Introduction

When?

Created between 1999 and 2000 by Gabriel Ferraté (president of the UOC and the IN3) and Imma Tubella (vice president for Research at the UOC and vice president of the IN3), the IN3 was the UOC's first research centre.

Where?

As of 2022, the IN3 is located in the new Interdisciplinary R&I Hub at the Can Jaumandreu Campus in Barcelona's 22@ district.

The Hub brings together different UOC research centres and groups to foster technological development, cutting-edge research and innovation. It focuses on three strategic lines of research: e-learning, digital health and the network society.



Who? (figures from 2021)

Group directors (4 women and 7 men)

Predoctoral researchers (27 women and 27 men)

Postdoctoral researchers (33 women and 43 men)

Research assistants (18 women and 21 men)

Staff researchers

(1 woman and 4 men)

(4 men)

Visiting scholars (5 women and 5 men) Edinburgh Napier University (UK), University of **Buenos Aires** (Argentina), **University** of the Republic (Uruquay), Ramon Llull University (Spain), University of Melbourne (Australia), University of Parma (Italy), University of Vic - Central University of Catalonia (Spain), Pompeu Fabra University (Spain)

External collaborators (8 women and 14 men)

43.4 % women and 56.6 % men

Partnerships and alliances

Public administration Associations

Barcelona City Council Government of Catalonia Barcelona Activa **Viladecans City Council** Metropolitan Area of Barcelona (AMB) **BIT Habitat**

State agencies

(CSIC)

Spanish National Research Council

Associació Decidim/MetaDecidim TC Group Canòdrom: Ateneu d'Innovació Digital i Democràtica Spanish Gender and Data Science in Sports and Health (GENDASH) Network Educere Alliance LoRa Alliance

Public and private consortia

Mobile World Capital Barcelona

Atomic Energy Comission (CEA)

Foundation

Private organizations

Smart Venice Guy Carpenter Inc Falset Marcà FlexSim Worldsensing

CISCO

Universities and research

Media & Communication Studies Malmö University Centre for Demographic Studies, Universitat Autònoma de Barcelona (UAB) University of California, Berkeley Massachusetts Institute of Technology (MIT) University of Padua IFISC-CSIC-UiB Universitat Rovira i Virgili **Okayama University** Warsaw University of Technology University of Stavanger University College Dublin Institut National de Recherche en Informatique et en Automatique



Internet Interdisciplinary Institute (IN3): Shaping the Future Internet



Introduction

What?

The Internet Interdisciplinary Institute (IN3) is a research centre at the Universitat Oberta de Catalunya (UOC) specializing in the study of the network society.

Unlike other research centres, the IN3 connects human sciences - social sciences, health sciences, humanities, arts, etc. - with engineering, in particular computer science and telecommunications. IN3 research, currently carried out by 10 research groups, is grounded in multidisciplinarity, transdisciplinarity and interdisciplinarity. On the engineering side, the IN3 creates, designs and prescribes new technologies that feed the network society and have an impact on society. And on the human sciences side, the IN3 analyses the effects of new technologies on society and identifies social needs in the context of the network society. The interrelation between engineering disciplines and human sciences at the IN3 distinguishes its research work, through which it aims to solve the social and technological challenges of the network society.

In order to maintain constant scientific excellence, the IN3 has a scientific advisory board, which holds regular meetings. This board, made up of ten researchers from various research centres and universities in Europe and the United States, serves a dual purpose. First, the board periodically evaluates the IN3's research groups and, second, it advises the IN3 on attracting new talent and suggests areas of improvement for the future.

The board is made up of **10 researchers** from research centres and universities around Europe:

Maxi San Miguel (chair) – Professor of Physics at the University of the Balearic Islands (UIB) and director of the Institute for Cross-Disciplinary Physics and Complex Systems (IFSIC) / Area of expertise: Complex systems.

Madeleine Akrich – Senior researcher at the Centre de Sociologie de l'Innovation, Mines ParisTech / Area of expertise: Sociology and technology.

Carles Antón – Director of R&D Programmes and Senior Research Associate at the Centre Tecnològic de Telecomunicacions de Catalunya (CTTC) / Area of expertise: Signal processing for communications.

