

# IVOA Standards and Portal Widgets

*IVOA interoperability meeting  
Pune 2011 October 20*



# Generic portals on the web

- Many existing platforms

 Netvibes

 Windows Vista

 iGoogle

 Dashboard

 Opera

 Windows Live

... and more

# Web Portals

- Aggregation of widgets
  - RSS flux readers
  - Search tools
  - ... and much more
- Highly customisable
  - Layout
  - Contents



Welcome to the new iGoogle! [Learn more](#)

## Adam's Home

- Top Stories
- Weather
- Wired Top Stories
- Slashdot
- CNET News.com
- Date & Time
- Digg
- Compound gadget
- Adam Pash the Blog » F
- Custom Skins : Dark Sky
- iRemind
- Lifehacker
- Lifehacker: Hack Attack
- Live TV channels

## Getting Thin...

## NYT

## Chat

Search, Add or Invite

Adam Pash

## Lifehacker

- [Set Your Chat Privacy on a Schedule \[Instant Messaging\]](#)
- [The Power User's Guide to This Web Site \[Reader Guide To Lifehacker\]](#)
- [Locate32 Finds Files Quickly and Reliably \[Featured Windows Download\]](#)

## iRemind

- [Set a reminder](#) [Settings](#)
- [Write up iGoogle](#) May 29 @ 9:00am

[Logout](#)

Provided by [Todoist](#). [Privacy Policy](#)

## Wired Top Stories

- [Rhapsody Moves Music Sales to Online MP3 Format](#)
- [If You Want Windows XP, Better Buy it Today](#)
- [Here's the Lowdown on PS3's Big Firmware Update](#)

## Lifehacker: Hack Attack

- [Turn Your Xbox 360 into a Streaming Netflix Player](#)
- [The History of Firefox 1.0 to 3.0 in Screenshots](#)
- [How to Recover Deleted Files with Free Software](#)

## Weather

### Los Angeles

85°F

Current: Clear

Wind: W at 4 mph

Humidity: 42%



## Top Stories

- [Obama Hits Back at Questions About His Patriotism](#)  
Washington Post - [all 385 related](#) »
- [Prosecutors charge accused USS Cole mastermind](#)  
Reuters - [all 307 related](#) »
- [Why South Africa's Mbeki won't rein in Mugabe](#)  
Christian Science Monitor - [all 5823 related](#) »



## Custom iGoogle Skins : Dark

### Skyline

[Directory](#)[Create](#)[Submit](#)

Off - use iGoogle theme

Denver Broncos by So

Dreams by 秋

Summer by Bonstio

Aquatic by Uday Pyda

Leaf by Bonstio

Dark Skyline by Bonstio

## Local Gas Prices

### Gas Prices For 90027 :

\*\*\*New preferences added July 17, 2007

Here to come soon!!

| Station/Brand                         | Address  | Unleaded            | Plus                |
|---------------------------------------|--|---------------------|---------------------|
| Chevron<br>RETAIL<br>FACILITY<br>#210 | 591 N<br>VERMONT<br>AVE<br>Los Angeles,<br>CA90004 | \$3.039<br>07/18/07 | \$3.139<br>07/18/07 |
| MOBIL<br>FARHAD<br>ARYA               | 888 N<br>WESTERN<br>AVE<br>LOS<br>ANGELES,         | \$3.079<br>07/18/07 | \$3<br>0/0/0        |

## Weather

Los Angeles

## Compound gadget

[Lifehacker](#)[Gmail](#)[Dictionary.com](#)[Word of L...](#)

[Screenshot Tour: Show Us Your Firefox, Part 3](#)

[In Brief: MIT biochemists identified the molecular ...](#)

[In Brief: Lifehacker alum Rick Broida's new book How ...](#)

## Date & Time

|      |          |        |
|------|----------|--------|
| IBM  | 13953.29 | -12.7% |
| COMP | 2750.00  | +0.63  |
| APPL | 104.72   | -2.2%  |
| EBAY | 38.22    | -0.11  |
| GOOG | 577.48   | +6.54  |
| AMZN | 62.10    | -0.26  |

Convert Area

Square Mile  Square Kilometer

= 2.5899881

wilk  
egg  
peanut butter  
apple  
orange

Turns is not open

30 000



HEAVENLY 54°

0° Fall 0° Cold 0° Rain 0° Sunny

67°

| Airline                    | Airline                           | Flight  | Status |
|----------------------------|-----------------------------------|---------|--------|
| Southwest Airlines (288)   | Southwest Airlines                | 27      | Landed |
| Depart City:               | Departs 8:55 AM Arrives 9:11 AM   |         |        |
| SJC - San Jose (Norman)    | Southwest Airlines                | 88      | Landed |
| Arrive City:               | Departs 10:10 AM Arrives 11:10 AM |         |        |
| LAX - Los Angeles (Inland) | Southwest Airlines                | 142     | Landed |
| Depart City:               | Departs 8:17 AM Arrives 9:25 AM   |         |        |
| Southwest Airlines         | 880                               | Enroute |        |
| Depart City:               | Departs 11:42 AM Arrives 12:24 PM |         |        |

