

The Buzz: Supporting User Tailorability of Awareness Interfaces

James R. Eagan and John T. Stasko

GVU Center

College of Computing

Georgia Institute of Technology

Abundant Access to Info

- News headlines, overflowing email inboxes, Digg, organization charts, friends' photo galleries, class webpages, movie listings, weblogs, ...
- Search: "You can even find * online"



iGoogle

Google Search

I'm Feeling Lucky

[Advanced Search](#)
[Search Preferences](#)
[Language Tools](#)

Home ▾ Add a tab

New! [Select theme](#) | [Add stuff](#) »

Quotes of the Day

People want economy and they will pay any price to get it.
 - [Lee Iacocca](#)

Gmail

Simply Recipes

- + [How to Make Butterscotch](#)
- + [Smoked Salmon and Gruyere Grilled Cheese Sandwich](#)
- + [Pecan Meringue Cookies](#)

Translate

Timer

Stock Market

AAPL	143.01	+2.76	(1.97%)
BBD	27.50	-0.72	(-2.55%)
INFY	36.30	-0.01	(-0.03%)
SKYW	21.12	+0.12	(0.57%)

[BBC News](#) | [News Front Page](#) | [World Edition](#)
NYT > [NYTimes.com Home](#)

- + [Cleric Suspends Shiite Militia's Fight in Basra](#)
- + [Opposition Claims Win in Zimbabwe on Unofficial Tally](#)
- + [French Architect Wins Pritzker Prize](#)
- + [Midwest Region: Kansas Holds Off Davidson in Final Seconds](#)
- + [A Nervous Wall St. Seems Unsure What's Next](#)
- + [China Contends It Has Evidence of Tibet Riot Plot](#)

Top Stories

- [Government to lift Baghdad curfew](#)
 BBC News - [all 3217 related »](#)
- [Courting superdelegates at Dems' state meeting](#)

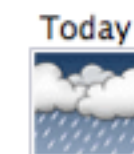
Dictionary.com Word of the Day

[obsequious](#): servilely attentive; fawning.

Weather

Atlanta, GA

46°F
 Cloudy
 Wind: E at 0 mph
 Humidity: 88%



50° | 43°



59° | 54°

Corte Madera, CA

51°F
 Mostly Cloudy
 Wind: NW at 5 mph
 Humidity: 48%



61° | 40°



63° | 43°

Slashdot

- + [Hands-On With the Windows XP-Based Asus Eee PC](#)
- + [Comcast Puts the Screws To HDTV](#)

Dashboards

Finder File Edit View Go Window Help

22:42

Real-time Traffic Map
Atlanta Metro, 10:12 PM Mar-30
Visit us at <http://georgia-navigator.com/>
Copyright © 2008 GDOT. All rights reserved.
Last updated at 10:16 p.m.

John Stasko
work 404-894-5617
mobile 678
home stasko@cc.gatech.edu

temp Picture 21 Picture 19 Picture 12 961 x 680
WIKIPEDIA ? English
update available
Picture 16 sota.html

Translate from English
To Italian

Airline:
Delta Air Lines, Inc.
Depart City: 17:08
ATL - Atlanta (Hartsfield)
Arrive City: 07:50
Rome - Fiumicino Airport
Flight 70 Arriving Term C
← 35 mins early
AIRPLANE LOCATION NOT PROVIDED

H: 51°
Atlanta
L: 44°
46°
SUN MON TUE WED THU FRI
51° 68° 69° 68° 63° 75°

Doppler Radar 600-Mile
Light RAIN Heavy Light MIX/ICE Heavy Light SNOW Heavy
Huntsville Chattanooga Asheville
Greenville
Columbia
Augusta
Birmingham Atlanta Macon
31 Mar 2008 02:20 GMT / 30 Mar 2008 10:20 PM EDT
Refresh Stop 300M

Dictionary flibbertigibbet
flib·ber·ti·gib·bet |'flibərtējibit|
noun
a frivolous, flighty, or excessively talkative person.
ORIGIN late Middle English : probably imitative of idle chatter.

THIS DAY IN HISTORY
March 30
Francisco Goya, Spanish painter, born 1746.
1 of 5
29:59

Cocoa Buzz:
• Improve InfoCanvas visualizers
• Fix multiple databases bindings support.

Tom Jones 2 items

840301871_300ac...8.jpg 492 x 500
208508832_3aa8a...d.jpg 500 x 423

Picture 17 31 x 499
Picture 18 1,308 x 1,024

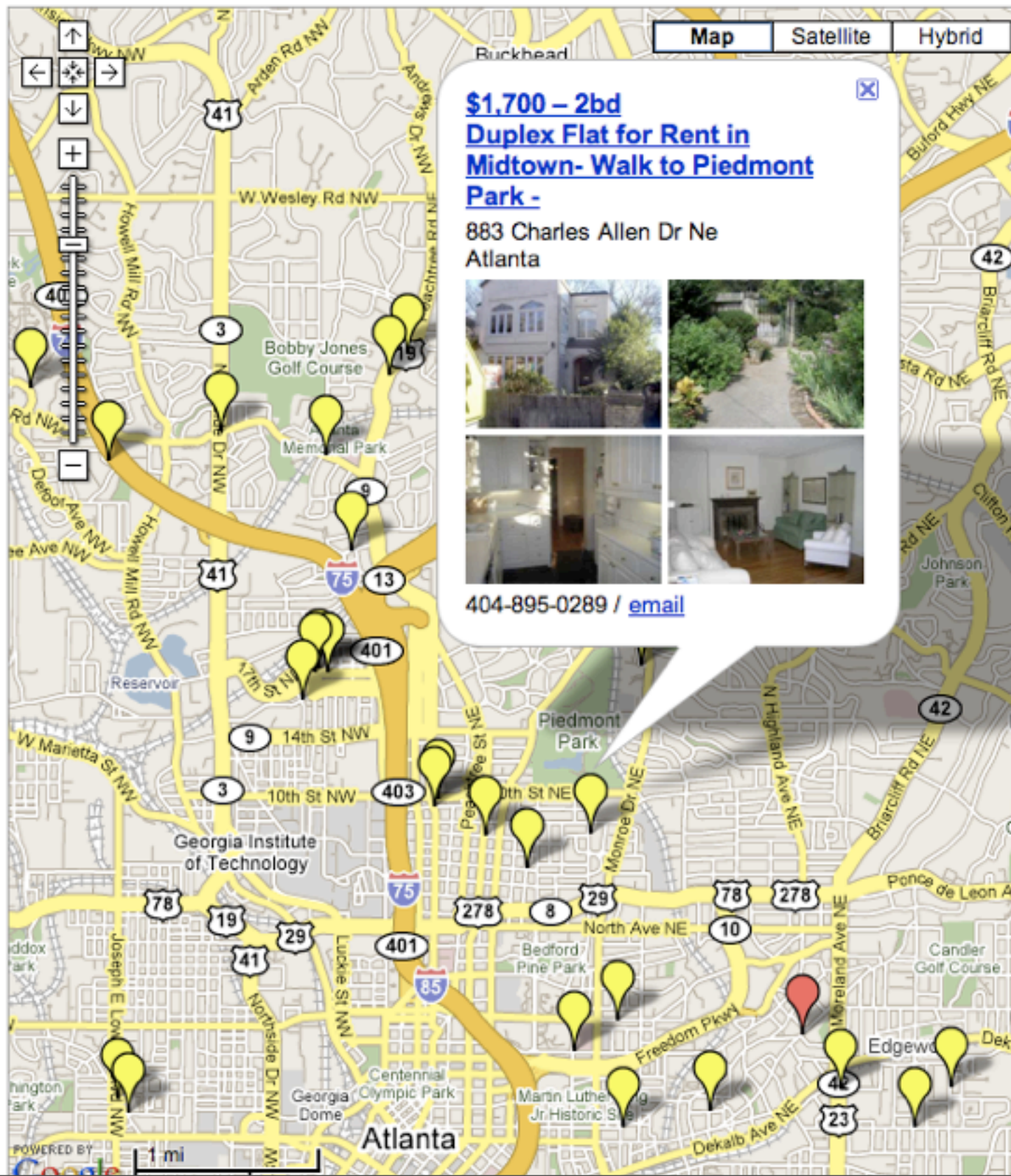
Picture 19 308 x 308
Picture 20 961 x 680

[Apple, Inc] 4

[For Rent](#) [For Sale](#) [Rooms](#) [Sublets](#)

 Powered by [craigslist](#) and [Google Maps](#)
 (this site is in no way affiliated with craigslist or Google)

[About / Feedback](#)

 City: Price: [Show Filters](#) ^{New} [Refresh](#) [Link](#)


pics	price	bd	description	city	date
	\$1650	4bd	Almost New Home 4B/2.5BA For Rent in Alpharetta -	Alpharetta	3/30
	\$1950	4bd	Location .Location .Location. -	Atlanta	3/30
	\$1500	2bd	Nice Home for Masters Week 2008 -	Augusta-Ric	3/30
	\$1800	4bd	Lake View/Excellent School - w/swim & tennis -	Alpharetta	3/30
	\$1500	2bd	AwesomeEdgewood Condo For Lease -	Atlanta	3/30
	\$1600	2bd	Fabulous Townhouse -	Atlanta	3/30
	\$1600	4bd	Beautiful Georgia Home - 3 Levels of Living -	Douglasville	3/30
	\$1650	4bd	Fayette 3,000 sq. feet -	Fayetteville	3/30
	\$1600	5bd	New Grant Park House! 5 Bedrooms And 3 Bedrooms House -	Atlanta	3/30
	\$1795	1bd	Twelve Atlantic Station - Furnished. Reduced -	Atlanta	3/30
	\$1800		4 bed/2.5 bath in Brookhaven -	Atlanta	3/30
	\$1950	2bd	Beautiful Home in Old Fourth Ward -	Atlanta	3/30
	\$2000	2bd	Fabulous Luxury Condo at Plaza Midtown! Don't Miss Out! -	Atlanta	3/30
	\$1500	4bd	Spacious Beautiful Home in Vinings with a fenced backyard! -	Mableton	3/30
	\$2000	1bd	Fully Furnished Fabulous Luxury Condo at Twelve Atlantic Station! -	Atlanta	3/30
	\$1850	4bd	House for Rent in the Heart of Sandy Springs -	Atlanta	3/30
	\$1800	3bd	Rare 3 Bed 2 Bath W/2 Car Garage In Gated Swim Complex - utilities and maid service included -	Atlanta	3/30
	\$1650	1bd	Fayetteville 4/2 Marble Flrs Pool Spring Into This Leas/Purch 209KI -	Fayetteville	3/30
	\$1795	4bd	Gorgeous Townhome -	Roswell	3/29
	\$1500	2bd	2 BR / 2 Bath Condo in Atlantic Station -	Atlanta	3/29
	\$1600	3bd	2.5Bd New Townhome in Lawrenceville -	Lawrenceville	3/29

beta

pipes

New York Times thru Flickr

Layout

Expand All

Collapse All

Back to My Pipes

New

Save a copy

Sources

Fetch CSV

Feed Auto-Discover

Fetch Feed

Fetch Data

Fetch Site Feed

Flickr

Google Base

Item Builder

Yahoo! Local

Yahoo! Search

User Inputs

Operators

Url

String

Date

Location

Number

Favorites

My pipes

Deprecated

Fetch Feed

+

URL

-

www.nytimes.com/services/xml/rss

Content Analysis

For Each: Replace

Replace each item in input feed with

all items

 output from

Flickr

Find

20

images of

item.y:content_an

near

Pipe Output

Debugger: Pipe Output (182 items)

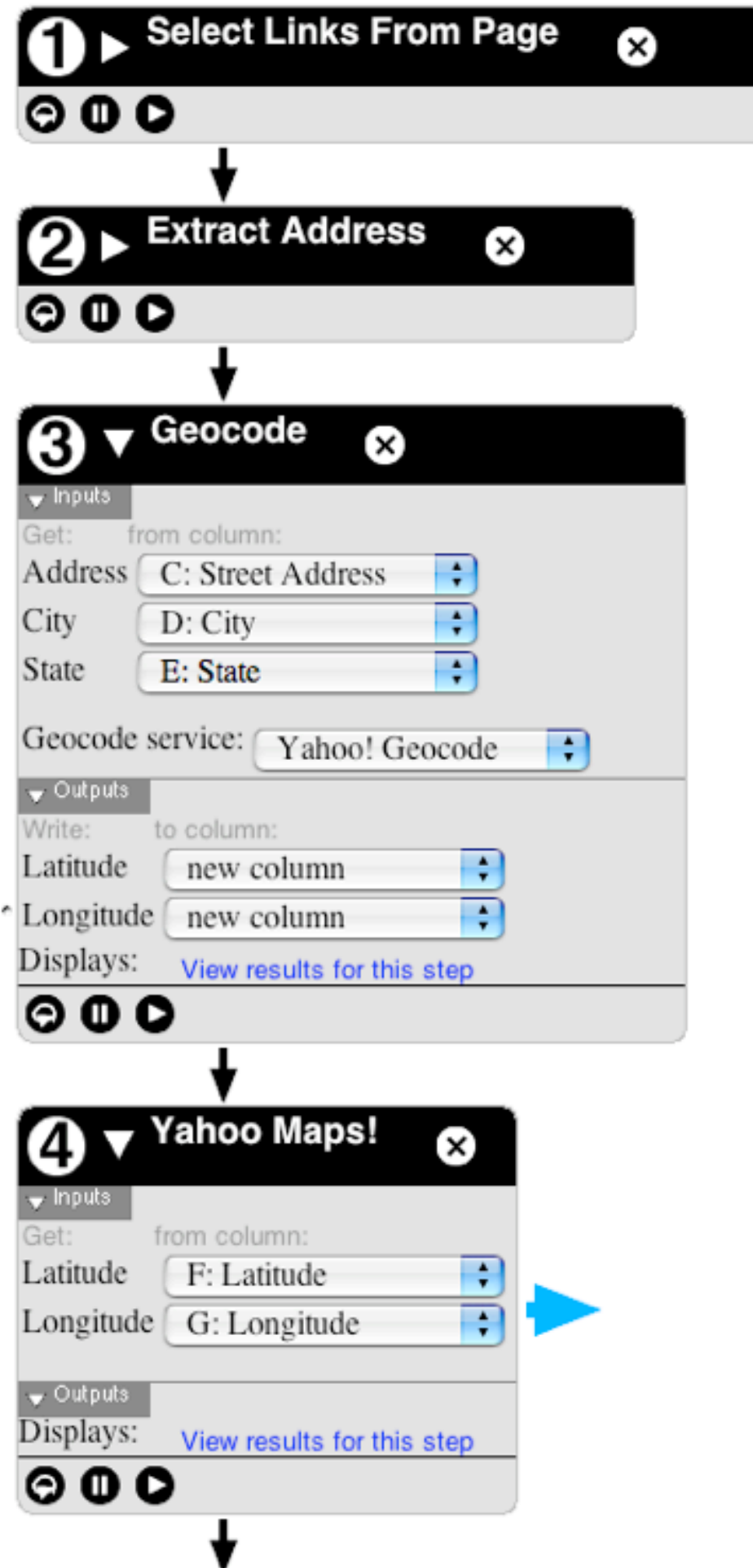
[pipes.yahoo.com]

