# Adoption of BioPortal's Ontology Registry Software: The Emerging OntoPortal Community

John Graybeal, Clement Jonquet, Nicola Fiore, Mark A. Musen

# Adoption of BioPortal's Ontology Registry Software: The Emerging OntoPortal Community

John Graybeal[1], Clement Jonquet[2], Nicola Fiore[3], Mark A. Musen[1]

[1]Center for Biomedical Informatics Research (BMIR), Stanford University,
[2]Laboratory of Informatics, Robotics, and Microelectronics of Montpellier (LIRMM),University of Montpellier, [3] LifeWatch Italy, University of Salento

# OntoPortal Software: Adoption Increasing

*A key BioPortal deliverable has been the Virtual Appliance, which any community can deploy to create their own repository of ontologies and vocabularies. Adoption of the Virtual Appliance has increased significantly, with many developers, operators, and end users adopting and improving the code.*
***We now present this software stack as OntoPortal, and release it as the OntoPortal Virtual Appliance.***

## Public Repositories 4+

NCBO's BioPortal [1] was the original public ontology repository, and has expanded well beyond its biomedical roots, now carrying over 700 public biomedical and other ontologies. LIRMM offers AgroPortal [2] with over 100 public agricultural ontologies, and the SIFR project [3] runs a BioPortal service supporting research in French annotation. The EcoPortal LifeWatch ERIC initiative is deploying a repository for ecology and biodiversity [4]. And at least two other deployments are in exploratory phases.

[1] https://bioportal.bioontology.org
[2] https://agroportal.lirmm.fr
[3] http://sifr.strikingly.com
[4] http://ecoportal.lifewatchitaly.eu

## Active Applications 41

For the first time, version 2.5 of the Virtual Appliance included a software update check, which 'calls home' to see if the deployed software version is current. Based on these check-ins, at least 11 unique deployments of the OntoPortal Virtual Appliance version 2.5 are running. In addition, there are 30 active Amazon Web Service AMIs deployed using the older version 2.4. While we are not sure how many more deployments exist, future releases of the software will enable better tracking.

## Appliance Requests 44

The OntoPortal Virtual Appliance (formerly, BioPortal Virtual Appliance or NCBO Virtual Appliance) has been made available in three forms: a VMWare Virtual Appliance OVF (Open Virtualization Format; an Amazon Web Service AMI (Amazon Machine Instance); and (less formally) the GitHub ncbo project.

We have received 44 requests for the Virtual Appliance in the last 30 months, and know of several users of the GitHub software. We plan to release Version 3.0 of the Virtual Appliance in all formats.