Track Flight



Address Book Search

QUARTZ

ALU DRIVE

Dictionary

First Name

City, State or ZIP Code

Thursday

4

October 2001

|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |    |    |    |    |    |    |

Translate from English

apples are great

To Japanese

アップルは素晴らしい

Business Name or Category

NFL's most popular teams

The Dallas Cowboys are known as "America's Team," but are they the most popular? Find out

Look for most popular sports teams

NFL's burning questions

Rankings



News & Hockey

NEWS SCORES

Bumala: A Team Can Dream - Washington Capitals Practice Fundamentals from Opening Night No. 2

Feudly agrees to long-term deal with Toronto

Report: Missing wife of HOFer Eric Tvedt's found

## TOM's page

- [General \(33\)](#) | 
 [Work](#) | 
 [Fun](#) | 
 [Friends](#) | 
 [Games](#) | 
 [Videos](#) | 
 [+](#)

### San Francisco, CA Mon Mar 3 08:21:00 2008

| Monday | Tuesday | Wednesday | Thursday |
|--------|---------|-----------|----------|
|        |         |           |          |
| 9°/18° | 9°/19°  | 9°/18°    | 9°/18°   |

10 Day Weather Forecast

Powered by: The Weather Channel

### Web Search - cooking

[Google](#) | 
 [Yahoo!](#) | 
 [Ask](#) | 
 [Snap](#)

- \* Kitchenware online at **Cooking.com**: Shop
- \* Food Network : Healthy Recipe Collections,

next →

### Photos from everyone tagged colorful



### Gmail : Inbox for Tom (3)

Total unread:

Karoz Navarre - Soirée Electro Kitch

Netvibes Team - Congratulations! You have been upgraded to Netvibes Ginger

me - focus

### (25) NYT > International

## The New York Times

[World](#) | 
 [Business](#) | 
 [National](#) | 
 [Opinion](#)

**Putin Protégé Secures Election Victory** - 3 hours ago  
 His election choreographed by the Kremlin, Dmitri A. Medvedev secured a predictably commanding...

**Israeli Ground Forces Pull Out of Gaza** - 2 hours ago  
 Scores of Palestinians, including many civilians, and two Israeli soldiers were killed during the...

next →

### To Do List

- Invite my colleague on Ginger
- Build my community
- Create my Universe
- New To Do

### (1) Facebook - Tom



- Profile
- Friends
- Networks
- 0 unread messages
- 0 unread pokes
- 0 friend requests
- 1 group invite
- 0 event invites

What are you doing right now?

### MySpace



**TOM**  
[www.myspace.com/t0666](http://www.myspace.com/t0666)

- view my photos
- view my videos
- send a message
- add to friends

[Friends' comments](#) | 
 [Friends \(35\)](#)

**Mariana**  
 Feliz Cumpleaños!!!!

16 oct. 2007 17:21

next →

### (4) CSI



[Full Episodes](#) | 
 [Clips](#) | 
 [Extras](#)



# Applicable to astronomy ?

VOIPortal

[Update Profile](#) | [Logout](#)

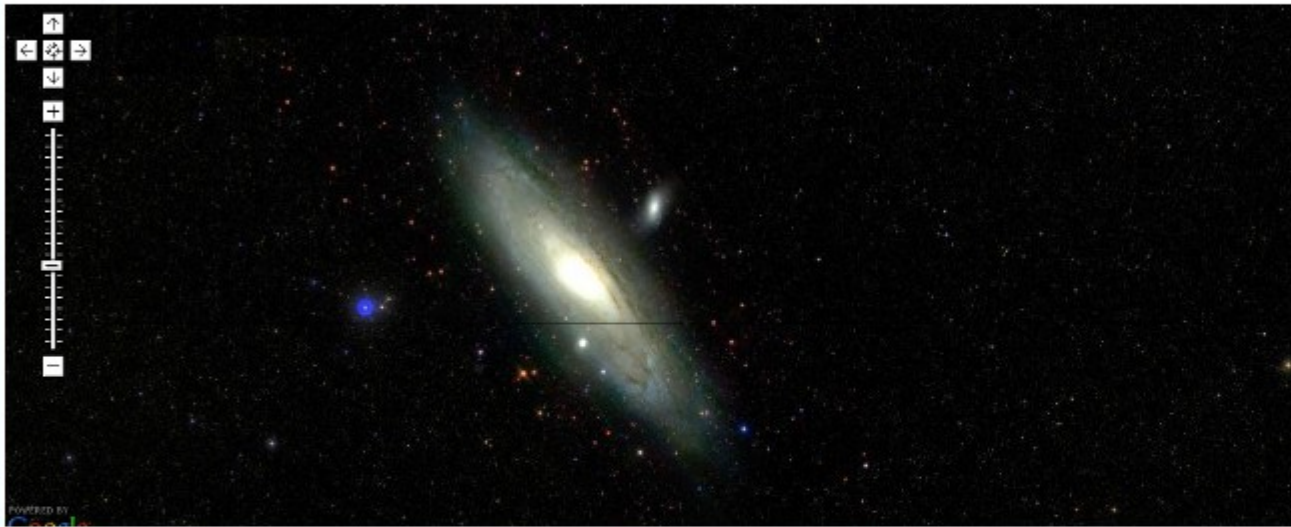
VOIndia Apps [Sample Gadgets](#) × [Perso](#) ×

