

The Multi-faceted nature of SDIs and their assessment

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The proliferation of Spatial Data Infrastructures (SDIs) stimulates the demand for 'stocktaking'. Can we learn from what we are doing? What can be done better? Is there a need for control in SDI development? These and similar questions, in turn, drive evaluation and assessment initiatives of SDI-developments. Doing so, however, is problematic for various reasons. First, evaluation would presume clear objectives for concrete SDI initiatives that are generally lacking though. Moreover, understanding SDI is (still) in its infancy. This may limit assessment initiatives to collaborative learning and scoping (sense making). Finally, SDIs are multi-faceted. These different facets relate to challenges and dilemmas any SDI initiative may face: challenges of exclusion (access denial from the SDI), fragmentation, technocracy (techno-centricity), isolation (from use), and discontinuity (short-livedness). Moreover, different facets of SDIs have profound implications for their assessment because SDIs will inevitably have different meanings for different stakeholders.

The various facets of SDI can be grouped into (at least) three categories regarding to their functionality, situations at risk, and transformational dynamics, respectively. The first category 'functionality of SDIs' relates to different facets that are embodied in concrete SDIs; independent of time and place. The second category of facets can be labeled 'SDI in risk management' and relates to information about objects and situations at risk beyond uncertainty only. Space – as the ultimate content of any SDI – is subjectively conceived of by individuals. Its meaning depends on what it offers, provides or furnishes. Consequently, space is socially constructed. Information about space matters when risk is involved. Therefore, SDI is essentially about risk management. The third category of facets can be labeled 'Beyond SDI' and refers to transformational rather than generational dynamics of SDI. For instance, SDI may lose its distinctiveness and its spatial functionalities become integral part of information infrastructure in general. Moreover, information infrastructures – including SDIs – may become an institutional property of governance beyond the narrow and traditional limits of the state.

These different (categories of) facets suggest not only a multi-faceted view in understanding concrete SDI initiatives but also that it is about a 'moving target'. A framework for assessing (national) SDIs must therefore reflect the evolving learning process and should emphasize discussion and dialogue between practitioners and researchers on the understanding and scoping of SDI. Consequently, the framework itself will be evolving as well. A first step towards such framework will be the collection and interpretation of ethnographic 'narratives' on a wide variety of – carefully selected – initiatives. The above (categories of) facets also suggest the assessment framework to be essentially about risk management and the societal capacity to adapt. Social capital – actor networks and institutionalization – will provide a fruitful perspective to this end.

