

Antonio Tapiador del Dujo

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Education

- 2013 | **PhD in Telematics Engineering (Distinction & European Mention)**,
Universidad Politécnica de Madrid, Spain
Disertation: A framework for building distributed social network websites.
- 2003 | **Telecommunication Engineer**, Universidad Politécnica de Madrid, Spain.
- 1998 | **1st and 2nd years in Civil Engineering**, Universidad Politécnica de Madrid.
Spain.

Tecnologies

Developing in HTML, Javascript, CSS since 2002, Ruby on Rails since 2006.

Related technologies: ES6, Typescript, RubyGems, npm, yarn, gulp, Rspec, Jasmine, Protractor, Bootstrap, Sass, Less, React, Angular, Ember.js, Vuejs, Rxjs, RESTful APIs, Git, Github, Cordova, Meteor.

Knowledge of a wide range of programming languages: Python, Java, C, SQL, PHP, Prolog, Octave, Asm

System administration and DevOps since 2000: Debian, Ubuntu, bash, zsh, Ansible, Apache, nginx, Docker, LxC, PostgresQL, MySQL, MariaDB, Redis, MongoDB, Nagios, Amazon S3, EC2, Cloudfront, Brightbox, Heroku, Jenkins, Travis CI, Semaphore, Postmark, New Relic

Solid knowledge of internet protocols: HTTP, TCP, UDP, IP, DNS, SMTP, TLS, OAuth

Human Languages

Native Spanish speaker

Proficient level of English

Initialized in Mandarin Chinese

Courses

2020	Practical Deep Learning for Coders (part 1 and 2), fast.ai
2017	Machine Learning. Coursera. Stanford University
2017	Google Analytics Certification.
2016	Conflict management and resolution: communication skills and mediation techniques. Instituto Complutense de Mediación y Gestión de Conflictos, IMEDIA. Universidad Complutense de Madrid. 43 hours.
2013	Human-Computer Interaction. Coursera. UC San Diego
2013	Business Design & Lean Startup. Fundación Innovación y Diseño, Design-IT. 225 hours.
2013	Coaching and communication techniques for UPM teachers. Universidad Politécnica de Madrid, 10 hours.
2012	Practicum of the Initial formation of the faculty. ICE, Universidad Politécnica de Madrid. 120 hours.
2011	Initial formation of the faculty. ICE, Universidad Politécnica de Madrid. 120 hours. 420 hours.
2009	Network Science and Context Course. Universidad Politécnica de Madrid. 20 hours
2008	Introduction to Mandarin Chinese. Universidad Politécnica de Madrid. 24 hours.

Experience

2018 - current	Ideas4all Innovation Role: Lead developer, product development Description: As lead developer in Ideas4all Innovation, I have been bringing best practices and code maintainability in the main Ruby and Rails application with 70k+ lines of code, achieving A scores in testing coverage and code maintainability. I also applied lean design principles, both in software developing and our
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ecosystem, as well as in product development itself, from conducting interviews with users to taking on product manager tasks.

I helped junior developers to grow, from the point of view of my experience in high education.

I rearranged the Ansible codebase, introducing many design thinking approaches in DevOps / system administration tasks, for my joy and workmates'.

I implemented a deep learning algorithm for prediction of innovation ideas for IBEX 35 companies, using tabular data and NLP, with Python, pandas and fast.ai.

I developed a Atom editor package for supporting our developing workflow in React, using Trello, Github GraphQL and Slack APIs

2013 -
2017

Universidad Complutense de Madrid

Role: Researcher, senior developer and devops

Description: Researcher in the P2Pvalue project, where we built Teem, a tool for common based peer production communities.

I was the lead developer of Teem's frontend (AngularJS, Mobile Angular UI, Cordova), set up the continuous delivery framework of both backend and frontend (Github, Travis CI, Jenkins, Docker compose, LxC, Debian) and conducted lean design experiments to get feedback of the tool in many interviews with local communities in Medialab-Prado, Makespace Madrid and other community centers.

2002 -
2013

Universidad Politécnica de Madrid

Role: Researcher, Ph.D student and developer.

Description: During many years in the Technical University of Madrid, I investigated social network federation, security and privacy in social networks, digital identity and free / open source software

I was an active web developer, with the following contributions:

Lead developer of the Identity Manager, a free / open source alternative to Google Accounts, supporting OAuth2 server functionality, in the FIWARE project

Working experiments of OStatus federation among several social network platforms in the FI-CONTENT project

Lead developer of Social Stream, a Ruby gem for building any kind of social

network website, used by several sites around the world. Besides, I published up to 27 Ruby gems and made contributions to the Rails core.

