

## Giorgio Caviglia, PhD

—  
Principal User Experience Designer  
Trifacta Inc.

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### SHORT BIO

I am a designer and researcher specialized in products and experiences for the exploration, visualization and transformation of data. My areas of expertise include UX/UI Design, Information Design, and Data Visualization.

I have participated in several internationally renowned data-driven design and research projects, such as [RAW](#), [Palladio](#), [Fineo](#), and [CityMurmur](#).

I have been involved in consulting and teaching activities at public and private institutions, such as Stanford University, Politecnico di Milano, ISIA Urbino, POLI.design, IULM, Accurat.

My work has been featured in numerous venues and publications (ACM SIGGRAPH, MIT, Harvard University, Stanford University, École Normale Supérieure Paris, MediaLAB Prado Madrid, EX-

PO2010 Shanghai, O'Reilly Strata, Fast Company, Visual Complexity, Wired), collecting awards and recognition worldwide (Kantar Information is Beautiful Awards, Malofiej, Fast Company Innovation By Design Awards).

I have obtained a MSc in Communication Design and a PhD in Design at the Politecnico di Milano (Milan, Italy), where I have been part of DensityDesign since its foundation and up to 2013. My research has been focused on data-driven visualizations and interfaces to support both academic and industry needs (Humanities and Social Sciences, Urban Studies, Statistics, Business Intelligence,...).

From 2013 to 2015 I have been a Postdoctoral Researcher at Stanford University, within [Humanities+Design](#), as part of the Center for Spatial and Textual Analysis (CESTA). In 2015 I joined Trifacta Inc. as Principal UX Designer.

## EDUCATION

**Ph.D., Design**, Politecnico di Milano (Milan, Italy), 2013  
Degree with higher distinction (Summa Cum Laude)

**M.Sc., Communication Design**, Politecnico di Milano (Milan, Italy), 2009  
Degree with higher distinction (Summa Cum Laude)

**B.Sc., Communication Design**, Politecnico di Milano (Milan, Italy), 2006

## PROFESSIONAL EXPERIENCE

July 2015 - *present*

**Principal UX Designer, Trifacta Inc.** (San Francisco, CA)

April 2013 - July 2015

**Independent Consultant and Designer**

My areas of expertise include Information and UX/UI Design, Data Visualization and data-driven web applications. I contribute to both designing and developing data visualization interfaces, while advising on strategy and implementation. I worked with several studios and organizations and, in particular, with *Accurat* (New York - Milan, Italy).

November 2013 - May 2015

**Lead Design Researcher, Stanford University** (Stanford, CA)

Postdoctoral Scholar at *Humanities + Design lab* (co-directed by Giovanna Ceserani and Nicole Coleman) within the Center for Spatial and Textual Analysis (CESTA) with the goal of exploring and implementing new modes of interaction with digital technologies for Humanities Research.

August - October 2013

**Postdoctoral Scholar, Politecnico di Milano** (Milan, Italy)

Communication Design and the Digital Humanities: Data Visualizations and Interfaces to Support Digital Humanities Research. At *DensityDesign Research Lab* (directed by Paolo Ciuccarelli).

October 2009 - March 2013

**Graduate Researcher, Politecnico di Milano** (Milan, Italy)

Senior researcher, designer and developer at the *DensityDesign Research Lab*. My research focused on studying and developing digital and visual tools and methods to support academic research in the Humanities and Social Sciences. Through many experiences as Teaching Assistant, Master's Thesis tutor, Courses and Workshops Instructor, I have developed and refined teaching and supervisory skills in both academic and private sectors. As senior member of the Lab, I have been constantly involved in administrative and management activities, including grant-writing, recruitment and strategic planning.

Spring - Summer 2011

**Visiting Graduate Researcher, Stanford University** (Stanford, CA)

My appointment at the Department of History and the *Stanford Humanities Center (SHC)* has been focused on the design and development of visualization tools within the Mapping the Republic of Letters project.

December 2008 - September 2009

**Undergraduate Researcher, Politecnico di Milano** (Milan, Italy)

During my Master's Thesis I have been working at the *DensityDesign Research Lab*, supporting research and deepening my expertise in data visualizations and user interfaces across several projects.

March 2008 - December 2008

**UX/UI Designer, Quantum S.p.A.** (Milan, Italy)

Design of portable media players and set-top boxes.

