

Expanding Our Reach In Latin America Through Distance Education

Diego Alfonso Erba

The Latin America region faces formidable challenges in education and training on urban land policy, planning, and taxation issues. For nearly 20 years the Lincoln Institute has been offering programs on these topics in 17 countries in continental South America, and several others in the Caribbean. These countries have different legal frameworks (some unitary and others federal), approximately 400 subnational governments (states, provinces, departments), about 15,000 municipalities representing a wide range of local conditions, and more than 100,000 public officials responsible for land-related policies and management.

As part of the Department of International Studies, the Program on Latin America and the Caribbean (LAC) identifies partners, convenes appropriate audiences, advises on strategy, promotes research, and develops materials for education and training on key topics related to land policy. These include mitigation of rampant informality, reinforcement of self-financing through land value increments resulting from local public investments recovery, improving the performance of the property tax, and impacts of public interventions.

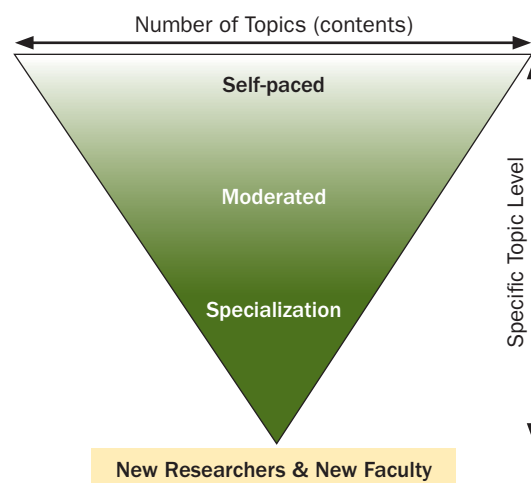
To reach out to its diverse audience, the LAC Program has developed a wide range of in-person classroom courses, seminars, and conferences for practitioners, including legislative and executive policy officials and their senior technical staff, as well as scholars, university students, and citizens. Traditionally, most of these programs have been weeklong professional development courses, offered once a year to 30 to 50 international participants from multiple countries, or ad hoc international or national conferences designed for hundreds of participants. However, the diversity of the Latin America region precludes tailoring the in-person model for different jurisdictions, and limited

resources often prevent public agencies and private institutions from being able to send their personnel to the large cities where the events normally occurred.

As the programs became better known and the number of public officials seeking to participate in them grew, the Institute had to reevaluate its strategic approach to its mandate to improve the quality of debate on land policy issues through educational programs. Thus, to complement continuing in-person programs for targeted audiences in specific cities and countries, in 2004 the LAC Program began to develop other educational formats and media to reach key policy makers and professionals in government and academic institutions who were interested in urban land policy issues but unable to participate in one-time events.

The still-evolving LAC distance education offerings (*Educación a Distancia*, EAD) encompass many alternative approaches, including self-paced online courses; moderated courses that incorporate multiple interactive media formats; and graduate-level courses in partnership with Latin American

FIGURE 1
Pedagogical Strategy for Distance Education in Latin America



universities and other institutions. These courses use a variety of tools and materials, ranging from simple, downloadable written materials to multimedia platforms such as Moodle, Blackboard, and eTEACH.

Pedagogical Strategies

Beyond the technological solutions to disseminating educational materials, a pedagogical problem remained. The pedagogical strategy adopted by the LAC Program for distance education is represented by an inverted triangle (figure 1). Users can remain at the general level, taking self-paced courses to obtain cross-topical but somewhat basic knowledge, or they can go deeper in one topical area through moderated courses or specialized, graduate-level university programs.

Working closely with pedagogical experts and guided by the Lincoln Institute mandate, the LAC staff and adjunct faculty gradually developed an EAD model based on the principles of constructivism, a psychological theory of knowledge developed by Swiss developmental psychologist Jean Piaget, which argues that humans generate knowledge and meaning from their experiences. Constructivism can be considered in contrast to positivism, in which scientific knowledge comes from positive affirmation of theories through strict scientific methods, such as quantitative research. Given the diversity and complexity of the subjects involved in land policy, the LAC Program has explored both approaches in creating its distance education courses. In this context, constructivism applies more often to knowledge associated with policy alternatives, while positivism is used in more technical courses based on the application of tools.

