# **Biographical Sketches (NSF format)**



## Jean Vanderdonckt, Ph.D.

Full Professor in Computer Science, Université catholique de Louvain, Louvain School of Management (LSM), Director of Louvain Interaction Laboratory (LILab), Place des Doyens, 1 – B-1348 Louvain-la-Neuve (Belgium) Tel.: +32-10478525 – Mobile: +32-495-218525 - E-mail: jean.vanderdonckt@uclouvain.be

Holder of Belgian Francqui Chair in Computer Science (2020) on Gestural Interaction by VUB: <u>https://wise.vub.ac.be/news/francqui-chair-2020-prof-jean-vanderdonckt</u>

#### a. Professional background

University of Namur, Mathematics, M.Sc., August 1987 University of Namur, Agregation in Superior Teaching, Sciences, Sept. 1987 University of Namur, Computer Science, M.Sc., Sept. 1989 University of Namur, Computer Science, Ph.D., July 1997 Univ. of Lille I, post-doc in computer science, 1998 Stanford University, Dept. of Computer Science, post-doc in computer science, 2000

## b. Appointments

9/1998-: Full Professor with tenure, Univ. catholique de Louvain, Belgium 11/2011-10/2015 : President of Louvain School of Management Research Institute (ILSM) 1/2000-7/2000: Visiting Assistant Professor, Stanford Univ., Dept. of Computer Science, USA 1/1998-7/1998: Assistant Professor, Univ. of Lille I, Dept. of eLearning, France 9/1997-8/1998: Lecturer, Univ. of Namur, Dept. of Computer Science Other invited positions: invited professor at Univ. of Fortaleza (2001), Univ. of Castilla-La Mancha (2005-2007), Univ. Joseph Fourier (2006), Polytechnic Univ. of Valencia (2006-), Univ. of Namur (2013-2014), invited senior researcher at National Institute for Research & Development in Informatics (Bucarest, 2006, 2016), invited professor Univ. Valenciennes (2015), Laboratoire d'Informatique de Grenoble, Univ. Joseph Fourier, Univ. Pierre Mendès-France, Grenoble INP (2016).

#### c. Publications

*i.* 10 selected publications (also see <u>http://www.informatik.uni-trier.de/~ley/pers/hd/v/Vanderdonckt:Jean</u>)

- 1. Vanderdonckt, J., Bouzit, S., Calvary, G., Chêne, D., *Exploring a Design Space of Graphical Adaptive Menus: Normal vs. Small Screens.* ACM Trans. Interact. Intell. Syst. 10(1): 2:1-2:40 (2020)
- Magrofuoco, N., Pérez-Medina, J.L., Roselli, P., Vanderdonckt, J., Villarréal, S., Eliciting Contact-Based and Contactless Gestures With Radar-Based Sensors. IEEE Access 7: 176982-176997 (2019)
- Schipor, O., Vatavu, R.-D., Vanderdonckt, J., Euphoria: A Scalable, event-driven architecture for designing interactions across heterogeneous devices in smart environments. Inf. Softw. Technol. 109: 43-59 (2019)
- Calvary, G., Coutaz, J., Thevenin, D., Limbourg, Q., Bouillon, L., Vanderdonckt, J., A Unifying Reference Framework for Multi-Target User Interfaces, Interacting with Computers, Vol. 15, No. 3, June 2003, pp. 289-308 (the second most frequently paper quoted in this journal with >1100 citations).
- Óscar Sánchez Ramón, Jesús Sánchez Cuadrado, Jesús García Molina, Jean Vanderdonckt, A layout inference algorithm for Graphical User Interfaces. Information & Software Technology, vol. 70, pp. 155-175, 2016.
- 6. Vanderdonckt, J., *Development milestones towards a tool for working with guidelines*, Interacting with Computers, Vol. 12, No. 2, 2000, pp. 81-118
- Coyette, A., Kieffer, S., Vanderdonckt, J., *Multi-fidelity prototyping of user interfaces*, Proc. of IFIP COnf. on Human-Computer Interaction INTERACT'2007, LNCS, Springer, pp. 150-164. Brian Schackel award 2007 for "outstanding contribution to HCI" by IFIP TC13 on HCI
- 8. Kênia Soares Sousa, Jean Vanderdonckt, Brian Henderson-Sellers, Cesar Gonzalez-Perez, *Evaluating a graphical notation for modelling software development methodologies*. J. Vis. Lang. Comput. 23(4): 195-212 (2012)
- Vanderdonckt, J., A MDA-Compliant Environment for Developing User Interfaces of Information Systems, Proc. of 17th Conf. on Advanced Information Systems Engineering CAiSE'05 (Porto, 13-17 June 2005), Lecture Notes in Computer Science, Vol. 3520, Springer-Verlag, Berlin, 2005, pp. 16-31.
- Limbourg, Q., Vanderdonckt, J., Michotte, B., Bouillon, L., USIXML: a Language Supporting Multi-Path Development of User Interfaces, Proc. of 9<sup>th</sup> IFIP Working Conference on Engineering for Human-Computer Interaction jointly with 11th Int. Workshop on Design, Specification, and Verification of Interactive Systems EHCI-DSVIS'2004 (Hamburg, July 11-13, 2004). >560 citations

