

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Innovative and Informal Space Education (4)

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ABOUT NEW CHALLENGES IN CONNECTING SPACE PEOPLE ACROSS SCIENCE, EXPERTISE  
AND ACTION; CASE STUDY IN EDUCATION AND OUTREACH

**Abstract**

IAF Federation aims at promoting excellence in matters relating to astronautics and space, for all facets of society. Its main approach is to provide a forum for exchanges and more generally to connect people. There are however a number of challenges, mostly due to the segmented nature of traditional approaches. Elements of solutions will be reported, with a special mention of new aspects and examples in Education and Outreach domain.

Segmented Society. Space and astronautics, like other domains, are typically distributed in two major dimensions, science (research) and action (economy). In practice a certain balance is always necessary between them. Of lesser importance, many other dimensions are also worth considering, such as time (from history to prospective visions); private, collective or governmental character; confidentiality versus public disclosure; re. IAF technical committees (e.g. astrophysics, propulsion, communications, security, or education and outreach); and other dimensions yet, as Hall of fame and awards, or legal aspects.

Elements of Solutions. In order to succeed, many ingredients relate to the concept of joining forces and avoiding duplications; additionally, some specific resources remain necessary. Joining forces with efficiency is classically ensured by strong structuring and hierarchies (e.g. members including agencies, national societies and consortia; technical and administrative committees; congress and symposia); by the development of standards; fostering exchanges of COTS; by providing an open and neutral forum; and by developing networks. Resources results from synergies among existing entities; volunteers and sponsors; associations and non-profit organizations.

New aspects. Now changes occur and even seem to accelerate. Consequently adaptations are required. Among changes, the following are particularly significant: communication and productivity increasingly allow for flat structures and holonic networks; hyperlinks and pervasive (google) search techniques develop; novel tools shorten the coordination time of teams (Facebook, Twitter, YouTube, Daily news on the internet); trend is to focus more on core properties (e.g. "science", or "action") but risks increase of gaps appearing, of social material tearing apart, requiring better balanced, new complementary measures; awareness is increasing of the interest of such systemic approaches (interest in a developing role for IAF at world level, and similarly in similar bodies at lower geographical levels; but also increasing necessity of financing and in particular of governmental support, beyond just tax deductible donations)

Case study. Above considerations will be illustrated by examples in the context of Education and Outreach.