



FUNDACIÓN
OMAR DENGO
EDUCACIÓN, TECNOLOGÍA Y DESARROLLO

Omar Dengo Foundation
Education, Technology, and Development

XV Anniversary 1987-2002

The future must be dreamed, desired, loved, created. It must be plucked from the soul of the present generations with all the gold gathered in the past, with all the vehement yearning to create the great works of individuals and nations.

Omar Dengo

The Omar Dengo Foundation (ODF) is a private, nonprofit institution which, since 1987, has launched national and regional projects in the area of educational innovation and the social benefits of new technologies. Its varied projects have benefited more than one and a half million Costa Ricans, among whom are young and adolescent students, educators, members of the communities, and senior citizens.

The ODF has extensive experience in the fields of education, evaluation, research, and the design, management, and execution of projects of an educational and social nature.

The Foundation currently develops programs in the following areas:

- Educational Informatics
- Professional Development and Training for Educators
- Educational Innovation
- Digital Technologies for All
- Online Learning and Digital Production
- Research and Evaluation of Educational Projects Related to the Use of Technology
- Informatics, Telecommunications and Technical Support
- Knowledge Management and Organizational Development
- International Relations and Project Development

Area of Educational Informatics

The Area of Educational Informatics of the ODF encompasses a variety of programs, projects, and initiatives directed towards applying informatics to education. In this context, the Foundation is the entity in charge of the

National Program of Educational Informatics and develops significant initiatives in the field of robotics and learning by design, international consulting, and project management and execution.

1. National Program of Educational Informatics MEP-FOD

The National Council of Education in Costa Rica designated the ODF as the supervisory entity for the National Program for Educational Informatics. ODF is in charge of the execution of national policies of educational informatics for elementary and high schools of the Basic General Education in Costa Rica in order to support its development and innovative growth.

This program includes two subprograms organized in terms of the specific characteristics of their population: the National Program of Educational Informatics for Elementary Schools, which benefits students from kindergarten through sixth grade of the Basic General Education, and the National Program of Educational Informatics for High Schools, which benefits students from seventh through ninth grade in public high schools. The two programs are linked, although they are independent in their organization, management, and academic levels.

National Program of Educational Informatics for Elementary Schools (K-6)

The Omar Dengo Foundation has worked in the field of educational informatics since 1988, when it was created and initiated, in conjunction with the Ministry of Public Education in Costa Rica (MEP) and the National Program of Educational Informatics for Elementary Schools. A pioneer in the educational benefits of new digital technologies, today this Program reaches one of every two children in public schools in Costa Rica. During this time, the Foundation has gained extensive experience in this field.

The National Program of Educational Informatics for Elementary Schools constitutes an educational opportunity for the students in all counties of the country, as well as for the teachers who work in the program. This has been achieved through the construction and execution of a pedagogical model for the application of educational digital technologies that promote specific learning processes in young students. Learning is associated with the development of abilities and skills such as reflective and analytical

thought processes, flexible use of knowledge and information, creative problem-solving and cooperative work.

National Program of Educational Informatics for High Schools (7-9)

This program, which was in charge of the Ministry of Public Education from its beginning, was integrated in March, 2002 into the National Program of Educational Informatics that the ODF supervises, in accordance with the decision of the National Council of Education.

2. Consulting

The Omar Dengo Foundation has achieved a high level of experience in the field of Educational Informatics, which permits it to design and evaluate projects in this area both with institutions in the private sector and through consulting at an international level.

3. Robotics and Learning by Design

The Foundation carries out research and development activities in this area which are shared with the national community by means of courses offered to the general public.

Area of Professional Development and Training for Educators

The ODF has accumulated vast experience in the designing of courses and materials for teacher training and formation. One fundamental aspect is the incorporation of work with educators from rural and marginal urban zones, educational authorities, and tutors in educational informatics. The ODF has designed and implemented different strategies and methodologies in order to complete this training successfully. The design and initial generation of the training programs of the ODF were carried out in conjunction with the Epistemology and Learning Group of the Media Laboratory of the Massachusetts Institute of Technology (MIT), in particular Seymour Papert, Mitch Resnick, and David Cavallo.

1. The Training of Educators involved in National Program of Educational Informatics MEP-FOD

Within the framework of the National Program of Educational Informatics MEP-FOD, the ODF carries out yearly training processes, both for the staff and educational authorities of the new schools which join the Program and for those that are already part of the program. In 1998 and 1999, UNESCO hired the ODF to handle the training of 15,000 elementary school educators from the kindergarten through sixth grade of the Basic General Education.