#### d. Synergistic activities and responsibilities

- President of Louvain School of Management Research Institute (ILSM), that conducts research and development in management sciences (45 faculty members, 57 PhD students): Nov. 2011-Oct. 2015.
- Head of the Louvain Interaction Laboratory (LiLab, ~10 people) since its creation in 1998
- Founding member and Chair of ACM SIGCHI chapter of Belgium (BelCHI), ACM CHI'01 Short paper cochair, ACM CHI'04 Doctoral Consortium co-chair, ACM IUI-CADUI'04 conf. chair, CADUI'06 conf. cochair, Interact'2007 Workshop co-chair, ACM EICS'2009 Doctoral Consortium Chair, IHM'2009 Program Chair, ACM EICS'2010 Conf. Co-Chair, ACM EICS'2013 Doctoral Consortium Co-Chair, ErgoIA2016 and ROCHI'2016 Conf. Co-Chair, IHM'2016 DocCon Co-Chair
- Coordinator of Human-computer interaction (HCI) activities in FP6 SIMILAR network of excellence
- Coordinator of User Interface eXtensible Markup Language UsiXML Consortium (www.usixml.org)
- Scientific coordinator of ITEA2 Project on UsiXML (Call 3)
- Member of the Action COST n°294 «Towards The Maturation of IT Usability Evaluation» (cost294.org)
- Member of the Action COST 092 «TwinTide»
- Keynote speaker at conferences (CAGUI'93, IMIGRA'02, TIMIU'02, Valen'05, CAiSE'05, RUIPIACS'06, ERGO-IA'06, ROCHI'08, Interaccion'2010, SUI'2011, Armenia'2012, IEEE RCIS'2013, IHMIA'2015, Commit2015, Accent2016, ISS2020), Chair of conf. (ACM EICS 2019, 2010, IEEE RCIS 2019, ACM IUI-CADUI'04, DSVIS'96, CADUI'96, TFWWG'00), Prog. Chair (CADUI'96, DSVIS'96, IMH-HCI'01, Tamodia'02, DSVIS'02, DSVIS'04, IHM'09, EICS 2020), Member of Program Committee (CADUI, ACM CHI, ACM CSCW, ACM DIS, DSVIS, ACM ICMI, ICWE, ACM IUI, IFIP Interact, AFIHM IHM, OZCHI, UI4ALL, Tamodia, ACM EICS)
- Expert for Canada Foundation for Innovation, Science Foundation Ireland, Research Council of Norway, Agence Nationale pour la Recherche (ANR, France), EU FP6, EU FP7 (several calls), Switzerland, Germany, Austria (FFH), New Zealand, CNR Italy
- Expert for European Research Council: PE7, Advanced grants (2005-13), Consolidated grants (2015-16)
- Selected related projects including funding source and awarded funding:
  - $\,\circ\,$  CardiAmmonia: software adaptation for multiple medical devices
  - Emerald Cast Assistant: visualization of steel production
  - $_{\odot}$  UsiXML: User Interface eXtensible Markup Language (EU ITEA2).
  - o TrainSim.net: multimodal user interfaces for train drivers ("Logistics in Wallonia", Belgium)
  - o Serenoa: Multidimensional context-aware adaptation of Service Front-ends) project (EU FP7)
  - $_{\odot}\,$  Virtuoso: user interfaces in control processing (MechaTech, Plan Marshall 2.Vert)
  - FEDER eHealth project on eHealth Systems (Belgium)
