

FM14

**IAU's Role in Global Astronomy Outreach - Meeting
the Latest Challenges and Bridging Different
Communities**

FM14: IAU's Role in Global Astronomy Outreach - Meeting the Latest Challenges and Bridging Different Communities

Sze-leung Cheung¹ and William H. Waller²

¹IAU Office for Astronomy Outreach, National Astronomical Observatory of Japan,

²The Galactic Inquirer, 243 Granite St., Rockport, MA, USA

The 2018 IAU General Assembly in Vienna provided an important opportunity for research astronomers and outreach professionals to jointly consider the IAU's role in global astronomy outreach. The organizers goals were to enable and coordinate astronomical outreach for the greatest good worldwide. Participants shared what was already done and discussed what could be done better going forward. Emphasis was placed on the role the IAU could actively play in better coordinating, catalyzing, and supporting global astronomy outreach efforts. As the largest body of professional astronomers in the world, the IAU has a recognized responsibility to be engaging with the public, providing access to astronomical information and widely communicating the science of astronomy (IAU Strategic Plan 2020-2030, p. 4). The structure of this Focus Meeting was designed to address these key points through its four oral sessions on (1) Bridging the Astronomy Research and Outreach Communities Recent Highlights, Emerging Collaborations, Best Practices, and Support Structures, (2) Communicating Astronomy in our Changing World, (3) The IAU National Outreach Contacts (NOC) Network Coordinating and Catalyzing Astronomy Outreach Worldwide, and (4) Outreach Action and Advocacy in the Context of IAU's 2020-2030 Strategic Plan.

Topics

- Developing and Sharing Big Data for Effective Astronomy Outreach
- Promoting Citizen Science Projects in Astronomy
- Brokering Pro-Am Partnerships in Astronomy
- Supporting Research Scientists in Astronomy Outreach
- Key Outcomes of the CAP 2018 Meeting in Fukuoka, Japan
- Effectively Navigating the Media Landscape
- Effectively Coordinating Museums and Planetaria Worldwide
- Supporting the Underserved and Dispossessed
- The IAU National Outreach Contacts (NOC) in East Asia and the Pacific, South Asia and Near East, Africa, Europe, and the Americas.
- Finding Common Purpose and Implementing Coordinated Action
- Addressing Key Aspects of the IAU 2020-2030 Strategic Plan
- Supporting IAU Research Astronomers in their Outreach
- Supporting Amateur Astronomers and other Volunteers in their Outreach
- Developing and Coordinating Astronomy and Information and Resource Dissemination Plans
 - Working with UNESCO, ICSU/ISSC, for More Inclusive Outreach
 - Formulating a Position and Statement on Terrestrial Climate Change and Other Astronomically-related Issues of Societal Concern

In a long day of invited talks, contributed talks, flash talks, panel discussions, and poster presentations, participants in FM 14 shared many success stories, challenges, lessons learned, best practices, and aspirations in our mutual quest to advance astronomy outreach worldwide. The proceedings that have been captured in the book and even in the on-line archive represent but a fraction of all the discussions and deliberations that transpired. Herein, some highlights are presented along with a compilation of potential action items that were recommended by participants for the IAU to pursue.

We outline below some potential actions for the IAU inspired by the speakers.

- From Sylvie Vauclair's talk on "Pro-Am Collaboration in Occitanie, Outreach and Consequences" — The IAU could help to coordinate and promote astro-tourism ventures worldwide.

- From Susanna Kohler's talk on "AAS Nova and Astrobites as Bridges between Astronomy Communities" — The emergent IAU Office of Astronomy Education (OAE) could help to increase student literacy by utilizing these sorts of well-vetted written resources.

- From Joseph Diamond's talk on "The New Age of Big Data Astronomy Digital Assets!" — Could the IAU serve as a clearinghouse of media products, and if so, what platform should it use?

- From the Panel Discussion on "Effectively Navigating the Media Landscape" — Rick Fienberg recommended that the IAU offer media training for its members, including help with translations.

