

# Akil AMIRALY

Research Fellow at Ecole Polytechnique, France

## CONTACT INFORMATION

Ecole Polytechnique : CRG c/o ENSTA, Palaiseau, 91120, France  
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## PERSONAL INFORMATION

Birth: 26/06/1972, Antananarivo, Madagascar  
Residence: Paris, France  
Nationality: French

## TEACHING AND RESEARCH INTEREST

**Topic 1** > Interaction between technologies and human behaviour (diffusion/translation/appropriation process).  
**Topic 2** > Emergence and coexistence of basic services and alternative solutions in developing city (water, energy).  
**Focus** > Basic services in Indian cities (water, energy) and impacts of information systems on users' consumption.  
**Current research** > Leapfrogging services and access to essential utilities in cities of India and East-Africa.  
**Postdoctoral research** > Impacts of the 'payment as per consumption' model on water consumption practices.  
**Doctoral research** > Managerial and societal implications of the diffusion of water-meters in Indian cities.

## POSITION AND AFFILIATION

2018-19 **Visiting Scholar** – Columbia University, Columbia Water Center, Earth Institute, New York.  
2010 - **Research Fellow** – Ecole Polytechnique, Management Research Center, Palaiseau, France.  
2011-15 **Visiting Scholar** – UC Berkeley, School of Information (4 Fall semesters), Berkeley, California.

## EDUCATION

2009 Nov. **PhD, Management** – Ecole Polytechnique, Management Research Center, Paris, France.  
2002 **MPhil, Comparative Study of Development** – EHESS, School of Social Sciences, Paris, France.  
2001 **Lavoisier Research Fellow** – IIMA, Indian Institute of Management, Ahmedabad, India.  
2000 **M.S., Management of International Risks** – HEC, School of Management, Paris, France.  
1999 **M.A., Hindi** – INALCO, National Institute of Oriental Languages and Civilizations, Paris, France.  
1996 **M.A., Language & Management** – University of Cergy-Pontoise, France.

## PROJECTS

Oct. 2018 - **Ecole Polytechnique, Columbia Water Center, Indian Institute of Science**  
June 2019 *Delivery of water by private operators involving the use of IOT and digital market place model*  
Study of the users' consumption practices following water delivery service launch in Bangalore (Karnataka)  
Field Survey: 1 month in Delhi and Bangalore – Visiting stay: 3 months in Columbia Univ. (2019)  
Qualitative Research: Interviews with the users and the implementer of the IOT + mobile wallet system  
Funding: Alliance Program Grant: Trilateral Initiatives on Emerging Regions (Columbia University).  
2013 - 17 **Institute for Sustainable Mobility (ParisTech, Renault), Ecole Polytechnique**  
*Analogy between Water and Electricity consumption and storage practices in urban areas*  
NextVolt 1: Study of the diffusion of solar photovoltaic systems by SELCO in Bangalore (Karnataka)  
NextVolt 2: Study of the impact of information systems on electricity consumption practices  
Field Surveys: 5 months in Bangalore (2014-16)  
Qualitative Research: Interviews with the users and the implementers of the systems  
Funding: Institute for Sustainable Mobility (ParisTech, Renault)  
2011-13 **Ecole Polytechnique, UC-Berkeley School of Information**  
*Complementarities between the main and the alternative Water supply systems in Indian cities*  
Study of the appropriation by the users of the water meters installed by Veolia in Belgaum (Karnataka)  
Field Survey: 3 months in Belgaum (August-Sept 2011, January 2012).  
Qualitative Research: Interviews with the users (n: 50) of the public water supply service.  
Funding: Ecole Polytechnique (Doctoral School, Chair of multicultural management X-HEC)

[Update: February 2019]

- 2005 - 2008 **Veolia Environment Institute**  
*Transposition of Management models and tools between the “North” and the “South.*  
 Study of the installation of the water meter by Veolia Water in Chennai (Tamil Nadu).  
 Focus on the localization process of an imported managerial tool by local stakeholders.  
 Field Survey: 5 months in Delhi, Bangalore and Chennai (February-July 2006).  
 Qualitative Research: Interviews (n: 37) with the users of the public water supply service.  
 Funding: CIFRE Fellowship (French Ministry of Research & Veolia Environment).
- 2001 - 2002 **Indian Institute of Management, Ahmedabad (IIMA)**  
*Complementarities between the main and the alternative Water supply systems in urban areas.*  
 Study of water users’ water consumption practices of the underground water harvesting cisterns.  
 Field Survey: 7 months in Ahmedabad (November 2001-June 2002).  
 Qualitative Research: Interviews (n: 60) with the users of the cistern and the water supply service.  
 Funding: Lavoisier Fellowship (French Ministry of Foreign Affairs & Veolia Water).
- 1999 - 2000 **National Committee of French Foreign Trade Advisors**  
*Differences of Management in trans-national alliances: the case of Indo-French Joint-ventures.*  
 Study of the management of Franco-Indian joint ventures in different sectors.  
 Field Survey: 3 months in Delhi, Mumbai and Bangalore (October-December 1999).  
 Qualitative Research: Interviews with French and Indian top managers and directors (n: 22).  
 Funding: CNCCEF and INALCO Fellowship.