  - o HUMAN: Model-based Analysis of Human Errors during Aircraft Cockpit System Design (EU FP7)
  - SIMILAR: The European research taskforce creating human-machine interfaces SIMILAR to humanhuman communication (EU, FP6-IST1-2003-507609)
- Member of the Editorial Board: Interacting with Computers (member since 1996 and nominated « Founding editor and member of advisory board » since 2007), Assoc. Editor of ACM Trans. on Intelligent Interactive Systems, KAIS, Advances in Human-Computer Interaction, Journal of Multimodal User Interfaces (of which he is a co-creator and associate editor since 2006), Board member of Journal of Web Engineering, Data and Knowledge Engineering, Universal Access in Information Society, Journal of Human-Computer Studies, Romanian Journal of Human-Computer Interaction, ...
- Reviewer for other selective journals, such as ACM TOSEM, ACM TWeb, Communications of the ACM, IEEE TSE, Journal of Systems and Software, Int. Journal of Human-Computer Interaction,...
- Creator and Co-editor-in-chief of the Springer series of books in Human-Computer Interaction
- Creator and Co-editor-in-chief of the SpringerBriefs in Human-Computer Interaction
- Belgian representative of the ERCIM Working Group SESAMI "Smart Environments and Systems for Ami"
- Member of Belgian Cluster on Information Systems (Prometheus) and network (Alliage network)
- ACM SICGHI member since 1997, ACM Distinguished Member, IEEE Senior Member
- PhD Grants obtained: Fullbright-Hayes recipient (2000), NATO Advanced Research Fellowship (2000), IBM PhD fellowship (2009), 3 fellowships from AlBan European Program
- Awards: ITEA 2013 Research Excellence award, Brian Shackel Award (2007), IBM Belgium Award in Computer Science (1998), ACM CHI'94 Doctoral Consortium (1994), Winterthur prize (1987).
- · Contributor to the following Spin-off companies: Polymedis, Vitality, ErgoFace
- Vice-chair of IFIP WG 13.1 Education in HCI and HCI Curricula
- Observer of IFIP WG 2.7/13/2 User Interface Engineering
- Member of the Arcelor-Mittal chair, tenure holder of the IBM-UCL Chair in Strategic Management
- Editor of Springer Handbook of Human-Computer Interaction (forthcoming, 100 chapters)
- ACM Distinguished Speaker since 2015: <u>https://speakers.acm.org/speakers/vanderdonckt\_5782</u>
- ACM Distinguished Scientist : 2017

### e. Collaborators & Other Affiliations

ii. Graduate Advisor:

*Ph.D. advisor:* François Bodart (University of Namur, Stevens Award 2004, Institutional Stevens Award 2010) *Post-doc advisors:* Alain Derycke (Lille, France, 1998), Angel Puerta (Stanford Univ., USA, 2000)

iii. Supervision of PhD theses, post-doc, and master theses:

- Post-doc completed (12): C. Pribeanu, S. Lepreux, S. Kieffer, M. Winckler, A. Caballero, Vi Tran,...