2. Teacher Training and Development

Under the leadership of the Center for Educational Innovation (CIE), the ODF has also developed different types of teacher training programs through contracts for development and execution signed with different entities. Among these initiatives, the following stand out:

Project Alliance

In 1999 the ODF created Project Alliance, through which it provides support to the schools of education of the nation's state universities.

Innov@

At the request of Microsoft, the Center for Educational Innovation of the ODF produced "Innov@: Educational Innovation with Microsoft Productivity Tools," which constitutes an important educational option for innovative pedagogic utilization of productivity tools. This course was initially given in Costa Rica, Chile, Venezuela, and El Salvador.

Intel Teach to the Future

As of the year 2000, the ODF was also chosen by Intel to take charge of the translation, curricular adaptation, and implementation of the project "Intel Teach to the Future" in Costa Rica, the first instance of this initiative in Latin America. The goal of the program is to train educators in the pedagogic benefits of productivity tools. Within this project, in 2001 the ODF was also responsible for initial training of the group of educators from Mexico in charge of implementing the Program in that country.

Area of Educational Innovation and New Learning Environments

Innovation in ways of learning has been a central concern of the ODF since its inception. The development of wide-reaching educational and technological projects of national transcendence and sustained contact with specialists and international centers for technological and cognitive innovation have provided our institution with significant experience and knowledge in this field.

In 1997, on the occasion of its tenth anniversary, the ODF established a specific work area for educational innovation. Through its Center for Educational Innovation (CIE), it aims at fomenting innovation in educational spheres--public and private, formal and informal, and national and international--in order to foment cultural change and the development of the cognitive and social skills necessary for active participation in a sustainable, democratic society.

Services Provided by the Center for Educational Innovation

- Courses, workshops, and conferences given by national and international specialists.
- Consulting for both national and international entities.
- Design and implementation of programs and projects.

Work Clusters of the Center for Educational Innovation

The ODF has a series of clusters for work, research and development in which different areas of institutional specialization converge and in which different projects and initiatives are grouped together for coordination by the Center for Educational Innovation:

Internet Cluster

- Internet Applications for Educational Learning. ODF/IADB (Inter-American Development Bank)
- World Links for Development. ODF/WB (World Bank)
- Think Quest. ODF/Think Quest Inc.

Science and Mathematics Cluster

- Intel Teach to the Future Project. ODF/Intel Components of Costa Rica
- Internet Applications for Educational Learning. ODF/IADB

Democracy and Youth Cluster

- Citizens and Apprentices: An action-research methodology for fomenting children's ability to reason and their civic participation. ODF/Harvard University/State of the Nation Project.
- Youth and Democracy Conference. ODF

Area of Digital Technologies for All

The ODF has experience in taking advantage of digital technologies to develop communal programs and to train individuals, organizations and companies in the benefits derived from informatics tools.

Since 1989, the Foundation created the Program of Digital Technologies for All, which has made a significant contribution to developing this area in the nation through the designing and implementation of courses directed towards generating a general informatics culture in the communities, utilizing informatics programs to solve problems, and the designing of informatics instruments for the communities. The Program has given courses on informatics and productivity tools to citizens in both rural and urban areas, as well as to businesses, organizations, and institutions.

At the present, through its Program of Digital Technologies for All (1997), the ODF continues to provide these services and to address the training and professional development needs of the personnel of institutions and companies and of hundreds of citizens.

In 1998, an innovative Program for Senior Citizens was created to facilitate entry into the world of the Internet and informatics for groups of people whose age, formation, or place of residence had excluded them from the benefits of new technologies.

In 2002, through a pilot project with the Inter-American Development Bank, the Center for Educational Innovation of the ODF developed the training program “Women Entrepreneurs of the New Millennium: Expanding Frontiers in Micro and Small Business Management.”

This program aims at helping women in this area extend their vision and options for action in the fields of planning, organization, control, innovation and promotion of their products and services, while learning how to handle Microsoft Office productivity tools as means to carry out daily tasks in their businesses.

Area of Online Learning and Digital Production

The Omar Dengo Foundation has created the area of Online Learning and Digital Production for the purpose of researching and developing learning through the Internet.

1. Online Learning and Digital Production Center (Nexos)

Nexos is an institutional center for design and production, created in 1999 within the framework of educational innovation fomented by the Omar Dengo Foundation. Its aim is to provide both the national and international community with interactive sites for learning by means of the Internet network.

