

# Néna Roa Seïler - Curriculum Vitae

Nationality: French (USA permanent resident card holder)

Languages: English, French, Spanish, Italian

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## Education

### PhD

Submitted dissertation entitled *'Towards an Emotionally Intelligent Interaction Strategy for Multimodal ECAs acting as Companions'*

Expect to receive degree in April 2015

Edinburgh Napier University

Supervised by Prof. David Benyon, and Dr. Gregory Leplâtre.

Oct 2004 – Oct 2006 **MSc Design & Innovation**

University of Technology of Compiègne (France)

Oct 1995 – Oct 1997 **MSc Télécommunications: Multimedia Hypermedia**

Ecole Nationale Supérieure des Télécommunications  
(Paris, France)

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## Academic Experience & Research Projects

Nov 2010 – Present **Lecturer and Researcher**

**Universidad Tecnológica de la Mixteca (Mexico)**

Designing and teaching courses in the undergraduate and graduate divisions of the University: *Human Computer Interaction (BSc, MSc)*, *Interaction Design (MSc)*, *Prototyping with Video & Audio (MSc)*, *Emergent Technologies (BSc)*.

Graduated one Multimedia Master's thesis, directing two undergraduate theses in Computing and Design and one Master's thesis.

May 2013 – 2015 **Researcher in Interaction Design & Evaluation Leader**

(Current)

Researching how people collaborate when learning or exploring data and determining how the most beneficial processes involved can be managed through different aspects of interface design in a project entitled '**Managing Small Group Behaviour for Collaborative Information Visualization and Learning**', part of the multidisciplinary project **Theories, Methods, and Models of Social Complexity** CONACYT /152/008 (Mexico)

*With support for publication fees, conference expenses and funding for the salary of two research assistants.*

This is a three year project involving twenty-five different researchers from different groups from Mexico. The primary goal is that of applying and extending the theory of complex systems to tackle specific social, economic and political problems in Mexico.

Sept 2011 – Jan 2012 Investigating the use of animated information visualization to improve the process of information retrieval in a project entitled **‘Information Visualization of Document Collection Structure for Information Retrieval’ PROMEP/103.5/11/4427 Project.**  
*Conacyt (Mexico) 361,834MXP (maximum award)*

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## **Industrial/Professional Experience**

April 2007 – Dec 2009 **Senior Consultant – Research Associate**

**Centre for Interaction Design Edinburgh Napier University**

Developed Emotional Interaction Strategies for Companions; designed Multimodal Scenarios for Companions; evaluated user’s experience of Companions as emotional interfaces in multimedia services in the Companion’s Project.

4-year, EU funded FW6 project involving a consortium of 16 partners across 8 countries.

June 2006 –April 2007 **Consultant & Project Leader at Dezineo Innovation**

Headed a major French Telecommunication company’s mobile phone project.

2000 – 2004 **Innovation Design Leader & Art Director at Studio Creatif of France Télécom R&D** in Paris

Designed, illustrated and developed prototypes for prospective products and multimedia services.

Created the ‘Pressentiments’ concept, which facilitated the combining of art with design practices, and implementing this emerging technique resulted in the registration of Patent nr.

0303280: the transmission of emotions through a mobile telephone.

Promoted France Télécom research projects at various events:  
"Workspheres" at Museum of Modern Art (MOMA) in New York;  
"JNC3" at the Grand Halle de la Villette in Paris;

"L'homme Transformé" at the Cité des Sciences Museum in Paris;

"SIMO", a Telecommunication Fair in Madrid;

"Pressentiments v.1 and v.2" at the Centre des Arts in Enghien les Bains";

Mobile Feelings at "Ars Electronica Festival", (Linz, Austria), and at "Deaf Festival" (Rotterdam).

