

Curriculum Vitae

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PROFILE

I am a communication scholar who wants to improve the interaction between science and society by studying how science communication works. I love working in interdisciplinary and transdisciplinary projects that bring together experts from different fields, communication scholars, artists and science journalists.

EXPERIENCE

Professor of Science Communication, Leiden University — 2015-present

I lead the department Science Communication & Society with as main research themes *Bridging the gap between experts and laypeople* and *Evaluating science communication*. My group consists of three assistant professors with each their own PhD students and postdocs. We are responsible for the master specialisation *Science Communication and Society* which yearly attracts 40-50 students from different backgrounds.

Coordinator of Dutch National Centre of Expertise on Science & Society — 2022-present

Minister Robbert Dijkgraaf appointed me and Alex Verkade to develop the action plan for the upcoming National Centre of Expertise on Science & Society and to coordinate its launch.

Science journalist, freelance — 2004-present

I write weekly science columns for national paper *De Volkskrant*, write books and create plus host popular-scientific television shows.

Researcher Public Understanding of Science, Leiden University — 2009–2011

Together with Bas Haring I studied the best ways to explain science to a general audience. Our research led to a collection of exemplary science stories.

PhD Student Mathematics, Leiden University — 2005-2010

My thesis was titled *On continued fraction algorithms* and my advisors were Rob Tijdeman and Cor Kraaikamp.

EDUCATION

- * MSc Applied Mathematics, Delft University of Technology, 2005 (with honours)
- * BSc Technical Mathematics, Delft University of Technology, 2004
- * Pre-university education, Maascollege Maassluis, 1998

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REFEREED ARTICLES (SELECTION)

My research can be divided into three main research themes and here you find three recent references per theme. A complete list can be found at ionicasmeets.com. Most research is done in interdisciplinary teams with for instance biologists, geoscientists, journalism scholars, linguists, physicists or statisticians.

I am dedicated to open science, so all of these articles are published open access and we shared our data where that was relevant.

How is science is portrayed in media and culture?

- * Meinsma, A.L., Kristensen, S.W., Reijnierse, W.G., **Smeets, I.** & Cramer, J. (2023). *Is everything quantum 'spooky and weird'? An exploration of popular communication about quantum science and technology in TEDx talks.* Quantum Science and Technology 8 (3), A07. doi: [10.1088/2058-9565/acc968](https://doi.org/10.1088/2058-9565/acc968)
- * Hooykaas, M. J. D., Holierhoek, M. G., Westerveld, J. S., Schilthuizen, M., & **Smeets, I.** (2022). *Animal biodiversity and specificity in children's picture books.* Public Understanding of Science. doi: <https://doi.org/10.1177/09636625221089811>
- * Bossema, F.G., Burger, P., Bratton, L., Challenger, A., Adams, R.C., Sumner, P., Schat, J., Numans, M.E., **Smeets, I.** (2019). *Expert quotes and exaggeration in health news: a retrospective quantitative content analysis.* Wellcome Open Res 4, 56. doi: [10.12688/wellcomeopenres.15147.1](https://doi.org/10.12688/wellcomeopenres.15147.1)

How do experts and laypeople differ in how they interpret scientific information?

- * Willems, S.J.W., Albers, C.J., & **Smeets, I.** (2020). *Variability in the interpretation of probability phrases used in Dutch news articles—a risk for miscommunication.* Journal of Science Communication, 19(2), A03. doi: [10.22323/2.19020203](https://doi.org/10.22323/2.19020203)
- * Hooykaas, M. J., Schilthuizen, M., Aten, C., Hemelaar, E. M., Albers, C. J., & **Smeets, I.** (2019). *Identification skills in biodiversity professionals and laypeople: A gap in species literacy.* Biological Conservation, 238, doi: [10.1016/j.biocon.2019.108202](https://doi.org/10.1016/j.biocon.2019.108202)
- * Venhuizen, G. J., Hut, R., Albers, C., Stoof, C. R., & **Smeets, I.** (2019). *Flooded by jargon: How the interpretation of water-related terms differs between hydrology experts and the general audience.* Hydrology and Earth System Sciences Discussions, 23(1), 393-403. doi: [10.5194/hess-2018-297](https://doi.org/10.5194/hess-2018-297)

How can we bridge the gap between experts and laypeople?