Operators

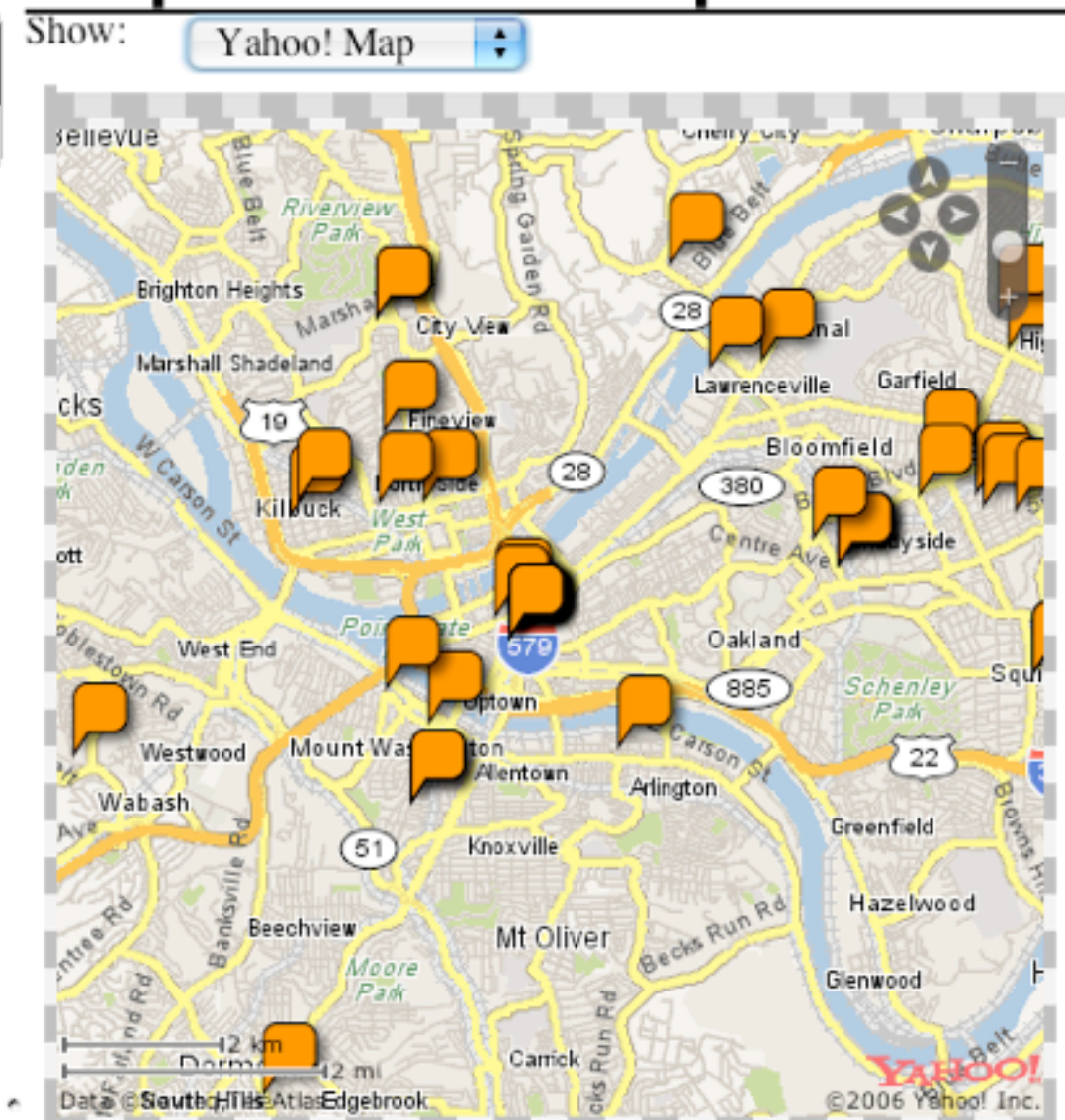
Show:

- Search...
- For Events...
 - on EVDB
 - on Upcoming.org
- From a Web Page...
 - Select Links
- Extract...
 - All Links
 - A Table
- From Each Web Page Extract...
 - A Price
 - A Time
 - A Street Address
- Filter by...
 - Price
 - Date
 - Time
- Convert...
 - to Geocode
- Display on...
 - Yahoo Map
 - Calendar
- Other
 - Add some addresses

Workflow



Step 4: Yahoo Maps!



Customization

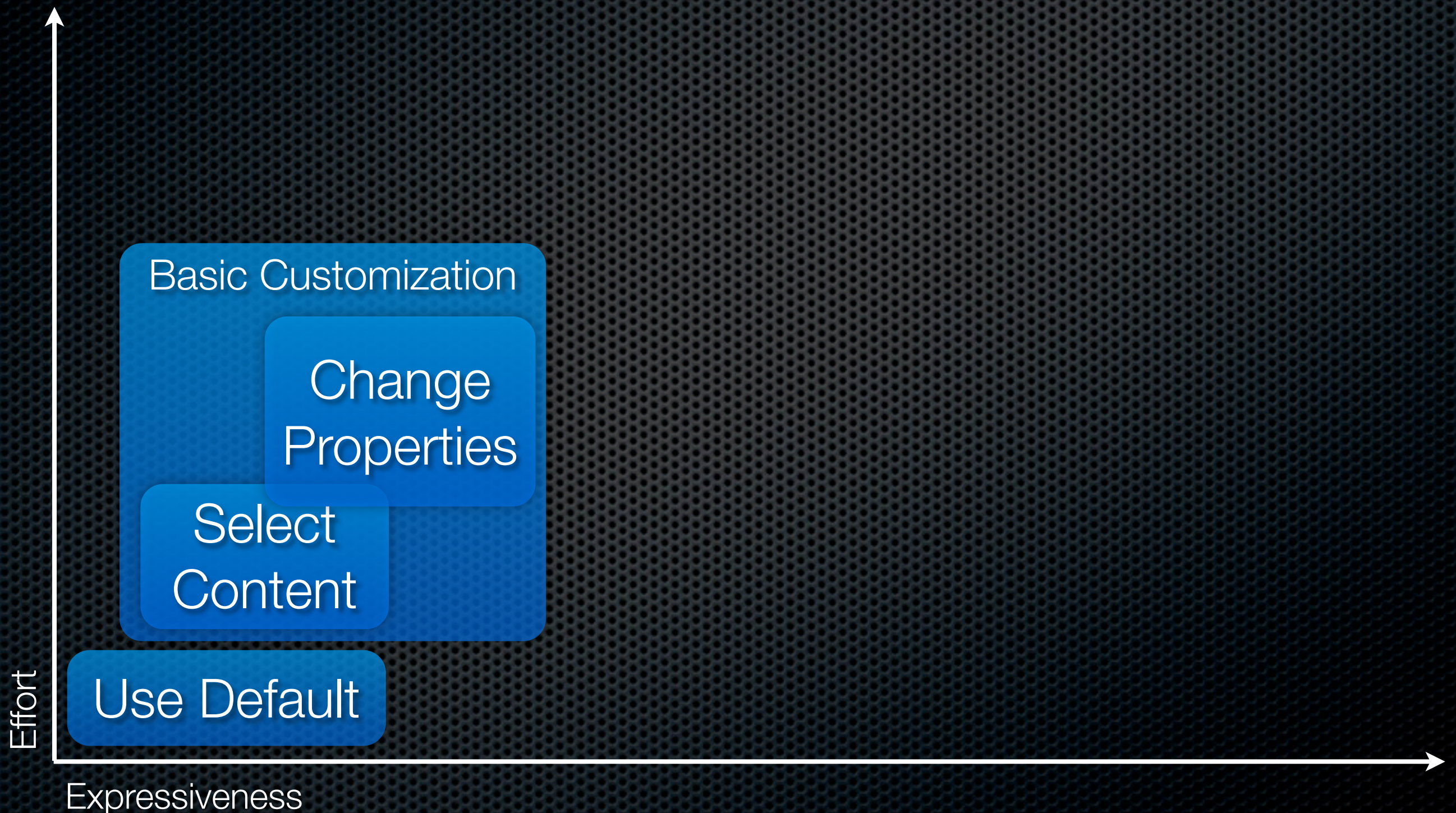
- ✦ Users want personalization
- ✦ Customization is limited
- ✦ Customization is difficult