**Delivered a series of lectures in Europe on the following topics:**

"Design as an Industrial and R&D strategy" for the MIT – Medialab Europe at Dublin,

"Design as a strategic resource used to improve branding, presentation, product development, promotion as well as professionalism and profitability" for Conseil Général de Rhone - Alpes in support of the creation of the International Design Center of St Etienne,

"Gallery of Innovation and Residences of Research and Development" during the French Designers Days: London Chamber of Commerce.

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## Multimedia Work

1997 – 2000 **Multimedia Project leader**

### **Cité des Sciences et de l'Industrie museum ( Paris)**

Responsible for interaction design, feasibility, requirements generation and evaluation of multimedia products for several exhibitions such as: "Repères, base documentaire en ligne", "Cartographie ", "Désir d'apprendre".

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## Awards

2003 French Institute of Industrial Property Patent number 0303280:  
The Transmission of Emotions through a Mobile Telephone.

2003 Jury prize for a DVD on the concept of wearable technology with optical fiber, "Researcher's Film Festival" in Nancy, France.

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## Selected Publications

**2014**

**Roa-Seïler, N.**, Craig, P., Aguilar, J. A., Saucedo, A. Benítez, Díaz, M. Martínez, & Rosano, F. Lara. (2014). Defining a child's conceptualization of a virtual learning companion. In proceedings of *International Technology, Education and Development Conference INTED*, Valencia, Spain. ISBN: 978-84-616-8412-0

Craig, P., **Roa-Seiler, N.**, Díaz, M. Martínez, & Rosano, F. Lara. (2014). A Cognitonics Approach to Computer Supported Learning in the Mexican State of Oaxaca in *Informatica an international Journal of Computing and Informatics*, Print edition ISSN: 0350-5596, Web edition ISSN: 1854-3871

Craig, P., **Roa-Seiler, N.**, & Olvera A. (2014). Animated Geo-temporal Clusters for Exploratory Search in Event Data Document Collections. In proceedings of *18<sup>th</sup> International Conference Information Visualisation*, Paris France.

Craig, P., **Roa-Seiler, N.**, Benítez Saucedo, A., Martínez Díaz, M., Castañeda Santos J. & Lara Rosano, F. (2014). Photo-realistic avatars to maintain teacher continuity and encourage student involvement in a blended learning environment. In proceedings of *International EDULEARN14 (6th International Conference on Education and New Learning Technologies*, ISBN:978-84-617-0557-3, ISSN: 2340-111.

## **2013**

Craig, P., **Roa-Seiler, N.**, Olvera, Ana Delia, Velasco, M.P., & Reyes M. (2013). Information visualization for the collaborative analysis of complex data. In proceedings 1st Conference on Research and Partnership for Development, Universidad de la Sierra Sur, Oaxaca( Mexico).

Craig, P., **Roa-Seiler, N.**, Rosano Lara, F., & Díaz Martínez, M. (2013). Assessing the potential of collaborative video games to improve education in la Mixteca region of mexico. In proceedings of third International Conference on Cognitonics, Slovenia.

Craig, P., **Roa-Seiler, N.**, Rosano Lara, F., & Díaz Martínez, M. (2013). The role of embodied conversational agents in collaborative face to face computer supported learning games. Paper presented at the 26th International Conference on System Research, Informatics & Cybernetics, Baden Baden, Germany. **Winner of the Outstanding Scholarly Contribution Award.**

P. Craig and **N. Roa-Seiler** (2013) **A combined multidimensional scaling and hierarchical clustering view for the exploratory analysis of multidimensional data**, VDA, San Francisco, pp. 86540T-86540T.

## 2012

Craig, P. and **N. Roa-Seiler** (2012). A Vertical Timeline Visualization for the Exploratory Analysis of Dialogue Data. Information Visualisation Conference Montpellier, France: 68 – 73. ISSN : 1550-6037 Print ISBN: 978-1-4673-2260-7.

Martínez García, D., Craig, P., **Roa-Seiler, N.** and Benítez Saucedo, A., (2012). Validación de una estrategia de interacción de un agente corpóreo conversacional a través de la técnica del mago de Oz, presented at the MexIHC, Mexico City, Mexico, 2012.

