

Professional Experience

	lication "#InternetNecesario y otras campañas en línea en América Latina: nunidades de proyecto y efectos educativos", submitted to editors, Senate, Mexico
by	olication, "IGF and Cybersecurity", by invitation, final draft accepted, for book edited Prof. William Drake, Internet Governance Forum, United Nations Organization,
	neva, 2010
"On vigil Jan	isultant for the Fund for Strengthening and Modernizing Justice in Mexico, project line Trials" (total value of project approx. 20 Million USD, role played: general ance for the funders, started May 2010, deadline December 2010, final report due uary 2011)
de	dication "Políticas y demandas civiles en la sociedad interconectada. Una revisión movimientos en defensa de Internet en México y Venezuela", book chapter, by tation, accepted, Universidad del Norte, Colombia, Elías Said, editor, 2010
lber http	olication, "m-learning en la Ciencia", with L. Enríquez and L. Chaos, Revista coamericana de Educación a Distancia 13[1] , 2010, available online as o://www.utpl.edu.ec/ried/index.php?option=com_content&task=view&id=508&Ite=152
To Invit	ted speaker at numerous events related to the Internet as well as Distance
date Edu	cation and e-Learning
2009- Res	earcher, Centro Geo – Centro de Investigación en Geografía y Geomática « Jorge
	amayo », Mexico ; responsible for
	ance Education – started distance education for certificate course on Geomatics
	rmation Technology policy – connection to Internet 2, portal renovation, strategic
	nning, project contests
Dist	or, monographic issue on technology, Revista Iberoamericana de Educación a cancia (RIED)
	NN: member of the ccNSO Review Working Group and the Fellowship Advisory
	nmittee
	rnet Society (ISOC): Trustee, Chair of the Mexico Chapter
date Present Pre	forcer Facultad de Ouímica LINAM en cabbatical lagua Awardad cabbatical
t leav	fessor, Facultad de Química, UNAM, on sabbatical leave. Awarded sabbatical ve; entitled to a total of 3.5 years, with successive annual awards. Performing erse duties:
	 Advisor on Information Technology, Telecommunications, and Distance Education, Centro GEO (research center on Geography and Geomatics), Mexico, 2009
	 Member, Scientific Committee, INFOTEC (research center on Information Technologies), Mexico, 2009
	 Studies and proposals on e-learning for IMSS, Instituto Mexicano del Seguro Social (2008).
	 Studies and reports for the e-Mexico project of the Secretary of Communications and Transportation of the Federal Government of Mexico, in relation to strategies, Information Society policy, and related subjects.
	 Studies on the incorporation of advanced Information Technology in Education for Colegio Madrid, A.C., a prominent, 2000-student, private K-12 educational institution in Mexico City.
	Participation in two IT projects (one on banking, one for the public sector) with
	Analitica, S.C., a consultancy in Mexico City.

- banks, other financial intermediaries, law-enforcement, technical and academic members to coordinate anti-phishing activities (2004-2008, continuation in 2009 pending.)
- Edited a monographic volume on technological views of e-learning for Revista Iberoamericana de Educación a Distancia (RIED by invitation of the Editor.
- Research on Internet Governance; accepted at ACORN-REDECOM Conference, CIDE, Mexico, 2009 – "Internet Governance Models put to a Test", with Pablo Hinojosa.
- A number of other advisory/consultancy and academic activities.

1997-2000, 2002-2008

Director General de Servicios de Cómputo Académico UNAM (Universidad Nacional Autónoma de México) (Director General for Academic Computing Services)

Unit formed by over 1,200 persons, annual budget 30 M \$USD, in charge of providing central Information Technology services to UNAM, a 300,000-student research and teaching university with more than 450 years tradition.

- **Supercomputing:** leader in Latin America; purchased and put in service KanBalam, a 1,300+ processor supercomputer, most powerful in Latin America, 2007; operating for research and graduate education projects.
- Virtual Reality: creation and operation of IXTLI, a CAVE-like immersive 3-Dimensional virtual reality auditorium, with a strong impact in education and research, and innovative projects.
- Systems: production of computer and information systems for internal and external clients; in particular, digital signature based on an electronic identity management system and a PKI infrastructure; online elections system; communications systems for the collegiate bodies of UNAM and others. This program has educated hundreds of human resources and supported organizations like the National Population Registry (national identity system), Federal Electoral Institute (organizer of national elections in Mexico), banking system for popular banking, National Fishing Registry; experience in systems contracts.
- Internet: development from physical infrastructure with national reach (over 4,000 km distance between endpoints, over a 100 optical and copper links, plus wireless and satellite) to complex Web-based services; education, portals, online radio station since 1997-98, and innovation in fields like IPv6 and PLC in DGSCA's laboratories.)
- **e-learning:** development and application of an e-learning platform, learning objects repositories and related technology, online courses in computing and telecommunications.
- Information security: support and promotion in the formation and growth of
 the Department of Computer Security, recognized as UNAM-CERT by the
 FIRST network; this unit is broadly recognized in Mexico and internationally; it
 interacts with banks, authorities, law enforcement, the Internet industry and
 other units in preventing and repelling security threats. Alumni from this unit
 now are in top positions in private enterprise and government.
- Webometrics: top Spanish-speaking university in the Webometrics index of Web presence for universities.
- Education and Training: DGSCA provides courses for 20-25,000 persons
 per year in 7 schools in Mexico City, plus in clients' own facilities. It also
 provides SEPAComputo, which I led from its inceptcion, a TV-based ITlearning system directed to the open population, which has benfited several
 million people, focusing on employability, disabilities, and vulnerable
 demographies.
- Telecommunications: replacement and operation of UNAM's nation-wide, 14,000-terminals voice communications system; transition of IP backbone, several times over, up to 10 Gbps.