Developer of The Virtual Science Hub (ViSH), an open source e-Learning platform built on top of Social Stream. I gave support to the backend and developed Social Stream in parallel to fulfill the requirements of this and other social networks

Lead developer of the Virtual Conference Center (VCC), a web app for managing web conferences, made in Rails.

Development of a tunneling mechanism for supporting IPv6 multihoming and contributions to the IPv6 kernel stack in the USAGI project.

Grants

- 2007 - Fellowship for Ph.D fulfillment in the departments or institutes of the
2009 Universidad Politécnica de Madrid
- 2002 - Fellowship of collaboration with agreements, contracts or research projects.
2007 Universidad Politécnica de Madrid

Research Publications

Antonio Tapiador. **A framework for building distributed social network websites** . Ph.D Thesis. 2013.

Antonio Tapiador, Diego Carrera, Joaquín Salvachúa. **Social Stream, a social network framework** . Proceedings of International Conference on Future Generation Communication Technology (FGCT 2012). London, England. pp. 52-57. ISBN: 978-1-4673-5859-0.

Antonio Tapiador, Diego Carrera. **A survey on social network site's functional features**. Proceedings of IADIS WWW/Internet 2012. Madrid, Spain. pp. 133-140. ISBN: 978-989-8533-09-8

Alicia Díez, Antonio Tapiador. **Social Cheesecake: An UX-driven designed interface for managing contacts**. Proceedings of IADIS WWW/Internet 2012. Madrid, Spain. pp. 526-528. ISBN: 978-989-8533-09-8

Antonio Tapiador, Víctor Sánchez, Joaquín Salvachúa. **An analysis of social network connect services**. Proceedings of WEBIST 2012. Porto, Portugal. pp. 255-258. ISBN: 978-989-8565-08-2.

Antonio Tapiador, Antonio Mendo. **A survey on OpenID identifiers** . 7th International Conference on Next Generation Web Services Practices 2011. Salamanca. Spain. pp. 357-362. ISBN: 978-1-4577-1126-8

Antonio Tapiador, Joaquín Salvachúa. **Content Management in Ruby on Rails** . Proceedings of the IADIS International Conference on Collaborative Technologies 2011. Rome. Italy. ISBN: 978-989-8533-00-5

Víctor Sánchez, Antonio Tapiador. **Social network federation with Social Stream and Social2social** . Federated Social Web Europe 2011, Berlin, Germany.

Antonio Tapiador, Diego Carrera, Joaquín Salvachúa. **Tie-RBAC: an application of RBAC to Social Networks** . Web 2.0 Security and Privacy 2011. Oakland, USA.

Enrique Barra, Antonio Mendo, Antonio Tapiador, David Prieto. **Integral solution for web conferencing event management** . Proceedings of the IADIS International Conference e-Society 2011. Ávila, Spain. pp. 443-446. ISBN: 978-972-8939-46-5

Antonio Tapiador, Antonio Fumero, Joaquín Salvachúa, **Extended Identity for Social Networks** , Lecture Notes in Computer Science, 2011, Volume 6045/2011, pp. 162-168. DOI: 10.1007/978-3-642-16581-8_17

Enrique Barra, Antonio Mendo, David Prieto, Antonio Tapiador, Juan Quemada, **Resource Relationships in the design of collaborative Web applications** , Proceedings of IADIS Multi Conference on Computer Science and Information Systems, Freiburg, Germany, July 2010. ISBN: 978-972-8939-21-2

Antonio Tapiador, Antonio Fumero, Joaquín Salvachúa, Javier Cerviño. **Identidad Extendida en Redes Sociales** . VII Jornadas de Ingeniería Telemática JITEL 2008, Proceedings, Alcala de Henares - España. Septiembre 2008

Fridolin Wild, Steinn E. Sigurðarson, Stefan Sobernig, Christina Stahl, Ahmet Soyulu, Vahur Rebas, Dariusz Górka, Anna Danielewska-Tulecka, Antonio Tapiador. **An Interoperability Infrastructure for Distributed Feed Networks** Proceedings of the 1st International Workshop on Collaborative Open Environments for Project-Centered Learning, COOPER-2007, Sissi, Lassithi - Crete Greece, 17 September, 2007. ISBN: 1613-0073

