

# Sofian Audry\*

## Curriculum Vitae

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\*aka Jean-Sébastien Sénécal

## Education

### Foundations

- 2016 **Ph. D. Humanities**, *Concordia University*, Montréal, Canada.  
Advisors: Chris Salter (main), Jean Dubois, Bart Simon. Thesis title: *Machines That Learn: Aesthetics of Adaptive Behaviors in Agent-based Art*.
- 2010 **M. A. Communication (interactive media)**, *University of Quebec in Montreal*.  
Advisor: Jean Décarie.
- 2003 **M. Sc. Computer Science (machine learning)**, *University of Montreal*.  
Advisor: Yoshua Bengio.
- 2001 **B. Sc. Mathematics and Computer Science**, *University of Montreal*.  
Completed with honours.

### Complementary

- 2013 **Training on governance of art organizations**, *HEC Business School Montréal*.
- 2008 **Electronic art & design workshop**, *iMAL*, Brussels, Belgium.  
With artist and designer David Cuartielles, co-founder of the Arduino platform.
- 2007 **Electronic art & design workshop**, *Piet Zwart Institute*, Rotterdam, Netherlands.  
With artist and designer Kristina Andersen.
- 2005 **Independent Studies in Art History**, *University of Quebec in Montreal*.

## Exhibitions and performances

- 2016 **Afropixel**, Dakar, Senegal.  
**Marrakech Biennale**, Marrakech, Morocco.  
**Festival Montréal en Lumière**, *Nuit Blanche*, *City Hall*, Montreal, Canada.  
Curator: Eliane Elbogen.
- 2015 **L'Oosphère**, *Jardin d'Hiver*, Strasbourg, France.  
**Nuit Blanche**, Paris, France.  
**Léo-Ayotte Exhibition center**, *Re-encodings*, Shawinigan, Canada.  
**Eastern Bloc**, *Robotis Personae*, Montréal, Canada.
- 2014 **L'Imagier**, *Re-encodings*, Gatineau, Canada.  
**International Digital Arts Biennale**, *Physical/ité*, Darling Foundry, Montréal, Canada.  
**Vitra Design Museum**, Buckminster Fuller dome, Weil am Rhein, Germany.  
**Club Transmediale**, *Stattbad Wedding*, Berlin, Germany.
- 2013 **BOZAR Electronic Art Festival**, Brussels, Belgium.  
**LABoral**, *Vessels*, Gijón, Spain.  
**Vaste et Vague**, *Séjour temporaire | altération provisoire*, Carleton-sur-Mer, Canada.  
Curator: Marie-Hélène Leblanc.  
**Elektra Festival**, *Ex Vivo*, Occurrences, Montréal, Canada.  
Curator: Aurélie Besson.

- 2012 **E-Fest**, Tunis, Tunisia.  
**LABoral**, *N\_Polytope*, Gijón, Spain.  
**L'Écho d'un Fleuve**, *Ubiquité*, Montréal, Canada. Presented by Péristyle Nomade.
- 2011 **Chiang Mai City Arts and Cultural Centre**, *ComPeung revisited*, Chiang Mai, Thailand.  
 Curators: Helen Michaelsen and Pisithpong Siraphisut.  
**Galerie Séquence**, *Captatio oculi*, Chicoutimi, Canada.  
 Curator: Sylvain Campeau.
- 2010 **Nocturne Festival**, Halifax, Canada.
- 2009 **LAB30 Art Laboratory**, Kulturhaus abraxas, Augsburg, Germany.  
**Jeux de la Francophonie**, *Crea Numerica*, Beirut, Lebanon.  
**Festival Montréal en Lumière**, *Art souterrain*, Montréal, Canada.  
**ComPeung**, Doi Saket, Thailand.
- 2008 **Galerie Art Mûr**, *Trace*, Montréal, Canada.  
**404 Festival**, Trieste, Italy.  
**Festival Mal au Pixel**, Paris, France.  
**Festival Métropolis Bleu**, Montréal, Canada.  
**Bibliothèque et Archives Nationales du Québec**, *États Généraux des Arts Médiatiques*, Montréal, Canada.  
 Curator: Valérie Lamontagne.
- 2007 **Piksel Festival**, *Fun House*, Lydgalleriet, Bergen, Norway.  
**Expression**, *Projectiles*, St-Hyacinthe, Canada.  
**V2 Institute for the Unstable Media**, *make do*, Rotterdam, Netherlands.  
**TENT Gallery**, *Wrong Time, Wrong Place*, Rotterdam, Netherlands.  
**1313 Gallery**, *Incidences*, Toronto, Canada.  
**Musée d'Art Contemporain des Laurentides**, *Perte de Signal*, St-Jérôme, Canada.
- 2005 **Piksel Festival**, *Games! no fun!*, Hordaland Kunstsenter, Bergen, Norway.  
 Curators: Isabelle Arvers and Gisle Frøysland.  
**Fort9**, *nCON'T.ained inFORMATION*, Victoria, Canada.  
**Société des Arts Technologiques**, *Homeostazie*, Montréal, Canada.

