

Wouter van den Bos, Ph.D.

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Employment

- 2018-** Associate Professor, Department Psychology, *University of Amsterdam*
2016- Faculty Max Planck UCL Centre for Computational Psychiatry and Ageing
2018- Adjunct Research Scientist, *Max Planck Institute for Human Development*, Berlin
2013-2017 Research Scientist, *Max Planck Institute for Human Development*, Berlin
2013-2017 Faculty at the *IMPRS graduate school on Life span development*, Berlin, Zurich, Ann-Arbor
2011-2013 Postdoctoral Fellow Department of Psychology, *Stanford University* (NWO Rubicon)

Education

- 2011** Ph.D. (*cum laude**), Developmental Psychology *Leiden University*
2006 M.Sc. (*cum laude**), Cognitive Neuroscience *University of Amsterdam*
2004 M.A. (*honors*), Philosophy of Mind & Logic *University of Amsterdam*

Research Experience

- 2018** (Feb-Mar) Visiting Researcher, Center for Developing Adolescent, *UC Berkeley*
2012-2013 Visiting Researcher, Dept. Human Development, *UC Berkeley*
2009 (Aug-Sept) Visiting Researcher, Dept. Psychology, *Stanford University*
2006 (Jan-Sept) Visiting Research Collaborator, Dept. Psychology, *Princeton University*

Research Statement

Our research group seeks to understand the relation between changes in brain function and structure and the development of learning and social behavior. Learning lays the foundation for adaptive decisions, enabling us to predict and anticipate future events in our environment. In turn the contingencies in the environment shape the developmental process, which may lead to biases in learning and decision-making strategies.

We are specifically interested in the interaction between the social environment and developmental processes. For instance, we study social influence on decision-making and how we search for information in social networks. In addition, we are interested in how the social environment is represented in the brain, and how this impacts behavior. For this we rely on social network analyses [3] to quantify social relations and use multi voxel pattern analyses (MVPA) to link these to neural representations. In our current research supported by the NWO (Vidi) and ERC (StG) we focus on social networks in schools in order to understand the reciprocal influence of environment and behavior in the context of risk taking and prosocial behavior. More recently we are also expanding this research the digital environment focusing on big data from social media (e.g. from Instagram or twitter) within the context of the H2020 framework (DIGYMATIX). This project also focusses on the impact of social media use on development of brain and cognition and self-regulation.

To gain a better understanding of these developmental processes we rely on a wide array of methods, ranging from behavioral experiments, social network analyses, surveys, big data analysis of online behavior, hormonal assays, and neuroimaging. Computational modeling is central to our approach. Computational models provide access to latent variables that cannot be directly observed from behavior. These latent variables these models support spanning the bridge between developmental theories and neurobiology, and enable to identify more specific processes that underlie developmental change.

Funding Sources (running total >7.5m)

(current)

2020-2025	H2020 DIGYMATEX (Youth Digital Maturity index) (co-PI)	€ 3.500.000
2019-2020	Jacobs Foundation Pilot Grant	€ 100.000
2018-2023	ERC Starting grant	€ 1.500.000
2018-2023	NWO VIDI grant	€ 800.000
2018-2022	YIELD PhD grant	€ 250.000
2018-2021	Amsterdam Brain & Cognition Project Grant	€ 250.000
2018-2022	IDA Interdisciplinary PhD grant	€ 250.000
2018-2020	Jacobs Foundation Research Fellowship	€ 150.000
2016-2021	ORA research grant – Development of Social Learning with Anna van Duijvenvoorde (Leiden University) & Essi Viding (UCL)	€ 1.100.000

(past)

2019	NSF GROW (visiting PhD Jesse Niebaum)	€ 4.500
2013-2014	Stanford Center on Advancing Decision Making in Aging (<i>co-PI</i>)	\$ 33.000
2012-2016	NIH/NIMH RO1 (<i>co-investigator, PI Julie Schweitzer</i>)	\$ 784.883
2012-2013	NIA R13 AG043207 (<i>Co-investigator, PI: Robert Levenson</i>)	\$ 68.044
2012-2014	NWO Rubicon Grant (<i>PI</i>)	€ 118.642
2011-2013	Volkswagen Stiftung- European Platform for the Life Sciences (<i>Co-PI</i>)	€ 92.100
2011	NeuroVentures seed grant (<i>PI</i>)	\$ 4.300
2009	Working Visit @ Stanford University- Leids Universitair Fonds	€ 2.000
2006	Working Visit @ Princeton University: Hendrik Muller Vaderlandsch Fonds , AUV fonds, Vrijvrouwe van Rendswoude, Bekker La Bastide Fonds, Hersenstichting	€ 10.000

