#### CURRICULUM VITAE

### CARLOS MAURICIO CASTAÑO DÍAZ

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## Personal Information

Date of birth: March 11th 1985.

*Marital Status:* Married. *Nationality:* Colombian.

## Professional Profile

I am a full degree Psychologist from the University of Antioquia, Colombia, with a Master degree in Cognition and Communication from the University of Copenhagen, Denmark and a Ph.D. in the Learning Sciences from the Ludwig-Maximilians-Universität München. I have centred my studies in research in media psychology, particularly video games and cognition. I have ten years of experience in research in the fields of Developmental Psychology, Cognitive Sciences, and Media Psychology.

I have an interdisciplinary profile with complementary studies in Learning Sciences, Game Studies, and Computer Sciences. I am interested in research and teaching in the relationship between commercial games, development of cognitive processes and learning, psychological principles of design, art games and games as art, scientific communication, multimedia learning, and media phenomena like Internet Memes and Creepypastas. I teach following the principles of multimedia-based learning, the ARIPE method (Adjust, Reactivate, Inform, Process, and Evaluate), the Munich-method-box, and humour.

## Academic Information

Postdoctoral researcher. Aarhus University.

July 2017-Present

Postdoctoral researcher at Aarhus University, ScienceAtHome group, as Psychological game designer for the game Skill Lab: Science Detective.

Ph.D. In the Learning Sciences. Honours: Cum Laude (GPA 1.82, German system)

October 2013 – February 2017

Ludwig-Maximilians-Universität München. Faculty of Psychology.

Katholische Stiftungsfachhochschule München

Faculty of Social work. REASON program.

In association with the Elite Network of Bavaria and The Munich Center of the Learning

Sciences.

Guest student at University of Essex. Colchester. UK.
October 2015

Doctoral internship at the IGGI group (Intelligent Games Game Intelligence), under the tutoring of Prof. Richard Bartle.

Master of arts in cognition and communication

August 2010- August 2012

University of Copenhagen. Faculty of Humanities. Copenhagen, Denmark.

Guest student at ITU.

MSc in games

January 2011 December

January 2011-December 2011

IT University of Copenhagen. Copenhagen, Denmark.

Courses included

- Game development
- Game design

Psychology (full degree) January 2004-June 2010 University of Antioquia. Faculty of Social sciences and Humanities. Medellín, Colombia.

These studies are a full degree and grant me the title of Psychologist in Colombia, and in Germany under the concept of Diploma.

Title homologated in Denmark by Psykolognævnet as Cand. Mag. Psykologi in 2019. Granting me the title of Psykolog.

Elective courses in Psychology

- Psychoanalysis and art
- Social statistics
- Humanist psychology
- Cognitive therapy
- Experimental psychology

- Social intelligence and consciousness development
- New theories about mind
- Culture theory

#### Extra credits

- Michel Foucault: Insanity, sexuality and language.
- Systems modelling.
- Anthropological theories IV: Structuralism.
- Clinical structures and mental health.
- General history II
- New sciences and new cultures.

Systems and computer engineering

January 2002-December 2003

University of Antioquia. Faculty of Engineering. Medellin, Colombia.

## Complementary Studies

#### > Languages

Spanish (Colombia) Mother language

English Professional proficiency

Danish Reading: Basic

Listening: Intermediate Speaking: Intermediate

Writing: Basic

French Reading proficiency

*Italian* Reading proficiency

**Portuguese** Reading proficiency

Japanese Reading: Basic (Hiragana - Katakana)

Listening: Basic Speaking: Basic

Writing: Basic (Hiragana - Katakana)

> IT skills

GeneralMs Office (Word, Excel, PowerPoint,

Publisher, and Access)

• Prezi

**Research** • AtlasTi (intermediate)

- MaxQDA (intermediate)
- R (intermediate)
- Python for data analysis (basic)

#### Design

- 3DS Max (basic)
- GIMP (intermediate)
- Inkscape (basic)
- Finale 2011 (intermediate)

#### > Research skills

#### Qualitative techniques

- Content analysis
- Structured and semi-structured interviews
- Social representations