The LAC Program organizes courses within the constructivist framework, encouraging a broad discussion about the issues related to urban land policy without preconceived notions. The distance education courses on the Moodle platform allow for the creation of virtual communities and wide-ranging discussion environments, with participants from many Latin American countries contributing concerns and experiences that may be quite different from those of the faculty. The LAC Program also offers courses that are instrumental to the development of quantitative and (geo)statistical tools used in urban land policy, in this case applying the principles of positivism and learning-by-doing.



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The LAC Program's distance education offerings complement classroom instruction.

Over the years, we have developed two products with different features, applications, and goals: restricted-access courses (moderated, graduate-level, and in-person support courses); and unrestricted, free-access, self-paced courses. All of these online courses are offered in Spanish for practitioners from public and private institutions involved in urban issues, and some materials are now being translated to and from Portuguese.

Moderated and Self-Paced Courses

Moderated courses were our first choice to address the challenges of informing and preparing public officials to expand the scope of their policy alternatives, because they provide a strong educational foundation based on readings, discussion, and reflection. All of our moderated courses are free; however, applicants are selected through a competitive application process. Classes have about 45 participants each, normally including at least one representative from each of the region’s countries. The courses are developed over nine weeks, each with a designated professor responsible for teaching and/or orienting participants; the third, fifth, and ninth weeks are available for students to complete or make up specific tasks or quizzes.

These courses are set up on the Moodle platform, which offers excellent results in terms of performance and usability. Three main tools are used.

- Discussion forums, considered the engines of the course. The professor acts as a virtual community facilitator and proposes a daily topic for discussion, such as: What are the major factors behind the poor performance of the property tax as a source of revenues in Latin American jurisdictions?, or What are the advantages of decentralizing to local government (municipalities) the responsibility for setting property tax rates? Participants frequently suggest other

subjects that enrich and accelerate the acquisition and/or reconstruction of knowledge.

- Tasks, consisting of a report on land policy issues. The tasks may be an analysis of a legal framework, a strategy for land market data collection and analysis, or a map processed in a GIS environment. The report is uploaded to the platform and the professors grade it during the week following the classes.
- Multiple-choice quizzes, mainly for self-evaluation. The quizzes are used to test the participant’s understanding of reading materials assigned or to support the discussion forums and tasks.

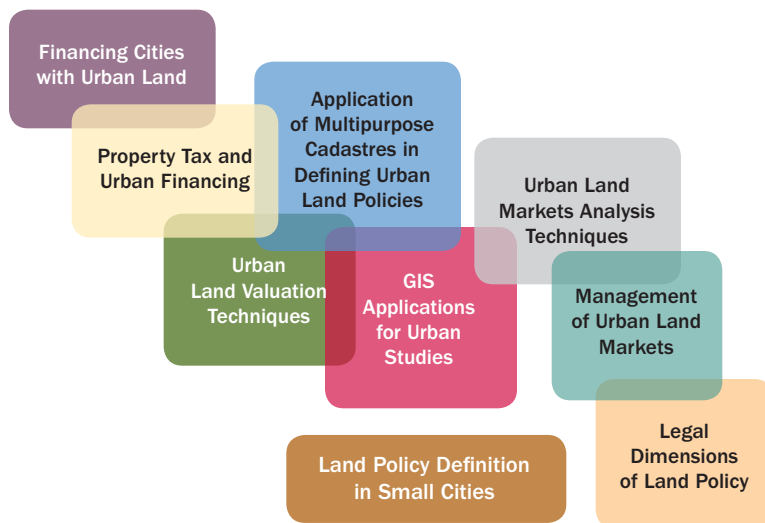
Completion of tasks and quizzes along with participation in discussions constitute the minimum criteria for participants to pass the course and receive a certificate from the Lincoln Institute.