Institutional Responsibilities

2018-	Scientific Advisory Board, Department of Psychology, University of Amsterdam
2016-	Faculty at the IMPRS graduate school on Computational Psychiatry and Aging (MPI Berlin/UCL London)
2016-2018	External member of Hiring Committee at the Centre for Life Span Development in Berlin
2013-2018	Faculty at the IMPRS graduate school on Life span development (MPI Berlin, Free University Berlin, Univ. Zurich, Univ. Michigan & Univ. Virginia)

Commissions of Trust

2018-	Taskforce Member of NeuroLabNL (NWA route)
2016-	Scientific Advisory Board for the Centre on the Developing Adolescent, UC Berkeley.
2014-2016	Member of the international working group on the development of prosocial behaviour, which involves organization of yearly meetings and development of position paper (w/ Univ. Oregon, UCLA, UC Berkeley, Leiden University, funded by Jacobs Foundation & SRCD).

Student Supervision

Post-doc

2018-2019	Lucia Magis Weinberg (UC Berkeley/ Center for the Developing Adolescent)
2016-	Lucas Molleman (ORA grant/ABC project Grant)
2017-2018	Corinna Laube
2016-2018	Job Schepens (Marie Currie Fellowship w/ Hauke Heekeren, FU Berlin)
2015-2016	Robert Lorenz

PhD

2019-2024	Ana Phino (Promotor)
2019-2024	Scarlett Slagter (Promotor)
2018-2023	Andrea Gradassi (Promotor)
2018-2022	Damien Fleur (Promotor)
2018-2022	Maud Hensums (Co-supervisor)
2017-2020	Simon Ciranka (Promotor)
2016-2019	Bianca Westhoff (Co-supervisor, ORA grant)
2014-2017	Corinna Laube (Promotor)
2012-2016	Julia Rodriguez Buritica (co-supervisor)

Current Teaching:

2017- *Computational Models of cognition* A computational modelling course for the Artificial Intelligence Bachelor at the University of Amsterdam.

Organization of Scientific Meetings (selection)

- 2019- **SRCD-Jacobs Foundation Symposia on Social Learning** Organizing 3 meetings on three continents over next two years, on the topic of social learning.
- 2018 **Science of Learning** – integrating perspectives (MPI Berlin)
- 2018 **FLUX** conference program committee 2018 (Berlin)
- 2014- Organization and hosting of multiple (peer-reviewed) symposia at international conferences including APS (x3), ISSB(x1) and SRCD(x3).
- 2013 **Methods in Studying Social Cognition** - April 3-5, Düsseldorf, Germany (small expert meeting, 12 invited speakers, ~ guests)
- 2012 **Decision-Making and Emotion Regulation in Life-Span Transitions** –November 8-9, 2012 David Brower Center, UC Berkeley. (with [BCRN](#))
- 2012 **Pre-reflective and Reflective Processing in Social Interaction** – March 12-14, Clare College, University of Cambridge, UK. (small expert meeting, 12 invited speakers, ~ guests)
- 2008 Pre-Conference Workshop “**Developmental Socio-Cognitive Neuroscience**” at the 20th Biennial ISSBD meeting 2008, Wurzburg, Germany (with Eveline Crone, Linda van Leijenhorst, Berna Guroglu and Phil Zelazo)
- 2007 NWO autumn school – Workshop on Social Decision Making. Doorwerth (with Eveline Crone)
- 2007 Member of the Local Arrangements Committee of the 37th Annual Meeting of the Jean Piaget Society, Amsterdam, the Netherlands, 2007.