- * Lungu, D.A., Røislien, J., Berg, S.H., **Smeets, I.**, Shortt, M.T., Thune, H. & Brønnick, K.K. (2023). *Assessing the Effect of Nonvisual Information Factors in Pandemic-Related Video Communication: Randomized Controlled Between-Subjects Experiment.* J Med Internet Res 2023;25:e42528. doi: [10.2196/42528](https://doi.org/10.2196/42528)
- * Wijnker, W., **Smeets, I.**, Burger, P., & Willems, S. (2022). *Debunking strategies for misleading bar charts.* JCOM 21 (07), A07. doi: [10.22323/2.21070207](https://doi.org/10.22323/2.21070207)
- * Cheplygina, V., Hermans, E., Albers, C., Bielszyk, N., & **Smeets, I.** (2020). *Ten simple rules for getting started on Twitter as a scientist.* PLOS Computational Biology, 16(2). doi: [10.1371/journal.pcbi.1007513](https://doi.org/10.1371/journal.pcbi.1007513)

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BOOKS (SELECTION)

- * Vendel, E. van de, Goede, F. de & **Smeets, I.** *Rekenen voor je leven*, Uitgeverij Nieuwezijds (2021) - translated into French, Korean and Serbian, with Chinese German, and Spanish translations in production.
- * **Smeets, I.** *Superlogisch*, Uitgeverij Nieuwezijds (2020).
- * **Smeets, I.** *Het exacte verhaal - wetenschapscommunicatie voor bèta's*. Uitgeverij Nieuwezijds (2014).
- * Daems, J. & **Smeets, I.** *Ik was altijd heel slecht in wiskunde*. Uitgeverij Nieuwezijds (2011) Translated as *Mit den Mathemädeln durch die Welt*. Springer Spectrum (2016).

GRANTS AND AWARDS (SELECTION)

Scholarship/Grant/ Prize Formal applicant	Year of award
LUF Lustrum Subsidy <i>Using factchecks to combat misleading graphs</i>	2020
NWA Startimpuls <i>Zwaartekracht - een nieuwe ontdekkingsreis</i> .	2017
LUF- Gratama <i>Pilot study into jargon</i>	2017
Platform Bètatechniek <i>Wiskundemeisjes</i>	2008
Scholarship/Grant/Prize Formal co-applicant	
Quantum Grow Fund	2020
APELAFICO <i>A study into the effects of construction and operation of wind farms</i>	2020
COVCOM <i>Fighting a pandemic through translating science</i>	2020
NWA Startimpuls Quantum/Nano	2017
Personal awards	
Iris Penning for excellent science communication	2023
Zilveren Griffel, Bronzen Penseel and Leesjury for <i>Rekenen voor je Leven</i>	2022
Dutch bloggies for best theme-blog and best-written blog	2007

TEACHING (SELECTION)

- * Since 2023: coordinating the block *Science 2.0* for Pre-University College
- * Since 2015: teaching the 4EC course *Research in Science Communication* in the master specialisation Science Communication and Society
- * I supervised over 20 master theses and various smaller student projects.

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MEDIA (SELECTION)

- * Since 2007 I have been creating and hosting television shows on mathematics and science such as school television, *Eureka* and the *National Science Quiz*.

I believe it is important that scientists are visible in the public debate, which is why I am a regular guest in podcasts plus radio and tv programs. Some of the highlights include announcing the Iris Penning in the popular late night satirical news show *De Avondshow met Arjen Lubach* and becoming the character Pionica Smeets in *Donald Duck*.

COMMITTEE WORK (SELECTION)

- * 2022: Organising the Gala of Science and Society together with New Scientist NL as part of Leiden European City of Science.
- * 2022: Member of the review committee for the Science Communication Cubed call from the Volkswagen Stiftung
- * 2020: Head of the jury for The Libris Literature Award.
- * Since 2018: Supervisory board of science museum Boerhaave - European Museum of the Year 2019
- * Since 2018: Chair of the division Science Communication at the Netherlands-Flanders Communication Association
- * 2017 -2020 Head of communication advisory board for Statistics Netherlands (CBS)

INVITED TALKS (SELECTION)

In my talks I aim for a good mix between expert talks on the science of science communication and popular-scientific lectures for audiences that do not easily get in touch with science. Some of the highlights from the last years include:

- * August 2023: New Scientists Live at the Lowlands Festival.
- * February 2023: Dies Lecture *Why we aren't always convinced by facts* at Leiden University
- * Summer 2022: Nature Marsilius Visiting Professorship for Scientific Communication at Heidelberg University.
- * October 2021: Book tour with Edward van den Vendel for children about mathematics in schools, libraries and book shops.

PERSONAL

I live in Leiden with my partner Han Keijzers, son Tex (2010), daughter Rifka (2015) and cat Maui. I am a proud member of a book club and was a guest DJ at the Best Kept Secret festival. I love visiting islands, spending time with my family and going to the theatre.

PERSONAL INFORMATION

Date of birth: October 8th 1979
Place of birth: Delft, The Netherlands