The LAC Program offers nine distance education courses with overlapping themes (figure 2). One set of courses includes Financing Cities with Urban Land, which fosters a critical examination of the various policies regarding the financing of cities through urban land; and Property Tax and Urban Financing, which provides the analysis of the legal, political, and economic principles of land taxation as a beneficial instrument for urban development. This tax course overlaps with two others: Application of Multipurpose Cadastres in Defining Urban Land Policies, which covers topics related to land tenure, geotechnologies and urban land valuation systems used in different Latin American jurisdictions; and Urban Land Valuation Techniques, which presents the techniques and basic principles of commercial valuations and mass appraisal of urban properties.

A second set of courses includes Legal Dimensions of Land Policy, which offers an analysis of the main approaches and categories found in urban legal systems in Latin America, with the review of relevant theoretical and practical aspects for urban public managers. It intersects with Management of Urban Land Markets, which provides an examination of the structure, function, and regulation of markets and their relationship to the economic, social, and environmental problems of cities.

The technical connections between the two sets are provided by two additional courses: Urban Land Markets Analysis Techniques, which analyzes the basic principles of land and real estate economics and the application of empirical methods;

FIGURE 2
Interrelationships Among LAC Program Distance Education Courses



These LAC Program distance education courses are available at www.lincolninst.edu/education/online-education/leo-lac.asp.

and GIS Applications for Urban Studies, which covers basic concepts of GIS, alphanumeric databases structure, and cartographic tools useful in urban studies. Most of these topics and techniques are covered transversally in the course on Land Policy Definition in Small Cities, introduced in Spring 2010.

Over the years, we have experimented with different configurations of faculty and administrative staff. Since 2009 we have implemented a simple but efficient coordinating structure with senior Lincoln Institute staff responsible for the strategic decisions in terms of courses and production of materials, and a distinguished group of adjunct professors and their assistants who communicate directly with the participants and follow up on instructions about uploading materials, assignments, and quizzes. To keep up with increasing topical diversity and enrollment demand for EAD courses, in 2010 we increased the number of faculty from 22 to 52 and developed a special course for all teachers and assistants to ensure that they are all operating at the same pace and within the same framework on distance education pedagogy and Moodle tools.

Another response to the consistent increase in demand has been the development of self-paced courses as an alternative and complement to the more intensive moderated courses. Using different platforms and multimedia materials, self-paced courses rely heavily on videos taped during in-person classes and available for viewing on the Lincoln Institute's Web site. These products are also being adapted for free downloading, especially for use by private and nongovernmental institutions, small cities, and educational institutions.

Course Materials

LAC distance education courses are supported by both written and audiovisual materials. The written materials, usually in a PDF format, are selected for individual student reading, analysis, and reflection. They include documents authored by the participating professors, papers available on the Internet for public access, and chapters of books and reports published by the Lincoln Institute and other sources. For certain courses, legislation and public documents from various countries are shared in order to facilitate comparative case studies.

Some course materials, primarily those authored by course faculty, have been compiled

as e-books that can be downloaded in whole or in part to meet the needs of the course participants. The four e-books produced to date (in Spanish or Portuguese) are also available to other interested users.

A variety of audiovisual materials provide additional information and enhance comprehension through different production and user technologies, but with the common goal of accelerating understanding of the core curriculum. Early multimedia offerings were simple videos of professors teaching a class with alternating PowerPoint slides to create the atmosphere of an in-person lecture. The videos are produced with high-quality digital technology, and are used for both self-paced and moderated courses. Some videos are filmed in a studio and others are filmed live during a scheduled course.

The incorporation of audio classes has further enhanced the distance education experience. Professors in countries throughout the region tape their voices using free software and following the instructions of the course administrators. The audio files and related PowerPoint slides are sent to the editing team, which then creates an audio class. The sound portions of the multimedia classes (both video and audio) are converted to MP3 audio files.