Editorial Service

- 2014-present Review Editor *Frontiers in Human Neuroscience*
- 2013-present Review Editor *Frontiers in Decision Neuroscience*

Ad Hoc Reviewer (selection):

Journals including: Biological Psychology; Cerebral Cortex; Child Development; Cognitive, Affective & Behavioral Neuroscience; Current Biology; Decision; Current Opinion in Behavioral Sciences; Developmental Psychology; Developmental Science; European Child & Adolescent Psychiatry; European Journal of Neuroscience; European Journal of Social Psychology; Frontiers in Human Neuroscience/Decision Science/Psychology/Emotion Science ; Journal of Cognitive Neuroscience; Journal of Experimental Child Psychology; Journal of Neuroscience; NeuroImage; Neuropsychologia, PNAS; Psychological Science; Psychology and Economics; Psychology of Addictive Behaviors; Social Cognitive & Affective Neuroscience; Social Neuroscience; Social Psychological and Personality Science.

Conference submissions: American Psychological Association (APA), Society for the Study of Child Development (SRCD), Society for Research on Adolescence (SRA).

Grant proposals: NWO (Netherlands), OMHF (Canada), FWO (Belgium), NSF (USA), ERC (EU), SSHRC (Canada), FNRS/FWO -Excellence of Science (France/Belgium), ERC (StG, Consolidator)

Publications

[Google Scholar](#) (August 2020)

N = 3050; H-index:31; i-index: 44; §=senior author

- [1]. Laube, C., **van den Bos, W.**, & Fandakova, Y. (2020). The relationship between pubertal hormones and brain plasticity: Implications for cognitive training in adolescence. *Developmental Cognitive Neuroscience, 42*, 100753.
- [2]. § Ciranka, S. K., & **van den Bos, W.** (2019). Social Influence in Adolescent Decision Making: A Formal Framework. *Frontiers in psychology, 10*, 1915
- [3]. § Molleman, L., Kurvers, R. H., & **van den Bos, W.** (2019). Unleashing the BEAST: a brief measure of human social information use. *Evolution and Human Behavior, 40*(5), 492-499.
- [4]. § Laube, C., Lorenz, R., & **van den Bos, W.** (2020). Pubertal testosterone correlates with adolescent impatience and dorsal striatal activity. *Developmental cognitive neuroscience, 42*, 100749.
- [5]. § Fleur, D. S., **van den Bos, W.**, & Bredeweg, B. (2020). Learning Analytics Dashboard for Motivation and Performance. In *International Conference on Intelligent Tutoring Systems* (pp. 411-419).
- [6]. Molleman, L., Kanngiesser, P., & van den Bos, W. (2019). Social information use in adolescents: The impact of adults, peers and household composition. *PloS one, 14*(11), e0225498.
- [7]. § **van den Bos, W.**, Laube, C., & Hertwig, R. (2020). How the adaptive adolescent mind navigates uncertainty. In R. Hertwig, T. J. Pleskac, T. Pachur, & The Center for Adaptive Rationality, Taming uncertainty. Cambridge, MA: MIT Press
- [8]. Bradley, E. R., Brustkern, J., De Coster, L., **van den Bos, W.**, McClure, S. M., Seitz, A., & Woolley, J. D. (2019). Victory in its own reward: oxytocin increases costly competitive behavior in schizophrenia. *Psychological medicine, 1-9*.
- [9]. § Rodriguez Buritica J., Heekeren H., & **van den Bos W.** (2018). The computational basis of following advice in adolescents. *Journal of Experimental Child Psychology*
- [10]. § Laube C. & **van den Bos W.** (2018). It's About Time: How Integral Affect Increases Impatience. *Emotion*
- [11]. Iking I., Engelmann JB., **van den Bos W.**, Roelofs K., & Figner B. (2018). Time ambiguity during intertemporal decision-making is aversive, impacting choice and neural value coding. *Neuroimage*
- [12]. Gee D., Bath K., Johnson C., Meyer H., Murty V., **van den Bos W.**, & Hartley C. (2018) Neurocognitive Development of Motivated Behavior: Dynamic Changes across Childhood and Adolescence. *Journal of Neuroscience*
- [13]. § **van den Bos, W.**, Crone, E. A., Meuwese, R., & Guroglu, B. (2018). Social network cohesion in school classes promotes prosocial behavior. *PLoS one, 13*(4), e0194656.
- [14]. § **van den Bos W.**, Bruckner R., Nassar M., Mata R., & Eppinger B. (2017) Computational Neuroscience across the Lifespan: Promises and Pitfalls. *Developmental Cognitive Neuroscience*
- [15]. § Laube, C., Suleiman A.B., Johnson M, Dahl R.E. & **van den Bos W** (2017). Dissociable Effects of Age and Testosterone on Adolescent Impatience. *Psychoneuroendocrinology, 80*, 162-169
- [16]. § Schepens J, Hertwig R & **van den Bos W** (2017) Aging of the Exploring Mind: Older Adults Deviate more from Optimality in Complex Choice Environments. *Proceedings of the 39th Annual Meeting of the Cognitive Science Society. 3082-3087*
- [17]. Andrejević M, Meshi D, **van den Bos W**, Heekeren HR (2017) Individual differences in social desirability are associated with white matter microstructure. *Cognitive, Affective, and Behavioral Neuroscience*