#### Quantitative techniques

- Correlational
- Descriptive
- Psychometric
- Eye-tracking

#### Methodological designs

- Exploratory
- Documental
- Experimental
- Quasi-experimental
- Intervention/Impact
- Microgenetic
- Mixed methods research

#### Publications

# More than Data Gatherers: Exploring Player Experience in a Citizen Science Game Díaz, C., Ponti, M., Haikka, P., Basaiawmoit, R. & Sherson, J. (2019) Quality and User Experience 5(1).

https://link.springer.com/article/10.1007%2Fs41233-019-0030-8

#### Eppur si Muove: Considerations in the research of commercial video games

Díaz, C., Dorner, B., Hussmann, H., & Strijbos, J. (2016). VS-Games 2016. Proceedings of the 8th International Conference on Games and Virtual Worlds for Serious Applications. IEEE and ENTI <a href="http://vsgames2016.com/proceedings/papers/pid1178404.pdf">http://vsgames2016.com/proceedings/papers/pid1178404.pdf</a>

### Scientific Heroes: Multiplayer Online Battle Arenas foster players' hypotheticodeductive reasoning

Díaz, C., Dorner, B., Hussmann, H., & Strijbos, J. (2015). CHI PLAY 2015. Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play. ACM.

http://dl.acm.org/citation.cfm?id=2793107&CFID=765331085&CFTOKEN=20065470

Explicit Fun, Implicit Learning in Multiplayer Online Battle Arenas: Methodological proposal for studying the development of cognitive skills using commercial video games.

Díaz, C., Dorner, B., Hussmann, H., & Strijbos, J. (2015). VS-Games 2015. Proceedings of the 7th International Conference on Games and Virtual Worlds for Serious Applications. IEEE

http://ieeexplore.ieee.org/xpl/articleDetails.jsp?reload=true&arnumber=7295775

#### Art video games: Ritual communication of feelings in the digital era

Díaz, C. & Tungjitcharoen, W. (2015). Art Video Games: Ritual Communication of Feelings in the Digital Era. Games and Culture, 10(1), 3-34.

 $\underline{http://gac.sagepub.com/content/early/2014/11/05/1555412014557543.abstract}$ 

#### Defining and characterizing the concept of Internet Meme

Castaño, D., C.M. (2013). Defining and characterizing the concept of Internet Meme. Revista CES Psicología, 6(2), 82-104 http://revistas.ces.edu.co/index.php/psicologia/article/view/2642

Master Degree Final Project: "Development of a methodological tool for analysing the reasoning demand of videogames in an agile and structural manner".

University of Copenhagen

Tutor: Prof. Andreas Gregersen.

Project revised and accepted on November 12, 2012.

Psychology Degree Final Project: "Pilot Study on the evaluation of probabilistic reasoning, syllogistic reasoning and decision making through a processual psychological battery (software) with children between five and nine years old in Medellin city".

University of Antioquia

Tutor: Prof. Liliana Chaves Castaño.

Project revised and accepted on June 18, 2010.

## "Validation of the Social Avoidance and Distress scale (SAD) and Fear of Negative Evaluation scale (FNE) in Colombian population"

Chaves, L. y Castaño, C. (2008). Validación de las escalas de evaluación negativa, ansiedad social y temor a la evaluación negativa en población colombiana. *Acta Colombiana de Psicología* 11(2), 65-76. <a href="http://www.scielo.org.co/pdf/acp/v11n2/v11n2a07.pdf">http://www.scielo.org.co/pdf/acp/v11n2/v11n2a07.pdf</a>

Congress paper: "Models, metaphors and development of the new technologies: A dialectical proposal for Psychology"

First National Congress of Cognitive Sciences. Colombia. University of Antioquia, November 17<sup>th</sup> and 18<sup>th</sup> 2006. Medellin, Colombia.

https://www.researchgate.net/publication/236194070 Modelos metafor as y desarrollo en las tecnologias de la informacion una propuesta de dialogo para la psicologia?ev=prf\_pub

## Software Products

#### Skill Lab: Science Detective

Citizen science video game designed during my Postdoctoral studies at the Faculty of Physics and Astronomy. Aarhus University.

