, not frequently

mentioned by institutions. In terms of the "under-served customers" issue, only one out of the 19 institutions pointed to government policy on inclusion of under-represented groups, specifically "people with disabilities", through use of ICT. For example, the French PAGSI 2000 Report (Action Governmental Programme for the Information Society) was produced by the Prime Minister and the Interministerial Committee for the Information Society includes a policy objective to "bridge the digital divide for the visually impaired". However this is not constrained to tertiary education/training. Another example is the German government's action programme "Information Society Germany 2006" that includes a target area in education: "to further increase of percentage of women in IT training and university studies of information technology to 40%".

Some aspects of consumer information are addressed by government-backed national e-learning portals, and quasi-government agencies that have begun to integrate e-learning into mainstream quality assurance arrangements. A recent study speculated that accreditation agencies in the United States "will take a greater interest in technology and establish technology criteria as a factor for accreditation" (Kvavik *et al.*, 2004, p. 81-82). Protecting consumers from unscrupulous and low-quality e-learning provision remains a vexed question in many countries. The very reach of online delivery constrains the capacity of national governments to regulate what is available to their citizens. Initiatives such as the planned UNESOC/OECD international database on approved providers (covering conventional as well as online delivery) may constitute a valuable global resource in this respect. Some examples of governments' work in the area include: the Canadian Recommended E-learning Guidelines and the Consumers Guide to E-learning (Canada), the UK Quality Assurance Agency's Code of Practice (addressing e-learning) (UK), the Ministry of Education's proposal on the Standard Criteria for Establishing Internet-Based Program of Studies by Thai Universities (Thailand), etc. (see Annex 4 for details).

8.4. Conclusion

The diversity of both institutions and countries in the sample meant a diverse take on the role of governments in relation to e-learning development. In some countries, notably those with emerging economies, government interest in e-learning, and basic infrastructure funding/regulation were perceived as inadequate. In the developed world, government investment in infrastructure was widely praised. Critique focused on project-based funding models seen to be weak on dissemination beyond the funded unit/institution concern, and the general absence of a transformative framework to shift e-learning to the mainstream and

maximise its impact. A number of respondents saw a tension between government strategy/funding in e-learning and institutional innovation and autonomy. The task for governments was to create an enabling environment and not attempt to micro-manage change.

References

Bates, T. (2001), "National Strategies for E-learning in Post-secondary Education and Training", UNESCO.

Kvavik, R., J. Caruso and G. Morgan (2004), "ECAR Study of Students and Information Technology, 2004: Convenience, Connection and Control", Research Study from the EDUCAUSE Centre for Applied Research, Boulder, Colorado.

Table of Contents

Acknowledgements 9
Executive Summary 11

Introduction 21
The OECD/CERI survey 22
The Observatory survey 26
Caveats 29
References 30

Part I. Activities and strategies

Chapter 1. E-learning provision and enrolments 35
1.1. Type/scale of online presence 35
1.2. Online presence and programme delivery – results from the Observatory survey 41
1.3. Number of students "online" 47
1.4. E-learning provision in different disciplines 51
1.5. Levels and types of students 57
1.6. Students across borders 61
1.7. Cross-border delivery of e-learning 64
1.8. Conclusion 68
References 70

Chapter 2. E-learning strategies and rationales 71
2.1. Forms of e-learning strategy 71
2.2. Process of developing and revising e-learning strategies 80
2.3. Rationales for producing institution's e-learning strategy 82
2.4. Conclusion 91
References 91

Part II. Pedagogy, technology and organisation

Chapter 3. Impacts on teaching and learning 95
3.1. Pedagogic impact 95
3.2. Who decides on e-learning pedagogy 105
3.3. Guidance for students about e-learning 108
3.4. Material and learning objects 109
3.5. Intellectual property 118
3.6. Conclusion 119
References 120

Chapter 4. IT infrastructure: use of learning management system (LMS) and other applications 123
4.1. Use of learning management systems 124
4.2. LMS challenges 133
4.3. IT networks 138
4.4. Portals 140
4.5. Use of other teaching and learning-related applications 142
4.6. Online applications for administration 144
4.7. Integration of academic and administrative systems 146
4.8. Computer/network access for staff and students 148
4.9. Strategy on electronic journals and e-books 154
4.10. Conclusion 157
References 158