- [18]. Tei S, Fujino J, Kawada R, Jankowski KF, Kauppi JP, **van den Bos W**, et al. (2017) Collaborative roles of Temporoparietal Junction and Dorsolateral Prefrontal Cortex in Different Types of Behavioural Flexibility *Nature Scientific Reports* 7
- [19]. Bradley E, Brustkern J, De Coster L, **van den Bos W**, McClure S, Wooley, J. (2017) Oxytocin Enhances Overbidding in Multiplayer Auctions *Biological Psychiatry* 81 (10), S40
- [20]. Kamkar NH, Lewis DJ, **van den Bos W**, Morton JB (2017) Ventral striatal activity links adversity and reward processing in children *Developmental Cognitive Neuroscience* 26, 20-27
- [21]. de Water E, Mies GW, Figner B, Yoncheva Y, **van den Bos W**, et al. (2017) Neural mechanisms of individual differences in temporal discounting of monetary and primary rewards in adolescents *NeuroImage* 153, 198-210
- [22]. Cardoos S.L., Suleiman A.B., Johnson M, **van den Bos, W.**, Hinshaw S.P., Dahl R.E. (2017) Social status strategy in early adolescent girls: Testosterone and value-based decision making *Psychoneuroendocrinology*
- [23]. § **van den Bos, W.** (2017) Ambiguity Aversion. in *Encyclopedia of Personality and Individual Differences*, (Zeigler-Hill & Shackelford eds.)
- [24]. Hanson, J., **van den Bos, W.**, Roeber, B., Davidson, R. & Pollak, S. (2016) Early adversity and learning: Implications for typical and atypical behavioral development. *Journal of Child Psychology and Psychiatry*
- [25]. § **van den Bos, W.** & Hertwig, R. (2016) Adolescents display distinctive tolerance to ambiguity and to uncertainty during risky decision making. *Nature Sci. Rep.* 7, 40962
- [26]. § Wulff, D. U. & **van den Bos, W.** (2016). Modeling choices in delay discounting. *Psychological science*.
- [27]. § Leuker C., **van den Bos W.**, (2016) I want it now! The neuroscience of teenage impulsivity. *Frontiers in Young Minds*.
- [28]. Blankenstein N, Crone EA, **van den Bos W**, Duijvenvoorde A. (2016) Determinants of adolescent risk-taking: Risk, ambiguity, and the social context. *Neuropsychologia*
- [29]. § Laube, C. & **van den Bos, W.** (2016) Hormones and Affect in Adolescent Decision-Making, *Recent Developments in Neuroscience Research on Human Motivation* (eds. Kim, Reeve & Bong)
- [30]. § **van den Bos W.** & Eppinger (2016) Developing Developmental Neuroscience. *Developmental Cognitive Neuroscience*
- [31]. Klapwijk, E.T, **van den Bos, W.**, & Berna Güröğlü, B., (2015) Neural mechanisms of criminal decision making in adolescence: The roles of executive functioning and empathy. *Oxford Handbook of Offender Decision Making*.
- [32]. § van Wingerden, M. & **van den Bos, W.** (2015) Can You Trust a Rat? *Social Cognition*
- [33]. **van den Bos, W.**, Rodriguez, C.A., Schweitzer, J. & McClure, S.M. (2015) Adolescent impatience decreases with increased frontostriatal connectivity. *PNAS* 112 (29): E3765-E3774
- [34]. **van den Bos, W.**, Rodriguez, C.A., Schweitzer, J. & McClure, S.M. (2014) Connectivity strength of dissociable striatal tracts predict individual differences in temporal discounting. *Journal of Neuroscience* 34 (31), 10298-10310.
- [35]. Kuypers, K.P.C., de la Torre, R., Farre M., Dziobek, I., Sirigu, A., **van den Bos, W.**, Kus, A., & Ramaekers, J.G. (2014) No evidence that MDMA-induced enhancement emotional empathy is related to peripheral oxytocin levels or 5HT1a receptor activation. *PLoS One*.
- [36]. **van den Bos, W.**, Jenny, M. & Wulff, D. (2014) Open Minded Psychology. In Introduction to Open Research Data (Moore, S. ed.) Ubiquity Press.
- [37]. Güröğlü, B., **van den Bos, W.**, & Crone, E.A. (2014) Sharing and giving across adolescence: An experimental study examining the development of prosocial behavior. *Frontiers in Psychology* 5: 291
- [38]. **van den Bos, W.**, Vahl, P., Güröğlü, B., Nunspeet, F., Colins, O., Markus, M. Rombouts, S.A.R.B., van der Wee, N., Vermeiren, R., MD & Crone, E.A. (2014) Neural correlates of social decision-making in severely antisocial adolescents. *Social Cognitive and Affective Neuroscience* 9 (12), 2059-2066.
- [39]. **van den Bos, W.**, Golka, P., Effelsberg, D., McClure, S.M. (2013) Pyrrhic Victories: The Need for Social Status Drives Costly Competitive Behavior. *Frontiers in Human Neuroscience* 7: 189.
- [40]. **van den Bos, W.** (2013) Neural mechanisms of social re-orientation across adolescence. *Journal of Neuroscience* 33, 13581-13582