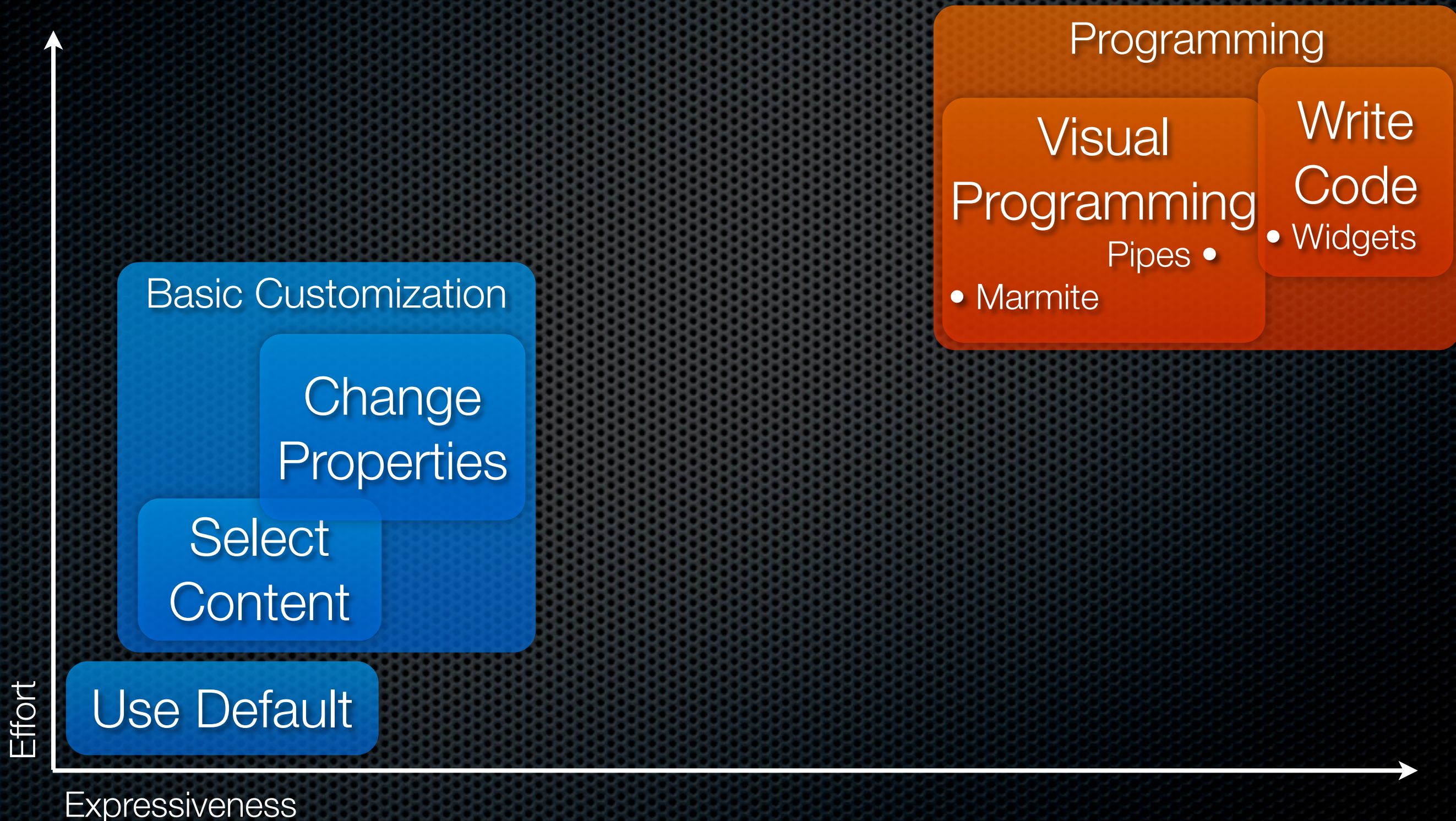
Expressiveness vs Effort



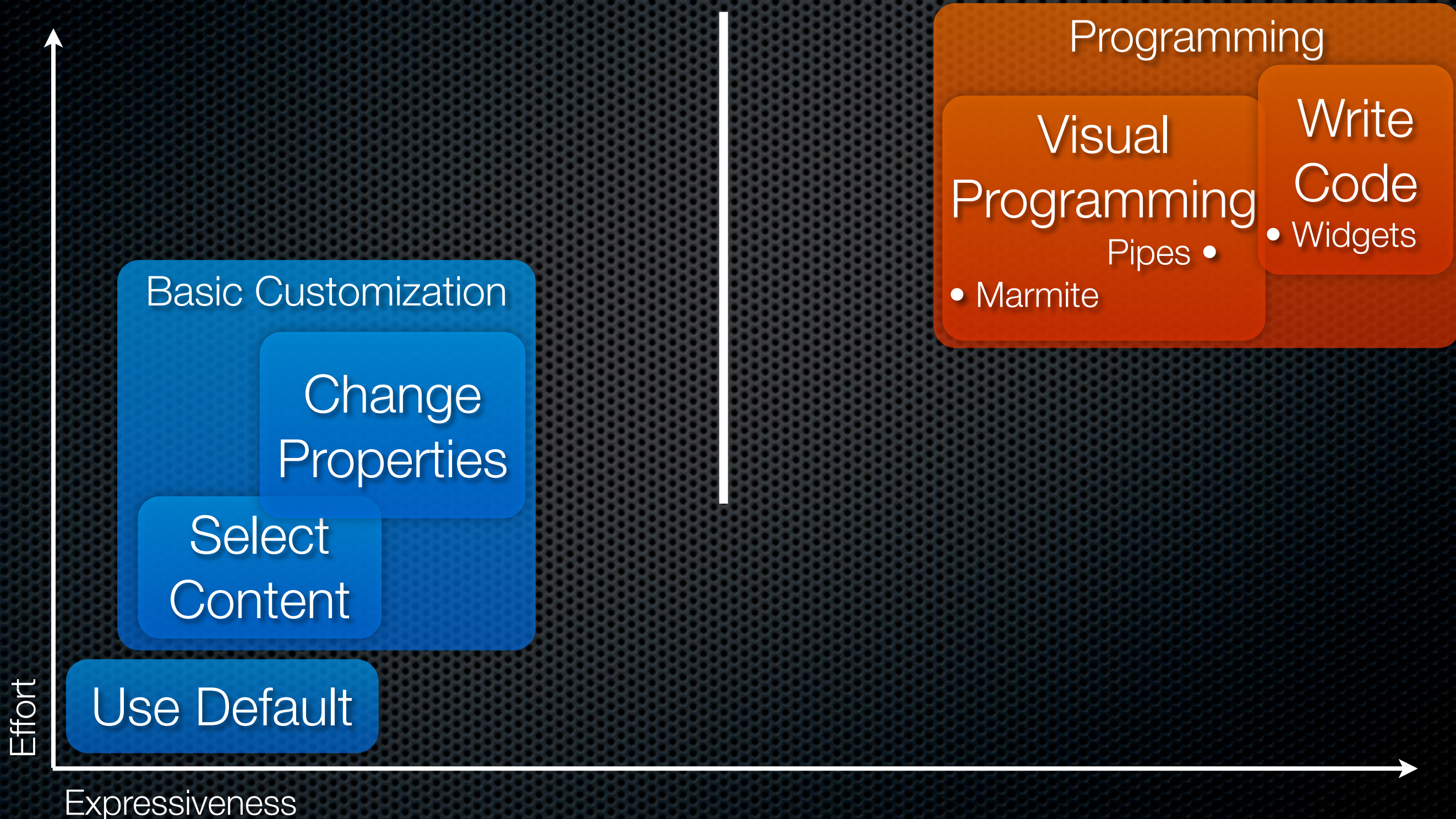
Expressiveness vs Effort



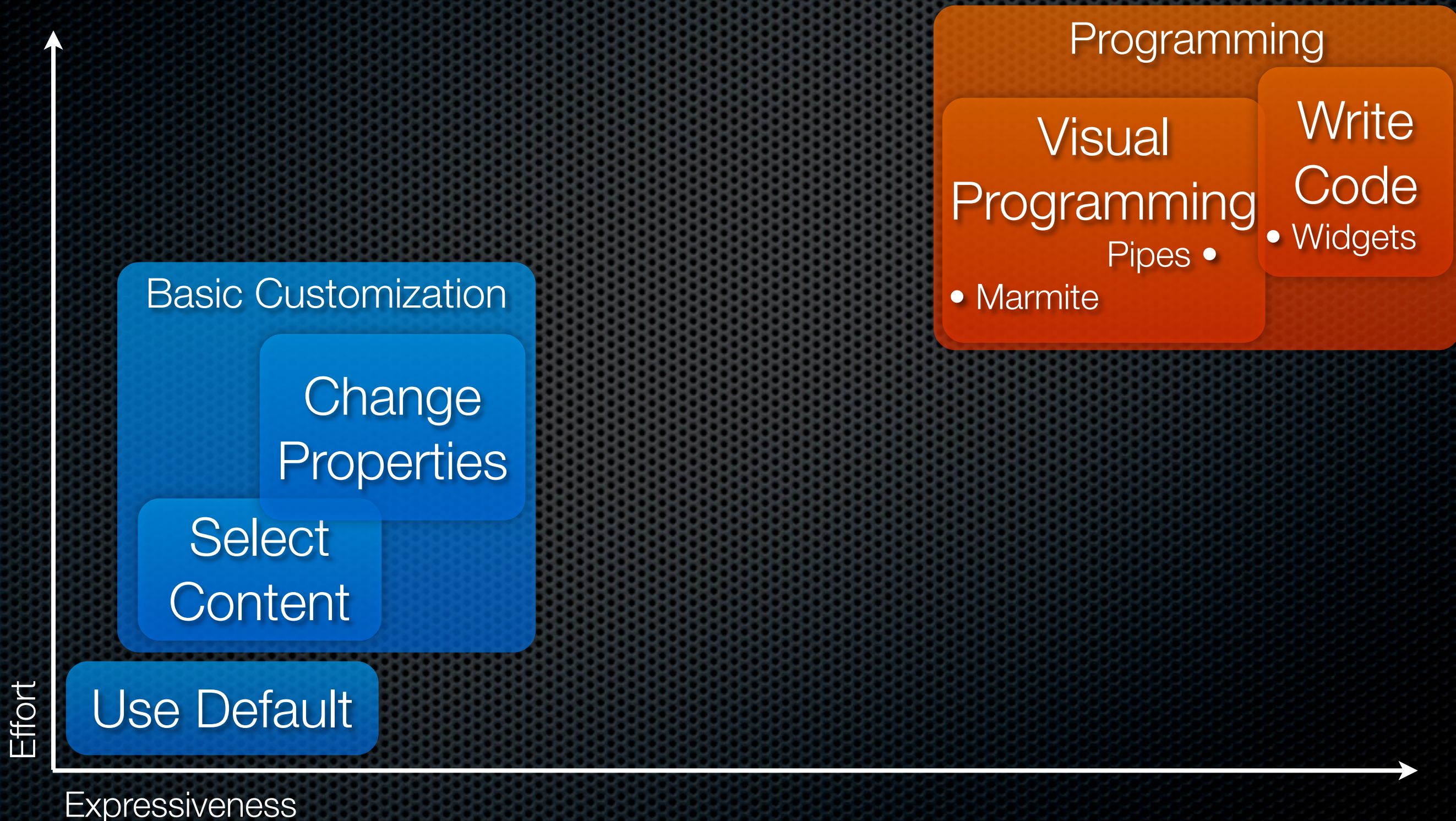
Expressiveness vs Effort



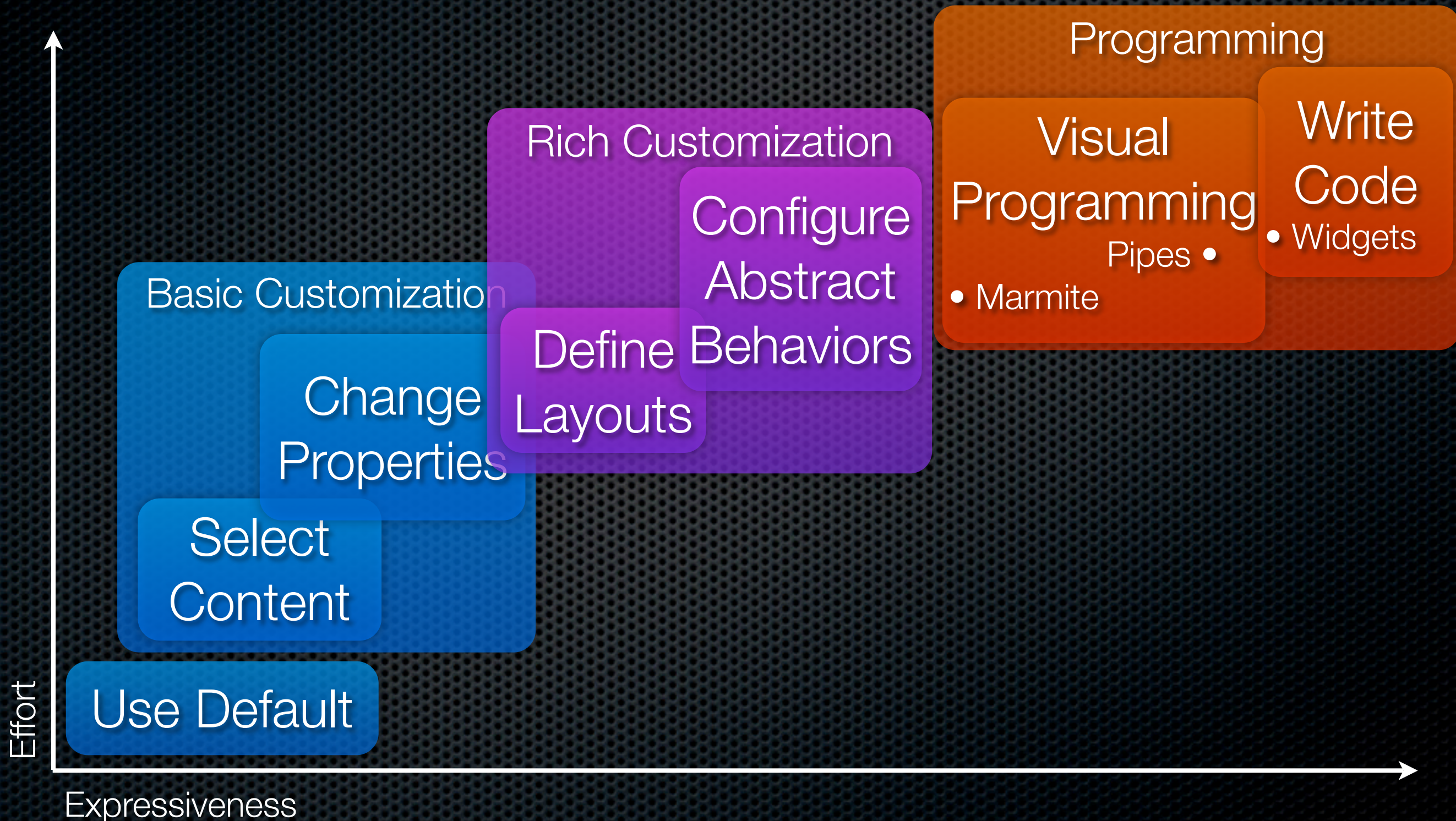
Bicameral Approaches



Rich Customization



Rich Customization









Cocoa Buzz



Cocoa Buzz

Divisive Egypt reforms approved



Controversial changes to Egypt's constitution are approved in a vote boycotted by opposition groups.

Reach out to Israel, Arabs urged



US Secretary of State Condoleezza Rice calls on Arab nations to reach out in peace to Israel.

UK warns Iran over Navy captives

HMS CORNWALL AREA OF OPERATIONS



Efforts to free 15 Britons will enter a new phase if diplomatic moves fail, Tony Blair warns Iran.

Sewage flood causes Gaza deaths



At least four people die as a sewage treatment pool collapses and floods a village in the Gaza Strip.

Atlanta Traffic



30-Mar 6:50PM - Camera is facing South
I-75 S of Windy Hill Rd
©2007 GDOT - <http://Georgia-Navigator.com>

I-75 S of Windy Hill



30-Mar 6:50PM - Camera is facing Southeast
75 N of Chatt River
©2007 GDOT - <http://Georgia-Navigator.com>

I-75 at The River



30-Mar 6:50PM - Camera is facing East
75 at Northside Dr
©2007 GDOT - <http://Georgia-Navigator.com>

I-75 at Northside Dr

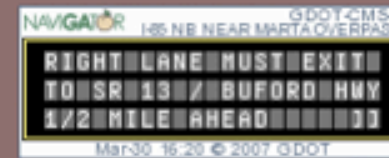


30-Mar 6:54PM - Camera is facing Southwest
85 at Ga 400 Ramps
©2007 GDOT - <http://Georgia-Navigator.com>

I-85S at GA 400



Northside Dr at I-75



I-85N near MARTA Overpass



30-Mar 6:50PM - Camera is facing Southwest
I-85 N of Pleasantdale Rd
©2007 GDOT - <http://Georgia-Navigator.com>

I-85 N of Pleasantdale Rd



30-Mar 6:50PM - Camera is facing South
75/85 N of 10th St
©2007 GDOT - <http://Georgia-Navigator.com>

I-75/85 N of 10th St



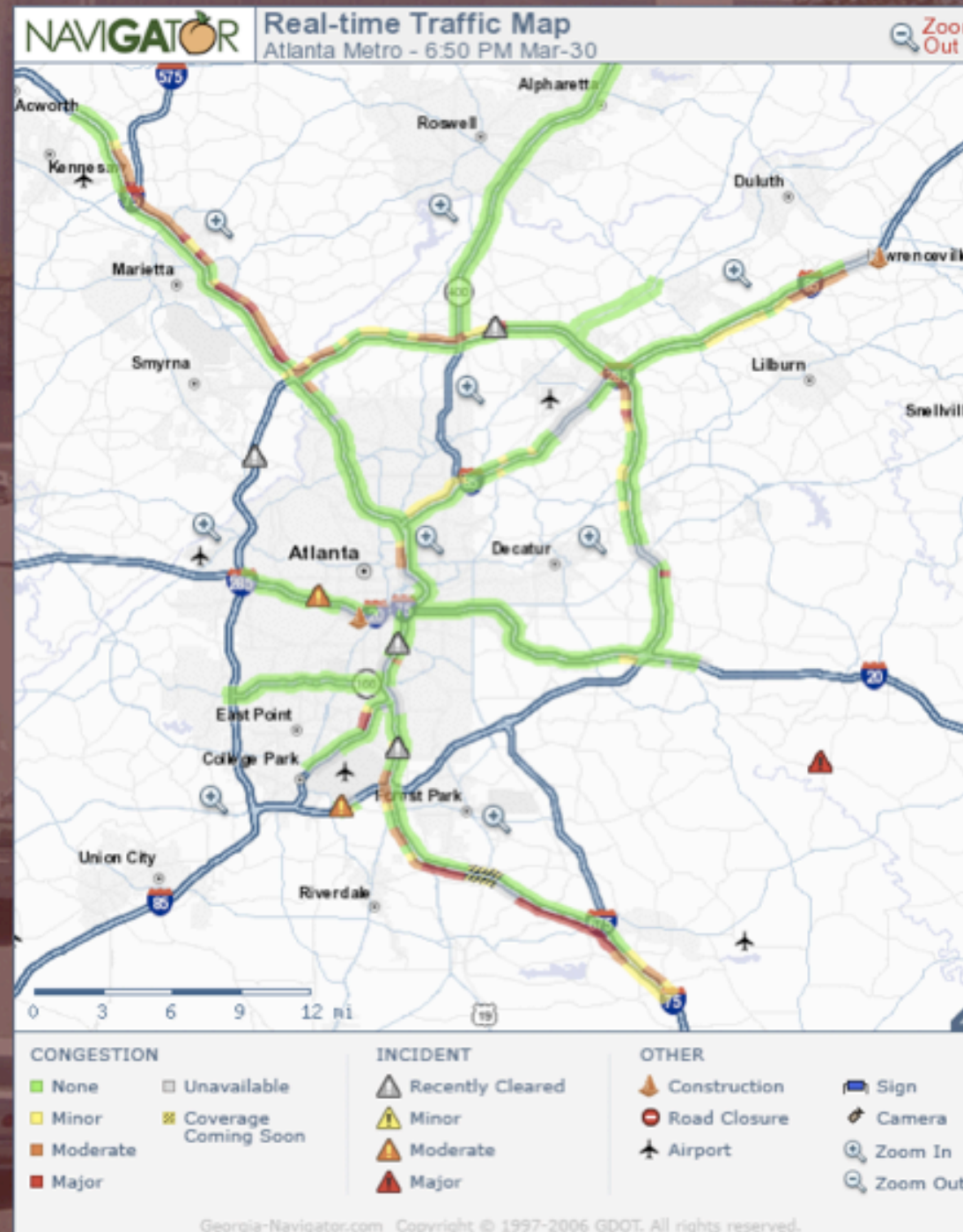
30-Mar 6:54PM - Camera is facing Southwest
75/85 N of North Ave
©2007 GDOT - <http://Georgia-Navigator.com>

I-75/85 N of North Ave



30-Mar 6:50PM
85 N Loop Rd
©2007 GDOT - <http://Georgia-Navigator.com>

I-85 N of Loop Rd



Atlanta

Wachovia Building Implosion



By Hoenikker

Wachovia Building implosion Sep. 30th 2006.

Your Photos Here!

Zach and Barry



By zpousman



By eaganj

Because of a landslide, we had to hike into town along the railroad tracks. When the train would come by, we had to find a place to duck aside to avoid getting squashed by the oncoming train.

Photos tagged [4thebuzz](#) on [flickr.com](#)

Day in Pictures

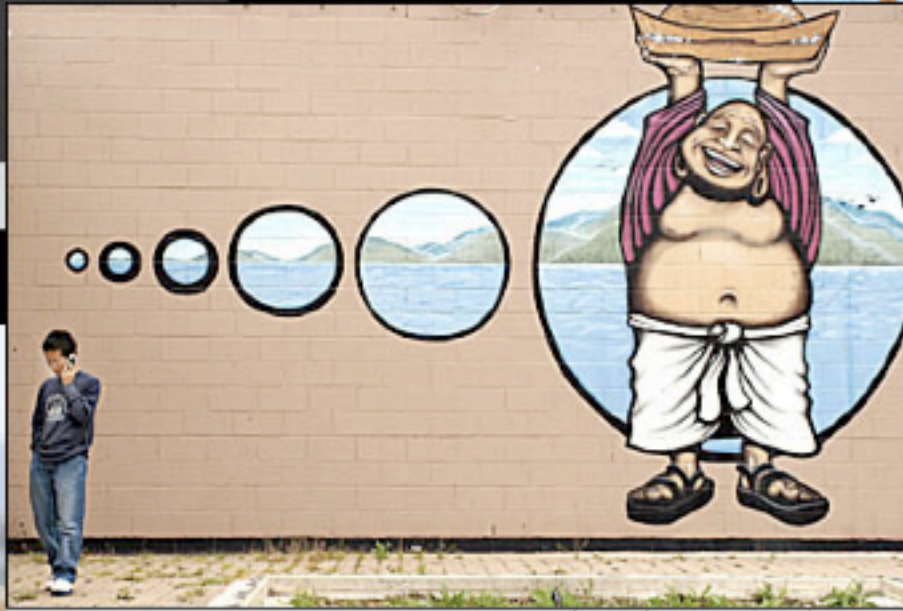


We declare our independence



rate days in Darfur

AP / Alfred de Montesquiou



I'm thinking Chinese food. You?

exan / Paul Wentzell



Uh, Ma, I can't breathe. Ma?