- From the same Panel Discussion — Thiago Goncalves recommended that the IAU help to increase the visibility of Brazilian (and other nations') astronomy and astronomers, but how? Perhaps we could feature in our outreach and other newsletters research by astronomers from all member countries – one country at a time.

- From Mark SubbaRao's talk on "Effectively Coordinating Museums and Planetariums Worldwide" — The IAU, its OAO, OAD, and Commission 2 could work more closely with the IPS to better support and coordinate planetariums around the world.

- Also from Mark SubbaRao's talk — Rick Fienberg recommended that the IAU train scientists in outreach modalities, building on the progress made by the NASA Museum Alliance.

- From the Panel Discussion on "Supporting the Underserved and Dispossessed" Robert Massey recommended that the IAU, its OAO, OAD, and Commission C2 make similar partnerships with social agencies as the RAS for optimal outreach to the underserved.

- From Aswin Sekhar's presentation on "Challenges with Gender, Immigration and Diversity for Astronomers from Developing Countries" — The IAU could act as a nodal agency for engaging with policy makers involved in advancing gender equity, skilled immigration, and inclusive work environments.

- From Akihiko Tomita's presentation on "The 3D Map Astro/Geo Tour with your Fingertips" — The IAU could help to develop and share 3-D maps and other resources for engaging with the visually impaired.

- From Session 3 on "The IAU National Outreach Contacts (NOC) Network – Coordinating and Catalyzing Astronomy Outreach Worldwide" Samir Dhurde recommended that the IAU and OAO do a better job of coordinating activities within specific geographic regions such as South Asia.

- Also in Session 3 — Sze-leung Cheung encouraged the NOCs to find common purpose. They can reach more than 500,000 people, most of whom will be amateurs and members of the general public. About 10 percent will be students in schools. He asked,

how can we work together better for the IAU 100th? We need more support and endorsements. Finally, we need to use the IAU 100th to celebrate engagement in astronomy, not the IAU.

- From the Panel Discussion on “Outreach Action and Advocacy in the Context of IAU’s 2020-2030 Strategic Plan” — Rick Fienberg recommended that just as there are now IAU Ph.D. prizes for all the other divisions, let us make sure that there is a Ph.D. prize for Division C. Subsequent action during the General Assembly made such a prize an emergent reality by engaging the research communities related to Div C closer to the IAU.

- Also from this Panel Discussion — Bill Waller proposed that just as the IAU has weighed in on light pollution, we should seriously consider making a statement on terrestrial climate change. We astronomers have significant expertise on the subject, especially in making interplanetary comparisons (think Venus!).

This one-day Focus Meeting was held 23, August 2018 as part of the IAU XXX General Assembly in Vienna, Austria. Besides the invited and contributed talks, panel discussions occurred in 3 of the 4 oral sessions. In all 4 sessions, there was time allotted for audience participation which was recorded via distributed question sheets and the Slido online utility. Poster presentations were tended during the two coffee breaks and especially after the oral sessions ended. On the Wednesday prior to the Focus Meeting, participants enjoyed an evening reception and tour of the natural history museum in Vienna, where the largest collection of meteorites is curated.

Scientific Organizing Committee

- Sze-leung Cheung (co-chair) Tokyo, Japan
- William H. Waller (co-chair) Rockport, USA
- Lina Canas Tokyo, Japan
- Chenzhou Cui Beijing, China
- Nanjing Samir Dhurde Pune, India
- Richard Tresch Fienberg Watertown, USA
- Andrew Fraknoi Los Altos Hills, USA
- Beatriz Garcia Godoy Cruz, Argentina
- Kevin Govender Cape Town, South Africa
- Thilina Heenatigala Colombo, Sri Lanka
- Oana Sandu Bucharest, Romania
- Mike Simmons Calabasas, USA
- Sylvie Vauclair Toulouse, France

On behalf of the SOC, we would like to thank the IAU for providing this opportunity to shine a light on global astronomy outreach - and the many people who made our Focus Meeting so informative, lively, and forward looking.

Sze-leung Cheung and William H. Waller