**UNIVERSITA DEGLI STUDI DI ROMA**
**"TOR VERGATA"**

**CReSEC**
**Centro di Ricerca e Sviluppo sull'E Content**

# ELISABETTA ZUANELLI (SONINO)

CURRICULUM

e-mail
elisabetta.zuanelli@pragmema.it

elisabetta.zuanelli@uniroma2.it

*Docens Turris Virgatae*, Emeritus, since 2016
Currently, Chair of Artificial intelligence and digital communication, University of Rome "Tor Vergata", Faculty of Economy
2004-2016 Full Professor, Chair of Glottodidactics / Digital Communication, University of Rome "Tor Vergata", Faculty of Economy
2007-2021 President of the Center for Research and Development on EContent (CReSEC, www.cresec.com) University of Rome "Tor Vergata "
1969- 2004 Associate Professor Chair of Glottodidactics, University of Venice
UE Expert 2005 -2007 in eContent Plus and security project/evaluator of projects 2005-2006
2005-2007 Responsible for technological innovation Faculty of Humanities of the University of Rome"Tor Vergata"
2012 Expert for the Ministry of Education and University in Industrial Research Projects (Ministerial Decree n. 30 / Ric. February 2, 2012)
2010-2013 Member and Referee of the Scientific Committee/ International Referee for IEEE / MEEM (Institute of Electrical and Electronic Engineers, Multidisciplinary Engineering Education Magazine)
2012 Scientific Director of the online platform for the Ministry of Health, www.moltiplicalavita.it (THE PRESIDENT OF THE REPUBLIC GIORGIO NAPOLITANO ACCORDED THE PROJECT THE MEDAL OF REPRESENTATION)
since 2013 Coordinator of the steering committee on information Security (University of Rome "Tor Vergata", CNR, Guardia di Finanza, etc.)
since 2016 Coordinator of the National Plan for education and training in cybersecurity, cyberthreat and privacy, Private Public Partnership, University of Rome "Tor Vergata" companies and institutions (www.cybersecurityprivacy.it, www.ai4a.it)
2016-2020 Member of the board of directors of CDTI
since 2017 Scientific Responsible for the interdisciplinary Master in "Digital competences for data protection, cybersecurity, privacy", University of Rome "Tor Vergata"/PPP
since 2017Member of the Board of Directors of Fondazione Goria
since 2020 Professor of Information Architecture, online University UNINETTUNO, Rome

since 2020 Expert Roundtable 3C on AI at the UN for a multi-stakeholder advisory body on global AI cooperation

2021 Referee HCI Conference 2021
from 2022 Nato Expert Team STO-SAS-179 Artificial intelligence
2023 Technical Evaluator NATO Diana Challenge
from 2024 Nato Expert AI SAS-ET-FM
from 2025 Nato Expert AI SAS-SCI 207

1975-1982 Researcher and aggregate professor / University of Venice
1982-2004 Associate Professor of Glottodidactics/ University of Venice
1987-1993 Member of the International Committee UNESCO-Linguapax Project
1988-1996 Scientific Secretary of the Project REDILME, UNESCO - University of Venice (Documentation and Information Network on minority languages in Europe)
1987-1992 Counsellor on Public Communication of the President of the Council of Ministers
1990 Expert/Delegate for the Cultural Cooperation of the Pentagonal Initiative, Italian Ministry for Foreign Affairs
1993 to 2004 Head of the Department of organizational-computing sciences, Higher School of Economy and Finance, Ministry of Economy and Finance
1993-2004 Professor of Public Communication at the Higher School of Economy and Finance (Tax School), Ministry of Economy and Finance
since 2000 President of PRAGMEMA srl, www.pragmema.it: architectural solutions for Internet projects/ knowledge communication architecture/ usability & accessibility software; elearning platforms; search engines (www.pragmema.it, www.aquasearchportal.it, iconanalytics, AI ontologies,cybersecurity ontology platform POC)

## RESEARCH SUBJECTS

Contrastive analysis: phonology and phonetics; error analysis of communication; theories of communication; communication skills; educational sociolinguistics; multilingual minority languages; pragmalinguistics; institutional public communication; normative communication; digital communication; semiotics of interface design, technology architectures, elearning; intelligent platforms and digital services; search engines development research; multidisciplinary approaches to e-content / IT infomation security; AI modelling; iconic syntax and indexing; cybersecurity ontologies.