Participation: Cognitive psychology assessment, supervision, and data interpretation, game designer and graphic design assessment.

https://www.scienceathome.org/games/skill-lab-science-detective/

#### A.D.A.P.T.I.O.N. You are what you eat.

Video game presented to Ludum Dare Compo.

Participation: Graphic and sound designer.

August 2012

http://www.kongregate.com/games/tilman/a-d-a-p-t-i-o-n

#### Fallen Sky

Video game presented to Game Development course.

Participation: Designer, assistant modelling, assistant texturing, sound design, music editing and playtesting.

May 2011.

http://www.geekygames-fallensky.com/

## BERSIN: Batería de evaluación de razonamiento silogístico infantil. "Evaluation battery of children's syllogistic reasoning"

Video game tool for stealth assessment of logical reasoning, probabilistic reasoning, and decision making fir children.

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Dirección Nacional de Derechos de Autor.

Ministerio del interior y de justicia.

Colombia.

#### Other Works

#### Translation English-Spanish

Translation form English to Spanish of the game 'Skill Lab: Science Detective'

#### **Ethics**

Advisor of ethics in research with human subjects within the areas of Social sciences and the Humanities at ScienceAtHome (2017-Present). Ethical standards according to:

- Law 1090 for the regulation of Psychological practices in Colombia
- The deontological and bioethical code of psychological practice of the Colombian college of psychology

- EU code of ethics for socio-economic research
- Guidelines for research ethics in the social sciences, law and the humanities
- European commission textbook on ethics research.

#### Additional Education

#### ➤ Long courses and diplomas

Particle Physics
February-June 2010

University of Antioquia. Faculty of Natural sciences. Medellín, Colombia.

**Robotics I** June-November 2009

University of Antioquia. Faculty of Engineering. Medellín, Colombia.

Kitchen Seminar August-December 2008 University of Valle. Faculty of Psychology. PhD. Program. Cali, Colombia.

Seminar conducted between Clark University and the PhD program of the Faculty of Psychology of the University of Valle. Currently taking place at the university of Aalborg.

Astrophysics: Basis of astrophysics
February-June 2008

University of Antioquia. Faculty of Natural sciences. Medellín, Colombia.

Astrophysics: Structure, origin and evolution of the universe August-December 2007

University of Antioquia. Faculty of Natural sciences. Medellín, Colombia.

Psychological batteries used in personnel selection
October-November 2006

University of Antioquia. Faculty of Social sciences and Humanities. Department of Psychology. Medellín, Colombia.

Seminar: "Actualisation in psychological batteries used in clinical contexts"

March-April 2006

University of Antioquia. Faculty of social sciences and Humanities. Department of Psychology. Medellín, Colombia.

#### ➤ Short courses, seminars, and congresses

Python for data science Series of courses offered by DataCamp

8th International Conference on Games and virtual Worlds for Serious Applications (VS-Games) University of Barcelona. Spain.

September 2016

Workshop "Teaching Skills"

February 2016

Ludwig-Maximilians-Universität München

**Graduate Center** 

R and statistics with R

Series of courses offered by DataCamp

Data sciences with R

First four courses of the Data Sciences specialization offered by the Johns Hopkins

University in the Coursera platform.

CHI PLAY 2015 Annual Symposium on Computer-Human Interaction in Play

October 2015

University College of London. London, United

Kingdom.

7th International Conference on Games and virtual Worlds for Serious Applications (VS-Games)

September 2015

University of Skövde. Skövde, Sweden.

**Relativity theory** May-June 2010

University of Antioquia. Faculty of Natural

sciences. Medellín, Colombia.

*Nuclear physics* May-June 2010

University of Antioquia. Faculty of Natural

sciences. Medellín, Colombia.

Seminar "Strategies and abilities in therapy with children and

teenagers" May 2007 Colombian Association of Cognitive Therapy

"ACOTEC". Medellín, Colombia.

First Latin American coursecongress about adolescence

April 2007

Colombian league for life and against suicide and FUNDASUPERIOR. Bogotá, Colombia.