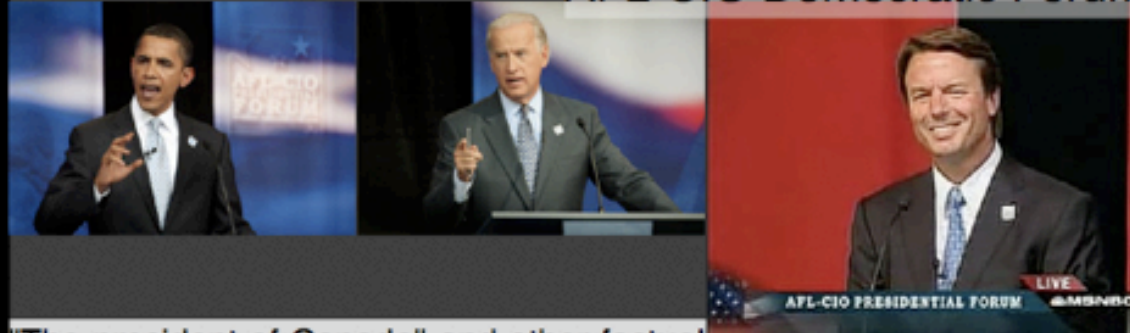
Reuters / Mario Anzuoni



Let me kiss your Nikes

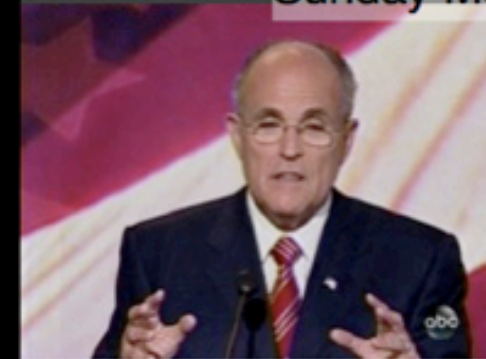
AP / Michael O'Connell

AFL-CIO Democratic Forum



"The president of Canada" and other factual bobbles.

Sunday Morning Missteps



Another Republican debate, with more false claims

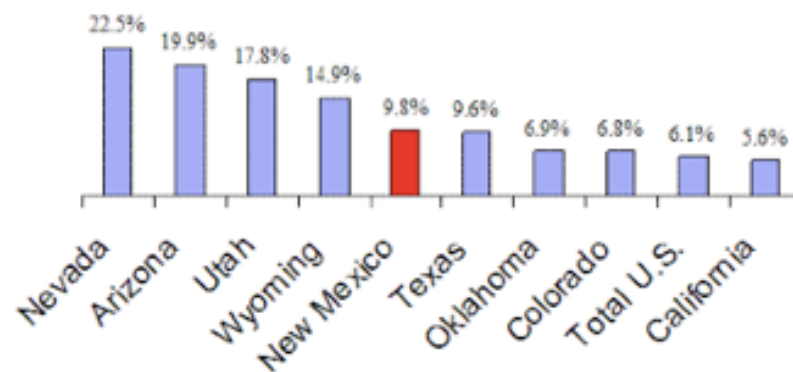
What Is a Civil Union?

Politicians often say they support civil unions but not gay marriage. We sort out the difference.

Richardson's Job Boast

Job Growth: New Mexico vs. Nearby States

Total nonfarm employment, seasonally adjusted, Dec. 02 - July 07



Source: Bureau of Labor Statistics, Current Employment Statistics

He claimed he had created 80,000 jobs when government figures put the total at 68,100.

Liberal Lobby Lacks Context

THE HILL

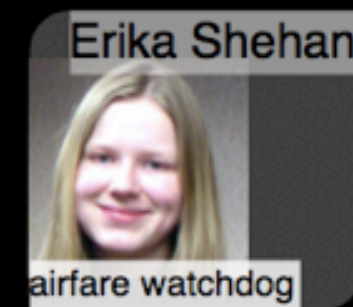
Rep. Schakowsky: Petraeus hints at decade-long Iraq presence

"Petraeus hints at decade-long Iraq presence"

THE HILL, 8/10/07

Coalition distorts the words of two generals in an ad attacking Republicans.

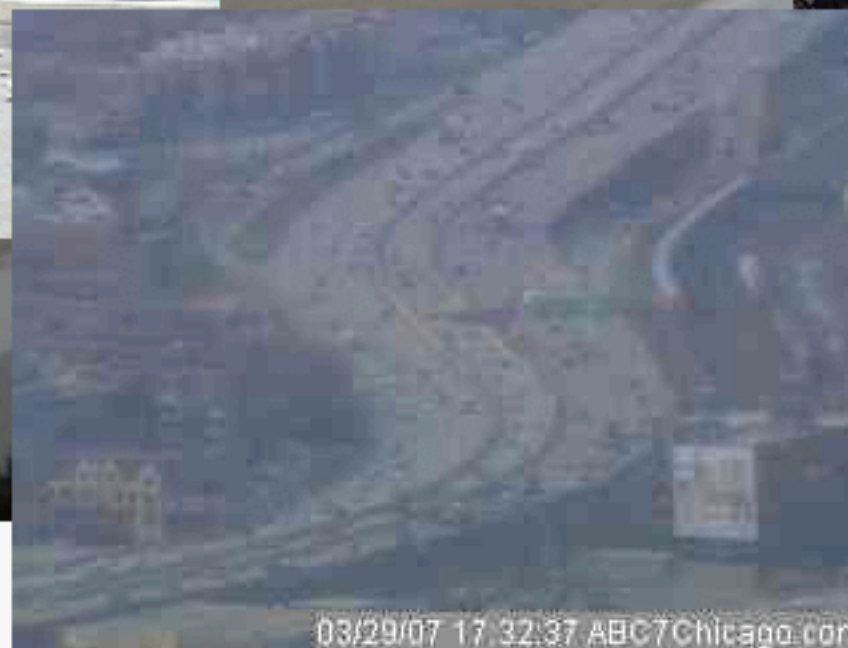
My Inbox



Web Cams



Appleton, WI



View from Sears Tower (N)



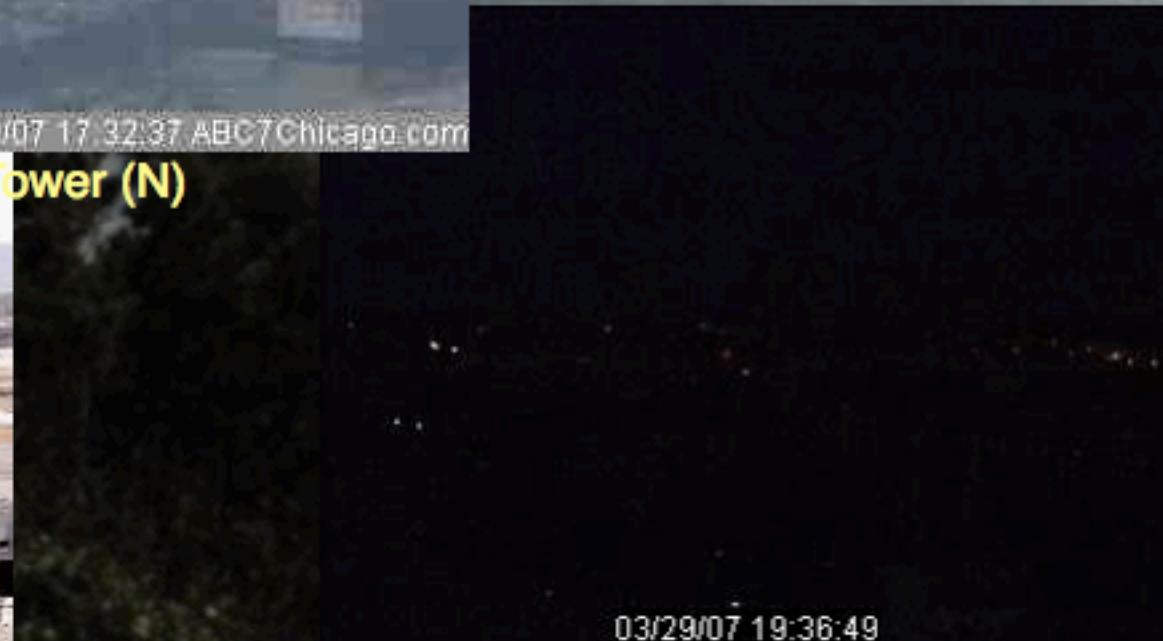
Golden Gate Bridge - Thu, Mar 29 2007 4:40:02 PM

Golden Gate Bridge



03/29/07 15:40:28

LAX RunwayCam



03/29/07 19:36:49

Central Park, NYC

Richard Catrambone



Dr. Catrambone's research interests include:

Creating examples to help learners form meaningful and generalizable solution procedures. I and the students in my lab have explored this issue in domains ranging from probability and physics to ballet. The use of task analysis techniques for identifying what a person needs to learn in order to solve problems or carry out procedures in some domain. Using information from task analyses to guide the construction of teaching and training materials including computer-based (multimedia) instructional environments. Exploring technology such as animations and embodied conversational agents (ECAs) for improving interfaces and helping people learn and carry out tasks more easily. Analogical Reasoning

Ellen Do



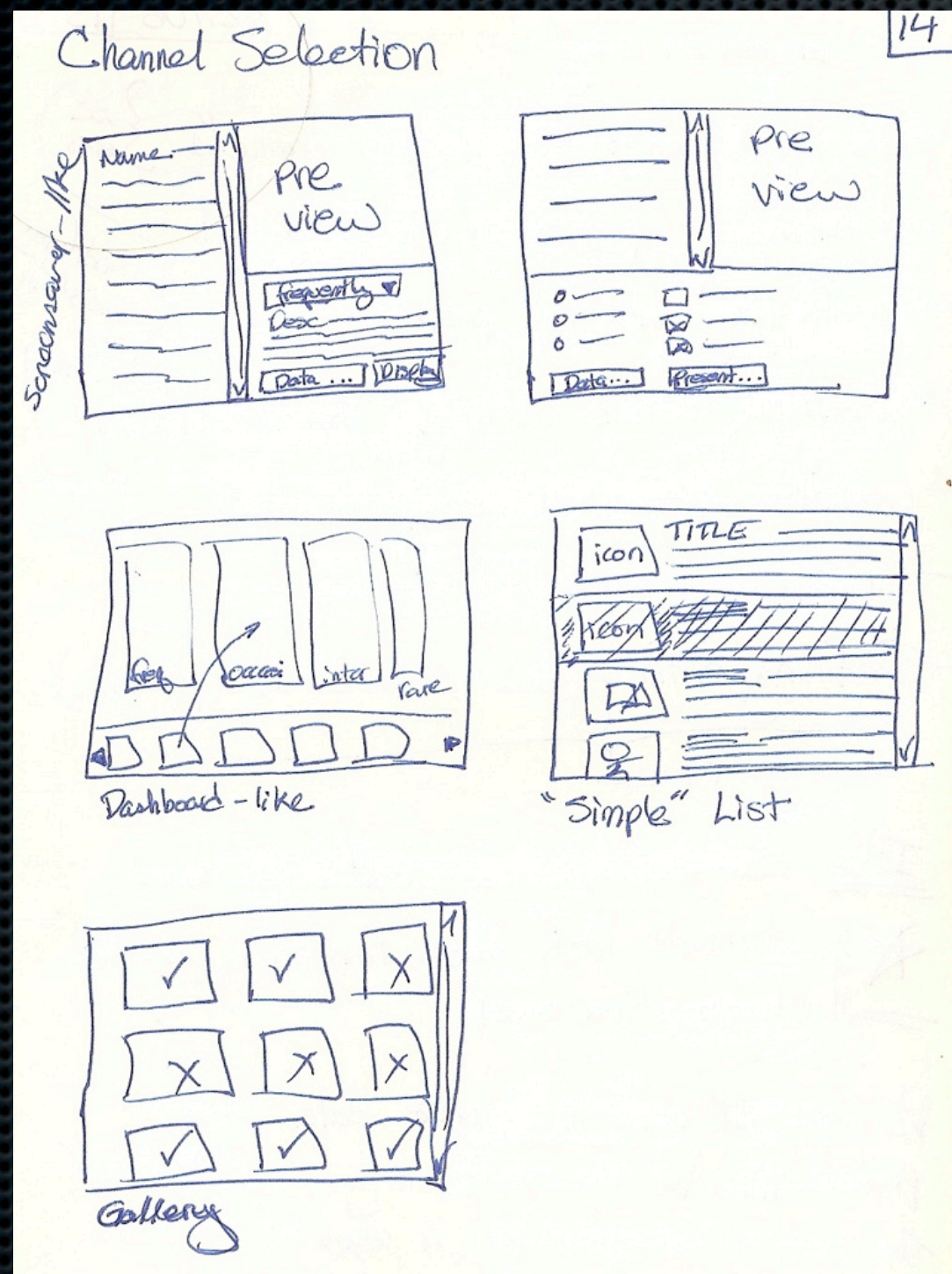
Prior to joining Georgia Tech, Dr. Do was an Associate Professor at Carnegie Mellon University, where she co-directed the CoDe Lab (Computational Design Laboratory). Her research interests include Intelligent Systems and Objects, Design Computing and Cognition, Physical and Ubiquitous Computing, Intuitive Design Interfaces, Sketch Understanding, Diagram Indexing and Retrieval, Computationally Enhanced Construction Kits and Toys, Architectural Robotics, Ambient Intelligence and Smart Living Technologies.

User Interviews

- ✦ Background survey
- ✦ Identify existing practices:
 - ✦ Walk through bookmarks, browser histories
- ✦ Identify desired content, customizations:
 - ✦ Index cards: what (coarse and fine)



Iterative Prototypes



- Task decomposition
- Started with sketches and focused interviews
- Refined design with high fidelity prototypes

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Ellen Do



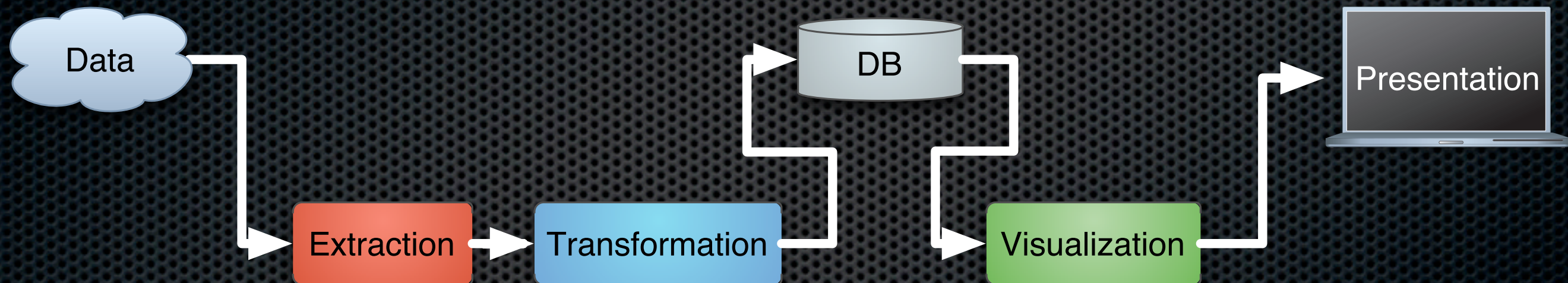
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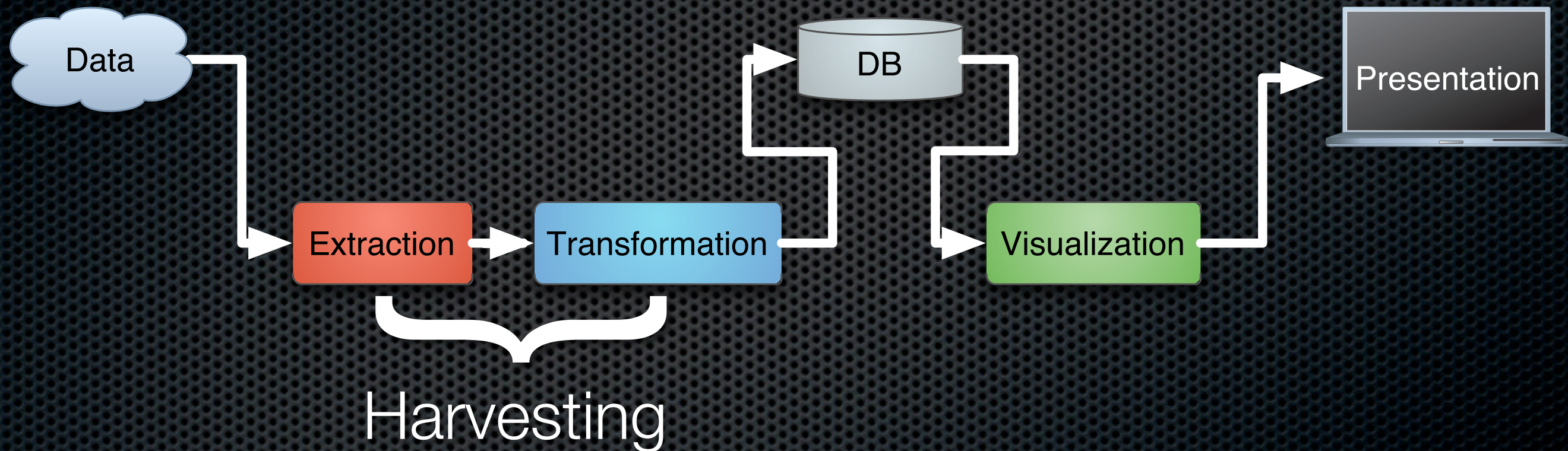
Channel Browser



