An Agora for Open Science Services and Platforms to support Knowledge Exploitation in the Open Science Cloud

Instituto de Física de Cantabria (IFCA)

ICT Proposers' Day 2016, 26 Sep Bratislava

eInfrastructures and European Open Science Cloud session

Jesús Marco de Lucas

Profesor de Investigación del CSIC

Instituto de Física de Cantabria (IFCA) SANTANDER, SPAIN
CENTRO MIXTO CSIC-UNIVERSIDAD DE CANTABRIA

marco@ifca.unican.es

IF(A
Instituto de Física de Cantabria

Why an Agora for Open Science?

From the experience from many different research projects and initiatives:

Open Science is a key step towards a new way of discovering, sharing and preserving Knowledge

There are three well known key components in the development of Open Science:

1) **Open Access** to research publications, enabling direct access, without any kind of restriction, registration or subscription.

2) **Enhanced Research Data Management**, covering the full data cycle, from planning, acquisition and curation to publication, integration in analysis and preservation.

3) **Advanced e-Infrastructures** enabling the process of large datasets, the mining of scientific databases and literature, as well as the distributed collaboration among researchers at all levels, including the contribution from citizen science.

But, how can we integrate the top, most valuable, layer: Knowledge?

Towards an Agora for Open Science

◈ The Knowledge layer, from an ICT point of view, involves concepts from the semantic field, like ontologies, knowledge bases, linked open data, or cognitive systems.

◈ But the key ingredient is not (yet) ICT-based, it is human based: **experts**

◈ We propose a platform with different services to establish a bridge...

Service 1: Reputation

- We propose a reputation service considering both scientific and innovation/societal impact, implemented using the input from a **social network platform** (that we specifically name "**Agora for Open Science**").

- This service relies on Open Access enabling the identification and access to relevant experts, publications, presentations, datasets, methods, software, infrastructures, and any other services.

Service 2: Agile-oriented Case Studies

- An "Agile-oriented" service for the description of Case Studies, to assure the communication among the different Open Science actors.

- This service will facilitate the setup of multidisciplinary studies and contribute to Knowledge preservation.

Service 3: Training and Education

- An online training and educational platform exploiting the previous services, to consolidate Knowledge preservation

- and at the same time to "exploit our best experiences to induce learning, in all fields" (the best Knowledge Transfer)

Our current work and aims

- We are implementing these ideas in different initiatives where our center is involved, like:
    - the Open Data and Analysis Preservation in the CMS experiment
    - INDIGO-DataCloud Case Studies analysis
    - EGI-LifeWatch Competence Center
    - new master in Data Science oriented to Open Science and Big Data (CSIC/UIMP-University of Cantabria)

- We seek collaboration with initiatives with common objectives and complementary expertise.

THANKS FOR YOUR INTEREST!