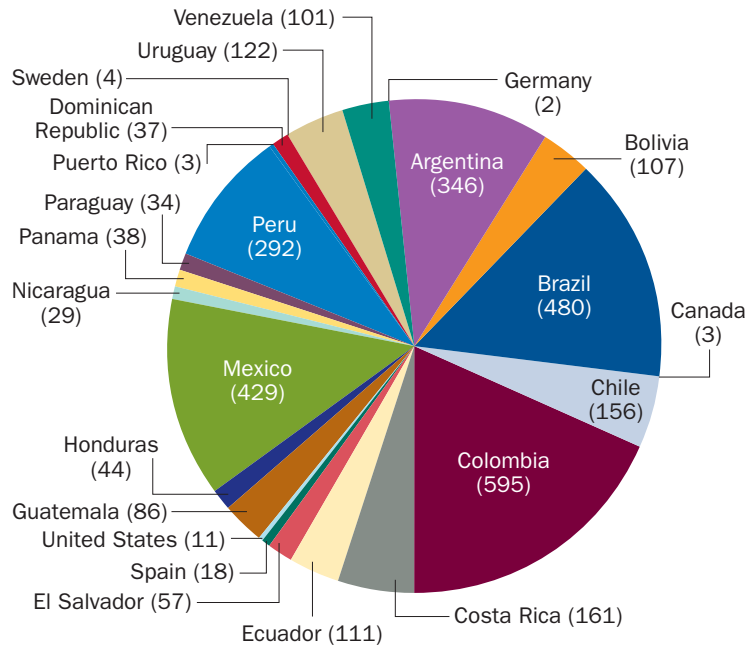
The audio and video classes are being transcribed for two purposes: to give the hearing or visually impaired access to the classes, and to create the basic material for translation and dubbing or subtitling. Moreover, transcriptions are used by faculty to write the chapters of the e-books that are being produced in collaboration with many of the courses. These resources inform the participants in moderated courses, and are also available to the general public on the Lincoln Institute Web site.

Working in distance education requires constant updating of information as land policy issues and contexts change, and the educational arena itself is expanding rapidly with new tools, methods, and strategies. Currently we are considering the implementation of a learning environment in



One of four e-books available on the Lincoln Institute Web site.

FIGURE 3
Distance Education Course Participants Per Country, through August 2010



Second Life, a leading alternative in cost-effective virtual education solutions for collaborative learning. Second Life simulates an academic environment with classrooms, meeting areas, libraries, and other resources. Participants create a virtual image of themselves (an avatar) that can be moved among these facilities to access bibliographic materials, attend classes, and interact with the avatars of other participants. At present, we are designing a virtual learning environment and preparing faculty to work in it, using their avatars for navigation.

Linking Distance and In-Person Education

By experimenting with various combinations of distance learning and in-person instruction, the LAC Program staff has learned that the mix is a promising and productive model to pursue. For several years, we have developed tailor-made moderated courses as prerequisites for in-person weeklong courses in Latin America. We are now beginning to use existing self-paced courses as a preparatory stage for participants as well. This allows us to make better use of classroom time and minimize the need for sessions designed to equalize participants’ understanding of concepts, terminology, and fundamentals during the

weeklong professional development courses.

As an alternative to the nine-week courses, we have also developed partnerships with several universities and nongovernmental institutions to implement graduate-level courses that combine classroom instruction with distance education content. These courses rely on the same basic distance education infrastructure, professors, and materials used for the moderated courses. Most of them, after being implemented initially with Lincoln Institute support, continue being offered by the partner institutions themselves. Some of these courses were developed in the Dominican Republic and Bolivia, where the LAC Program had not previously worked, thus establishing partnerships that have led to sustained relationships.

This combination model began with several initiatives that brought together select groups of alumni from previous online courses, and it has continued as part of two specialization courses—Urban Planning and Financing, and Urban Cadastres and Land Valuation—both of which conclude their distance learning segments with weeklong, in-person sessions. Our partner institutions plan to offer the courses on a regular basis with continued Lincoln Institute support in the form of class materials and the distance education platform structure.

Achievements and Remaining Challenges

A number of initial challenges have been overcome and can now be described as successful outcomes of the LAC Program’s distance education initiative.