- [41]. McClain, A., **van den Bos, W.**, Matheson, D., Desai M., McClure, S.M., & Robinson, T. (2013) Visual illusions and plate design: The effects of plate rim widths and rim coloring on perceived food portion size. *International Journal of Obesity* 38 (5), 657-662.
- [42]. Will, G. J., Güroğlu, B., **van den Bos, W.**, & Crone, E. A. (2013). Acting on Observed Social Exclusion: Developmental Perspectives on Punishment of Excluders and Compensation of Victims. *Developmental Psychology* 49 (12), 2236.
- [43]. **van den Bos, W.**, Talwar, A., & McClure, S.M. (2013) Neural correlates of reinforcement learning and social preferences in competitive bidding. *Journal of Neuroscience*. 33(5): 2137-2146
- [44]. **van den Bos, W.** & McClure S.M. (2012) Towards a General Model of Temporal Discounting. *Journal of the Experimental Analysis of Behavior*. 99(1): 58-73
- [45]. Bohl, V.* & **van den Bos W.***, (2012). An integrative account of social cognition: marrying theory of mind and interactionism to study the interplay of pre-reflective and reflective processes. (*Frontiers in Neuroscience Research Topic "Toward a neuroscience of social interaction"*)
- [46]. Rutledge K.M., **van den Bos W.**, McClure S.M., Schweitzer, J.B. (2012) Cognitive training for ADHD: Current findings, borrowed concepts and future directions *Neurotherapeutics*.
- [47]. **van den Bos, W.***, Crone, E. A.*, & Güroğlu, B. (2012) Brain function during feedback-based learning in relation to IQ and education. *Developmental Cognitive Neuroscience*. 2(1), 78-89. * equal contribution
- [48]. **van den Bos, W.**, van Dijk, E. & Crone, E. A. (2012). Learning Who To Trust In Repeated Social Interactions: A Developmental Perspective. *Group Processes & Intergroup Relations*. 15(2), 243-256.
- [49]. Tang G.S.M., **van den Bos W.**, Andrade E., McClure S.M. (2011). Social phobia modulates risk sensitivity through activity in the anterior insula. *Frontiers in Decision Neuroscience*. 5, 142.
- [50]. **van den Bos, W.**, Cohen, M.X., Kahnt, T. & Crone, E. A. (2011). Striatum-medial prefrontal cortex connectivity predicts developmental changes in reinforcement learning. *Cerebral Cortex*.
- [51]. **van den Bos, W.**, & Crone, E.A. (2011) The Neuroscience of Social Decision-Making: A Developmental Perspective. In 'Neural Basis of Motivational and Cognitive Control' (R. Mars, J. Sallet, M. Rushworth, & N. Yeung, eds.) MIT Press.
- [52]. Güroğlu, B.*, **van den Bos, W.***, Rombouts, S.A.R.B. & Crone, E. A. (2011) Dissociable brain networks involved in development of fairness considerations: Understanding intentionality behind unfairness. *NeuroImage*, 57(2), 634-641.* equal contribution
- [53]. **van den Bos, W.**, Van Dijk, E., Westenberg, P. M., Rombouts, S. A. R. B. & Crone, E. A. (2011a). Changing Brains, Changing Perspectives: The Neurocognitive Development of Reciprocity. *Psychological Science*, 22(1), 60-70.
- [54]. McClure, S.M. & **van den Bos, W.** (2010) The psychology of common value auctions. In Attention and Performance XXIII: Decision Making (E. Phelps, T. Robbins, & M. Delgado, eds.) Oxford University Press.
- [55]. Güroğlu, B., **van den Bos, W.**, Rombouts, S.A.R.B. & Crone, E. A. (2010) Unfair? It depends: Neural correlates of fairness in social context. *Social Cognitive and Affective Neuroscience*, 5 (4), 414-423.
- [56]. **van den Bos, W.**, Westenberg, P. M., van Dijk, E. & Crone, E. A. (2010) Development of Trust and Reciprocity in Adolescence. *Cognitive Development*, 25 (1), 90-102.
- [57]. **van den Bos, W.**, Güroğlu, B., van der Bulk, B. G., Rombouts, S.A.R.B. & Crone, E. A. (2009) Better than expected or as bad as you thought? The neurocognitive development of probabilistic feedback processing. *Frontiers in Neuroscience*, 3:52
- [58]. Güroğlu, B., **van den Bos, W.** & Crone, E. A. (2009) Fairness considerations: Increasing understanding of intentionality in adolescence. *Journal of Experimental Child Psychology*, 104, 398-409.
- [59]. **van den Bos, W.** & Güroğlu, B. (2009) The Role of the Ventral Medial Prefrontal Cortex in Social Decision Making. *Journal of Neuroscience*. 29(24), 7631-7632.
- [60]. Güroğlu, B., **van den Bos, W.** & Crone, E. A. (2009). Neural Correlates of Social Decision Making and Relationships: A Developmental Perspective. *Annals of the New York Academy of Sciences*, 1167, 197-206.
- [61]. **van den Bos, W.**, van Dijk, E., Westenberg, P. M., Rombouts, S.A.R.B. & Crone, E. A. (2009) What motivates repayment? Neural correlates of reciprocity in the Trust Game. *Social Cognitive and Affective Neuroscience*, 4(3), 294-304.