# Announcing:

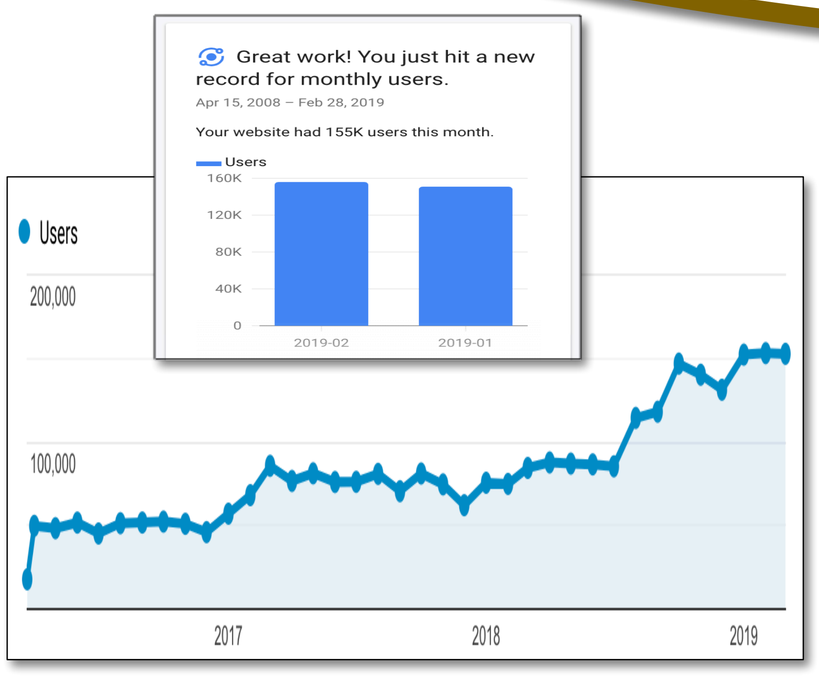
# *The OntoPortal Alliance*

**Goals of the OntoPortal Alliance**
- Maximize OntoPortal value
- Improve OntoPortal software while managing branching
- Increase semantic uptake in science and social research
- Increase the ecosystem's operational and financial health

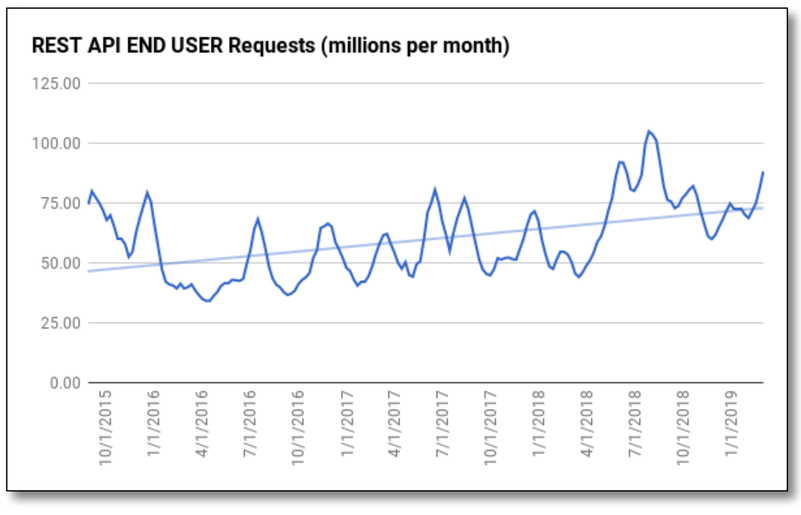
**Initial Strategies of the OntoPortal Alliance**
- Integrate our collected resources
- Identify our mutual goals
- Agree on best approaches for developing the system
- Develop and mature the community

*Core communities that have deployed OntoPortal systems are establishing a collaborative alliance representing OntoPortal adopters and end users, particular those users trying to perform scientific research. The collaborative OntoPortal alliance will continue offering open semantic capabilities in the BioPortal tradition, and provide a focal point for this community's future collaborations.*

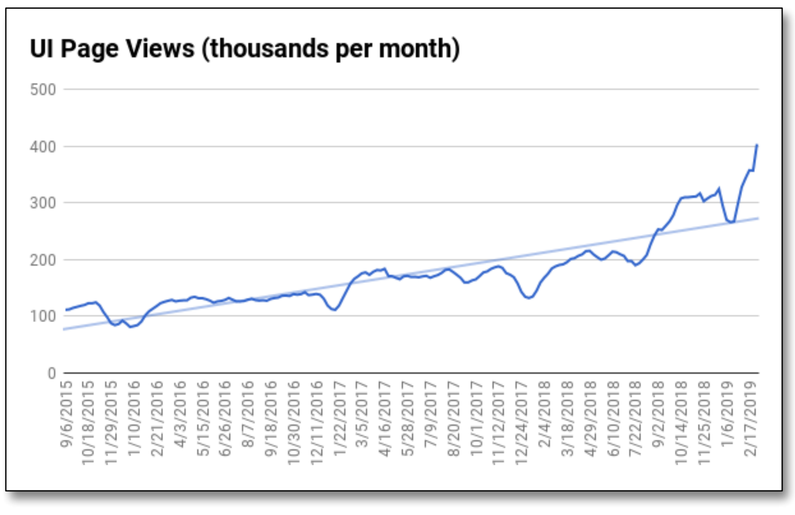
https://www.ontoportal.org




## User Interface Users




## API Requests




## Page Visits

# BioPortal Services: Increasing Use