## INTERNATIONAL ASSOCIATIONS

1983-1994 - UNESCO consultant in language education and planning sociolinguistics (Paris);
since 1984 - member of AILA / GILA (Italian Group of Applied Linguistics, AILA affiliate: Mother Tongue Education, Multilingual Education, Psycholinguistics);
- Member of IRA (International Reading Association);
- Member dell'AIMAV (Association Internationale pour le Développement de la Communication interculturelle);
1985-1992 ISALP Member (International Society for Applied Psycholinguistics);

1986-1993 Scientific Secretariat REDILME (International network for electronic documentationand information on less Widely taught languages, UNESCO - University of Venice);
since 1989 member of the board of directors AIMAV

## NATIONAL ASSOCIATIONS OF THEORETICAL AND APPLIED LINGUISTICS

SLI (Society of Italian Linguistics); GISCEL (Group of Intervention and Studies in the Field Educational Linguistics); MCE (Movement of Educational Cooperation); ANILS (National Association of Foreign Language Teachers); GILA (Italian Group for Applied Linguistics); CILA (Italian Centre for Applied Linguistics); CLADIL (Center for Applied Linguistics and Language Teaching); LEND (New Languages and Education); CIRSES; DILLE; AItLA

## CONSULTING AND INSTITUTIONAL GOVERNMENT POSITIONS

1985-1986 Consultant and member of the Commission on Public Communication/Ministry of Economy;
1987-1988 Counsellor of the President of the Council of Ministers;
1988-1992 Counsellor for Information and Communication at the Presidency of Council of Ministers - Ministry of Social Affairs;
1988-1991 - Coordinator of the Study Group on the Right to Information in Italy, Presidency of the Council of Ministers; Coordinator of Information Systems in Social Affairs, Ministry of the Interior;
- Coordinator of the Committee for the media-technological communication of disabled people;
- President Socialforum / communication technologies for people with disabilities; coordinating committee for the right to information and communication of disabled people;
1991-1992 - Counsellor for the information of the Minister of Agriculture;
- Representative of the Ministry of Agriculture at the General Committee of Italians Abroad / Ministry of Foreign Affairs;
1992 Scientific Director and Coordinator of the Project for Research on Readability of the texts of the PA/ Ministry of Agriculture / AGRISIEL;
1992-1993 Director of institutional communication of the Minister of Finance;
1992-1993 Scientific Director of the Institutional Communication Plan of the Ministry of Finance;
1993-1999 Coordinator of the Department of organizational and computer sciences at the Ministry of Finance, Central Tax School "E. Vanoni";
- Scientific coordinator and coordinator of projects:
computer training for the financial administration (FIAF- elearning); experimentation of distance learning; institutional communication; language training; computer training; safety project L 626;
1998-2000
i) training for the decentralization of the Land Registry (Agreement ANCI /Territory

Department - Ministry of Finance)
ii) Reform of Revenue offices
1996-1999 Coordinator of the working groups of the Central Tax School:
- Computer Training (planning, multimedia, evaluation) for the administration;
- financial information;
1998-2000 Head of the collaboration agreement between the Central Tax School and AIPA (Authority for Information Technology in Public Administration);
2000 -2011Scientific Director and Professor of the Master in Public Communication and institutional organization with advanced technologies CEIDA
2000 Scientific responsible and coordinator of the qualification plan in computer activities of the Ministry of Finance;
2000-2002 Head of Area in international and communication sciences of the Higher School of Economy and Finance, Ministry of Economy and Finance;
2002-2004 Head of the Training Plan in Public Communication and institutional information for the Ministry of Economy and Finance
2002-2004 Scientific Director of the Master in Communication and institutional organization technologies , Higher School of Economy and Finance/University of Rome “Tor Vergata”
2009-2015 Scientific Director and Professor of the Master in Public Communication, organization and digital services CReSEC/University of Rome “Tor Vergata”
2010-2012 Design and teacher training in institutional and digital communication for the Lazio Region

**CONSULTING AND INSTITUTIONAL COUNSELLING**

1993-1995 Member of the Regional Committee for the Broadcasting Service (COREREAT) Veneto Region;
1994-1995 Responsible for the coordination of the national working group MED-MARIS "Communication and Information" for the science policy in the Mediterranean (CNR, ENEA, ICRAM, CONISMA); Rapporteur on the theme "Communication and Information" at Workshop "Environment and technology in relation with the Mediterranean", European Union Marseille-Toulon, February 2 to 3 (Report: "A communication architecture for scientific cooperation in the Mediterranean: a tentative proposal ");
1997-1999 Member of the Working Group/ EURO COMMITTEE, Ministry of Economy