## TEACHING EXPERIENCE

### Lecturer

- *Humanities + Design* (DLCL 202), Graduate course, Stanford University (Stanford, CA) - co-taught with Nicole Coleman and Mark Braude, Spring 2014
- *Interface Design*, Undergraduate course, Istituto Superiore per le Industrie Artistiche di Urbino, ISIA (Urbino, Italy), Spring 2010

### Teaching Assistant

- *Laboratorio di Sintesi Finale* (078389), Undergraduate course, Politecnico di Milano (Milan, Italy), Fall/Winter 2013
- *Laboratorio di Sintesi Finale* (078389), Undergraduate course, Politecnico di Milano (Milan, Italy), Fall/Winter 2011
- *Laboratorio di Sintesi Finale* (078389), Undergraduate course, Politecnico di Milano (Milan, Italy), Fall/Winter 2010
- *Concept Design Studio* (080043), Undergraduate course, Politecnico di Milano (Milan, Italy), Spring 2010
- *Laboratorio di Sintesi Finale* (078389), Undergraduate course, Politecnico di Milano (Milan, Italy), Fall/Winter 2008

### Workshops Tutor

- Atelier DigitHUM 2014, Ecole normale supérieure de Paris (Paris, France), *Le projet Mapping the Republic of Letters: Palladio un nouvel outil proposé au chercheur pour explorer ses données.*, October 2, 2014 .
- Les fabriques cartographiques contemporaines: de la modélisation aux pratiques empiriques? Université Rennes 2 (Rennes, France), *Mapping et questions de recherche en humanités numériques*, June 2014.
- Hestiaz@Stanford: Visualizing Complex Networks, Center for Spatial and Textual Analysis (CESTA), Stanford University, (Stanford, CA), *Palladio workshop*, November 2013.
- Center for Spatial and Textual Analysis (CESTA), Stanford University (Stanford, CA), *Early Modern Time & Networks workshop*, August 2012.
- POLI.Design, Consorzio del Politecnico di Milano (Milan, Italy), *Visual Explorations: Methods and Practices for Information Visualization: from Visual Syntax to Social Implications.*, May 2012.
- CSI Piemonte, (Turin, Italy), *Visualizzare. Strumenti visuali per l'esplorazione di dati ed informazioni*, March 2012.
- Master in Digital Entertainment e Master in Giornalismo, Communication School, IULM (Milan, Italy), *Data Journalism Workshop*, January 2012.
- 6th Swiss Design Network Conference (Basel, Switzerland), *Versus: Diagrams and visualization to observe Social Complexity*, November 2010.
- Medialab-Prado (Madrid, Spain), *Visualizar'08: Database City*, November 2008.

## SCHOLARSHIPS, GRANTS, AND AWARDS

- *Doctoral research scholarship (3 years)*, Politecnico di Milano (Milan, Italy), 2010-2012
- *Finalist, Data Visualization*, Innovation By Design Awards, Fast Company (New York, USA), 2015
- *Most Beautiful*, KANTAR Information is Beautiful Awards, RAW, November 2014
- *Gold, Best Tool*, KANTAR Information is Beautiful Awards, RAW, November 2014
- *Silver Medal, Portfolio*, Malofiej 21, Society for News Design (Pamplona, Spain), March 2013
- *Silver Medal, Portfolio*, Malofiej 20, Society for News Design (Pamplona, Spain), March 2013
- *Bronze Medal, Features*, Malofiej 20, Society for News Design (Pamplona, Spain), March 2012
- *Best Dynamic/Interactive visualization*, Data in Sight, Swissnex (San Francisco, CA), 2011
- *Best Paper Award*, VizSec 2011 (Pittsburg, PA), 2011

## SELECTED PUBLICATIONS

### Book Chapters

- Caviglia, G., Uboldi, G. (2015). Information Visualizations and Interfaces in the Humanities. In Bihanic, D. (ed.), *New Challenges for Data Design: Articles & Interviews*, London: Springer-Verlag.
- Quaggiotto, M., Ricci, D., Scagnetti, G., Caviglia, G., Guido, D., Graffieti, M., Granados Lopez, S. (2010). New maps from the media-city. CityMurmur as a tool for the visualization of urbanspace. In Khaldoun Zreik (Ed.), *Nouvelles cartographies, nouvelles villes (HyperUrbain.2)*. Paris: Europia Productions.
- Caviglia, G., Ricci, D., Ciuccarelli, P. (2010). Dust. La multidimensionalità del dato e la sua visualizzazione. In Bertola, P. & Maffei, S. (Eds.) *Design Research Maps*. Milano: Maggioli.

### Journal Articles

- Caviglia, G., Coleman, N. (2016). Idiographic Network Visualizations. In *Leonardo* 49 (3), MIT Press.
- Azzi, M., Caviglia, G., Ricci, D., Ciuccarelli, P., Bontempi, L., Bonetti, E. (2011). Dust: A Visualization Tool Supporting Parents' School Choice Evaluation Process. In *Parsons Journal for Information Mapping*, 3 (4).