	Internet 2: Founding Chair of the Board of CUDI, the organization that runs the Internet-2 project of Mexico (Mexico's NREN, counterpart to UCAID and others internationally.) Also won bids to operate from UNAM CUDI's and CLARA's (Latin-American-Europe network) NOC and VNOC.	
2001- 2002	Coordinador de Universidad Abierta y Educación a Distancia, UNAM (Coordinator of Open University and Distance Education, UNAM)	
	Positioning of UNAM in Distance Education in Mexico and Latin America.	
	 Start of several television series and of the conversion to distance education of five Bachelor of Science and a number graduate and continuing education programs. 	
	Creation of the Virtual Campus Observatory, with support from UNESCO.	
	 Publishing of a book on Internet accesibility standards for persons with visual disabilities 	
1995-	Coordinator of the Distance Education Project of UNAM	
1997	 Created the mechanism to promote and coordinate joint activities between IT, Open Education, and the Education Research and Services Center, as well as with schools, external institutions, and the Alumni Associations system, to provide online and TV-based distance education. 	
	 Created the EDUNAM group, which produced guidelines for distance education in UNAM that are still in use. 	
1991-	Member and Technical Secretary of the Computing Advisory Council of UNAM	
2008	Norms, standards, regulations and budgeting for Information Technology, over	
	 the period in which the Internet and Supercomputing were adopted. Growth of UNAM's equipment base from 2,500 to 58,000 computers. 	
1993-	Head, Graduate Studies Division, School of Chemistry, UNAM	
1995	Positioned the Graduate Division in close cooperation with other graduate	
	studies in UNAM and other institutions, activated academic life, prepared for	
4007	major reform, created new programs	
1987- 1990	Head of the Department of Physics and Theoretical Chemistry, School of Chemistry, UNAM	
1330	Fusion of graduate and undergraduate activities into a departmental model, promoted academic life, major human-resources restructuring, renovated laboratory practice and equipment	

Positions in national and international organizations

2007-date	Member of the Board of Trustees, Internet Society (ISOC)
	Organization dedicated to the promotion of technical standards,
	interoperability, expansion of access, and policies relevant to the stability and
	growth of the global Internet
1999-2007	Member and vice-Chair of the Board of Directors, Internet Corporation
	for Assigned Names and Numbers (ICANN)
	Organization for global policy of the global domain-name system (DNS), IP
	address allocation, and coordination of other technical parameters of the
	Internet.
	 Vicechair of the Board, 2002-2006
	 Chair of the Evolution and Reform Committee, 2000-2003 (total
	restructuring of the organization, required international negotiations
	among many stakeholder groups).
	 Chair of the Board's Corporate Governance Committee, 2002-2007
1998-date	Chair, Sociedad Internet de México (Internet Society chapter in Mexico)
1999-date	Founding Chair and member of the Board of Directors, Corporación
	Universitaria para el Desarrollo de Internet (CUDI)
	Association of universities, companies and government for the « Internet 2 »
	project of Mexico, Mexico's National Research and Education Network

	 Build-up of the consortium and build and operation of a high-capacity network for advanced Internet and networked research and education. Promotion of advanced network applications in science and humanities research, education, and culture in academic institutions. At present ex-officio non-voting member of the Board as former Chair.
2001-2005	World Summit on the Information Society (WSIS, organized by the United States Organization)
	 Participation as delegate and member of other bodies in the Preparatory Conferences of the Summit and in the Summit meeting itself; international negotiations for the development of the Information Society.
	Working Group on Internet Governance, 2004-2005; designation by Mr. Kofi Annan, then Secretary General of the UN. The group produced a report for the second stage of WSIS on the problem of Internet Governance, containing a working definition based on technical and policy knowledge, and alternatives into the future. The work required intense international, multilingual negotiations with governmental, intergovernmental, private-sector and non-governmental organizations.
2005-date	Internet Governance Forum. Member of the Advisory Group, now Multistakeholder Advisory Group, by designation of the Secretary General of the United Nations Organization. Participates in the programmatic definition of the sessions of the Internet Governance Forum, the UN's prime venue for discussions of Internet Governance. A pioneering multi-stakeholder, annual event which is transforming the way global governance of a global resource, in this case the Internet is performed. The designation has been renewed each year by Messrs. Kofi Annan and Ban Ki-Moon.

Education

1984-1986	Postdoctoral period in the Max-Planck Institute for Solid State Research, Stuttgart, Germany
1984	Ph. D. in Theoretical Chemistry, School of Chemistry, UNAM, Mexico
1982	M. Sc. In Physical Chemistry, School of Chemistry, UNAM, Mexico
1972-1977	B. Sc. In Chemistry, UNAM, Mexico

Additional Information

Panelist and speaker in numerous academic, technical, professional, and policy-making events and meetings, and member of organizing and program committees.

Director of two periodic publications, « enter@te » (online and print, 40-50,000 monthly copies) and « Revista Digital Universitarria », online, 2002-2008

Languages: Spanish (mother tongue), English (100%), German (100%), French (reading, conversation)

Use of computers and the Internet ; experience in the Information Security field. Coordinator of the UNAM group in LinkedIn.

Prizes:

- National Prize, Mexican Association for Continuing and Distance Education (AMECYD), 2007
- Selected in the Top 15 of the « Top 100 CIO's of Mexico, InfoWorld magazine, 2007

- 2nd place, public-sector category, Top 50 of Mexico, for the Digital Signature Project, InformationWeek magazine, 2006
- Special distinction for « Ixtli », the Virtual Reality facility of UNAM, AMITI (Asociación Mexicana de la Industria de Tecnología de la Información, Mexican counterpart to WITSA), 2006
- « INELAM » prize, in the category for Interamerican Informatics, Organization of American States, 2005