Since its beginnings in 1999, Nexos produces and works to achieve the following general objectives:

- Foment spaces for building human networks to exchange experiences and knowledge using new technologies
- Promote working through learning networks and collaborative, multidisciplinary, multisectorial development.
- Design environments for decentralized learning and pluricultural exchange.
- Maximize the learning potential of the educational community in general by diminishing gaps and geographical and cultural barriers.

Nexos has defined and constructed a learning proposal and technological strategy which permit articulation of three basic components: cybernetic spaces (websites) for learning through the Internet network, educational and informative resources and materials in digital format, and online information services.

Some Nexos products are specifically designed for certain programs associated with the institution, such as the PIE MEP-FOD, or for specific institutional programs, such as the Center for Educational Innovation. Others are available to all those interested, such as Joy City (“Ciudad Alegría”), a site for children and young people: www.fod.ac.cr/portafolio/ciudadalegria.

Research and Evaluation Area

Since its beginning, the Omar Dengo Foundation has given extraordinary importance to research and evaluation, the foundation upon which institutional educational development rests.

1. Research Department

This department provides services to the entire organization and implements different types of projects and activities. The research team has been in charge of projects sponsored by the Inter-American Development Bank, the World Bank, and UNESCO, among others.

The most important ongoing research projects are:

- Learning through the Internet: a project financed by the Organization of American States, with the participation of Brazilian researchers, which examines learning by means of the Internet.
- ICTs in Education: Development of methodology to evaluate social impact and equity conditions, a study financed by the International Development Research Center (IDRC) of Canada to develop methodology for evaluating the impact of new technologies on social and economic development.

Area of Informatics, Networks, Technical Support and Maintenance

One of the most serious complexities confronting optimal execution of projects on new technologies consists of guaranteeing proper functioning of equipment and the sustainability of technological platforms.

The ODF has acquired ample experience in providing preventative and corrective maintenance services for computer equipment, which constitute the technological infrastructure for its programs and for its system of networks, both in educational institutions and in its centers for production and research.

1. Informatics

The ODF has a highly developed informatics department which is in charge of research, development, and searching for solutions to the complex problems inherent to the institutional technological platforms.

2. Center for Equipment Support and Maintenance

This Center provides services both in person and long-distance. In addition, it has an online support system, as well as via telephone, for educators and technicians responsible for institutional projects and activities.

3. Networks

This constitutes the technological basis for the System of Networks of the ODF, which consists of the Learning Network and the Organizational Development and Production Network.

- The Learning Network promotes the exchange and dissemination of ideas and pedagogical productions through the Internet, and makes available the productions, resources, and educational materials to students belonging to the National Program of Educational Informatics MEP-FOD, while facilitating interaction among students and educators.
- The Organizational Development and Production Network supports the administrative and production platforms of the ODF while fomenting

automation of administrative processes and of the production of educational resources.

Area of Knowledge Management and Organizational Development

Knowledge management and the professional development of employees are fundamental axes of the ODF's institutional development. In this context, the ODF has two important proposals: the Program of Knowledge Management and Organizational Development and the Center of Resource and Information Services.

1. Program of Knowledge Management and Organizational Development

Through a network for knowledge exchange and for services related to administrative information and management, the Program of Knowledge Management and Organizational Development facilitates systematization of institutional knowledge and its application to improve organizational processes. In addition, it articulates a group of training activities aimed at increasing the human and professional quality of the personnel of the institution.

2. Information and Resource Center

The Information and Resource Center constitutes an institutional support system in charge of selecting, organizing, presenting and preserving relevant information resources for research and the development of programs, centers, initiatives and projects. Through use of the most modern technology, the Center facilitates access to the information needed by the different institutional programs. The Center's services are also available to the national and international educational community.

Area of International Relations and Project Development

The ODF, which has extensive experience in the design and execution of programs, projects and initiatives in the fields of application of technology to education and innovative education, has created an area that specializes in the management and follow-up of projects in the areas of institutional

expertise. This area acts as intermediary between the different units and departments of the institution and the public and private institutions, nongovernmental organizations, international organizations, and national and international universities with whom the Institution develops its programs or provides consulting.

The area of International Relations and Project Development coordinates the development of projects, including their design, the articulation of financial sources, the establishment of mechanisms for coordinating with executive units, and the monitoring of execution activities. In addition, this area systematizes and promotes the services of the Institution by extolling successful experiences of national and international interest.

**For more information,
call our Office of Project Development,
tel. (506) 257-6263**

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visit our website at www.fod.ac.cr,
or call our Office of External Relations,
tel. (506) 257-6263
fax (506) 222-1654**