

## Studying, Portraying and ASSessing examples of good scientific practice in interdisciplinary work

An explorative study about collaborations of sciences and humanities with particular reference to contributions of design and arts

## Team

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Most of the publications about interdisciplinarity show either a clear tendency towards a programmatic treatment of that issue or a strong preference towards epistemic discussions, especially with regard to differences between "sciences" and "humanities". We can take that observation as an indicator about the predominant trends of research activities that are tackling that subject. Together with this finding we can state that there do exist a hidden lack with regard to methodological revisions and, moreover a noticeable deficit of inquiries about the forms of interdisciplinary research practice (accompanied by an insufficient examination of questions about quality assurance of interdisciplinary projects and how to evaluate funding proposals within that context). Additionally, there is to state a vibrant concern about the question

how to comprise and to make use from artistic and aesthetic types of knowledgeproduction within complexes of interdisciplinary collaboration.

"Studying, Portraying and ASSessing examples of good scientific practice in interdisciplinary work – An explorative study about collaborations of sciences and humanities with particular reference to contributions of design and art (SPASS)" is a research project about research projects that will take up and will work upon these questions.

Granted, it makes little sense to elaborate a research design about interdisciplinary research practice without tackling its programmatic dimension and its epistemic questions. These points are actually intertwined and they cannot be separated neither from methodological issues nor from the forms of realizing interdisciplinary projects. Nevertheless, it is possible to observe all of them as analytically distinct issues and focus our attention on methodological issues und practice-forms without neglecting their intrinsic connections to other components and the whole dynamics of organizing and implementing projects of interdisciplinary research.



Figure 1

In contrary, SPASS will counterbalance the fact that attention was hitherto widely focussed on programmatic and epistemic questions only whereas other, not less important issues have been neglected, like methodological procedures and the forms of collaboration (distribution and integration of labour) among the participating scientific partners, the dynamics of organizational cultures (within of joint projects or interdisciplinary institutions like interfaculty research centres, think tanks or institutes of advanced studies in contrast to that of conventional faculties or institutes), the mediating methods and modes of doing cross disciplinary scientific work, as well as the patterns of the flow of communication and information among distributed sources of knowledge (coherence or fragmentation).

With concern to the projects that will be selected for to be "studied", "portrayed" and "assessed", SPASS has four distinct research foci that are complementary and nested:

1. On the background of the common differentiation of sciences that are operating "disciplinary", "multidisciplinary", "interdisciplinary" and "transdisciplinary" SPASS is principally interested in "inter-" and "transdisciplinary projects" only.



Figure 2

- 2. Moreover, SPASS is essentially interested in such inter- and transdisciplinary projects that are bridging the gap between sciences and humanities (or, respectively, between natural and technological sciences on the one hand and cultural and social sciences on the other).
- 3. Furthermore, SPASS is especially interested in projects that are working on "post-normal science" issues. The subject of inquiry are thus projects that are tackling topics that are highly complex and intrinsically conflictive, that are linked to the solution of societal challenges, that are feeding public or governmental decision-making procedures and delivering expert knowledge and scientific advice to societal actors (governments, parliaments, administrations, private enterprises, trade unions, associations and lobbies, the media, NGOs). In other words: SPASS likes to work on scientific practices that need to transcend both, common "pure" science patterns as well as the "ivory tower" syndrome of the humanities, in so far as working on "post-normal science" issues requires more, namely to follow firm applied science intentions and these are associated with normative judgement and ethical reflection (cf. furthermore conceptual ideas like "mode-two" or "transformational science") [1].
- 4. Last not least, SPASS will pay particular attention to actual and possible contributions of design and arts (or may be as well architecture) within these kinds of projects [2]. And, in order to prevent the risk to be misunderstood here: addressed will be genuine contributions of design and arts "within" processes of interdisciplinary research that are going beyond instrumental functions (like e.g. info-graphics for presenting scientific results or celebrating academic events with arts) [3].



Figure 3



Figure 4

## Recent activities

During and within the context of RSD7, an international conference on Relating Systems Thinking and Design [http://www.rsd7.org/], Turin, October 24-26, 2018, we organized an Open Space on Interdisciplinary Research with the subtitle "Factors stimulating and shaping interdisciplinary research - An explorative inquiry".

Our Opne Space about Interdisciplinary Research offered to all participants of RSD7 an opportunity to make up their minds about Interdisciplinary Research (IDR) and to share their experiences with us (cf. Fig. 1).

In order to provide opportunities to do so we developed together with Matteo Moretti, visual communication expert and information designer of our faculty, an special "Installation to assess the relevance of 24 factors stimulating and shaping interdisciplinary research" (cf. Fig.2) on the one hand with regard to their general importance (cf. Fig. 3) and on the other with concern to their heuristic functions (Fig. 4). Additionally, we invited some participants to share their insights with us in some semi-structured in-depth Interviews about their IDR experiences.

Our first experience with the Open Space format was more than successful and encouraged us to use that methodology in some other conferences that we will select soon.

- [1] Here SPASS needs to cover two contextual varieties: first, projects that are inspired by innovative conceptual ideas, like that of "post-normal science", "mode-two" or "transformative science", and second, projects that are embedded in the framework of "proto-inter-disciplines" like the recently emerging "Sustainability Science" or pretty much established areas like "Technology Assessment", "Risk Research" or "Future Studies".
- [2] This can, on the one hand, be realized with projects that actually include explicit components of arts or design or at least some implicit elements that can be recognized as trials to include artistic competences or design thinking into their general research "design". But, on the other hand, this intention can be followed as well with projects that do not show any observable inclusion of design and art competences. In this case, SPASS will inquire the fact of that "absence" in its interviews and round table discussions (SPASS will, e.g., confront the responsible project "designers" with the suggestion that some ingredients may be missing in their project "architecture" and about advantages that they therefore cannot realize, followed by questions whether they never have had any idea of to include them or why they did not made it and what has hindered them and others more).
- [3] Important to note: Design and Arts cannot be observed as conventional academic disciplines because of their otherness. They are excentric disciplines because they are transcending both, either the objective realism of "natural" sciences as well as the constructive realism of "cultural" sciences. They transgress these paradigms somehow theoretically and obviously in practice in so far as they pick up from sciences and humanities what they observe as worthwhile in order to be used as "ingredients" for cooking their own soup without respecting neither the boundaries of "the" sciences nor that of "the" humanities.