## Residencies

- 2015 **Kër Thiossane**, Dakar, Senegal.
- 2014–2015 **Eastern Bloc**, Montréal, Canada.
- 2013 **LABoral**, Gijón, Spain.  
**Vaste et Vague**, Carleton-sur-Mer, Canada.
- 2012 **LABoral**, Gijón, Spain.
- 2011 **Centre d'Art i Natura**, Farrera, Spain.  
**ComPeung**, Doi Saket, Thailand.  
**Rustines | Lab**, Perte de Signal, Montréal, Canada.
- 2010 **Center for Art and Tapes**, Halifax, Canada.
- 2009 **Klondike Institute of Art & Culture**, Dawson City, Yukon.  
**Avatar**, Quebec City, Canada.  
**ComPeung**, Doi Saket, Thailand.
- 2008 **iMAL**, Brussels, Belgium.  
**Mains d'Œuvres**, St-Ouen, France.  
**Rustines | Lab**, Perte de Signal, Montréal, Canada.

- 2007 **Agence TOPO**, Montréal, Canada.  
**Duende Studio**, Rotterdam, Netherlands.
- 2005 **BEK**, Bergen, Norway.

## Awards and grants

- 2016 **Research grant**, *Canada Council for the Arts*.  
**Postdoctoral research-creation fellowship**, *Fonds Québécois de la Recherche sur la Société et la Culture*.
- 2014 **Doctoral Award of Excellence**, *Concordia University*.
- 2013 **Honourable mention (N Polytope)**, *Prix Ars Electronica*.  
**Special mention (N Polytope)**, *VIDA Art and Artificial Life Awards*.
- 2010 **Research and production grant**, *Canada Council for the Arts*.  
**Development grant**, *Quebec Art Council*.  
**Doctoral research fellowship**, *FQRSC*.  
**Special Entrance Award**, *Concordia University*.
- 2008 **Production grant**, *Fondation du Maire de Montréal pour la Jeunesse*.  
**Residency grant**, *Quebec Art Council*.
- 2007–2013 **Travel grants**.
- Quebec Art Council (8 grants)
  - Canada Council for the Arts (4 grants)
  - Office Québec Wallonie Bruxelles pour la Jeunesse (2 grants)
  - Offices jeunesse internationaux du Québec
  - Centre Interuniversitaire des Arts Médiatiques
  - Ministère de l'Éducation, du Loisir et des Sports
- 2007 **Production grant**, *Canada Council for the Arts*.
- 2006 **Production grant**, *Centre Interuniversitaire des Arts Médiatiques*.
- 2005–2007 **Fellowship**, *Fonds à l'Accessibilité et à la Réussite des Études*.
- 2005 **Doctoral research fellowship**, *Fonds Québécois de la Recherche sur la Nature et les Technologies (declined)*.
- 2001 **Master research fellowship**, *Fonds pour la Formation des Chercheurs et l'Aide à la Recherche*.  
**Fellowship**, *Département d'Informatique et de Recherche Opérationnelle, University of Montreal*.
- 1999 **Undergraduate student research award**, *Natural Sciences and Engineering Research Council of Canada*.
- 1999–2001 **Dean's honourable mention**, *Arts and Science Faculty, University of Montreal*.