**CENTERS – ASSOCIATIONS IN INFORMATION COMMUNICATION SCIENCES**

1989-1992 - President Socialforum - Information for people with disabilities (Special Activities Forum information technology), FTI;
1990-1993 Member representative in ASPHI Council (Association for the Study of projects of computer training for disabled people), IBM Bologna;
1991-1998 - Member of the Executive Board of the Italian Medical Informatics (AIIM);
Since 2003 - President of ComIT/Center for Studies on Public Communication and technological innovation, www.icomit.it

**CONSULTING / PROJECTS /CONFERENCES**

1992 AGRISIEL Scientific direction and coordination of the Project for Research on Readability and functionality of the texts of the PA Ministry of Agriculture / AGRISIEL;
1992 - 1996 Project Management socialmedia ECOTEL®-ECOFAX: Information System for environmental P.M.I. and Local Authorities;
1992-1993 SOGEI Scientific direction and coordination of the Strategic Plan of Institutional Communication of the Ministry of Finance: i) information services to the citizen ii) pre-feasibility study on the prototype of the regional information system (regional and local finance); simplification of language; first national project on customer satisfaction and tax compliance;
1993 FINSIEL: training plan on communication system and organizational processes, FINSIEL / Italsiel;
1994 Multiservice BNL Design, study and preparatory seminar for the management of banking computer services"Analysis and evaluation of IT products and services";
1995 TELECOM Italia design, coordination, implementation study "Communication institutional organizational analysis/activities RE / SIA;
1998-2000 INPDAP Consultant for Institutional Communication (Projects of communication; Office of Public Relations; Internet site);
Since 1999 Scientific coordination and teaching in the Master in “Public and institutional Communication for public administrations and public companies” CEIDA;
1999-2000 Federabitazione / Planning and preparation of the feasibility study of a networked system for rent in cooperative associations Ministry of Labour;
Since 2000 President of PRAGMEMA srl: hyper-interactive architectural solutions for Internet projects/consulting and architectural projects of knowledge and communication / usability & accessibility software; open university; innovative software for elearning and elearning platform; search engines (www.pragmema.it, IPZS ecommerce legislation search engine; www.aquasearchportal.it, the ontology of cybersecurity, Pragmema POC platform);
2002-2003 Expert of the Ministry for Innovation and Technologies / Presidency of the Council of Ministers;
since 2003 Scientific Director of the Master in "Communication and institutional organization through advanced technology "of the Higher School of Economy and Finance in collaboration with the CEIS, University of Rome “Tor Vergata”;
since 2004 Chairman of the Centre for Studies on Institutional Communication and technological innovation (ComIT);
2005-2007 Responsible of technological innovation Faculty of Humanities, University of Rome "Tor Vergata" (Relations with the Business Innovationa Center, Lazio Region);
2005-2007 Head of Relations with the Scientific Park of “Tor Vergata” University;
since 2006 Scientific Director of the Expert Group for the Evaluation of Web sites accessibility and usability (Albo CNIPA), Pragmema for Certiquality/ Federchimica;
since 2007 President of the Centre for Research and Development on E-Content (CRESEC: www.cresec.com, University of Rome "Tor Vergata");
from 2010 Higher Education Course in Quality, usability, accessibility of Web sites, Lazio Region (ASAP);

