

Open and FAIR sciences in transdisciplinary education

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The Muscat Declaration on Global Science (2025) advocates "free and open knowledge sharing" and promotes a transformation in the higher education institutional environment by equipping future scientists globally with the necessary transdisciplinary knowledge, tools, and skills to tackle urgent and complex societal and environmental issues." However, there is a challenge in educating open and FAIR (Findable, Accessible, Interoperable, and Reusable) scientific data sharing because the data sharing behavior could vary among the research domains and industries, and it is particularly difficult in transdisciplinary research to bridge different sectors for tackling real-world issues. This paper discusses how to close a gap between open and FAIR science and transdisciplinary research, with special attention to the conceptual framework of ethical, legal, and social issues (ELSI) and distributive justice.

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