First National Congress of cognitive sciences. Colombia.

November 2006.

University of Antioquia. Faculty of Social sciences and Humanities. Department of

Psychology and GRECCO. Medellín, Colombia.

Seminar: "Clinical intervention in personality disorders"

November 2006

CEPAS NGO. Medellín, Colombia.

Seminar: "Sexual diversities"

October 2006

School of forums of the Lacanian field.

Medellín. Colombia.

Second national meeting of

cognitive therapy

Colombian Association of Cognitive Therapy

"ACOTEC". Medellín, Colombia.

#### August 2006

Seminar: "Use, application and analysis of WARTEGG test"

July 2006

University of Antioquia. Faculty of Social sciences and Humanities. Department of Psychology. Medellín, Colombia.

Seminar: "Psychiatric patient: A challenge for the medical practitioner"

practitioner"
June 2006

San Vicente de Paul University Hospital. University of Antioquia. Faculty of Medicine. Medellín, Colombia.

XII Colombian Congress of

Psychology May 2006 University San Buenaventura and Colombian Society of Psychology. Medellín, Colombia.

Seminar: "What is called

perversion?"
September 2005

School of forums of the Lacanian field.

Medellín. Colombia.

## Work Experience and Academic Practices

#### Postdoctoral researcher

At ScienceAtHome. Aarhus University. Department of Physics and Astronomy.

*Responsibilities:* Researcher and game designer in Citizen Science games with a Social Science focus.

Period: July 2017- Present

## Teacher: Introduction to learning, instruction, training and technology

At Ludwig-Maximilians-Universität München.

Responsibilities: Course on Learning Sciences and technology, cotaught with Mr. András Csanadi and Ms. Maryam Alqassab.

Period: Winter semester 2015/2016.

### Teacher: Game design for learning and training

At Katholische Stiftungsfachhochschule München.

Responsibilities: Course designer and teacher of the course. Interuniversity course for Bachelor and Master students of the Ludwig-Maximilians Universität and the Katholische Stiftungsfachhochschule München.

Design of the course: The course was half-theoretical and half-practical, with a project-based evaluation.

Period: Summer semester 2014.

#### Educational game designer and researcher:

At the International Centre for Education and Human Development (CINDE).

Responsibilities: Researcher for the program "Aprende a Aprender"

(Learn to learn). Educational game designer. Game analyst. Educational videogame designer. Evaluation system designer. Evaluation system analyst.

Period: June 2009 – July 2010.

http://www.cinde.org.co/sitio/contenidos\_mo.php?it=2131

#### Founder of the group "Sexual diversities U. de A."

Worked as Director from January 2009 to June 2009. University of Antioquia.

Third academic practice: Research centre in psychology, cognition and culture. Research group in cognition and representational development. University of Valle. Cali, Colombia.

Responsibilities: Research Assistant, Data bases Analyst. Revision of texts for its publications. Revision of theoretical backgrounds for researching. PhD and MA. Students' Assistant. Assistant of the Kitchen Seminar.

*Tutor:* Prof. Rebeca Puche-Navarro and Prof. Liliana Chavés Castaño. *Period:* August-December 2008

## Second academic practice: Research group in cognitive psychology. University of Antioquia. Medellín, Colombia.

Responsibilities: Research Assistant, Data bases Analyst, Data bases designer, Application of Psychological tests, Training in development scale application. Text revision for publication and of theoretical framework creation for researching. Research text writing for publication.

Tutor: Prof. Liliana Chavés Castaño

Period: January-June 2008

## First academic practice: Research group in cognitive psychology. University of Antioquia. Medellín, Colombia.

*Responsibilities:* Research assistant, data analyst, data base designer, Application of Psychological tests, Training in development scale application. Text revision for publication and of theoretical framework creation for researching.

Tutor: Prof. Liliana Chavés Castaño.

Period: July-December 2007.

#### Extension program, Department of Psychology. University of Antioquia.

Responsibilities: Design and administration of the webpage of the Department of Psychology of the University of Antioquia. Data bases design and administration. Administrative Assistant.