## Press

- 2015 "L'Ocosphère à l'Université de Strasbourg". UTV, November 19, 2015.
- 2014 *Carnet de Séjour*. Centre d'artistes Vaste et Vague, Carleton-sur-Mer, Canada, 2015. Exhibition catalog.  
Brousseau, Marie-Hélène. "Sofian Audry: Perte de signal et morphologies variables". *Convergence*, no 90, June 2014.
- 2013 Fisette, Serge. "Du spectacle, du spectaculaire, de la fête! Of the spectacle, the Spectacular, the Party!" *Espace Sculpture*, no 105, Fall 2013.  
Baichtal, John. "Waterborne Robots Display Emergent Behavior", *Makezine.com*, October 1, 2013.  
Debatty, Régine. "Vessels, a fleet of robots with unpredictable behaviour". *We Make Money Not Art*, September 2, 2013.  
Bosco, Roberta and Caldana, Stefano. "¿Plagio, apropiacionismo o desconocimiento?" *El Pais*, September 1, 2013.  
"Séjour temporaire | altération provisoire", *Capsule Télé-Québec Gaspésie*.  
González, Semíramis. "Vessels, a Research Residency at LABoral". August 12, 2013.

- Desloges, Josianne. "Séjour temporaire à Carleton-sur-Mer: fantaisies touristiques", *Le Soleil*, July 13, 2013.
- Debatty, Régine. "n-Polytope, Behaviors in Light and Sound after Iannis Xenakis". *We Make Money Not Art*, July 25, 2012.
- 2012 Palop, Benoît. "La perspective de l'agent et de l'algorithmie au centre du travail de Sofian Audry", *The Creators Project*, 2012.
- 2011 Garant, Barbara. "Autre temps, autres yeux", *VOIR*, Chicoutimi, May 12, 2011.
- 2009 Lamontagne, Valérie. "Sofian Audry and Jonathan Villeneuve: Entangled Technologies", *eTC : Revue de l'art actuel*, No 86, Montréal, 2009.
- 2008 Bélisle, J., Charron, M.-E., Gingras, N., Henricks, N. et Lamarche, B.. *10 : Dix ans de création numérique*. Perte de Signal, Montréal, Canada, 2008.
- CIBL "Radio-Montreal" 101.5 FM, "Le 4@6". April 30, 2008.
- Prémont, Charles. "Sofian Audry présente Flag", *Le Lien Multimédia*, April 22, 2008.
- 2007 "Wrong Time Wrong Place" on Antenne Rotterdam, June 22, 2007.
- Répertoire. Perte de Signal, Montréal, 2007.
- 2005 Ludovico, Alessandro. "Update 'me', i dati che muoiono", *Neural.it*, October 25th, 2005.

## Conferences and workshops

- 2016 **A Body of Knowledge: Embodied Cognition and the Arts**, *Claire Trevor School of the Arts, University of California, Irvine*, Irvine, USA. Conference.
- MILIEUX, LIBREMAPPING**, Concordia University, Montréal, Canada. Workshops.
- ISEA**, Hong Kong, China. Conference.
- 2015 **Neutral Ground**, Regina, Canada. Workshops.
- 2014 **Arte Alameda**, *Agencia Alien: Arte/Investigacion con el Non-humano*, Mexico City, Mexico. Workshop.
- Fundación Telefónica VIDA educational program.
- Festival International d'Art Vidéo**, Hassan II University, Casablanca, Morocco. Workshops.
- Sight & Sound**, *Biological Systems as Generative Models for the Future*, Montréal, Canada. Round table.
- Elektra Festival**, *Behaviors in Light and Sound after Iannis Xenakis*, Darling Foundry, Montréal, Canada. Round table.
- 2013 **E-Fest**, Tunis El Manar University, Tunis, Tunisia. Conference and workshop.
- Hexagram | CIAM**, *HEXA\_OUT: When Forms of Life Collide*, Phi Center, Montréal, Canada. Round table.
- International Digital Arts Market**, Elektra Festival, Montréal, Canada. Conference with Alexandre Castonguay.
- 2012 **Organisation Internationale de la Francophonie**, *2nd Crea Numerica Meetings*, Tunis, Tunisia. Conference and workshop.
- Eastern Bloc**, *What space do/can/should hackers occupy in the gallery?*, Montréal, Canada. Round table.
- 2011 **International Digital Arts Market**, Festival NEMO, Paris, France. Conference.
- Society for Literature, Science, and the Arts**, Kitchener, Canada. Conference.
- 2010 **ISEA**, *Media Gardens*, Ruhr, Germany. Round table.
- Subtle Technologies**, Toronto, Canada. Poster presentation.
- International Digital Arts Market**, Elektra Festival, Montréal, Canada. Conference.
- Société des Arts Technologiques (SAT)**, *alt\_NORD*, Montréal, Canada. Round table.
- 2009 **International Digital Arts Market**, Cimatics Festival, Brussels, Belgium. Conference.
- Avatar**, *Absences*, Québec, Canada. Conference.
- Chiang Mai University, New Media Arts Lab**, Chiang Mai, Thailand. Conference.
- ComPeung**, *Absences*, Doi Saket, Thailand. Conference.