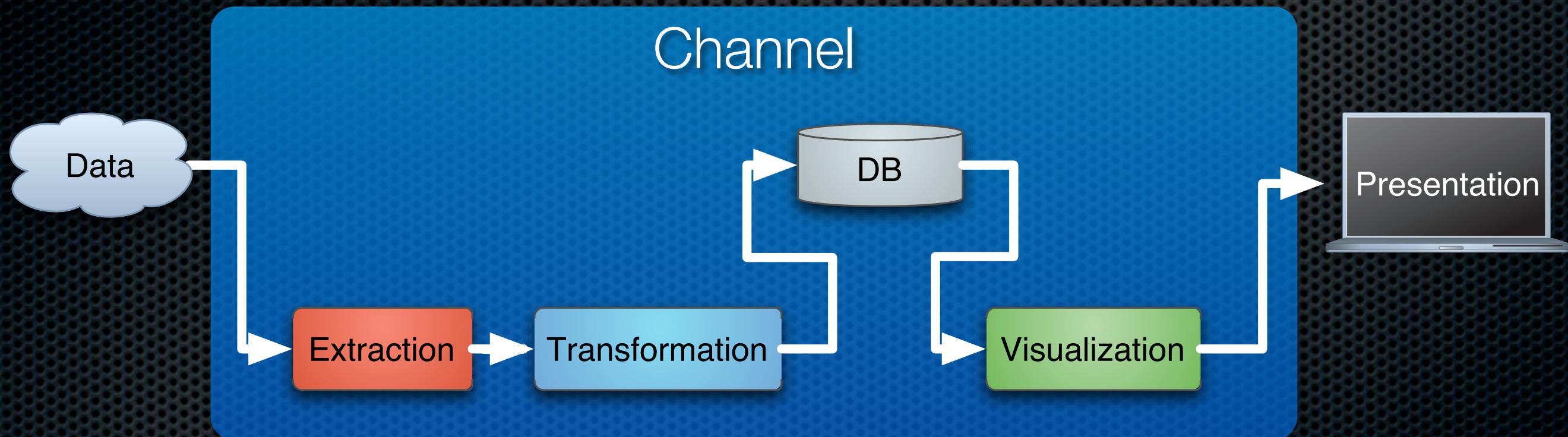
Channel Metaphor



Channel Metaphor



Channel Metaphor



Presentation Templates

Data:

- Forecast
- Radar
- Precip
- Moon

Header

Footer

Presentation Templates

Data:

- Forecast
- Radar
- Precip
- Moon



Presentation Templates

Data:

- Forecast
- Radar
- Precip
- Moon



Presentation Templates

Data:

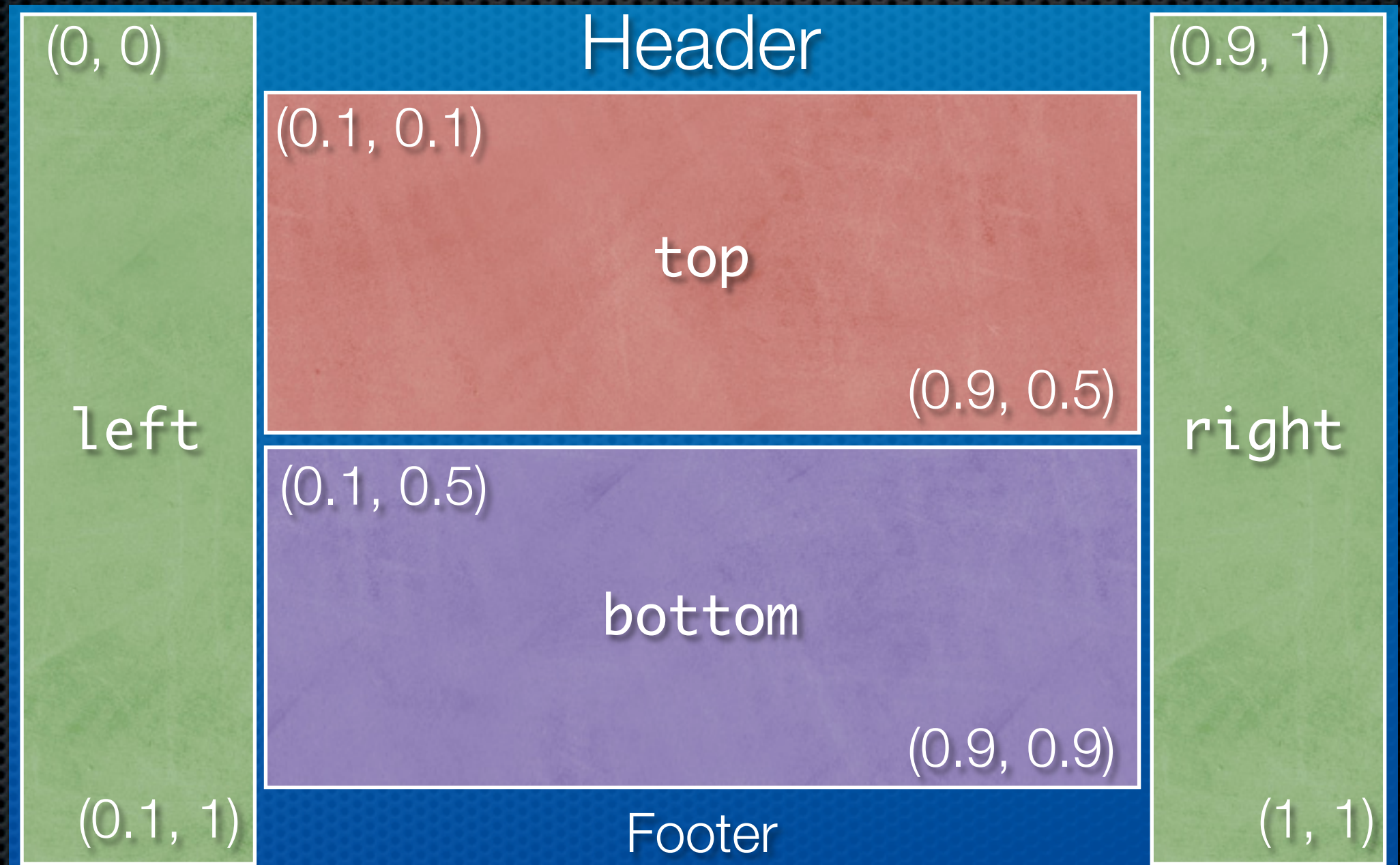
- Forecast
- Radar
- Precip
- Moon



Presentation Templates

Data:

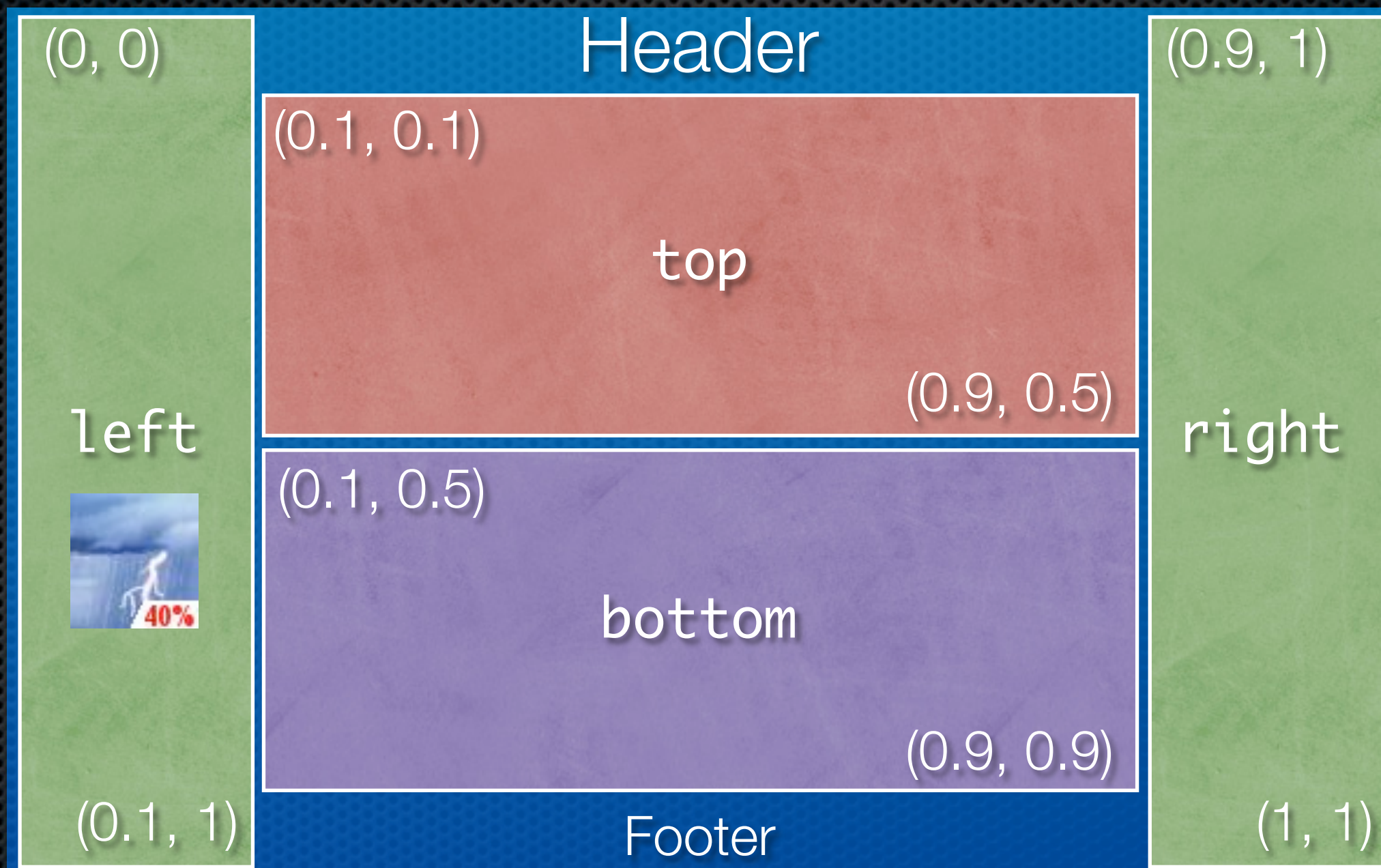
- Forecast
- Radar
- Precip
- Moon



Presentation Templates

Data:

- ~~Forecast~~
- Radar
- Precip
- Moon



Presentation Templates

Data:

- ~~Forecast~~
- ~~Radar~~
- Precip
- Moon



Presentation Templates

Data:

- ~~Forecast~~
- ~~Radar~~
- ~~Precip~~
- Moon



Presentation Templates

Data:

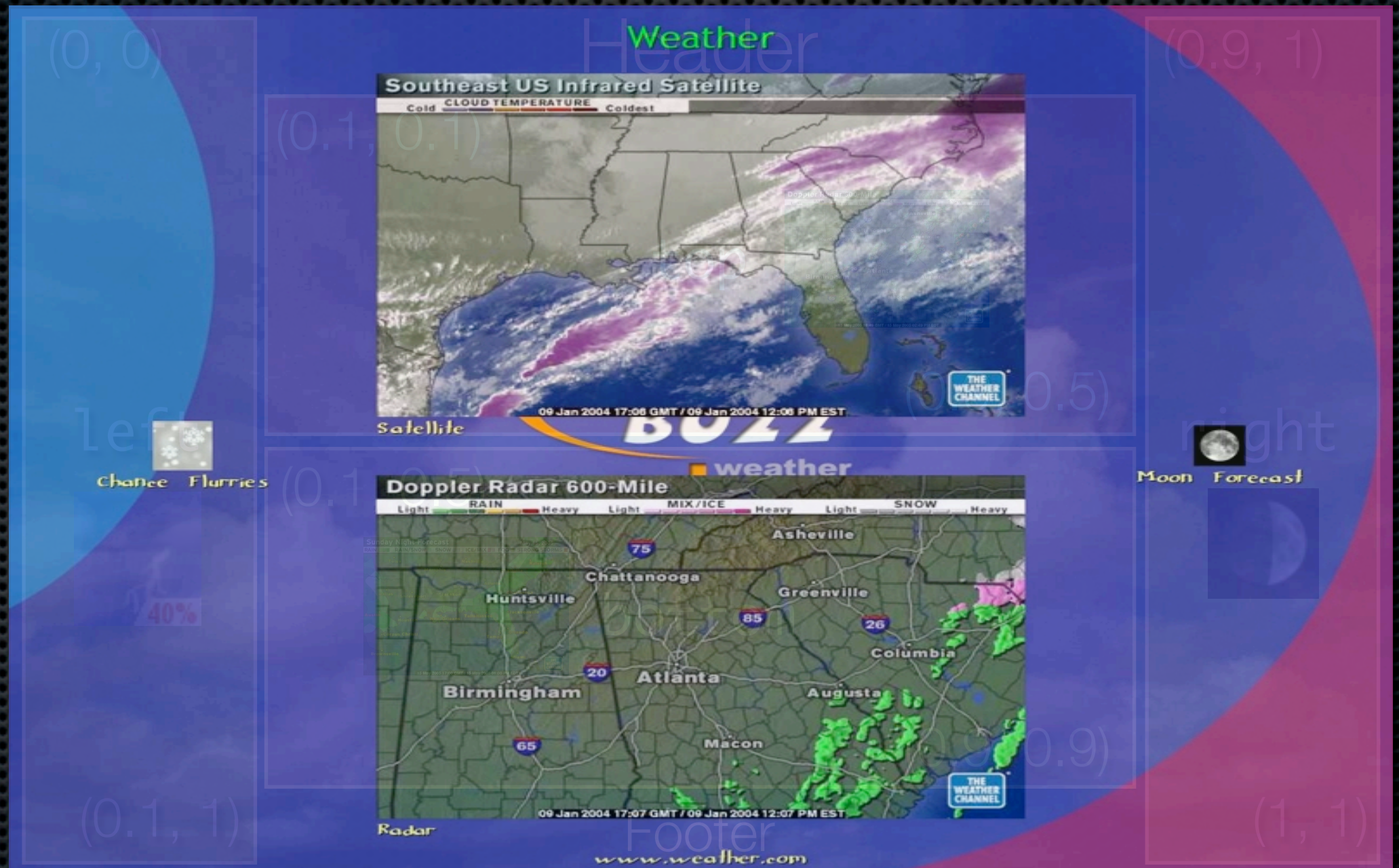
- ~~Forecast~~
- ~~Radar~~
- ~~Precip~~
- ~~Moon~~