### Peer-Reviewed Conference Proceedings

- Magni, G., Ciuccarelli, P., Uboldi, G., and Caviglia, G. (2015). BORDERS. Visual analysis of Cinema's inner dynamics and evolutions. A case study based on the Internet Movie Database. In C. Coletta, S. Colombo, P. Magaudda, A. Mattozzi, L.L. Parolin and L. Rampino (eds.), *A Matter of Design. Proceedings of the V STS Italia Conference 2014*, STS Italia Publishing, Milan, Italy.
- Antonelli, F., Azzi, M., Balduini, M., Ciuccarelli, P., Della Valle, E., Larcher, R., Dell'Aglio, D. and Caviglia, G. (forthcoming). City Sensing: Visualising Mobile and Social Data about a City Scale Event. In *Proceedings of Advanced Visual Interfaces (AVI 2014)*, May 27-30, 2014, Como, Italy.
- Caviglia, G., Ciuccarelli, P., Coleman, N. (2014). Communication Design and Digital Humanities. Visualizations and Interfaces for Humanities Research. In *Diversity: design/humanities. Proceedings of the fourth International Forum for Design as a Process*. September 19-22, Belo Horizonte-MG, Brazil. EdUEMG (Editora da Universidade do Estado de Minas Gerais). ISBN 978-85-62578-33-5.
- Pellegrini, V., Caviglia, G., Ciuccarelli, P. (2013). Minerva: an Information Visualization Tool to Support Philosophical Historiography. In Ceccarelli, N. (ed.), *2CO Communicating Complexity Conference Proceedings*, August 2013. Alghero, Italy. Edizioni Nuova Cultura, Roma. ISBN 9788868121952, doi:10.4458/1662.
- Ciuccarelli P., Lupi G., Eynard D., Manfredini, F., Matteucci, M., Caviglia, G., Dilda, P., Marfia, F., Azzi, M. (2013). Telltale: Visualizing the Use and Perception of Cities Through Digital Traces. In Morello, E., & Piga, B.E.A. (eds.), *EAEA11 2013. Envisioning Architecture: Design, Evaluation, Communication*. Edizioni Nuova Cultura, Roma. ISBN 9788868121365, doi:10.4458/1365.
- Uboldi, G., Caviglia, G., Coleman, N., Heymann, S., Mantegari, G., Ciuccarelli, P. (2013). Knot: an Interface for the Study of Social Networks in the Humanities. In *Proceedings of the Biannual Conference of the Italian Chapter of SIGCHI (CHIItaly '13)*. ACM, New York, NY, USA, Article 15, 9 pages. doi:10.1145/2499149.2499174.
- Roveta, F., Di Mario, L., Maggi, F., Caviglia, G., Zanero, S., Ciuccarelli, P. (2011). BURN: Baring Unknown Rogue Networks. In *Proceedings of VizSec 2011*, July 2011. Pittsburg, PA, USA (pp. 1-10). doi:10.1145/2016904.2016910. **[Best Paper Award]**.
- Valsecchi, F., Ricci, D., Caviglia, G., Ciuccarelli, P. (2010). The DensityDesign lab: communication design experiments among complexity and sustainability. In Lou, Y. & Zhu, X. (eds.), *Proceedings Cumulus Conference "Young Creators for Better City and Better Life"* (pp. 179-186), Shanghai, Tongji University, China, September 2010.
- Masud, L., Valsecchi, F., Ciuccarelli, P., Ricci, D., & Caviglia, G. (2010). From Data to Knowledge. Visualizations as transformation processes within the Data-Information-Knowledge continuum. In E. Banissi, S. Bertschi, R. Burkhard, J. Counsell, M. Dastbaz, M. Eppler, C. Forsell, et al., (eds.) *Information Visualisation IV 2010 14th International Conference* (pp. 445-449). IEEE. doi:10.1109/IV.2010.68.

- Valsecchi, F., Ciuccarelli, P., Ricci, D., Caviglia, G. (2010). A Didactical Framework to Experiment the Potential of Visual Languages in Engaging Social Complexity. In David Durling, Rabah Bousbaci, Lin-Lin Chen, Philippe Gauthier, Tiiu Poldma, Seymour Rowoth-Stokes and Erik Stolterman (Eds.), *Proceedings DRS2010 - Design & Complexity*, Montreal: 7 - 9 July, 2010.