Antonio Tapiador, Antonio Fumero Joaquín Salvachúa, Sandra Aguirre. **A Web Collaboration Architecture** . Proceedings of the 2nd IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing. Atlanta, Georgia, USA. November, 2006. ISBN: 1-4244-0429-0

Sandra Aguirre, Joaquín Salvachúa, Juan Quemada, Antonio Fumero, Antonio Tapiador. **Joint Degrees in E-Learning Systems: A Web Services Approach.** Proceedings of the 2nd IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing. Atlanta, Georgia, USA. November, 2006. ISBN: 1-4244-0429-0

Sandra Aguirre, Joaquín Salvachúa, Juan Quemada, Antonio Fumero, Antonio Tapiador. **Desarrollo de Titulaciones Conjuntas en los Sistemas de E-Learning.** Proceedings of the 8th International Symposium on Computers in Education. León, Spain. October, 2006.

Antonio Fumero, Sandra Aguirre, Antonio Tapiador, Joaquín Salvachúa. **Next-Generation Educational Web.** Proceedings of the 12th International Conference on Concurrent Enterprising ICE2006 - Poster. Milan, Italy. June, 2006.

Joaquín Salvachúa, Sandra Aguirre, Antonio Fumero, Antonio Tapiador, Alberto Mozo, Juan Quemada **¿Como puede ser el E-learning 2.0?.** I Jornadas de Innovación Educativa. Zamora, España. June, 2006

Carlos Barcenilla, Antonio Tapiador, David Fernández, Omar Walid, Tomás de Miguel. **Implementation of an IPv6 Multihoming Ingress Filtering Compatibility Mechanism Using Automatic Tunnels** EUNICE 2005: Networks and Applications Towards a Ubiquitously Connected World. IFIP International Workshop on Networked Applications, Colmenarejo, Madrid/Spain, 6–8 July, 2005. pp. 59-73. ISBN: 978-0-387-30815-9

Antonio Tapiador, Tomás de Miguel, María J. Perea, Omar Walid, Marco Hernández, David Fernández. **A simple host centric solution for a network research multihoming environment.** Eunice 2004. Proceedings of 10th Open European Summer School and IFIP WG 6.3 Workshop, June 14-16, 2004. Tampere, Finland. pp. 49-52. ISBN: 952-15-1187-7

Conference Presentations

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| 2014 | The P2Pvalue project
CAPS 2014 Conference
Brussels, Belgium |
| 2014 | The P2Pvalue project
Cooperland 2014
Vigo, Spain |
| 2012 | Social Stream, a social network framework
International Conference on Future Generation Communication Technology |

- (FGCT 2012)
London, England
- 2012 **A survey on social network site's functional features**
IADIS WWW/Internet 2012
Madrid, Spain
- 2011 **A survey on OpenID identifiers**
7th International Conference on Next Generation Web Services Practices
Salamanca, Spain
- 2011 **Social network federation with Social Stream and Social2social**
Federated Social Web Europe 2011
Berlin, Germany
- 2011 **Tie-RBAC: an application of RBAC to Social Networks**
Web 2.0 Security and Privacy 2011
Oakland, USA
- 2011 **Integral solution for web conferencing event management.**
IADIS International Conference e-Society 2011
Ávila, Spain
- 2008 **Extended Identity for Social Networks**
Blogtalk 2008
Cork, Ireland
- 2008 **Identidad Extendida en Redes Sociales**
VII Jornadas de Ingeniería Telemática JITEL 2008
Alcala de Henares, Spain
- 2006 **A Web Collaboration Architecture**
2nd IEEE International Conference on Collaborative Computing: Networking,
Applications and Worksharing
Atlanta, Georgia, USA
- 2004 **A simple host centric solution for a network research multihoming environment**
Eunice 2004
Tampere, Finland.