- 2008 **Dorkbot BRU #2**, *Accrochages*, iMAL, Bruxelles, Belgique. Conference with Samuel St-Aubin.  
**Dorkbot Paris #10**, *Accrochages*, Paris, France. Workshop with Samuel St-Aubin.  
**Festival Métropolis Bleu**, *Vévé*, Montréal, Canada. Workshop.
- 2007 **Het Wilde Wetten**, Rotterdam, Netherlands. Conference.

## Publications

- forthcoming Audry, Sofian (2017). "Aesthetics of Adaptive Behaviors in Embodied Agents", Body of Knowledge 2016 Conference proceedings, UCI, Irvine, .
- 2016 Senécal, Jean-Sébastien (2016). *Machines That Learn: Aesthetics of Adaptive Behaviors in Agent-based Art*. PhD thesis, Concordia University, Montréal. 307 pages.  
 Audry, Sofian (2016). "Aesthetics of Adaptive Behaviors in Agent-based Art", ISEA 2016 Conference proceedings.
- 2014 Salter, Chris and Audry, Sofian. "Towards Probabilistic Worldmaking: Xenakis, n-Polytope and the Cybernetic Path to Chaos", in *Worldmaking as Techné: Exploring Worlds of Participatory Art, Architecture, and Music*. de Campo, A., Hosale, M., Murrani, S. (Eds). Riverside Architectural Press, Toronto, Canada.
- 2010 Audry, Sofian (2010). "Absences: Public Art Interventions in Natural Spaces using Autonomous Electronic Devices", ISEA 2010 Conference proceedings, pp. 469–471.  
 Senécal, Jean-Sébastien (2010). Une exploration des processus d'assignation identitaires à travers une expérience interactive. Master thesis, École des Médias, Université du Québec à Montréal, Montréal. 40 pages.
- 2008 Bengio, Yoshua and Senécal, Jean-Sébastien (2008). "Adaptive Importance Sampling to Accelerate Training of a Neural Probabilistic Language Model" *IEEE Transactions on Neural Networks*, Vol. 19, No 4, pp. 713–722.
- 2006 Bengio, Y., Schwenk, H., Senécal, J. S., Morin, F. and Gauvain, J.-L. (2006). "Neural probabilistic language models", *Studies in Fuzziness and Soft Computing*, Vol 194, p. 137-186, Berlin, Germany.
- 2003 Senécal, Jean-Sébastien (2003). Accélérer l'entraînement d'un modèle non-paramétrique de densité non normalisée par échantillonnage aléatoire. Master thesis, Département d'Informatique et de Recherche Opérationnelle, Université de Montréal, Montréal. 91 pages.  
 Bengio, Yoshua and Senécal, Jean-Sébastien (2003). "Quick Training of Probabilistic Neural Nets by Importance Sampling". Ninth International Workshop on Artificial Intelligence and Statistics, Society for Artificial Intelligence and Statistics, Key West, Florida.

## Professional experience

- 2017 **Postdoctoral fellow**, *The Trope Tank, Massachusetts Institute of Technology (MIT)*.  
 Supervisor: Nick Montfort.
- 2004–present **Independent computer artist**, *Self-employed*.
- 2015–present **Research assistant**, *LabXmodal, Concordia University*.  
 Research project on interactional synchrony and the use of real time biometric signals in intelligent environments.
- 2014–2016 **Lecturer**, *Design and Computation Arts Department, Concordia University*.  
 Creative programming I (CART253): beginner programming class for artists and designers using Processing.  
 Creative programming II (CART353): intermediate Processing class focusing on natural system simulation.
- 2014 **Consultant**, *Quebec Center for Media Arts*.  
 Individual mentoring on grant writing for artists.
- 2013 **Teaching assistant**, *Design and Computation Arts Department, Concordia University*.  
 Creative programming I (CART253).
- 2010–2013 **Research assistant**, *LabXmodal, Concordia University*.  
 Research project on the applications of emergence and machine learning for interactive environments (partnership with Moment Factory and GSM).
- 2005–present **Consultant: media and computer art technologies**, *Self-employed*.