[Add Gadget](#) [Change Layout](#) [Add NewTab](#)

Google Sky

[toggle close](#)

Pan to



Moon Phase Calendar

[toggle close](#)

October 2011

| Su | Mo | Tu | We | Th | Fr | Sa |
|----|----|----|----|----|----|----|
| 25 | 26 | 27 | 28 | 29 | 30 | 1  |
| 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | 1  | 2  | 3  | 4  | 5  |

Moon: Dark   
Moon: Grey   
Moon: Bright

Object Name Resolver

[toggle close](#)

SIMBAD  NED

ex: M31, NGC3628

Cosmology Calculator

[toggle close](#)

Ho  OmegaM  Z  Omegavac

Choose Universe Type

Open  Flat  General

| Age of Universe (Gyr) | Age at Redshift (Gyr) | Light Travel Time (Gyr) | Comoving Radial Distance |     | Comoving Volume Within Redshift (Gpc <sup>3</sup> ) | Angular Size Distance |     | Scale (kpc/'' <sup>1</sup> ) | Luminosity Distance |     |
|-----------------------|-----------------------|-------------------------|--------------------------|-----|---|-----------------------|-----|------------------------------|---------------------|-----|
|                       |                       |                         | Mpc                      | Gly |   | Mpc                   | Gly |                              | Mpc                 | Gly |

VOI Apps

[toggle close](#)

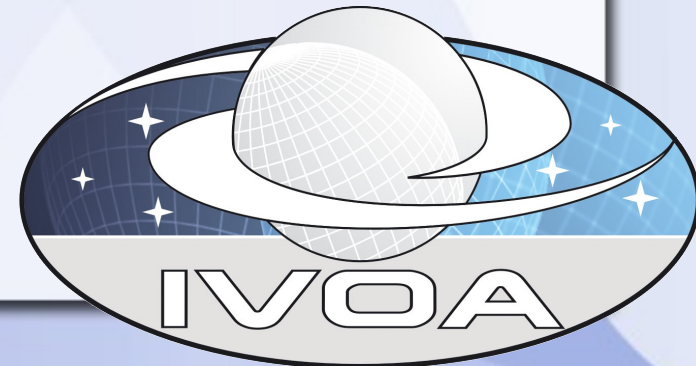
    
  





# What can we do now ?

- The technology is there : UWA (Universal Widget API)
  - Open web standards
  - XHTML/XML
  - JavaScript/AJAX
  - CSS
- Develop once, run everywhere
- **And we have all those IVOA standards !**



**So what ?**

*Develop widgets  
based on IVOA  
standards*



# Example : IVOA Registry

- Build a generic widget for Cone Search
  - one parameter: ivo://resource-id
- Retrieves on-the-fly the VOResource XML and builds dedicated web form in a widget

**ivo://authority/service/ConeSearch**



RA =

DEC =

SR =



## ▼ The SIMBAD astronomical database

[Share](#)[Close Edit](#)

Resource ivo-id:

Widget by **Sebastien Derriere**

Powered by Netvibes

RA =

DEC =

SR =

- First presented in Nara 2010
  - search « IVOA » in Netvibes ecosystem



# Ideas for widgets

- Can be easily generalized to other service types
  - CS, SIA, SSA
- Registry search
- VOEvent stream reader
- Image previewer
  - Aladin with HTML5 ?
- Coordinates conversion
- Monitoring & data discovery
  - IVOAlerts
- ...



# Interaction & collaboration

- How to add messaging capabilities to widgets ?
  - WebSAMP at portal/widget level ?
- Develop, share, re-use