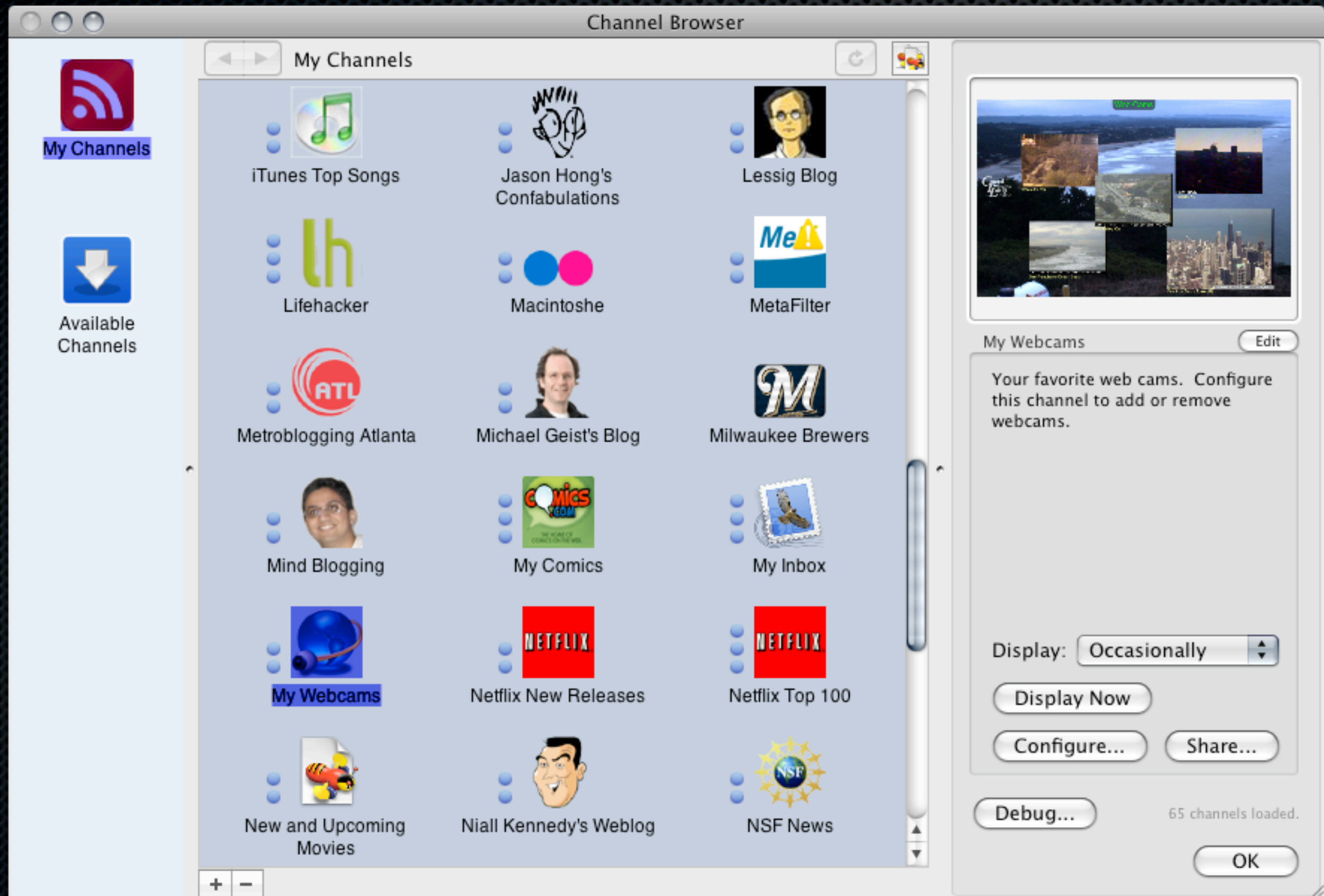
Presentation Templates

Data:

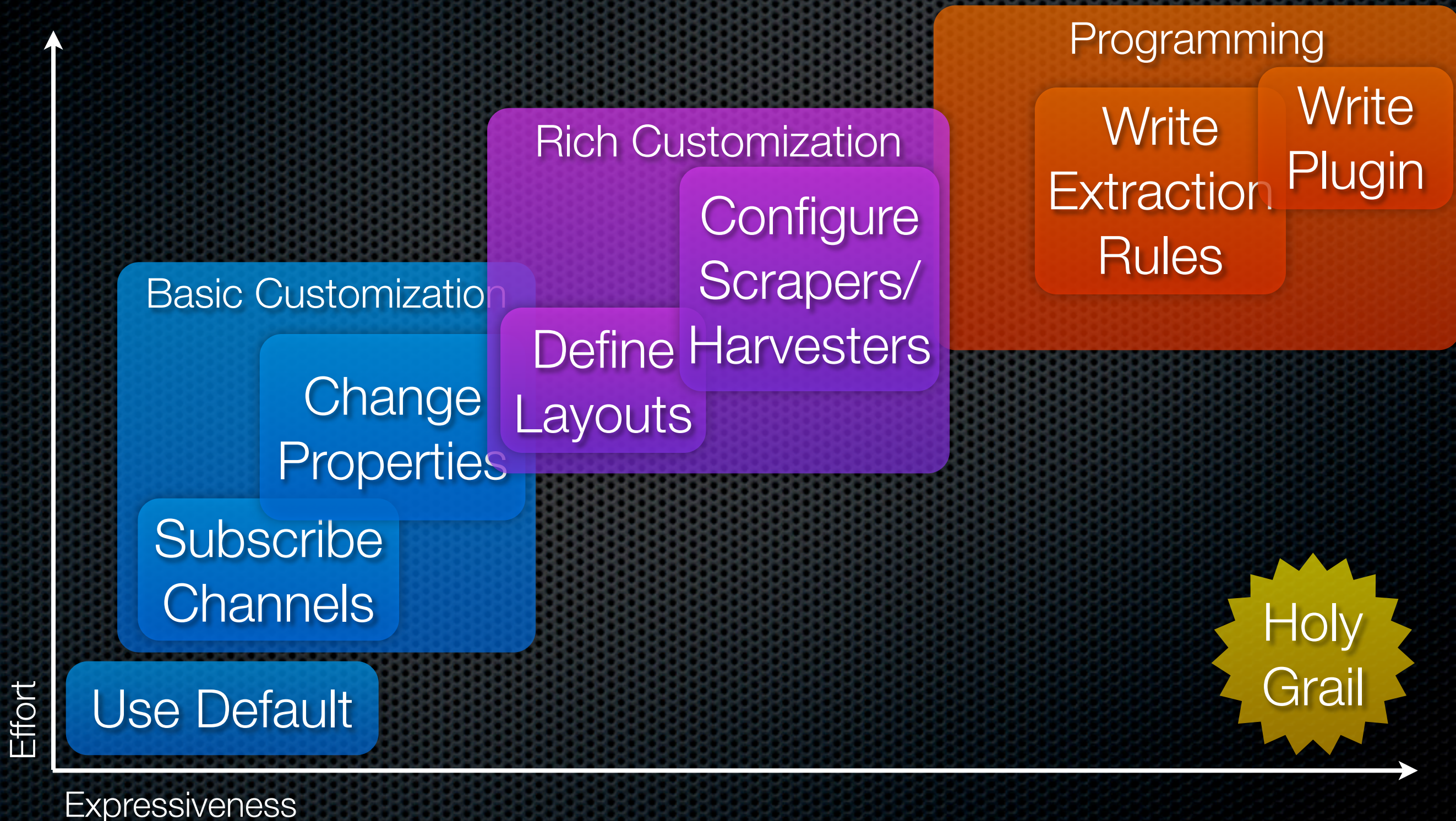
- Forecast
- Radar
- Precip
- Moon



Channel Browser



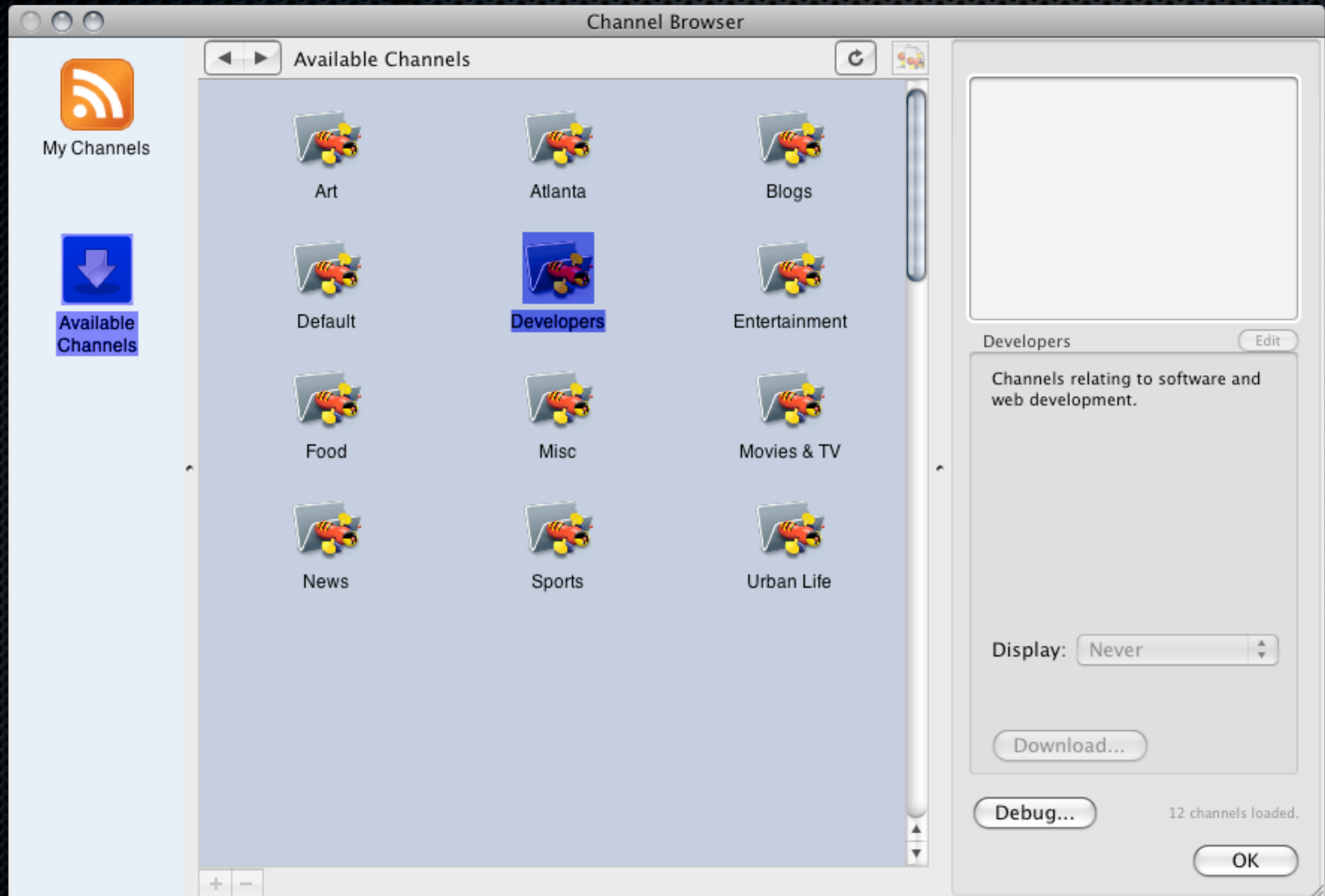
The Buzz Customization Space



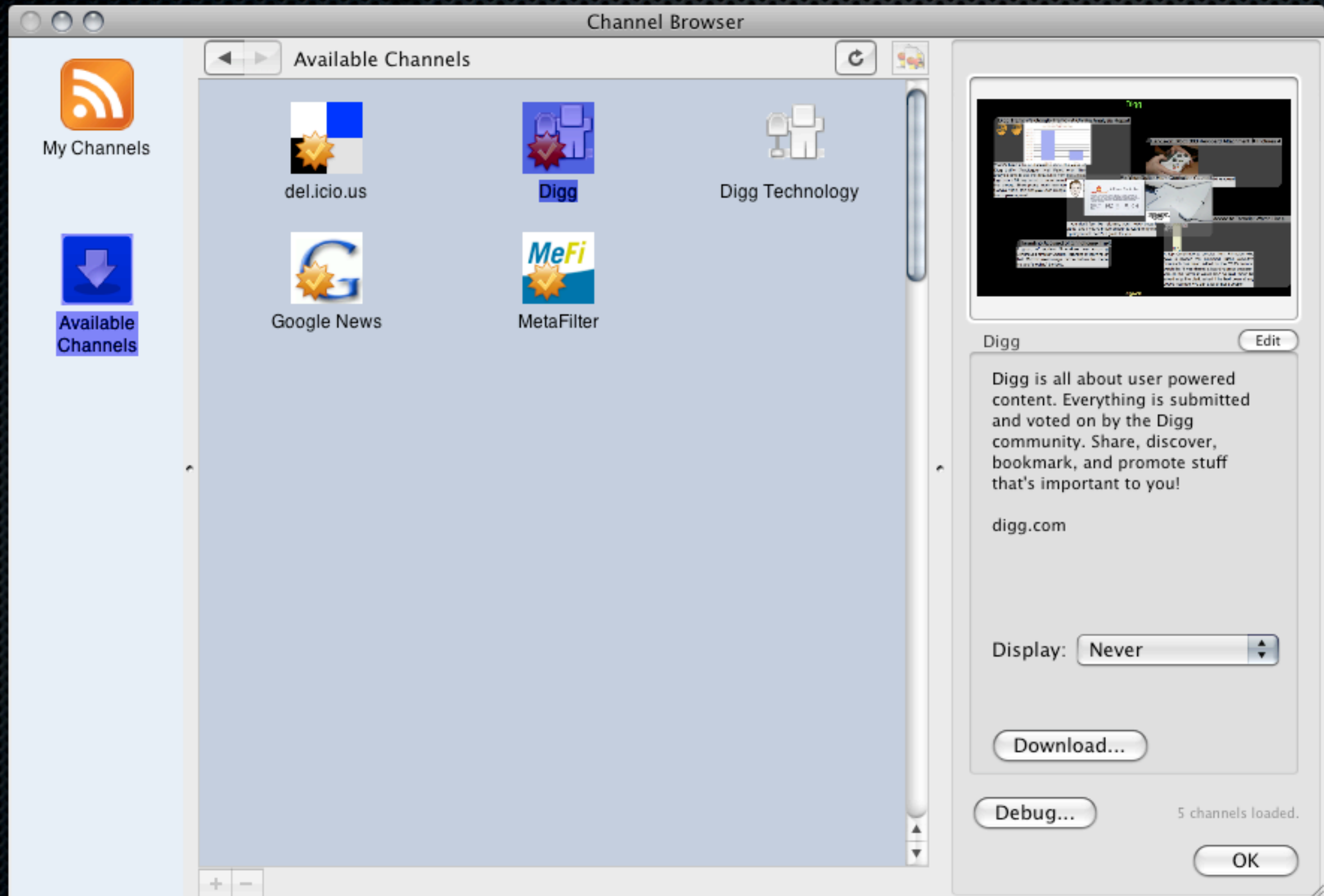
Channel Browser



Browsing Shared Content



Browsing Shared Content



Channel Browser



Channel Editing (WebCams)

Configure Channel: My Webcams

Data Presentation Info

Gather data: from specific web pages

Gather View

URLs:	Name	URL	Scraper
	Laguna Beach, CA	http://images.earthcam.com/ec_metros/cali...	Image at web ...
	Waikiki Beach	http://images.earthcam.com/ec_metros/haw...	Largest image...
+ -	Central Park, NYC	http://abclocal.go.com/three/wabc/webcam...	Image at web ...