- 2005–2006 **Consultant**, *Martine Neddham*.  
Maintenance of net.art works *Mouchette.org* and *DavidStill.org*; development of *Chinese virtual persons on the net* (Turbulence commission).
- 2005–2008 **Consultant: information and communication technologies**, *Koumbit*.  
Founding member of the workers-managed web technologies organization; active member of the following committees: workers, production, finance, human resources, community life.
- 2005–2007 **Research assistant**, *Hexagram, CIAM, Concordia University*.  
Highlights: adaptive intelligence for robotic art (Bill Vorn and Eric Raymond); interactive installation *Radicaux libres* (Jean Dubois and Philippe Jean, 2006).
- 2004 **Programmer analyst**, *ApSTAT Technologies*.
- 2003 **Research intern**, *Institute Dalle Mole for Adaptive and Perceptive Intelligence (IDIAP)*, Martigny, Switzerland.
- 1999–2001 **Teaching assistant**, *Department of Computer Science and Operations Research (DIRO), University of Montreal*.  
Discrete Mathematics (IFT1063), Programming I (in Java) (IFT1010).
- 2000 **Research assistant**, *Machine Learning Laboratory (LISA), University of Montreal*.
- 1999 **Research intern**, *Computer Simulation Laboratory (LISUM), University of Montreal*.

## Affiliations

- Perte de Signal artist-run center**, Montréal, Canada.  
**Quebec Center for Media Arts**, Montréal, Canada.  
**LabXmodal**, *Concordia University*, Montréal, Canada.  
**Center for Sensory Studies**, *Concordia University*, Montréal, Canada.

## Jurys and committees

- 2009–present **President of the Board of Directors**, *Perte de Signal center*, Montréal, Canada.
- 2011–present **Digital arts committee**, *Quebec Center for Media Arts (CQAM)*, Montréal, Canada.
- 2015 **Reviewing committee of the *Emerging Researchers' Symposium***, Re-Create 2015 Media Art History. Montréal, Canada.
- 2014 **Evaluation jury for the *Grants to New Media and Audio Artists: Research and Production Grants program***, *Canada Council for the Arts*, Ottawa, Canada.
- 2012 **Programming committee**, *Festival HTMLles*, Montréal, Canada.
- 2011 **Evaluation jury**, *Galerie Verticale*, Laval, Canada.
- 2010 **Evaluation jury for the *Open Source Residency program***, *Rustines / Lab*, Montréal, Canada.
- 2008 **Evaluation jury for the organizations and independent curators support program**, *Quebec Art Council*, Montréal, Canada.

## Software development

- 2013–present **Head developer**, *MapMap: open source video mapping software*.  
<http://mapmap.info>
- 2010–present **Head developer**, *Qualia: open source software library for agent-based artworks*.  
<http://github.com/sofian/qualia>
- 2004–2012 **Co-developer**, *Drone: open source data-flow software for interactive media*.  
<http://github.com/sofian/drone>
- 2007–present **Developer**, *several libraries and programs for the electronic platform Arduino*.
- 2004–present **Contributor**, *several libraries and frameworks including: Symphony, Drupal, ARToolKit, Torch, Plearn*.

## Skills

areas of expertise	computation art theory and practice, creative programming, physical computing, machine learning, artificial intelligence, artificial life, science and technology studies, mathematics, software engineering
programming	C/C++ (expert), PHP (expert), Java, Javascript, Python, MySQL, OpenGL, Bash, Scheme, Perl, Prolog; HTML, CSS, XML, YML, JSON, $\LaTeX$
tools/libraries	Arduino, Processing, Qt, JQuery, Symfony, Doctrine, Drupal, Wordpress
platforms	Linux, Mac OS, Windows, Arduino, AVR, Raspberry Pi
softwares	PureData, Max/MSP, Final Cut Pro, Kdenlive, Photoshop, Gimp, Illustrator, Inkscape
languages	french (native), english (fluent)
other	strong communication skills; solid background in organizational governance