## **PUBLICATIONS**

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### **Articles under review**

- (2019) AMIRALY A., « Du robinet à la citerne, la difficile réappropriation d’un savoir technique ancien », Numéro spécial Savoirs autochtones et développement, n° 83, *Autrepart* (2<sup>nd</sup> revised & resubmit).

### **Articles Published**

- 2018 AMIRALY A, SAWAMURA H., « La fabrique de l’usager éclairé. Le rôle des consommateurs dans la diffusion de systèmes photovoltaïques à Bangalore, le cas SELCO India », in Brice Laurent, Michael Baker, Valérie Beaudouin & Nathalie Raulet Croset [eds] (2018), *Innovation et participation. Approches critiques*. Paris, Presses des Mines, pp. 221-234.
- 2011 AMIRALY A., « Lorsque le compteur d'eau donne la mesure du monde indien », *Le Journal de l'Ecole de Paris du Management*, n° 91, Septembre-Octobre, pp. 31-36.
- 2011 AMIRALY A., KANNIGANTI A., “The glocalization of the water meter in Chennai”, *Field Actions Science Reports*, Vol. 5.

### **Working papers**

- 2017 JONHSON K., AMIRALY A., “Challenges & Opportunities of Infusing Entrepreneurial Methods in Fundamental Science Education: Action Learning at Ecole Polytechnique”, Institut Interdisciplinaire de l’Innovation, Paris, Working paper n° 17-CRG-02, juillet 2017, 15 p.
- 2002 AMIRALY A., PRIME N., SINGH J.P., “Rainwater harvesting, alternative to the water supply in Indian urban areas: The case of Ahmedabad in Gujarat”, Indian Institute of Management, Ahmedabad, Working paper n° 2004-04-01, 69 p.