Chapter 5. Partnership and networking 161
5.1. E-learning and other consortia 161
5.2. Third party access arrangements 168
5.3. Outsourcing 169
5.4. Conclusion 171
References 172

Chapter 6. Staff development and organisational change 173
6.1. Context of organisational change 174
6.2. Forms of organisational change 175
6.3. Barriers to development of e-learning 179
6.4. Developing human resource capacities 181
6.5. Models of staff development 186
6.6. Conclusion 189
References 190

Part III. Cost efficiency and funding

Chapter 7. Funding, costing and pricing 193
7.1. Funding 193
7.2. Costing and pricing 200
7.3. Conclusion 206
References 207

Chapter 8. Current government roles: funding and beyond 209
8.1. Current roles of governments 209
8.2. Government and its funding role 210
8.3. Non-funding roles of governments 214
8.4. Conclusion 216
References 217

Conclusion 219
Activities and strategies 219
Pedagogic, organisational and technological challenges 221
Cost and funding 224
Policy challenges 225

Annex 1. Institutional information on the OECD/CERI case studies respondents 227
Annex 2. OECD/CERI case study questionnaire 231
Annex 3. OBHE survey, 2004 243
Annex 4. Overview of government-led initiatives to promote e-learning 253

List of tables

Table 1.1. Weighted "online presence" at the sample institutions 40
Table 1.2. What estimated proportion of current programmes/courses offered by your institution have the following kinds of online component? 42
Table 1.3. Major online elements in the majority of the curriculum 45
Table 1.4. Students on relevant online modules/programmes 50
Table 1.5. E-learning provision in different disciplines 52
Table 1.6. Relevant online provision by discipline 54
Table 1.7. Number of offshore students and categories of cross-border provision 62
Table 2.1. Institutions with an institution-wide "online learning strategy" or equivalent 78
Table 2.2. Rationales for e-learning development 85

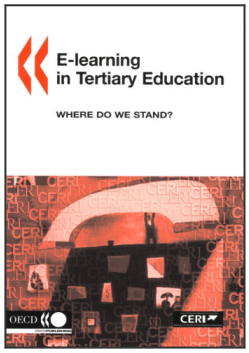
Table 4.1. Type and number of LMS 125
Table 4.2. Has your institution implemented a learning management system institution-wide? 128
Table 4.3. Observatory respondents by LMS 131
Table 4.4. Computer/student ratio 151
Table 6.1. Form of organisational change 175
Table 6.2. Typology of staff development for e-learning 184
Table 7.1. Cost implications of e-learning 202

List of figures

Figure 1.1. Weighted online presence – OECD and Observatory respondents 44
Figure 2.1. Patterns of development of e-learning strategies 81
Figure 2.2. Comparison of "key rationales" in institutional online learning strategies in 2004 and 2002 87

List of boxes

Box 1.1. Higher Education E-learning Courses Assessment and Labelling (HEAL) ...67
Box 2.1. E-strategy at the University of British Columbia 76
Box 2.2. The Greater Mekong Sub-region Virtual University (GMS-VU) 86
Box 3.1. Carnegie Mellon West and the Story-Centred Curriculum 97
Box 3.2. Open Learning Initiative at Carnegie Mellon University 115
Box 3.3. Edusource – Canadian Network of Learning Object Repositories 117
Box 4.1. Sakai/LAMS 135
Box 5.1. U21 Global 162
Box 7.1. The New Zealand Open Source Virtual Learning Environment Consortium 196
Box 8.1. Swiss Virtual Campus 211



From:

E-learning in Tertiary Education

Where Do We Stand?

Access the complete publication at:
https://doi.org/10.1787/9789264009219-en

Please cite this chapter as:

OECD (2005), "Current Government Roles: Funding and beyond", in *E-learning in Tertiary Education: Where Do We Stand?*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264009219-11-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.