2010 EUPRIO Conference Master Class on "Usage-centered design and web architecture: a semiotic approach. "EUPRIO Conference, Stresa 1-4 September 2010;
2010-2015 Scientific Director and Professor of the Master in "Digital and Internet Communication ", CRESEC / University of Rome" Tor Vergata";
2011 Invited Presentation of Aquasearchportal at WATEC 2011 (Italian Embassy in Tel Aviv and the Chamber of Commerce): www.aquasearchportal.it;
2011-2012 Scientific Director and responsible for the development of the Project (website and social networks) www.moltiplicalavita.it the Ministry of Health / CNT/ CRESEC
Since 2016 Scientific Director and Professor of the executive Master “Digital competences in data protection, cybersecurity, privacy”, PPP, University of Rome “Tor Vergata”
2015 ASREN E-Age Conference Oman, “The aquaenergy project”
since 2017 Member of the Board of Directors Fondazione Goria
2017 Invited Speaker ASREN E-Age Conference,Egypt, Cairo “The cybersecurity ontology platform: the POC solution”
2018 WACREN-ASREN Conference, Togo, Lomè, Invited Speaker on” Cybersecurity as a service: the POC tool/platform for design and implementation”
2018 Invited Speaker Cybertech Conference Europe 2018, Rome, 27-28 September, “Arrtificial intelligence and cybersecurity”
2018 Invited Speaker E-Age 2018 Asren Conference Amman 2-3 December “Cybersecurity as a service: standards and tools for risk assessmente e risk evaluation”
2019Invited Speaker Cybertech Conference Europe 2019, Rome, 24 September “GDPR, privacy and other topics”
2019 Invited Speaker E-Age Conference 2019, Abu Dhabi, UAE, Khalifa University, 11-12 December “Cybersecurity ontology for proactive incidents detection: the POC knowledge and the graph representation”
Since 2020 Expert Roundtable 3C on AI at the UN for a multi-stakeholder advisory body on on global AI cooperation
2020 Cybersecurity Conference: Cybersecurity nelle Infrastrutture critiche: tipologie di rischio e risposte di sistema, Rome, 21 January, University of Rome “Tor Vergata l AI cooperation
2021 Invited speaker at Cybertech global, Dubai 5-7 April
2022 President and scientific coordinator of the Cybersecurity Conference: state of the art, defence systems and resilience, Rome, Wedekind Palace, April 4, 2022 (Presentation on “Cybersecurity e sistemi di difesa :luci ed ombre”)
2022 Coordinator on AI and cybersecurity Panel, Cybertech Europe, May 10-11, 2022,
Rome, Italy, La Nuvola Conference
2022 Invited Speaker at the International Conference on Military Communications and Information Systems, ICMCIS 2022, Udine, Italy, May 17-18, 2022 (Paper on “Cybersecurity Ontology and Defence Solutions: the POC Platform”)
2023 Invited speaker at Cybertech global, Tel Aviv, 29 January-1 February, paper on “Cybersecurity ontology defence on board ships: the POC solution”
2023 Round Table Ambrosetti Ambrosetti, 30 May 2023
2023 Invited Speaker Cybertech Conference 2023 Europe, Rome, 3-4 October “Linguistic and mathematical approaches to artificial intelligence
2024 President and keynote speaker at 6th Conference on “Artificial intelligence, health and data protection”, Rome, University of Rome “Tor Vergata” and INPS, 22 April,” “Intelligenza artificiale, sanità, protezione dei dati: temi e problemi”

2024 Invited Speaker Privacy Symposium Conference, Venice, 10-15 June, “Quantum and AI technologies: the double bind approach in cybersecurity”
2024Invited Speaker National Congress I.O.R.S (Italian Orthopedic Research Society), Rome, 21-22 June, “Intelligenza artificiale, VR e AR: vantaggi e rischi cybersecurity”
2024 Invited Speaker Estonian Data Protection Association (EDPA), II conference, Future of privacy, data protection and cybersecurity, Tallinn, November14, “Future threats to privacy, data protection and cybersecurity”incidents, solutions”
2024 Invited Speaker Tal Tech Mustamäe campus, Tallinn, November 15, Public lecture “AI: approaches, models and machine learning”
2024 Invited Speaker Convegno CESMA, Guerra algoritmica
e potere aerospaziale, Rome, November 7, “AI e difesa del cyberspazio: modelli e soluzioni per l'aerospazio”
2024 Audit at Parliament, I and II Commission, Chamber of Deputees, A.C.n.1717, 27 March
2025 President and keynote speaker at 7th Conference on “Cybersecurity and aerospace security”, Rome, University of Rome “Tor Vergata
” and INPS, 7 April, “La ‘nuova sicurezza’ tra cybersecurity e aerospace security”
2025 Invited Speaker Privacy Symposium Conference, Venice, 12 May, "Satellite Communications and data protection: threats,incidents, solutions”