## Articles in Conference proceedings

- 2018 AMIRALY A., SAWAMURA H., *The role of corporate entrepreneurs in designing off-grid energy service with its users: A case study of SELCO in Bangalore*. Technologies for Development (Tech4Dev), 5<sup>th</sup> Conference, EPFL EcoDev, Ecole polytechnique fédérale de Lausanne, Lausanne, 27-29 June 2018.
- 2017 JOHNSON K., AMIRALY A., *Bringing entrepreneurial methods into the scientific classroom: A case study of Action learning at École polytechnique*, Association Internationale de Management Stratégique (AIMS), 8<sup>èmes</sup> journées du Groupe Thématique Innovation de l'AIMS: "Innovations, Espaces, Territoires", École polytechnique, Palaiseau, 14-15 September 2017.
- 2016 AMIRALY A., PRABHAKAR P., *The water meter, a management tool reconfiguring the sociotechnical context of water consumption practices in an Indian city: the case of Belgaum*, Atelier de recherche « Aborder les problèmes d'environnement comme des situations de gestion », ENGEES, Strasbourg, 12-13 décembre 2016.
- 2016 AMIRALY A., SAWAMURA H., *The central role of the customers in the diffusion of alternative electricity supply solutions in Bangalore: A case study of SELCO bridging its rural developed solution to urban actors*, European Group for Organizational Studies (EGOS), 32<sup>nd</sup> Colloquium, University of Naples Federico II, Napoli, 7-9 July 2016.
- 2015 JOHNSON K., AMIRALY A., *Challenges & opportunities of infusing entrepreneurial methods in fundamental science education: Action learning at École polytechnique*, Proceedings of the 10<sup>th</sup> European Colloquium on Innovation and Entrepreneurship, University of Genoa, Genoa, 17-18 September 2015.
- 2015 SAWAMURA H., AMIRALY A., *Diffusion of alternative electricity supply solution in Bangalore : the emergence of a market for middle-income customers with new aspirations. Case studies of SELCO and BCIL promoting photovoltaic systems*, Proceedings of the 3<sup>rd</sup> International Conference « Micro Perspectives for Decentralized Energy Supply », Universitätsverlag der TU Berlin, Bangalore, 23-25 April 2015.
- 2014 AMIRALY A., PRABHAKAR P., *The impacts of the installation of the water meter in Indian cities*, Society for the Advancement of Socio-Economics (SASE), 26<sup>th</sup> Annual Meeting, Northwestern University and the University of Chicago, Chicago, 10-12 July 2014.
- 2013 AMIRALY A., *The indigenization of the water meter in India, a counterproductive outcome in a water scarce context*, Society for the Study of Social Sciences (4S), 38<sup>th</sup> Annual Meeting, San-Diego, 8-11 October 2013.
- 2012 AMIRALY A., *The Socio-Economical Impacts of the Implementation of Water Metering in Indian Cities*, Society for the Advancement of Socio-Economics (SASE), 24<sup>th</sup> Annual Meeting, Massachusetts Institute of Technology, Sloan School of Management, Cambridge, 28-30 June 2012.
- 2010 AMIRALY A., *The confrontation of the logics of action of public and private stakeholders after the introduction of the water meter*, International Federation of the Scholarly Associations in Management (IFSAM), 10<sup>th</sup> Conference, Conservatoire National des Arts et Métiers, Paris, 8-10 July 2010.
- 2010 AMIRALY A., *The societal impacts of the transposition of the water meter in India*, European Academy of Management (EURAM), 10<sup>th</sup> Conference, Tor Vergata University, Rome, 19-22 May 2010.
- 2010 AMIRALY A., *The "glocalization" of the water-meter in India*, European Group for Organizational Studies (EGOS), 26<sup>th</sup> Colloquium, Universidade Nova de Lisboa, Lisbon, 28 June-3 July 2010.
- 2008 AMIRALY A., *The localization process of the French water meter in India*, European Academy of Management (EURAM), 8<sup>th</sup> Conference, Ljubljana University of Economics, Ljubljana, 14-17 May 2008.
- 2007 AMIRALY A., *The dance of trust and distrust between French and Indian stakeholders in a case of*

*technology transfer: Installation of water meters in Chennai*, 4<sup>th</sup> EIASM Workshop on Trust within and between organizations, Vrije Universiteit, Amsterdam, 24-27 October 2007.

- 2007 AMIRALY A., *The impacts of the introduction of the water meter on trust between French and Indian stakeholders of different organizational cultures in an Indian urban context*, European Group for Organizational Studies (EGOS), 23<sup>rd</sup> Colloquium, Wirtschafts Universität, Vienna, 5-7 July 2007.

### Poster in Conference proceedings

- 2016 AMIRALY A., SAWAMURA H., *The role of the customers in the diffusion of alternative electricity supply solution in Bangalore: A case study of SELCO bringing its rural solution to an urban niche market*”, Proceedings of the 7<sup>th</sup> annual Symposium on Computing for Development, Nairobi, 18-20 November 2016.

### PhD. Thesis

- 2009 AMIRALY A., *Transposition and appropriation of a management tool in the context of globalization: The water meter in India*, PhD. Dissertation, November 2009, Ecole Polytechnique, Paris, 351 pp.

### Communications

- 2011 AMIRALY A., *The impacts of the installation of the water meter in Indian cities*, Indian Institute of Management Ahmedabad, IIMA Research Seminar Series, Ahmedabad, 21<sup>st</sup> of Sept. 2011.
- 2011 AMIRALY A., *Lorsque le compteur d'eau donne la mesure du monde indien*, Seminar « Management et cultures d'entreprises », Ecole de Paris du Management, in partnership with the Fondation Maison des Sciences de l'Homme and the Polytechnique-HEC Chair « Multicultural Management and Company Performance », Paris, 20<sup>th</sup> of March 2011.
- 2005 AMIRALY A., *La réhabilitation des systèmes alternatifs d'approvisionnement en eau dans la vieille ville d'Ahmedabad au Gujarat : les citernes de récupération d'eau de pluie*, Séminaire « Inde médiévale et moderne : textes et contextes », Ecole Pratique des Hautes Etudes, Sorbonne, Paris, 14<sup>th</sup> of December 2005.