Research Projects

- 2013 - **P2PVALUE**
2015 FP7-ICT-2013-10

- Contribution:* Design, implementation, validation and deployment of the platform for common based peer production communities
- 2011 - **FI-WARE: Future Internet Core Platform**
2014
FP7-2011-ICT-FI
Contribution: Design and implementation of the Identity Manager, equivalent service to Google Accounts
- 2011 - **Global Excursion – Extended Curriculum for Science Infrastructure Online**
2014
FP7-INFRASTRUCTURES-2011-2, INFRA-2011-3.4
Contribution: Design and implementation of the social network engine, on top of which the virtual excursion platform was built
- 2011 - **FI-CONTENT: Future Media Internet for Large Scale Content Experimentation**
2013
FP7-2011-ICT-FI-284534
Contribution: Design, implementation and test of a federation mechanism among web platforms.
- 2012 **Comunica media: use of video recording, screencast and videoconference in the classroom**
Innovative education project
Contribution: Design and implementation of the class recording, screencast and videoconference system
- 2010 **Cyberaula 2.0**
Innovative education project
Contribution: Design and implementation of the videoconference system
- 2008 - **GLOBAL Linkage Over Broadband and Links**
2011
FP7-INFRASTRUCTURES-2007-2, INFRA-2007-3.0-03
Contribution: Design and implementation of a videoconference web service
- 2006 - **ECOSPACE, Integrated Project on eProfessional Collaboration Space**
2009
FP6-IST-5-35208
Contribution: Research and design of APIs for the infrastructure interoperability in the collaboration framework space
- 2006 - **ITECBAN Infraestructura Tecnológica y Metodología de Soporte para un Core Bancario**
2009
Contribution: Design and implementation of part of the next generation bank infrastructure.
- 2006 **Cyberaula**
Innovative education project
Contribution: Design and implementation of the class videoconference and coordination system

- 2005 - **ICAMP Innovative, Inclusive, Interactive & Intercultural Learning**
 2008 **Campus**
 FP6-IST-027168
Contribution: Research on interoperability of distributed systems.
- 2004 - **PROLEARN IST FP6 Network of Excellence on Professional Training.**
 2007 *Contribution:* Maintenance of the infrastructure of the Excellence network
- 2002 - **EURO6IX European IPv6 Internet eXchanges Backbone**
 2005 IST-2001-32161
Contribution: Design and implementation of a tunneling mechanism for multihoming in IPv6

Visiting Stays

- 2012 | 3 months stay in **KU Leuven**, participating in the project Security and Privacy in Online Social Networks (SPION)

Teaching Experience

- 2015 | **Ethics, Law & Profession of Computer Science**
 Course in Universidad Complutense de Madrid
 30 hours
- 2015 | **Interactive Systems Development**
 Course in Universidad Complutense de Madrid
 30 hours
- 2015 | **Multimedia Technologies and Interaction**
 MSc Course in Universidad Complutense de Madrid
 18 hours
- 2015 | **Language Processors**
 Course in Universidad Complutense de Madrid
 30 hours
- 2010 - **Communications Software**
 2011 Course in Universidad Politécnica de Madrid
 30 hours

2009 - **Laboratory of Communications Software**
2010 Course in Universidad Politécnica de Madrid
20 hours

Academic supervision

2017 Final Project in Computer Science, Universidad Complutense de Madrid. Alberto Miedes Garcés on **Cooperative development of IT tools for direct democracy** with calification of 10

2016 Google Summer of Code 2016. Prastut Kumar on **Implementing a Hybrid recommendation sytem with a new onboarding experiece to enhance UX for Teem.**

2011 Final Project in Telecommunication Engineer, Universidad Politécnica de Madrid, Spain. Eduardo Casanova Cuesta on **Design and implementation of private messaging system with notifications in a social network**, with calification of 10 and distinction

2011 Final Project in Telecommunication Engineer, Universidad Politécnica de Madrid, Spain. Alicia Díez on **Design of an interaction model with the suer for its application in a social network**, with calification of 10 and distinction

Paper reviews

2016 Invited reviewer. Dyna Ingeniera E Industria

2011 Invited reviewer. European Journal of Information Systems

Organization Commitées

2015 Member of the Organizing Committee of the Researchers' Night 2015 event (H2020-MSCA-NIGHT-2014 #633161) **The revolution of the commons-based peer production communities**, Universidad Complutense de Madrid, Spain

2014 Member of the Organizing Committee of the Researchers' Night 2014 event (H2020-MSCA-NIGHT-2014 #633161) **Create, Modify, Collaborate, Share**,

Universidad Complutense
de Madrid, Spain

- 2009 Member of Organization in **WWW 2009**, Madrid, Spain
- 2008 **III Free software Conference in the Pilab** (hacklab in Madrid)
- 2004 **2nd free software meeting in the Pilab** (hacklab in Madrid)
- 2004 **Presentation Conference in the Pilab** (hacklab in Madrid)

Awards

Special Accesibility Prize for Social Stream, VI Free Software University Contest.
Oficina de Software Libre de la Universidad de Granada. 2013