García Luna V., Moreno Rocha M., **Roa Seiler N.**, and Craig P. (2012). Estrategia para la integración de diferencias transculturales en el diseño de una Interfaz Gráfica de Usuario (GUI) implementando Indicadores de Sociedad de Información (ISI) presented at the MexIHC, Mexico City, Mexico, 2012.

Craig, P., **Roa-Seiler, N.**, Leplâtre, G., (2012). A Situated Cognition Aware Approach to the Design of Information Retrieval Systems for Geospatial Data. In Proceedings of the 30th European Conference on Cognitive Ergonomics. ISBN: 978-1-4503-1786-3

## 2010

**Roa-Seiler N.**, Benyon D.(2010). Designing Companions with Kansei. In Proceedings Conference on Kansei Engineering and Emotional Research 2010 (KEER2010), Paris.

López-Mencía B.,Pardo D., **Roa-Seiler N.**, Hernández-Trapote A.,Hernández L., Rodríguez M.. (2010). Look at me!: An emotion learning reinforcement tool for children with severe motor disability'. Workshop on Multimodal Corpora: Advances in Capturing, Coding and Analyzing Multimodality. International Conference on Language Resources and Evaluation (LREC) Malta.

**Roa-Seiler, N.** & Benítez Saucedo, A. (2010). Virtual mirror. *In Proceedings of the 2010 international conference on The Interaction Design (Create'10)*, Oli Mival, John Bonner, Michael Smyth, and Shaleph O'Neill (Eds.). British Computer Society, Swinton, UK, UK, 74-75; ISSN 1477-9358

**Roa-Seiler N.**, Rodriguez Gancedo M.C.(2010). Samuela, el nacimiento de un 'Companion' in Proceedings MexIHC 2010, third workshop on Human-Computer Interaction of ACM SIGCHI / Paper 7, San Luis Potosi, Mexico.

**Roa-Seiler N**, Benítez, (2010). Mi espejo virtual emocional, in Proceedings MexIHC 2010, third workshop on Human-Computer Interaction of ACM SIGCHI / Paper 7, San Luis Potosi.

## **2009**

**Roa-Seiler N.**, Benyon D., and Leplâtre G. (2009). An Affective Channel for Companions. *Electronic Proceedings Empathic Agents Workshop at AAMAS, Proc. of 8th Int. Conf. on Autonomous Agents and Multiagent Systems*, Budapest, Hungary.

**Roa-Seiler N.**, (2009). An Affective Channel for Companions poster, presented at European Future Technologies Conference and Exhibition (FET) in Prague, Tchechoslovaquie.

## **2008**

Mival, O., O'Keefe, B., Bradley, J., **Roa-Seiler, N.** & Benyon, D. (2008). Photopal: Companionship, sharing and the Digital Echo, in Proceedings Collocated Social Practices Surrounding Photos Workshop, CHI 2008, Florence, Italy.

**Roa-Seiler, N.**, Benyon, D., & Mival, O. (2008). An affective channel for Photopal, in Proceedings 4th Workshop on Emotion in HCI of the Annual Human Computer Interaction Conference, Liverpool, United Kingdom.

## **2007**

**Roa-Seiler, N.**, Benyon, D. & Mival, O. (2007). Emotional Companions, in Proceedings 3rd Workshop on Emotion in HCI of the Annual Human Computer Interaction Conference, Lancaster, United Kingdom.

**Roa-Seiler, N.** (2007). Companions, emotional interfaces for tomorrow, in Proceeding of Peach Summer School, Santorini, Grece.

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## **Further information**

### **Research Group Brochure**

<http://paulspapers.com/blog/wp-content/uploads/2015/01/brochure.pdf>

### **Design Portfolio**

<http://paulspapers.com/blog/wp-content/uploads/2015/01/portfolioNRS.pdf>