**BOOKS**

(14) 1991 (ed.) *Il diritto all'informazione in Italia*, Rome, Presidenza del Consiglio dei Ministri, Dipartimento per l'Informazione e l'Editoria, Poligrafico dello Stato
(15) 2000 (ed.) *Manuale di comunicazione istituzionale: teoria e applicazioni per aziende e amministrazioni pubbliche*, Rome, Colombo (2° ed. 2002)
(16) 2004 (ed.) *Manuale di economia della conoscenza*, Rome, Colombo
(17) 2006 *Manuale di linguaggio, comunicazione e applicazioni digitali*, Rome, Colombo
(18) 2009 *Comunicazione digitale. Un approccio semiologico-linguistico*, Rome, Colombo
(19) 2009 *Glottodidattica. Dalle scienze del linguaggio all'educazione plurilingue*, Rome, Edizioni Nuova Cultura
(20) 2012 with P. Pomati (eds.), *Moltiplicalavita*, Rome, Aracne
(20) 2012 (ed.) *Comunicazione digitale e comunicazione in Rete*, Rome, Aracne
(21) 2013 *Amministrazione digitale e innovazione tecnologica*, Rome, Aracne
(22) 2016 (ed.), *Il futuro dell’economia digitale*, Rome, Aracne
(23) 2016 *Architetture digitali e comunicazione digitale*, Rome, Aracne
(24) 2020 (ed.), *Cybersecurity, protezione dei dati, privacy*, Rome, Aracne

1979-1982 General editor series: *Quaderni della ricerca, documentazione, sperimentazione linguistica*, Comune di Venezia - Assessorato alla Pubblica Istruzione /Università di Venezia - Centro Linguistico Interfacoltà/University of Venice

General editor of the online journal *Comunicazione digitale*, Rome, Aracne
General editor of the *Web series*, Rome, Aracne

Over 200 essays articles on applied linguistics, digital communication, software architectures, Ai/ ontologies

## Some essays on digital sciences

Zuanelli E. (2010), “Digital communication and sites architecture: a semiotic-linguistic approach: Guidelines for Web Design”, *Comunicazione digitale 3*, 5-23 (see http://www.euprio.org/getfile.php/Filer/proceedings%202010/Papers%5CZuanelli.pdf.)
------ (2013)” Elearning content 'usability': semiotic and didactic parameters in digital texts and textuality”, *Procedia - Social and Behavioral Sciences* 106, 1039-1049
------- (2015) “Icons and Icons: New Paradigms in Interface Design”, *The Online Journal of Science and Technology*, October 2015, Vol. 5, Issue 4,44-56

## Essays, articles on Cybersecurity, AI, data protection

(2013) Zuanelli E., *“Cybersecurity, ecco perché l’informazione è un valore economico”, in Formiche.net, article 06/12/2013*
*---------“Strategie cybersecurity e cyberthreat: concretezza o “chiacchiere e distintivo”?”, in Informatica & Documentazione, no. 1/2016*
*----------, “Direttiva europea NIS e GDPR, attuazione e bug applicativi nel mercato digitale”, in Key4biz.it, article 22/12/2017*
*------- (2018) “The cybersecurity ontology platform: the POC solution”, ASREN, Proceedings of e-AGE 2017*
*--------- (ed.),* (*2020), Cybersecurity, protezione dei dati, privacy.Temi, nozioni, applicazioni. Un approccio interdisciplinare,* Rome, Aracne
*-------- (2020) “Cybersecurity, protezione dei dati, privacy: il contesto e gli aspetti concettuali, terminologici, operativi”,* in E. Zuanelli (ed.), *2020*
*---------- (2020) “Le norme. NIS, GDPR, d. l., 105/2019, Cyber Act, in E. Zuanelli* (ed.), *2020*
*---------- (2020) “Le funzioni e i task CERT/CSIRT”,* in E. Zuanelli (ed.) 2020
*---------- (2020) “Cybersecurity analytics: classificazioni, tassonomie, ontologie”,* in E. Zuanelli (ed.) 2020
*------- (2022) “Cybersecurity ontology and defense solutions: the POC platform”, Procedia Computer Science, Volume 205, 2022, pp. 300-309*
*------- (2024), “Linguistic and Mathematical Approaches to Deep Neural Networks Training and Artificial Intelligence: The Confluence of Paths for AI Development”, Gexin, Inform Techn Int,1(1): 101, https://doi.org/10.33790/jiti1100101*
*-------- (2025), “AI Military Satellites Security in Aerospace: The POC Solution”, Gexin, J Inform Techn Int, 3(1): 106, https://doi.org/10.33790/jiti1100106*

General editor of *Rivista Comunicazione digitale,* (from 2004 to 2012 online www.icomit.it), from 2013 to 2020, Rome, Aracne

Scientific and editorial director of the Web Series for Aracne since 2015