## EXHIBITIONS

- *Le mappe del sapere - Visual data di arti, nuovi linguaggi, diritti: l'infografica ridisegna le conoscenze*, Triennale di Milano (Milan, Italy), November 14 - December 14, 2014
- *The Art of Networks*, Foosaner Art Museum (Melbourne FL, USA), March 9 - April 8, 2012
- *1906-2015 / Verso Expo Milano 2015*, Triennale di Milano (Milan, Italy), February 5 - 27, 2011
- *An Italy of Innovators*, Expo 2010 Shanghai, Italian Pavillion (Shanghai, China), June 24 - 29, 2010
- *I De Agostini e la Cartografia - Centoventi anni di Cartografia in Italia*, Politecnico di Milano (Milan, Italy), February 27 - March 27, 2010
- *SiGGRAPH 09 - The 36th International Conference and Exhibition on Computer Graphics and Interactive Techniques*, Ernest N. Morial Convention Center / Emerging Technologies Pavillion (New Orleans LA, USA), August 3 - 7, 2009
- *Visualizar 08 - Database City*, Medialab Prado (Madrid, Spain), November 3 - 18, 2008

## PRESENTATIONS AND DEMOS (INVITED OR PEER REVIEWED)

- *Le projet Mapping the Republic of Letters: Palladio un nouvel outil proposé au chercheur pour explorer ses données*. Atelier Digit-HUm 2014, Ecole normale supérieure de Paris (Paris, France), October 2, 2014
- *Mapping the Republic of Letters: les pratiques de cartographie comme instruments heuristiques pour les humanités numériques*. Les fabriques cartographiques contemporaines: de la modélisation aux pratiques empiriques? Université Rennes 2 (Rennes, France), June 2014
- *Idiographic Network Visualizations: Bringing the Construction and the Manipulation of Network Graphs Up Front*. Arts, Humanities, and Complex Networks. 5th Leonardo satellite symposium at NetSci2014, University of California, Berkeley, June 3, 2014
- *Palladio*. Harvard metaLAB's OpenLab, Arts@29Garden (Cambridge, MA) April 23, 2014
- *Humanities + Design: A Laboratory Model for Humanistic Research*. "Design and the Digital Humanities", 55th M/MLA Annual Convention: "Art and Artifice" (Milwaukee, WI), November 7, 2013
- *Palladio*. Hestia2@Stanford: Visualizing Complex Networks, Center for Spatial and Textual Analysis (CESTA), Stanford University (Stanford, CA), November 4-5, 2013
- *Design and the Digital Humanities: so near, so far*. New Perspectives New Technologies 2 - Digital Humanities: a Dialogue between Visual Arts and Sciences. Università Ca' Foscari Venezia, Auditorium Santa Margherita (Venice, Italy), October 15, 2013
- *Dealing with Uncertainty, Instability and Uniqueness*. Visualizing Uncertainty and Complexity Workshop, Center for Spatial and Textual Analysis (CESTA), Stanford University, (Stanford, CA), May 29, 2013
- *Design Research Theory and Methods*. Early Modern Time & Networks, Center for Spatial and Textual Analysis (CESTA), Stanford University (Stanford, CA), August 15, 2012
- *Digital Humanities Data Visualization*. San Francisco State University (San Francisco, CA), August 31, 2011
- *Visualization, the Eye of History*. Stanford Humanities Center (SHC), Stanford University, (Stanford, CA), May 3, 2011
- *Interaction Models for Exploring Uncertainty*. Mapping the Republic of Letters, Fondazione Giorgio Cini (Venice, Italy), March 16, 2011
- *The Shape of the Media-City. humanities + digital*. Visual Interpretation Conference. Massachusetts Institute of Technology (Cambridge, MA), May 20, 2010
- *CityMurmur*. Innovate 2009 - Virginia Educational Technology Conference. Virginia Tech and Virginia Department of Education (Richmond, VA), October 29, 2009
- *CityMurmur*. Innovation Circus (Milan, Italy), October 11, 2009
- *CityMurmur*. Emerging Technologies, SiGGraph09, (New Orleans, LA), August 3-7, 2009
- *Murmur*. Visualizar'08: Database City, Medialab-Prado (Madrid, Spain), November 2008

- *Undo. Errori e Imprevedibilità nella Tipografia Digitale*. TeachMe3: Comunicare l'oggetto. IUAV Università di Venezia, Facoltà di Design e Arte, (Venice, Italy), September 30, 2006

### **CODING AND SOFTWARE SKILLS**

Adobe Creative Suite (Photoshop, Illustrator, InDesign), *advanced*

Sketch, *advanced*

Git and collaborative revision control services (GitHub, Bitbucket), *advanced*

HTML5 and CSS3 (Bootstrap), *advanced*

JavaScript (d3, Angular), *advanced*

### **LANGUAGES**

Italian, *native proficiency*

English, *professional working proficiency*