- Ph.D. theses completed as supervisor (27): A. Bereikdar, F. Beuvens, L. Bouillon, A. Coyette, M. Florins, V. Genaro Motti, J. Gonzalez, J. Guerrero, D. Grolaux, A.-C. Jeandrain, I. Khaddam, D. Kotsalis, L. Lawson, Q. Limbourg, C. Mariage, E. Mbaki, J. Melchior, N. Mezhoudi, D. Nguyen, F. Ruiz, K. Sousa, U. Sangiorgi, A. Stanciulescu, V. Tran, D. Trevisan, G. Vellis, M. Zen. 7 PhD ongoing: N. Burny, K. Kemanji, N. Magrofuoco, M. Ousmer, Q. Sellier, A. Sluÿters, S. Villarreal.

- Diplômes d'Etudes Approfondies: 16

- Master theses supervised: ~250 at UCL, 20 at Univ. of Namur.

- Member of the PhD thesis (most often as rapporteur or chair) of 14 habilitations for Conducting Research (HDR), ~140 PhD theses in many countries (Austria, Australia, Belgium, Canada, Finland, France, Germany, Greece, Italy, Luxembourg, New Zealand, Portugal, Spain, and United Kingdom).

#### f. Publication ranking and impact

- Google Scholar credits us as follows: h-index = 58, i10-index = 219 (219 papers having at least 10 citations), ~13400 citations, among them ~3500 have been produced during the last 5 years. (http://scholar.google.com/citations?user=U-FgGrkAAAAJ&hl=en)
- This is confirmed by Harzing's "Publish or Perish" V7 indexing software (considered as the most reliable indexing software that is independent of any organization): h-index = 58, g-index = 82 (the top 82 papers received together at least 82<sup>2</sup> citations), 295 recognized papers for 12102 citations.
- 3. The HCI Bibliography lists us as the 105<sup>th</sup> most frequent author in HCI with 122 accredited papers (<u>http://www.hcibib.org/authors</u>)
- The DBLP Computer Science Bibliography credits us with 306 official publications ( <u>http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/v/Vanderdonckt:Jean.html</u>)
- 5. The Association for Computing Machinery (ACM) Digital Library credits us with 141 official publications (see <a href="https://dl.acm.org/author">https://dl.acm.org/author</a> page.cfm?id=81100053193 )

To date, Jean Vanderdonckt published 42 journal papers, a book entitled *Ergonomic Guide of user interfaces* [in French] that took 5 years to write 600 pages (this book is the most cited reference in the French-speaking community for usability guidelines), 30 peer-reviewed chapters and about 270 papers in the highest ranked conferences in computer science, all peer-reviewed. He (co-)edited 40 conference proceedings in collaboration with the premier scientific associations in computer science (e.g., ACM, IFIP). He founded the conference series "Computer-Aided Design of User Interfaces", "Tools for Working with Guidelines" and "Task models for user interface design", which later gave rise to ACM EICS in 2009.

He participated as a program committee member, (co-)chair of this committee or (co-)chair of about 200 scientific events with scientific program committee, most of them under the umbrella of scientific associations, such as the Association for Computing Machinery (ACM), from which he received the ACM Service Award for Contributions to ACM three times (2004, 2006, and 2010), IEEE, IFIP, AFIHM,...

Recent awards include:

- Best paper at DMSVIVA'2019
- Best paper at HUCAPP'2019
- Best technical note at ACM EICS'2019
- Honorable paper mention at ACM EICS'2019
- 10-year most influential ACM ICMI'2019 paper award, runner-up
- ACM SIGCHI Award for Contribution to Engineering Interactive Computing Systems (EICS)
- ACM SIGCHI Service Award 2019

## g. Languages

| 3         |          |              |          |          |          |
|-----------|----------|--------------|----------|----------|----------|
| Languages |          | Read         | Listened | Spoken   | Written  |
|           | French   | Mothertongue |          |          |          |
|           | Dutch    | Fluent       | Fluent   | Moderate | Moderate |
|           | English  | Fluent       | Fluent   | Fluent   | Fluent   |
|           | Spanish  | Moderate     | Minimal  |          |          |
|           | Romanian | Fluent       | Fluent   | Moderate | Moderate |