Jeanette Hofmann – Director of the Humboldt Institute for Internet and Society (HIIG) / Area of expertise: Politics and the internet

Paola Inverardi – Professor in the Department of Information Engineering, Computer Science and Mathematics at the University of L'Aguila / Area of expertise: Software engineering and modelling.

Simon Marvin – Director of the Urban Institute at the University of Sheffield / **Area of expertise:** Urban studies and infrastructural research.

Roberto di Pietro – Professor of Cybersecurity at the College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar / Area of **expertise:** Security and privacy.

Mauricio Resende – Principal Research Scientist, Amazon / Area of **expertise:** Simulation and heuristics.

Barbara Schneider – John A. Hannah Chair and Distinguished Professor in the College of Education and Department of Sociology at Michigan State University / Area of expertise: Gender and STEM.

Helen Margetts – Professor of Society and the Internet at the Oxford Internet Institute, University of Oxford, and Director of the Public Policy Programme at the Alan Turing Institute for Data Science and Artificial Intelligence / Area of expertise: Digital era governance and politics.

Internet Interdisciplinary Institute (IN3)

Rambla del Poblenou, 154 08018 Barcelona

in3.uoc.edu

y @IN3_UOC

#IN3UOC

uoc.edu

y @UOCrespon

¶ UOC.universitat

Interdisciplinary Institute

Universitat Oberta de Catalunya



Knowledge and research areas

The IN3's **knowledge areas** line up with the **research areas** pursued by its **10 groups**.

Care and Preparedness in the Network Society (CareNet)

Understanding the impact of technology. especially ICTs, on the new social and cultural order of care and alertness, and on crisis and disaster preparedness.

Gender and ICT (GenTIC)

involved in the design, development and use of scientific and technological innovations, with particular emphasis on ICT and the STEM (science, technology, engineering and mathematics) fields.

Urban Transformation and Global Change Laboratory (TURBA Lab)

Analysing the multidimensional features of socio-environmental and socio-technological transformations at the intersection of cities and digital technologies.

Global Literary Studies Research Lab

Analysing the history of literature from a global decentralized and interdisciplinary perspective.

Communication Networks & Social Change (CNSC)

Analysing new forms of civil participation and political expression brought about by networked movements and emerging technopolitical practices, and analysing the role of mobile communication among non-central social groups, elderly people and the low-income population.

Analysing and identifying the gender relations Exploring the underlying mechanisms in

K-ryptography and Information Security for Open Networks (KISON)

Complex Systems @ IN3 (CoSIN3)

complex networked systems, based on the

science and urban science.

convergence between computational social

Researching the security and privacy of decentralized networks, and protectin intellectual property when dealing with internet-based digital content.

Researching commons, specifically as an organizational form of production (commons-based peer production, CBPP, also known as the sharing economy or social innovation).

IN3 Visiting Program

The **IN3 Visiting Program** aims to create a space for interdisciplinary exchange of an international nature among researchers at different stages of their research careers. The welcoming of visiting academic staff serves a dual purpose. First, it makes it easier for researchers visiting the IN3 to find their place in a consolidated and interdisciplinary research environment. Second, it offers IN3 researchers the opportunity to learn and share knowledge. the possibility of opening up new lines of

research and the consolidation, and possible expansion, of networks. The IN3 Visiting Program entails a dual commitment. The IN3 commits to providing, for the duration of the academic's stay, the necessary conditions for working. In turn, the visiting scholar commits to securing the necessary funding for their stay and to contributing, through one or more products resulting from their visit, to the IN3's environment of multidisciplinary exchange. interdisciplinary exchange space.

The **Visiting Program** involves a two-sided commitment. For its part, the IN3 agrees to ensure the necessary conditions for the visiting scholar to carry out their stay, from start to finish. In turn, the visiting scholar undertakes to secure the necessary funding for their stay and to contribute, through one or more products resulting from their visit, to the IN3's

Systems. Software and Models

especially with regard to promoting the

engineering principles in software design.