### Press Articles

- 2010 AMIRALY A., « Lorsque le compteur d'eau donne la mesure du monde indien », *Livre blanc de l'Observatoire des directions internationales*, Bearing Point-Sciences Po-Les Echos, Dec.2010.
- 2008 AMIRALY A., GODELIER E., « S'implanter à l'étranger : juste une question d'organisation objective et rationnelle ? », *La Tribune*, Série 'Le meilleur de la stratégie et du management', 26<sup>th</sup> of March 2008.
- 2000 AMIRALY A., « Le secret des joint-ventures heureuses », *CCE International*, March 2000.

### TEACHING

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- 2016, Winter **French Institute of Renewable Energies, Rueil-Malmaison, Master in Corporate Responsibility**  
2012, Spring Lecturer - Postgraduate: “The management of public utilities in Indian cities: water supply”.
- 2013, Spring **Ecole Polytechnique**  
2012, Spring Lecturer - Postgraduate: “Initiation to research through a case study: Water meters’ users in India”
- 2010, Fall **Ecole Polytechnique & HEC, Paris, Chair in Multicultural Management**  
Lecturer - Postgraduate: “Methodology of the field survey in the Indian context”.
- 2008, Spring **Sorbonne University, Paris I, Master in Organizations’ Management**  
Teaching Assistant - Postgraduate: “Organisational behaviour and managerial change”.
- 2008, Fall **ESCP Europe, Paris, Specialized Master in International Projects Management**  
2007, Fall Teaching Assistant - Postgraduate: “Management of public utilities in developing countries”.

## STUDENTS' MENTORING

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- **PhD Student**

2016 - SAWAMURA Haruki (Ecole Polytechnique, France), Doctoral student at Ecole Polytechnique. PhD topic: *The potential development of electric mobility system in Indian cities in the next ten years.*

- **Master Students**

2015, Spring SAWAMURA Haruki (University of Tokyo), Research Intern at Ecole Polytechnique. Article writing: *Niche Market Cultivation of Alternative Electricity Supply in Bangalore for Middle-Income Customers with New Aspiration: Case Studies of SELCO and BCIL.*

2014, Spring JOHNSON Karen (MIT, Urban Planning), Research Intern at Ecole Polytechnique. Article writing: *Challenges & Opportunities of Infusing Entrepreneurial Methods in Fundamental Science Education: Action Learning at École Polytechnique.*

2013, Spring PRABHAKAR Prarthana (IIT Kanpur, Economics), Research Intern at Polytechnique. Article writing: *The water meter, an object embodying the transfer of the management model of a French water company in India.*

## FELLOWSHIPS, GRANTS & AWARDS

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2018-2019 **Alliance Program Grant** (Trilateral Initiatives on Emerging Regions) – Columbia University.  
2012-2017 **Research Fellowship** – Paris-Tech & Institute for Sustainable Mobility, France.  
2010-2011 **Postdoctoral Scholarship** – Ecole Polytechnique, France.  
2005-2008 **CIFRE Doctoral Scholarship** – French Ministry of Research & Veolia Environment.  
2001-2002 **EHESS M.Phil Scholarship** – French Ministry of Higher Education and Research  
2002 **Bilateral Scholarship** – French Ministry of Foreign Affairs & Indian Council for Cultural Relations.  
2001 **Vallet Scholarship** – Fondation de France.  
2000 **Lavoisier Research Fellowship** – French Ministry of Foreign Affairs & Veolia Water.  
1999 **INALCO Scholarship** – National Institute of Oriental Languages and Civilizations, France.

## LANGUAGE SKILLS

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<b>French</b>	Fluent
<b>English</b>	Good oral and written skills
<b>Spanish</b>	Good oral and written skills
<b>Hindi</b>	Good oral and written skills
<b>Gujarati</b>	Native

## REFERENCES

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**Professor Eric Godelier** [[eric.godelier@polytechnique.edu](mailto:eric.godelier@polytechnique.edu) +33 1 69 33 32 04]  
Professor of business history at Ecole polytechnique, Palaiseau  
Ecole Polytechnique – 91128 Palaiseau Cédex, France

**Professor Jagdeep Chhokar** [[jchhokar@gmail.com](mailto:jchhokar@gmail.com) +91 999 96 209 44]  
Former Dean of the Indian Institute of Management, Ahmedabad and Professor in international management  
Indian Institute of Management, Ahmedabad, India (retired Professor)

**Professor Hervé Dumez** [[hervé.dumez@normalesup.org](mailto:hervé.dumez@normalesup.org) +33 1 81 87 21 64]  
Director of Research at CNRS-Ecole Polytechnique, and Head of the Management Research Centre  
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