Period: January 2005-June 2007

## Project: "Convivencia pacífica mediante el fortalecimiento de la resiliencia en el municipio de envigado"

Responsibilities: Data Analyst, database design.

Period: April 2006-August 2006.

Research assistant at the hotbed for researchers of the Research group of pyrometallurgic and material processes. Faculty of Engineering. University of Antioquia. Medellín, Colombia.

*Responsibilities:* Bibliographic research, helper in the activities of smelting and forge for scientific and artistic purposes.

Tutor: Claudia Silva.

Period: July 2004- July 2005.

## Participation on international events

#### Stuttgart International festival of animated film (May 1st – 5, 2019).

Invited to represent ScienceAtHome and Skill Lab in the panel 'Tremble before the Might of Science! Digital Games and Science'. Stuttgart, Germany.

## Workshop roadmap to consolidate and expand the knowledge base on participation and learning in citizen science (January 17th, 2018).

Invited to participate at the Citizen Science COST ACTION workshop on participation in Citizen Science. Berlin, Germany.

## Works supervised and mentorships

#### Mentorship: Ph.D. Project

Assessor on cognitive theories and social sciences methodologies in the Ph.D. studies of Janet Rafner (May 2019 - Present)

#### Mentorship: Internship at ScienceAtHome

Mentor of the Cognitive Sciences bachelor student Asger Lakkenborg, in his internship at ScienceAtHome (February 6th – June 1st, 2019)

#### Mentorship: Internship at ScienceAtHome

Mentor of the psychologist Maria Gamborg, in her internship at ScienceAtHome (August 1st – October 31st, 2017)

#### Supervisor: Master Thesis

Supervisor of the student Marielle Dado on her Master thesis 'Learning in technologies: Situation awareness in Massively Multiplayer Online Games' at the Ludwig-Maximilians-Universität München. Munich, 2015.

#### Supervisor: Master Thesis

Co-supervisor of the student Laura Delonge on her Master thesis 'Let's go mid as five: Explorative Ansätze zur Erforschung der Zusammenarbeit innerhalb des Spiels League of Legends' at the Ludwig-Maximilians-Universität München. Munich, 2015.

#### Honours and awards

Outstanding academic achievement within the Elite Network of Bavaria Elite Network of Bavaria, 2017.

Awarded for outstanding performance during the Ph.D. studies in Learning Sciences at the Ludwig-Maximilians-Universität München.

#### Honorific mention: Cum Laude Ph.D. in Learning Sciences.

Ludwig-Maximilians-Universität München, 2017.

Awarded for outstanding performance during the Ph.D. studies in Learning Sciences at the Ludwig-Maximilians-Universität München.

#### Denmark Government Scholarships for Non-EU Students

Danish government, 2010.

Full scholarship for studying a Master degree at the University of Copenhagen, based on performance performance within the psychology degree at the University of Antioquia.

## Work and Academic References

Professor Liliana Chaves Psychologist. San Buenaventura University. Castaño. MA. Medellin, Colombia.

Vice Dean of the Faculty of Social Sciences and

Humanities, University of Antioquia.

E-mail: <a href="mailto:clasesliliana@gmail.com">clasesliliana@gmail.com</a>

Professor Andreas Gregersen. Ph.D.

Film, media, and Communication. University of Copenhagen. Denmark.

Professor at University of Copenhagen.

University of Copenhagen

E-mail: agr@hum.ku.dk

Professor Birgit Dorner. Ph.D.

Art education and Social Psychology. Ludwig-Maximilian University. Germany.

Professor at Katholische

Stiftungsfachhochschule München.

E-mail: birgit.dorner@ksfh.de

Professor Richard Bartle. Ph.D.

PhD Artificial Intelligence, Essex University, 1988.

Senior Lecturer and Honorary Professor of Computer Game Design at the University of

Essex, UK.

E-mail: rabartle@essex.ac.uk

Lars Kroll Kristensen. MsC.

Master in Sciences of Computer Sciences and Multimedia, University of Aarhus, 2001.

Game designer at ScienceAtHome and CEO of Ratatosk Games.

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