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- [63]. **van den Bos, W.**, McClure, S.M., Harris, L.T., Fiske, S.T. & Cohen, J.D. (2007) Dissociating affective evaluation and social cognitive processes in ventral medial prefrontal cortex. *Cognitive, Affective and Behavioral Neuroscience*, 7(4), 337-346.
- [64]. Harris, L.T., McClure, S.M., **van den Bos, W.**, Fiske, S.T. & Cohen, J.D. (2007) MPFC as an affective region especially tuned to social stimuli. *Cognitive, Affective and Behavioral Neuroscience*, 7(4), 309-316.

Outreach to the community (selection)

- Currently we are developing an interactive exhibition for the Humboldt Forum in Berlin, which will be for educational purposes but also serve data collection (citizen science).
- A matter of time – lecture on time and decision making at the symposium “het kan echt beter” conference on poverty and debt (<https://youtu.be/8vdkdi8mFEo>)
- Consultant/Interviewee for Dance/Multimedia project *No Entry*. The project evolves around places of no entry for youth.
- Invited speaker at the workshop on Bildung and Ego-development: a mutual clarification of perspectives at the Lorentz Center in Leiden. At this meeting scientist and educational experts will discuss the importance of Bildung in education.
- Writing for *Frontiers in Young Minds*, a science journal for teenagers
- Collaborator with North Carolina Museum of life science “experimonths” 2012-2016
Co-developer of the month-long massive online experiment on the prisoners’ dilemma (frenemy) <http://science.experimonth.com/>
- Consultant San Francisco [Exploratorium](#) Science Museum - exhibition “science of sharing” 2012-2015
General consulting on design of the exhibition and specific development of permanent interactive exhibition on the tragedy of the commons.
- Co-creator of freely accessible Peer 2 Peer University (P2PU) course [Open Science: An Introduction](#)
- Numerous talks at high schools across the Netherlands (during PhD)
- Numerous pop science articles (*Scientific American*, *Frontiers in Young Minds*, *Nauticus*).

