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Born in 1979 in Modena, Italy
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PROJECT

Excellence and Diversity in Global Scientific Practice

Science is a global phenomenon, with research sites located around the world across highly diverse cultural, technological, and institutional settings. Communication and exchange across these sites is crucial to tackling transnational and cross-cultural challenges, and yet it remains unclear how the diverse characteristics of research environments affect how scientific knowledge produced in them is communicated, evaluated, and used. Philosophers have long discussed the role of theories and models in the creation of scientific knowledge and the significance of nurturing a diversity of theoretical perspectives, styles of reasoning, and ways of doing within the sciences. There is also a growing historical and social scientific literature on how diversity in research environments - defined as the equipment, material resources, and infrastructures available to researchers - affects research practices and thus the content of the knowledge being produced. However, little has been written on the relation between such diversity and the understanding of good science that underpins the many research practices and related institutional expectations. What constitutes good science in different research contexts? What types of knowledge are created by research environments with different characteristics? Should there be global standards for best practice given such diversity, and what would they look like? I plan to address these questions through a historically and ethnographically informed philosophical account of the relation between types and understandings of research environments, the outputs generated in them, and the criteria and procedures by which such outputs are circulated, evaluated, and legitimised. My aim is a broad theorisation of what counts as "best research practice" within globalised networks linking diverse environments, building on my ongoing research on: (1) the philosophy, history, and social studies of data-intensive and open science; (2) the epistemology and history of experimental practices and organisms; and (3) the transnational political economy in which research systems are embedded and its effects on knowledge production and assessment.

Recommended Reading

Leonelli, Sabina. *Data-Centric Biology: A Philosophical Study*. Chicago: Chicago University Press, 2016.
Ankeny, Rachel A., and Sabina Leonelli. *Model Organisms. Elements in the Philosophy of Biology*. Cambridge: Cambridge University Press, 2020. <https://doi.org/10.1017/9781108593014>.
Leonelli, Sabina. "Data Science in Times of Pan(dem)ic." *Harvard Data Science Review* 3, no. 1 (Winter 2021). <https://doi.org/10.1162/99608f92.fbb1bdd6>.

Leonelli, Sabina (Cambridge, MA: MIT Press,2021)

Data science in Times of pan(dem)ic

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1762553481>

Leonelli, Sabina (Cambridge,2020)

Model organisms

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1756671753>

Cambridge elements

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Leonelli, Sabina (Cham,2020)

Data journeys in the sciences

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=169157421X>

Leonelli, Sabina (Milan,2019)

La recherche scientifique à l'ère des big data : cinq façons dont les big data nuisent à la science et comment la sauver

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1768086966>

Ricerca scientifica nell'era dei Big Data

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1768086966>

Leonelli, Sabina (Amsterdam, Jena,2016)

Repertoires : a post-Kuhnian perspective on scientific change and collaborative research

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1764088646>

Leonelli, Sabina (Chicago,2016)

Data-centric biology : a philosophical study

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=856851337>