

Sofian Audry*

Curriculum Vitae

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*aka Jean-Sébastien Senécal

Education

Foundations

- 2017 **Postdoctoral Studies**, *Massachusetts Institute of Technology (MIT)*, Cambridge, USA.
Supervisor: Nick Montfort.
- 2016 **Ph. D. Humanities (Fine Arts)**, *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*.

Professional experience

- 2017 **Assistant Professor**, *New Media, School of Computing and Information Science, University of Maine*.
- 2004–present **Independent new media artist**, *Self-employed*.
- 2015–2017 **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.

- 2013–2014 **Project coordinator**, *Perte de Signal*.
Development and coordination of a series of co-creation residencies in Africa (Tunis, Casablanca, Dakar).
- 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 in new media 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 **Web developer**, *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*.

Exhibitions and performances

- forthcoming **NRW Forum Museum**, *HERE IS WHAT I FOUND ON THE WEB: Artificial Intelligence Today*, Düsseldorf, Germany.
Curators: Tina Sauerlaender and Peggy Schoenegge (peer to space)
- Eastern Bloc**, *10th anniversary show*, Montréal, Canada.
Curators: Eliane Elbogen and Erandy Vergara
- 2018 **MIT Rotch Library**, *Author Function*, Cambridge, Massachusetts.
Curator: Nick Montfort
- TCC Chicago**, *Murmurs and Palpitations*, Chicago, Illinois.
Curators: Chelsea Welch and Iryne Roh
- 2017 **Musée d'Art Contemporain de Montréal**, *In Search of Expo 67*, Montréal, Canada.
Curators: Lesley Johnstone and Monika Kin Gagnon

- Maison de la Culture Rivière-des-Prairies**, *Un million d'horizons (1 x 19 = 1 000 000)*, Montréal, Canada.
- 2016 **Afropixel**, Dakar, Senegal.
Marrakech Biennale, Marrakech, Morocco.
Festival Montréal en Lumière, *Nuit Blanche*, City Hall, Montreal, Canada.
Curator: Eliane Elbogen.
- 2015 **L'Ososphère**, *Jardin d'Hiver*, Strasbourg, France.
- 2015 **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, Stadtbad 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 Michaelson 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.

Publications

2018 Salter, Chris and Audry, Sofian (2018). "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.

2017 Audry, Sofian (2017). "Aesthetics of Adaptive Behaviors in Embodied Agents", Body of Knowledge 2016 Conference proceedings, UCI, Irvine, USA.

Audry, Sofian et al. (2017). "256-Byte Creative Programs" (TROPE-17-02), The Trope Tank, MIT, Cambridge, USA.

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.

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.

Awards and grants

- 2017 **Travel grant (Netherlands)**, *Quebec Art Council*.
- 2016 **Postdoctoral research-creation fellowship**, *Fonds de Recherche du Québec - Société et Culture*.
- Research grant**, *Canada Council for the Arts*.
- Co-production grant**, *Hexagram*.
- 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*.
- Travel grant (Spain)**, *Quebec Art Council*.
- Travel grant (Spain)**, *Canada Council for the Arts*.
- 2011 **Travel grant (Thailand)**, *Quebec Art Council*.
- Travel grant (Spain)**, *Quebec Art Council*.
- 2010 **Research and production grant**, *Canada Council for the Arts*.
- Development grant**, *Quebec Art Council*.
- Doctoral research fellowship**, *FQRSC*.
- Special Entrance Award**, *Concordia University*.
- Travel grant (Germany)**, *Quebec Art Council*.
- Travel grant (Germany)**, *Canada Council for the Arts*.
- 2009 **Travel grant (Germany)**, *Quebec Art Council*.
- Travel grant (Yukon)**, *Canada Council for the Arts*.
- Travel grant (Yukon)**, *Quebec Art Council*.
- 2008 **Production grant**, *Fondation du Maire de Montréal pour la Jeunesse*.
- Residency grant**, *Quebec Art Council*.
- Travel grant (Thailand)**, *Quebec Art Council*.
- Travel grant (Belgium)**, *Quebec Wallonia Brussels Office for Youth*.
- Travel grant (Europe)**, *Quebec Art Council*.
- Travel grant (Europe)**, *Canada Council for the Arts*.
- 2007 **Production grant**, *Canada Council for the Arts*.
- Travel grant (Belgium)**, *Quebec Wallonia Brussels Office for Youth*.
- Travel grant (Norway)**, *Canada Council for the Arts*.

- Travel grant (Netherlands)**, *Centre Interuniversitaire des Arts Médiatiques.*
- Travel grant (Netherlands)**, *Ministry of Education, Recreation and Sports.*
- 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'Ososphère à l'Université de Strasbourg". UTV, November 19, 2015
Baichtal, John. *Building Your Own Drones: A Beginners' Guide to Drones, UAVs, and ROVs.* Que, 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 Fissette, 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.
Garant, Barbara. "Captatio oculi", *Ciel Variable*, No 90, Montréal, Winter 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.

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.

Conferences and workshops

- 2017 **Leonardo/Hexagram/MILIEUX**, *L.A.S.E.R. Montreal*, Concordia University, Montréal, Canada. Round table.
With Roger Malina and Louise Poissant.
Dirty Disciplines, Wild Knowledges, *Remixing Knowledge in Dialogue: Navigating Interdisciplinarity Panel*, Concordia University, Montréal, Canada. Round table.
Eastern Bloc, *Lifelike Embodied Agents : Programming Artificial Behaviors as Art and Craft*, Montreal, Canada. Workshop.
Media Lab Prado, *I Love Free Software*, Madrid, Spain. Conference.
- 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.

Jurys and committees

- 2011–present **Digital arts committee**, *Quebec Center for Media Arts (CQAM)*, Montréal, Canada.
 2009–2017 **President of the Board of Directors**, *Perte de Signal center*, Montréal, Canada.
 2017 **Evaluation jury**, *Boston Festival of Indie Games*, Boston, USA.
 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.

Affiliations

- The Trope Tank**, *Massachusetts Institute of Technology*, Cambridge, USA.
Hexagram, *Concordia University*, Montréal, Canada.
 International Network for Research-Creation in Media Arts, Design, Technology and Digital Cultures
LabXmodal, *Concordia University*, Montréal, Canada.
Center for Sensory Studies, *Concordia University*, Montréal, Canada.
Perte de Signal artist-run center, Montréal, Canada.
Quebec Center for Media Arts, Montréal, Canada.

Software development

- 2013–present **Lead developer**, *MapMap: open source video mapping software*.
<http://mapmap.info>
- 2015–present **Co-developer**, *Plaquette: open source framework for object-oriented physical computing*.
<http://sofapirate.github.io/Plaquette/>
- 2010–2015 **Lead 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: Symfony, Drupal, ARToolKit, Torch, Plearn*.

Skills

- areas of expertise new media art theory and practice, creative programming, physical computing, machine learning, artificial intelligence, artificial life, science and technology studies, mathematics, software engineering
- programming C/C++, PHP, Java, Javascript, Python, MySQL, OpenGL, Bash, Scheme, Perl, Prolog, Assembly, BASIC; 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, Commodore 64
- 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