Wireless Networks Research Lab

systems, prioritizing sustainability and

convergent research perspective.

performance from a rational and industry

Studying the manufacture of internetconnected

rigorous use of software models and

Research Lab (SOM Research Lab)

Studying systems and software engineering

The IN3 in figures (2021)

Publications		Theses
Articles	200	Doctoral theses
Intergroup articles (collaboration between two or more IN3 research groups)	5	
Open access publications	112	
Books	7	
Book chapters	24	

Citations		Innovation		Projects	
Citations received in Web of Science (WoS)	367	2021 spin-off	1	Projects awarded funding in 2021	15
Citations received in Scopus	427	2021 patents	2	Intergroup projects awarded funding in 2021 (involving more than one IN3 research group)	2
Citations received in Google	638	Valid patents	11	Ongoing projects	53
		Consultancy services	16	Ongoing intergroup project	1

Conferences and

scientific symposia

roughly 4,000 participants.

71 activities organized by the IN3, drawing

IN3 researchers took part in around **100**

activities organized by other institutions,

centres and organizations outside the IN3.

Highlights 2021

Activities



Celebration of the IN3's 20th anniversary. The Network Society Today: (Revisiting) the Information Age Trilogy

9 speakers and 1.157 views Internet Interdisciplinary Institute (IN3)

The IN3 celebrated its 20th anniversary in a hybrid event on 6 June. The IN3's anniversary coincided with a key milestone, as 2021 also marked 25 years since Professor Manuel Castells published the first volume of his trilogy The Information Age. As a way to commemorate these two anniversaries, the IN3 held an event titled **The Network** Society Today: (Revisiting) the Information Age Trilogy. Following a talk by Manuel Castells himself, called "The network society in the age of pandemics", a group of prominent figures from inside and outside the UOC-IN3 engaged in a round-table discussion focused on Castells's work and its implications for the present day.

(Photo of UOC University from Flickr)

Projects

Barcelona UOC Chair in Digital Economy: For a sharing economy centred on people's well-being and the right to the city - Dimmons

As a result of an agreement between the Universitat Oberta de Catalunya Barcelona City Council and Barcelona Activa, the Barcelona UOC Chair seeks to promote strategic actions, connections, work dynamics and instruments to help public policies and the ecosystem of cities face the challenges of the platform economy and take advantage of the opportunities for development and democratization through action research, co-creation of public policies, business promotion and training.

Social Networks of the Past. Mapping Hispanic and Lusophone Literary Modernity, 1898-1959 (ERC StG - MapModern) - Global Literary Studies Research Lab (GlobaLS)

Funded by the European Research Council, as part of the European Union's Horizon 2020 research and innovation programme, ERC **StG – MapModern** analyses a largely neglected aspect of 20th century European and non-European social and cultural life: the impact of Hispania and Lusophone literary networks and cultural mediators on international modernity between 1898 and 1959

Bots for Open Data Interactions – Conversational interfaces to facilitate access to public data (BODI) – Systems, Software and Models (SOM) Research Lab

BODI, funded by the **Spanish Ministry of Science and Innovation** and the **European Union's Next Generation Programme**, seeks to take advantage of the latest technological advances in conventional interfaces (chatbots and voicebots) to make open data available to citizens and democratize the use of

WUICOM-BCN Barcelona Fire Resilient Interface Communities – Care and Preparedness in the Network Society (CareNet)

WUICOM-BCN, awarded one of the 2021 extraordinary grants for research and innovation by Barcelona City Council and the "la Caixa" Foundation takes a holistic approach to analysing the risk of fire in Barcelona's wildlandurban interface (WUI), paying special attention to social, ecosystem and infrastructural vulnerabilities

Impact and presence (as of 31 december 2021)

IN3 blog, since 2019

New users in 2021

5,650

@IN3 UOC on Twitter, since 2010

Tweets

y + 699

Retweets

 $\mathbf{y} + 2.001$

IN3 YouTube channel (Internet Interdisciplinary Institute), since 2010

Views in 2021



 \Box + 8,123

IN3 Keep Updated! (newsletter), since 2010

Subscribers