Advanced Options

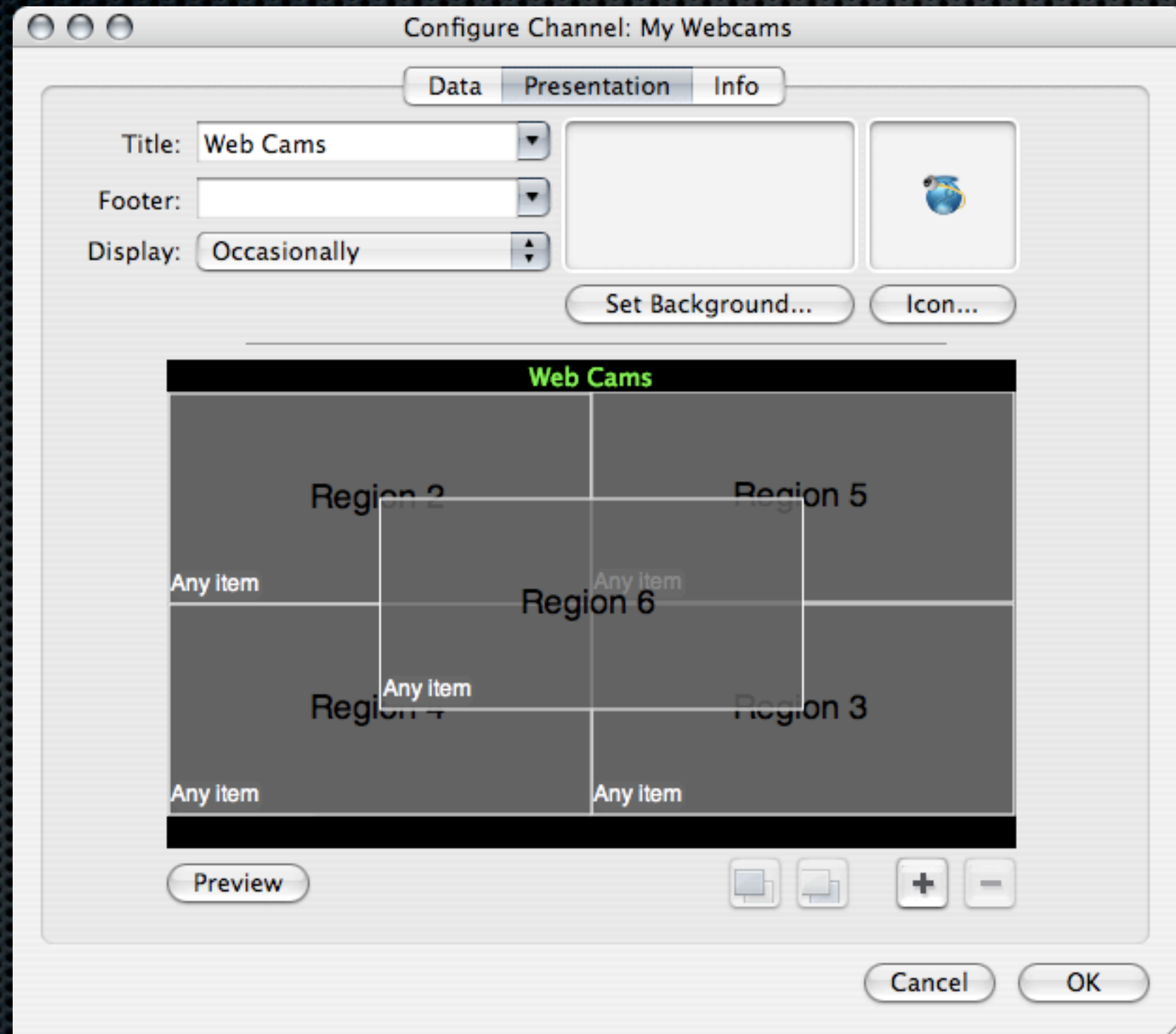
Update data:

Never

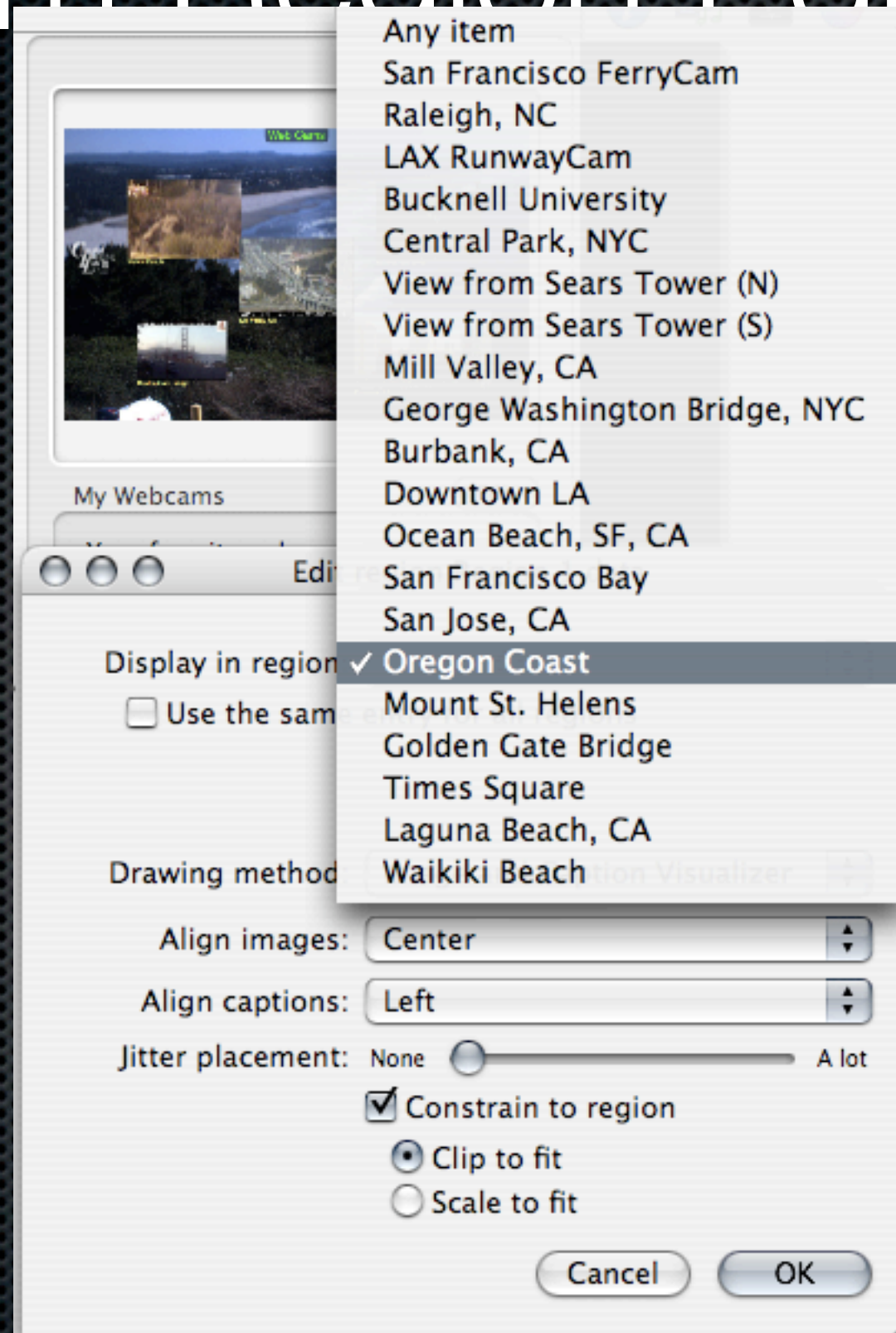
☐ Only when older than n minutes

Cancel OK

WebCam Presentation



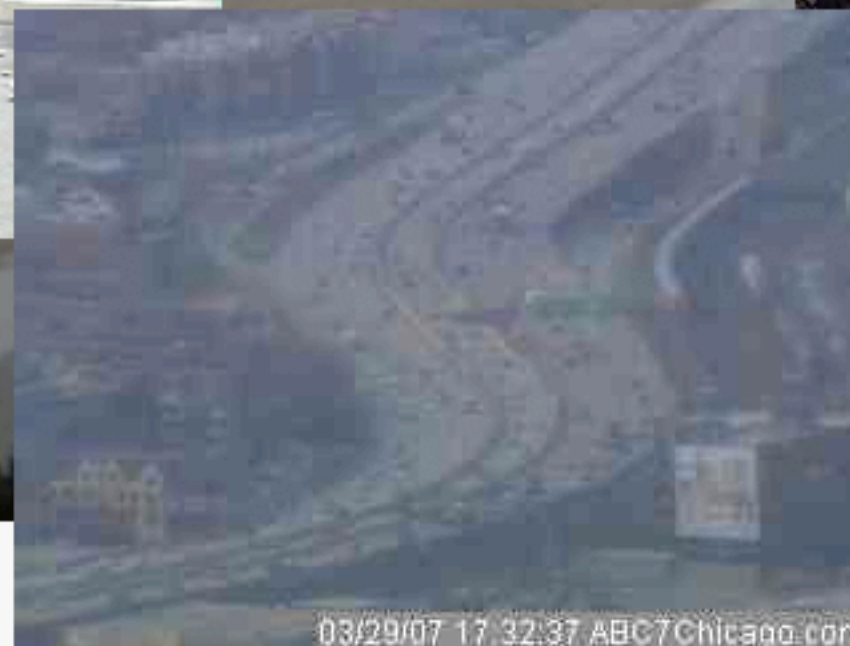
WebCam Region Editor



Web Cams



Appleton, WI



View from Sears Tower (N)



Golden Gate Bridge



LAX RunwayCam

03/29/07 17:32:37 ABC7Chicago.com

03/29/07 19:36:49

Central Park, NYC

Example: BBC

Configure Channel: BBC World

Data Presentation Info

Gather data: from RSS or Atom feed Gather View

URL: http://news.bbc.co.uk/rss/newsonline_uk_edition/woi

Gather images: All images in RSS entry Edit

► Advanced Options

Update data:

Every 6 hours on the half hour

☐ Only when older than n minutes

Cancel OK

Example: BBC

Configure Channel: BBC World

Data Presentation Info

Gather data: from RSS or Atom feed Gather View

URL: http://news.bbc.co.uk/rss/newsonline_uk_edition/woi

Gather images: All images in RSS entry Edit

Advanced Options

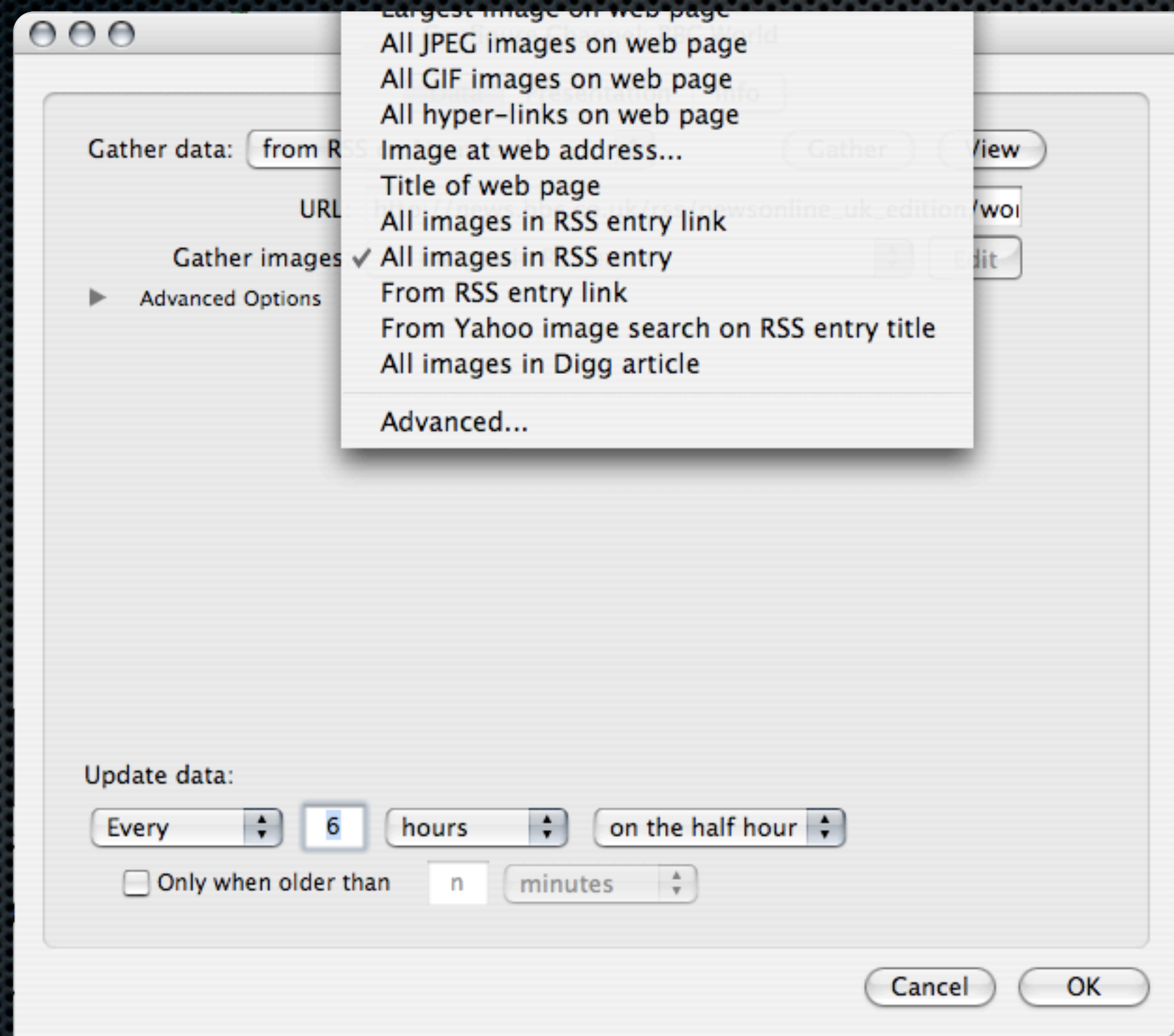
Update data:

Every 6 hours on the half hour

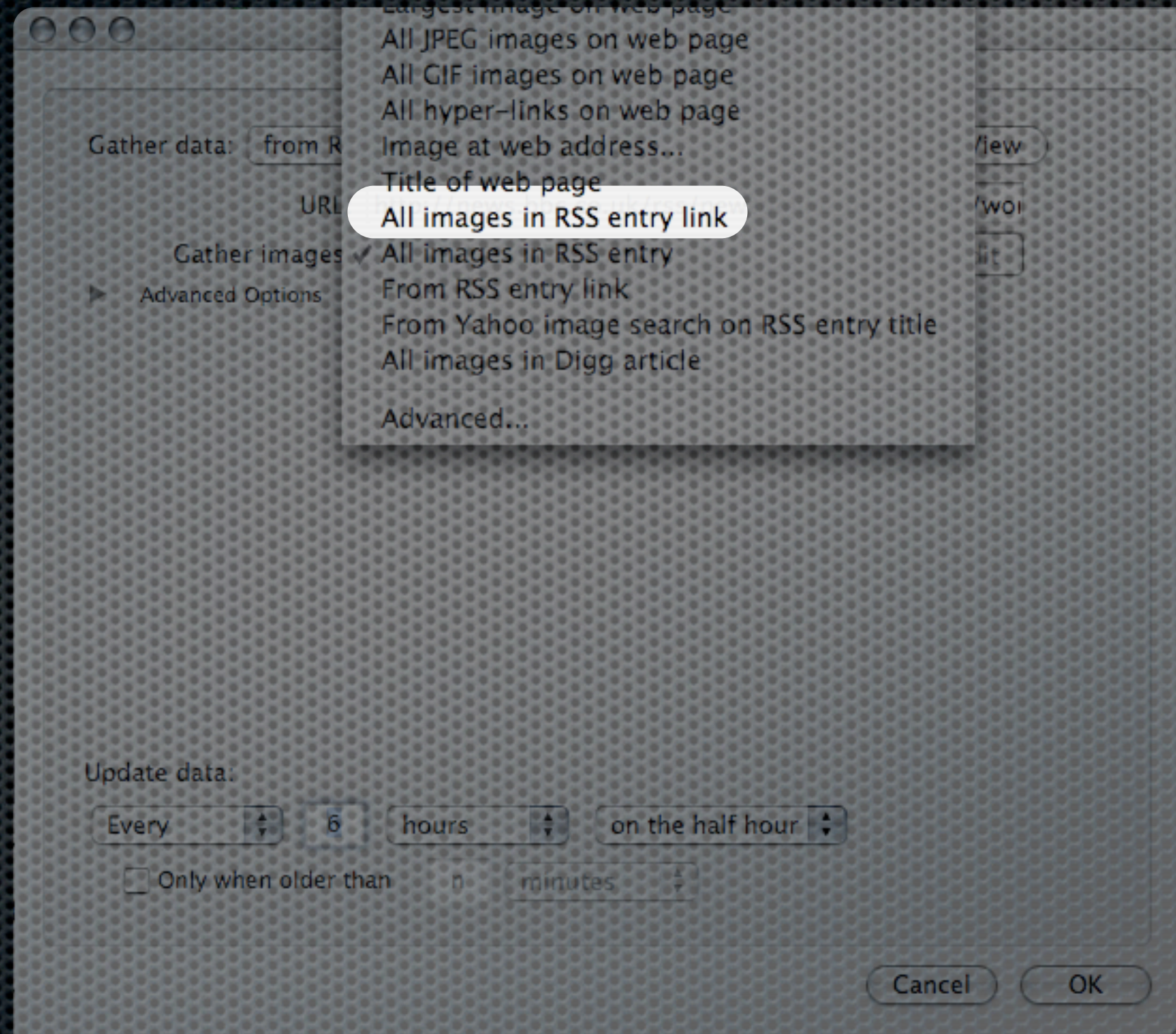
☐ Only when older than n minutes

Cancel OK

Example: BBC



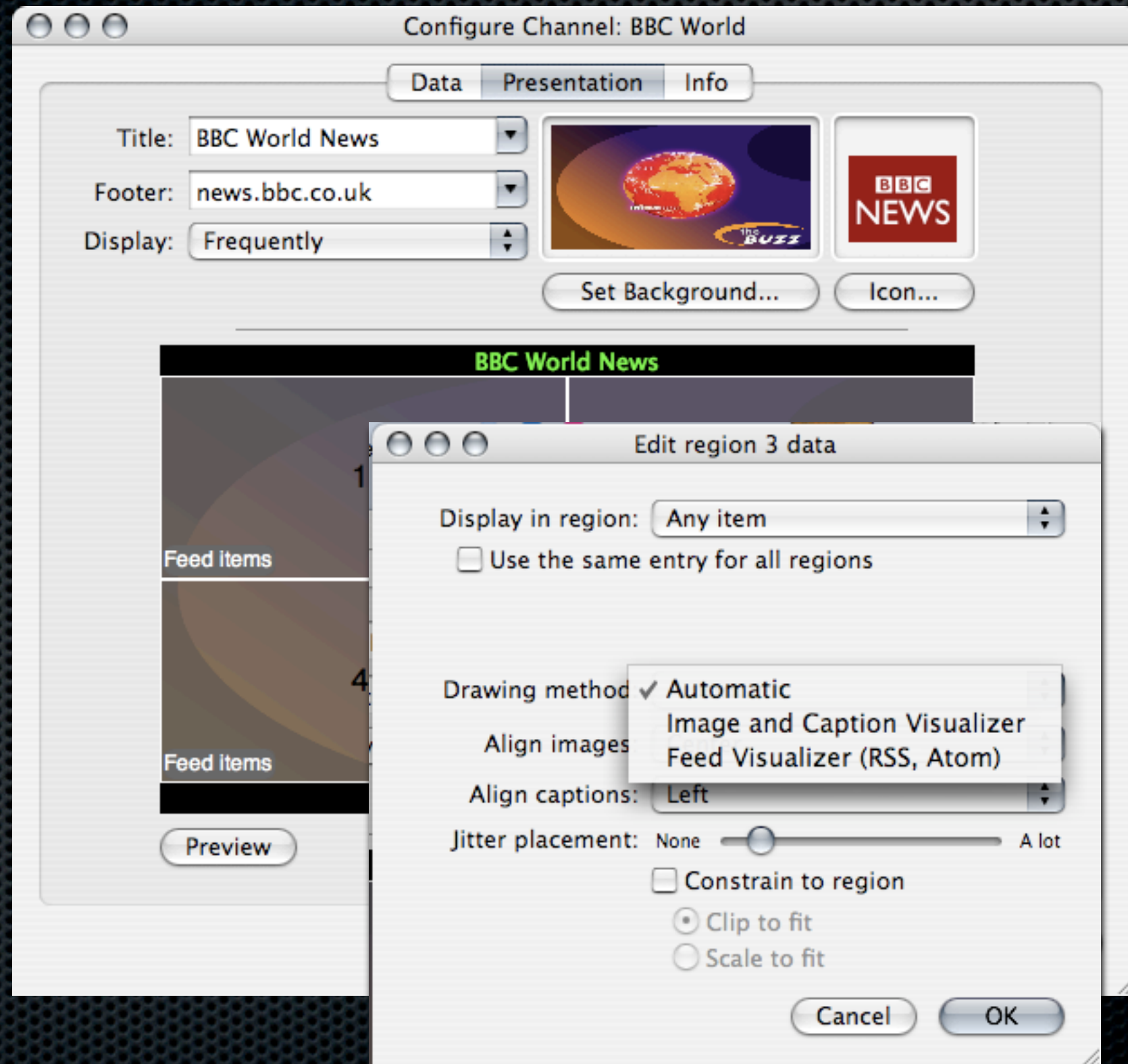
Example: BBC



Example: BBC



Example: BBC





[Hotspots](#): [Lab: Powerpoint](#) • [Lab 4 Questions](#) • [Homework 6](#) • [Homework 6 Questions](#) • [Slides and Code](#) • [TA Corner](#) • [Comments?](#) • [Announcements](#) • [FAQ](#) • [Static Webpage](#)

view edit attach history home changes search help

CS1315 CoWeb



Syllabus



Assignments



People

(Move the mouse over the options for more information)



Galleries



Extra Help



Software



Feedback



Fun stuff

This is the home of CS1315 Introduction to Media Computation. For information on what this class is about, visit the [Media Computation Project CoWeb](#). Please read the [Statement on Privacy](#) and [Statement on Acceptable Behavior](#).

[Read Me First](#) | [What comes after CS1315?](#)

Recent Announcements

April 8

I won't be able to hold office hours tomorrow, please email me if you have questions. [Bobby Mathew](#)

April 7

Hey everyone! I won't be able to hold my office hours tomorrow because I have to meet with a professor. Email me if you have any questions or need anything. [Colleen Jordan](#)

Hey guys! I have to cancel my office hours for today. E-mail me if you need anything. [Toni Walden](#)

Example: The Snake

Configure Channel: CS1315 What the Snake Says

Data Presentation Info

Gather data: by crawling from web site Gather View

URL: <http://coweb.cc.gatech.edu/cs1315>

Depth: 1

Gather: Using a pattern matching rule... Edit

► Advanced Options

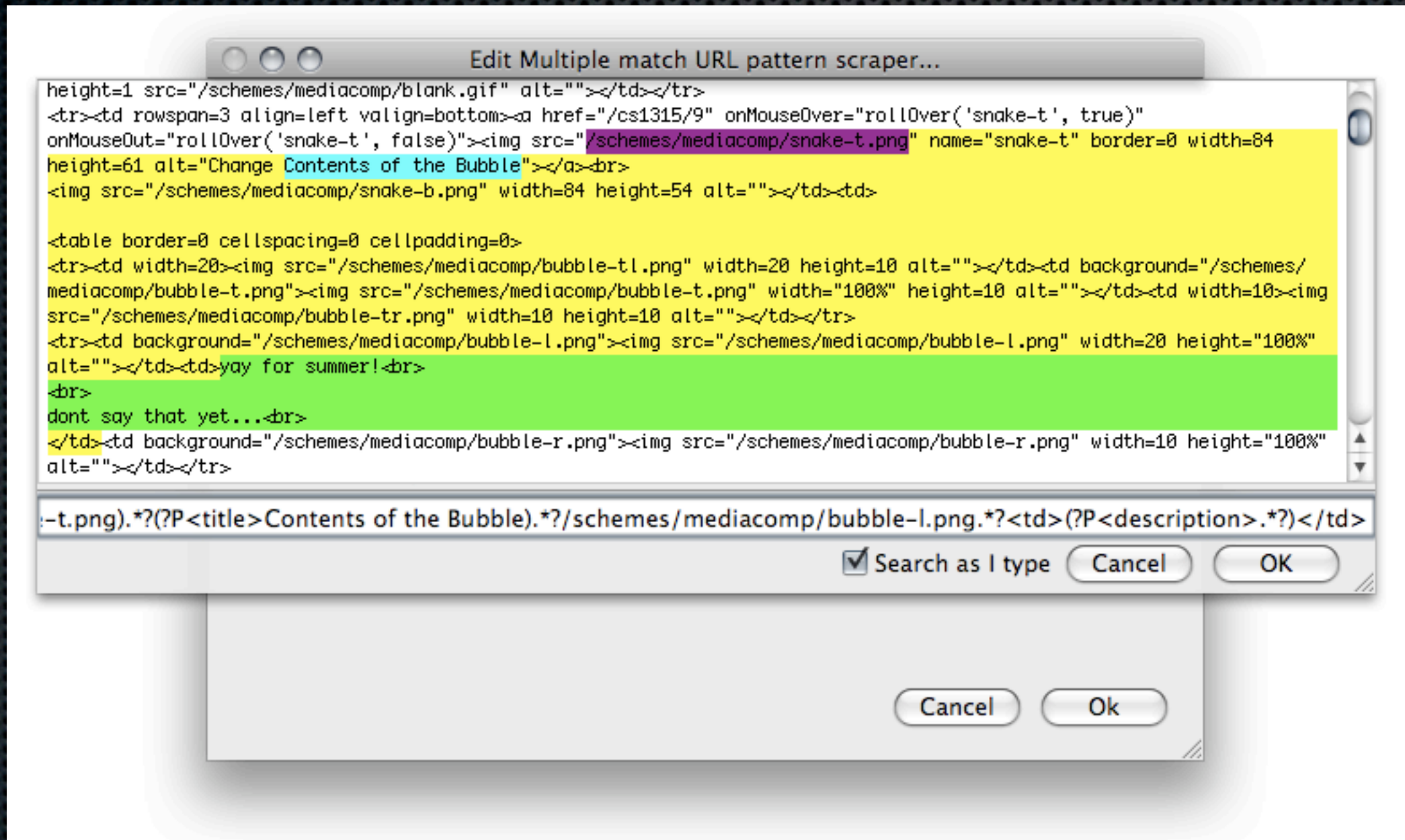
Update data:

Every 1 days at 10:00

☒ Only when older than 12 hours

Cancel OK

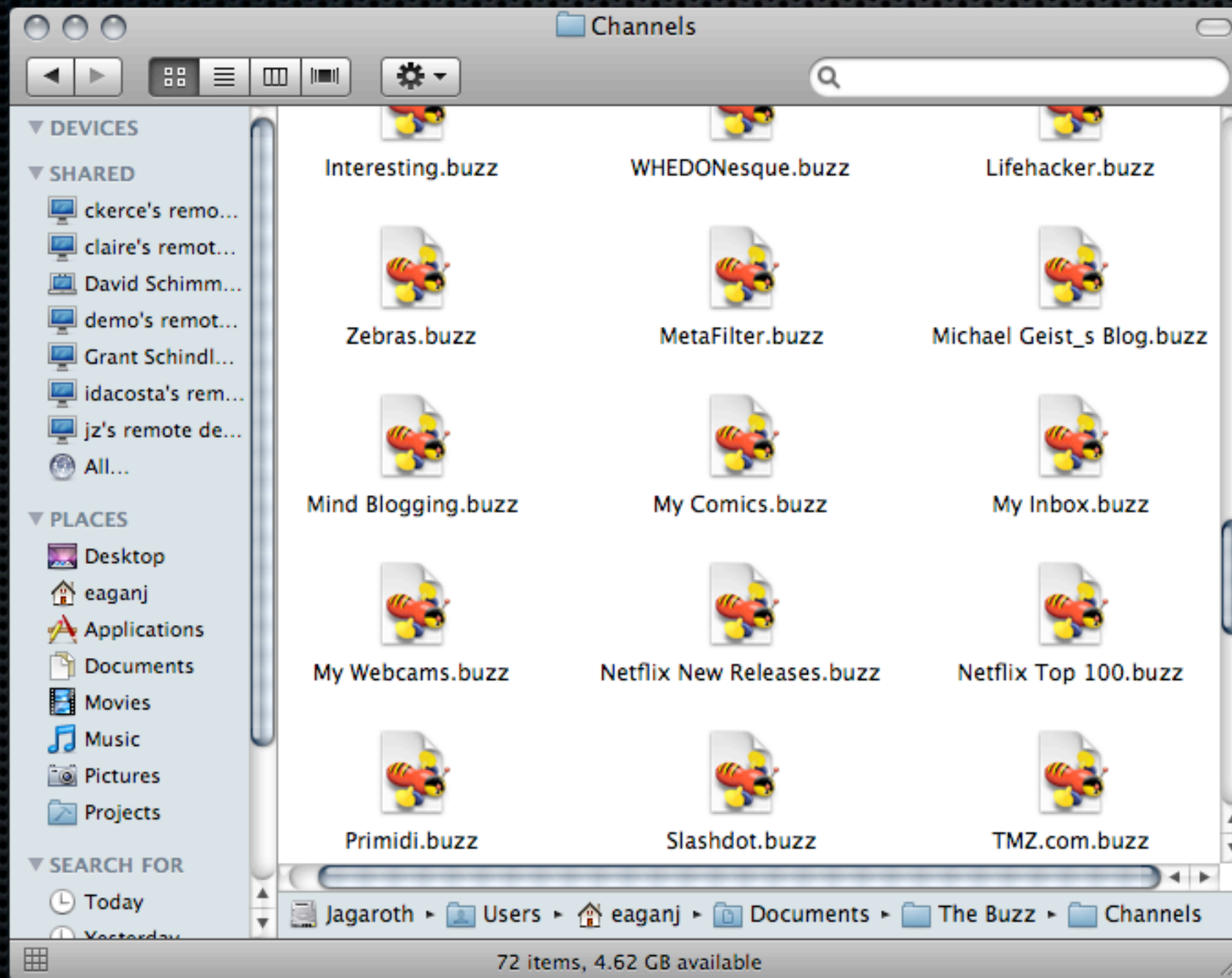
Example: The Snake



Sharing Customizations



Sharing Customizations



Sharing Customizations

Channel: Atlanta Thrashers

http://buzz.research.cc.gatech.edu:8080/channel/Atlanta%20Thrashers

Google

Blogs Highlighter TinyURL! TFTLB [admin] Digg del.icio.us [2] What's Recent? Docs ACM Portal >>

THE BUZZ



Atlanta Thrashers

Recent Thrashers images from Yahoo! Sports. Background by liltree on Flickr.

Tags: nhl, hockey, thrashers, atlanta
Last updated: Mon Apr 23 14:05:04 2007





[The Buzz](#)

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Pilot Deployment Study

- ✦ Six participants at Georgia Tech
- ✦ All modified channel lineup
- ✦ Five created derivative channels
- ✦ Two created new channels from scratch

Community Content

- ✧ Running in lounge
- ✧ Crawls community's public webspace
- ✧ Special tag on Flickr



Deployment Results

- ✦ Technically savvy users seem willing and able to perform rich customization
- ✦ ... and share their customizations, too!
- ✦ More evaluation needed and ongoing

Data Extraction Approaches

- ✦ Manual configuration
- ✦ Inference-based extraction [e.g. Dontcheva, UIST '07]
- ✦ Agent-driven
- ✦ Surface Representations

Conclusions

- ✦ Rich customization important
- ✦ Wizard-like interface appears useful
- ✦ Awareness apps should support richer customization interfaces
- ✦ Fits into a larger “customization ecology”



Thank You

www.cc.gatech.edu/~eaganj

www.gvu.gatech.edu/ii/buzz

