

International Astronomical Union (IAU) Directory for World Astronomy Network

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The IAU Office for Astronomy Outreach has devoted intensive means to create and support a global network of public astronomical organizations around the world. The work focuses on bringing established and newly formed astronomy and astronomy-related institutions together, providing communications channels and platforms for disseminating news to the global community and the sharing of best practices and resources among these associations around the world. Museums and science centres play a vital role in the astronomy outreach community globally. So, by establishing the importance that these organizations have for the dissemination of astronomy activities, acting as key participants in IAU various programs, we hereby discuss the implementation process of maintaining this extensive network, the processing and gathering of information about these institutions and the interactions between the IAU outreach office and the active local members of this extensive network.

1. Background

IAU Office for Astronomy Outreach (OAO)

The IAU Office for Astronomy Outreach (OAO) is the IAU's hub for coordinating its public outreach activities around the world. The OAO's aim is to build networks to support and disseminate information to the amateur astronomy and public outreach communities and ultimately to facilitate the public's access to information about our Universe.

IAU Directory for World Astronomy

Understanding the paramount need to create a sustainable global, detailed database of astronomical organizations, the IAU decided to launch the Directory of World Astronomy. The first phase of the Directory was to function as a registration platform for the IAU NameExoWorlds contest, but this is just one of the many planned functions. The Directory for World Astronomy will function as a permanent platform for the global astronomical community, comprising a list of astronomy-related institutions. By registering in the Directory, every organization creates their own user ID to login to the system and enter specific details, maintaining an up-to-date information platform of astronomical organizations. But the Directory scope is much wider as it will function as a platform for the global astronomical community to meet, and act as an information portal for the public to learn about astronomy activities internationally and locally.



Fig. 1 From the different types of organizations we found that 70% are Public Astronomical Organizations (38% being Amateur Astronomer Societies and 21% Planetariums, Science Centres, Museums or Observatories), 8% are Professional Astronomical Bodies (58% being Research Institutes/Universities) and 22% Astronomy-Interested Organizations (28% being High Schools).



Fig. 2 As for the time of data gathering (September 2015) from the IAU Directory for World Astronomy, 665 clubs were registered and approved by the moderating team. They belong to 74 different countries, the top three registered countries being Japan (172), USA (68) and Spain (32).

2. Implementation

The study began by having a comprehensive look at the overall data and different elements of the currently registered organizations on the IAU Directory for World Astronomy. In parallel, an analysis of the social media insights and statistics was also being carried out. The monitored data result from community directed engagement campaigns. These campaigns include globally oriented online initiatives, such as NameExoWorlds and IAU's celebrations of the 2015 International Year of Light - Cosmic Light activities and resources. On social media, the most recent engagement strategy focuses on highlighting the different organizations in the Directory to understand tentatively how the organizations interact and disseminate the shared content. All data is updated monthly, as new organizations register and analyzed as needed.

3. Preliminary Analysis

From the different descriptive elements present in the Directory, we focused on the following: country, type of organization, audience age, language and activities implemented. The first phase of this ongoing study focuses on the geographical distribution and the type of the organizations that registers in the Directory (Fig. 1. & Fig. 2). The focus of this study was the subgroups regarded as Planetariums, Museums, Science Centres and Public Observatories. We found that 93 institutions considered themselves to fall into these categories. The age range of the audience considered by these groups to describe the target for their activities is “All”, further analysis found a slight tendency towards the groups from ages 13 to 18 and 18 to 25, followed by 25 to 35 years old. The results of a “tag analysis”, utilized to understand how the organizations perceive what their main activities are in their own chosen words, provide useful insights for the future Event Calendar that the Directory will incorporate. Within the selected institutions activities such as stargazing, telescope, observation, exhibitions, teacher training and workshops, planetarium shows were the most frequently used to describe their activities. A preference language (English non-speaking countries) analysis reveals that, besides their country’s official language, English is usually used as an additional language.

4. Considerations & Future Work

A next step of our analysis will be to understand in what ways have these communities engaged with the different IAU programs, such as NameExoWorlds and Cosmic Light. To collect this data, we will need to move forward and conduct additional surveys to the community and try to find the level of interest and engagement and what kind of programs were they interested to see in the future. As the Directory moves forward to the next phase, by incorporating a global event calendar, new needs arise as to understand if the community will maintain the level of engagement and the willingness to register their events. In the case of NameExoWorlds, all participating entities had to be registered in the Directory. As the data from the programs starts being collected, we can understand (without any additional data collection) how many of the institutions participated in them. As we try to analyze programs such as Cosmic Light, the results aren’t so straight forward, so additional data needs to be collected. With the Event Calendar implemented we will have access to how many of these activities are related directly to IAU Outreach programs. This way we plan to keep perfecting and adjusting our action plans to better engage and reach the majority of community members.

References

- [1] IAU Directory for World Astronomy, retrieved from <https://directory.iau.org/>
- [2] IAU Office for Astronomy Outreach, retrieved from <http://www.iau.org/public/>
- [3] International Astronomical Union (IAU) -Directory for World Astronomy Network (Poster), IAU XXIX General Assembly, Hawaii, August 2015
- [4] International Astronomical Union (IAU) -Directory for World Astronomy Network (Poster), 29th Meeting on Astronomy Education, Hokkaido, Japan, August 2015