- Increase in the number of participants per country, including those in remote jurisdictions who had been difficult to reach through traditional courses (figure 3);
- Increased understanding of the interrelationships among urban land policy topics (figure 2);
- Better knowledge of the national, regional, and local realities of each country through the collection and updating of large amounts of data from the discussion forums and task reports requested as part of the moderated courses;
- New course offerings, such as the course on Land Policy Definition in Small Cities, including the implementation of self-paced courses to complement the moderated and in-person courses;

- Integration of several LAC Program faculty members to the distance education teaching environment, in spite of their initial skepticism;
- Increase in the volume of written and audio-visual study material;
- Structuring of a topical matrix (tree) related to urban land policies and their interdependencies;
- Cultivation of a second generation of faculty and researchers who are alumni of past educational programs; and
- Generation of new research projects to provide timely curriculum materials, case studies, e-books, and other course content.

Despite these advances and experiences acquired over time, some challenges remain.

- To identify and develop a broader dissemination strategy to reach those interested in urban land policy issues;
- To improve and define selection processes and other strategies to identify course applicants who are most interested and committed, in order to reduce the dropout rate in the free moderated courses;
- To increase the range of perspectives for Latin American policy makers by offering more topics and the opportunity to participate in more than one course; and
- To implement courses and seminars in a 3D virtual world environment as well as new kinds of virtual “in-person” seminars using avatars.

Final Considerations

The results achieved by the Lincoln Institute’s LAC Program over the past six years demonstrate that the distance education platform is both functional and reliable, and that a combination of online course types enables us to reach more people and places without losing contact or missing the daily monitoring of participants. The success of the current pilot programs has special significance because it confirms that distance education is a valid option for the Latin America region due to increasing availability of Internet access and the openness to alternative learning methods. 

Selected Latin America Publications

These and other LAC Program publications are available for free downloading or ordering at www.lincolninst.edu/pubs/default.aspx.

El catastro territorial en los países latinoamericanos
Territorial Cadastre in Latin American Countries

Diego Alfonso Erba
2008 / Spanish / 450 pages / ISBN: 978-85-906701-3-1

Cadastro técnico multifinalitário urbano e rural
Urban and Rural Multipurpose Technical Cadastres

Carlos Loch and Diego Alfonso Erba
2007 / Portuguese / 142 pages / ISBN: 978-85-906701-2-0

Cadastro multifinalitário aplicado a la definición de políticas de suelo urbano
Multipurpose Cadastres Applied to the Definition of Land Policies

Edited by Diego Alfonso Erba
2007 / Spanish / 448 pages / ISBN: 978-85-906701-0-4

Sistemas de información geográfica aplicados a estudios urbanos:
Experiencias latinoamericanas

Geographic Information Systems Relevant to Urban Studies:
Latin American Experiences

Edited by Diego Alfonso Erba
2007 / Spanish / Portuguese / 207 pages / ISBN: 978-85-906701-1-7

Catastro e informacion territorial en America Latina
Cadastres and Land Use Information in Latin America

This CD-Rom includes all four e-books on the topics of cadastres and land information systems in Latin America.

2008 / CD-Rom / Spanish and Portuguese / \$10.00 / CD006

Perspectivas urbanas: Temas críticos en políticas de suelo en América Latina
Urban Perspectives: Critical Land Policy Themes in Latin America

Edited by Martin O. Smolka and Laura Mullahy

This book assembles more than 60 selected *Land Lines* articles, originally published between 1994 and 2005.

2007 / Spanish / 416 Pages / Paper / \$25.00 / ISBN: 978-1-55844-163-7

A separate CD-Rom features the contents of the book, ***Perspectivas urbanas: Temas críticos en políticas de suelo en América Latina*** as well as 21 additional *Land Lines* articles published between 2005 and 2009.
2010 / CD-Rom / Spanish / \$10.00 / ISBN: 978-1-55844-176-7

ABOUT THE AUTHOR

DIEGO ALFONSO ERBA is a fellow in the LAC Program at the Lincoln Institute of Land Policy and professor at Universidad Nacional de Rosario, Argentina. He is a land surveyor/engineer with doctoral and post-doctoral degrees in surveying sciences. He began working with distance education in Brazil in 2001 at Universidade do Vale do Rio dos Sinos (UNISINOS), and has spearheaded this program for the Lincoln Institute. Contact: derba@lincolninst.edu