



# gRSShopper in a Box

Setting Up And Using gRSShopper in a Box to Create  
MOOCs and Personal Learning Environments

<http://www.downes.ca/presentation/482>

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December 6, 2017

# The Plan for Today

- First Steps
- Virtualization in Ed Tech
- Break - 15:30 – 15:45
- Exploring gRSShopper
- gRSShopper as a Panel

# First Steps

- Creating your Virtualization Environment
- Many choices, but here's what we're using for today:
  - Virtual Box – <https://www.virtualbox.org/wiki/Downloads>
  - Vagrant – <https://www.vagrantup.com/downloads.html>
  - gRSShopper image – <http://www.downes.ca/files/grsshopper-02.box>
- gRSShopper Source Code
  - <https://github.com/Downes/gRSShopper>

# Vagrantfile

```
# -*- mode: ruby -*-
```

```
# vi: set ft=ruby :
```

```
Vagrant.configure("2") do |config|
```

```
  config.vm.box = "grsshopper-02"
```

```
  config.vm.hostname = "grsshopper-02"
```

```
  config.vm.network "forwarded_port", guest: 80, host: 8080
```

```
  config.vm.network "private_network", ip: "192.192.192.192"
```

```
  config.vm.synced_folder "./html", "/var/www/html", :mount_options => ["dmode=777", "fmode=666"]
```

```
  # Optional NFS. Make sure to remove other synced_folder line too
```

```
  #config.vm.synced_folder ".", "/var/www", :nfs => { :mount_options => ["dmode=777", "fmode=666"] }
```

```
end
```

# Local Directories

```
/gRSShopper02/  
  /html/  
    /public/  
      /files/  
        index.html  
Vagrantfile  
grsshopper-02.box
```

# Installing gRSShopper as a Box

Open Command Prompt and Enter:

```
> cd c:\... \gRSShopper02  
> vagrant box add gRSShopper-02 gRSShopper-02.box  
> vagrant up
```

Then open a web browser and enter:

<http://192.192.192.192>

- this will show C:\.. \gRSShopper02\html\public\index.html

Then open a web browser and enter:

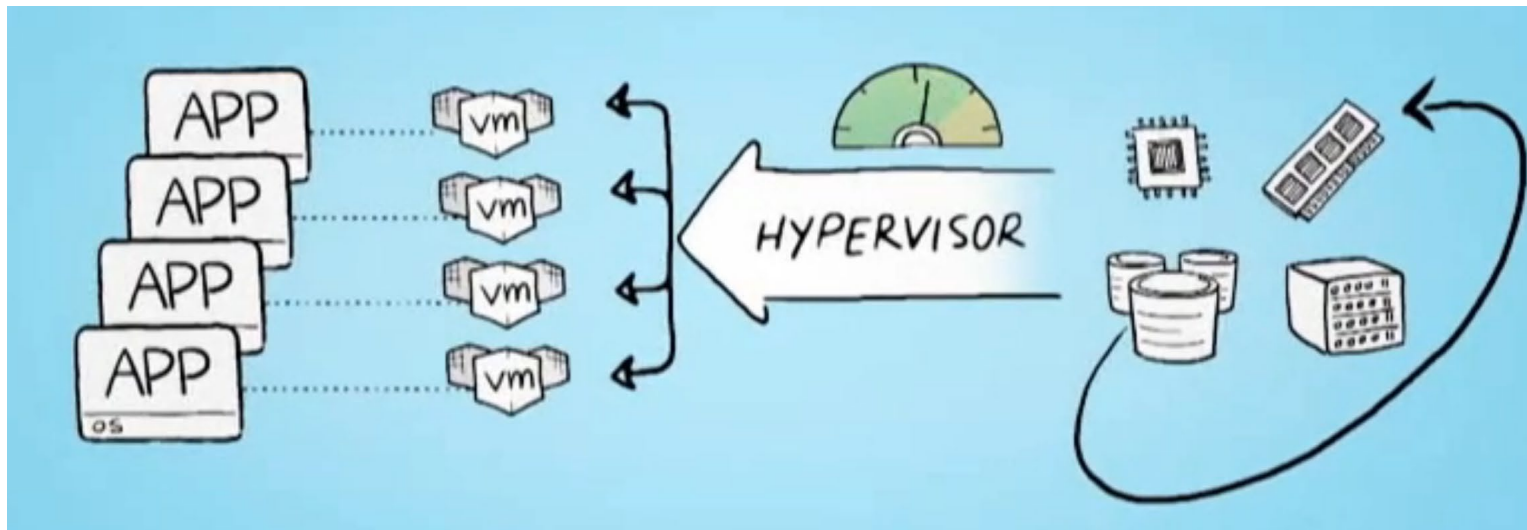
<http://192.192.192.192/cgi-bin/admin.cgi>

- this will show the gRSShopper admin screen (or login, if you haven't logged in)

- to log in: userid: admin password: admin

# Virtualization in Ed Tech

- Parallels - <https://www.parallels.com/>
- VMWare - <https://www.vmware.com/>
- XenServer - <https://xenserver.org/>
- Virtual Box - <https://www.virtualbox.org/>
- Hyper-V - <https://docs.microsoft.com/en-us/virtualization/hyper-v-on-windows/quick-start/enable-hyper-v>



# Virtualization Platforms - Vagrant

```
● ● ●
$ vagrant init hashicorp/precise64

$ vagrant up
Bringing machine 'default' up with 'virtualbox' provider.
==> default: Importing base box 'hashicorp/precise64'...
==> default: Forwarding ports...
default: 22 (guest) => 2222 (host) (adapter 1)
==> default: Waiting for machine to boot...

$ vagrant ssh
vagrant@precise64:~$ _
```



<https://www.vagrantup.com/>



# Loading and Running Vagrant

- **Scotch Box**

- <https://box.scotch.io/> -- <http://192.168.33.10/>
- WPDistillery - <https://wpdistillery.org/> - for WordPress

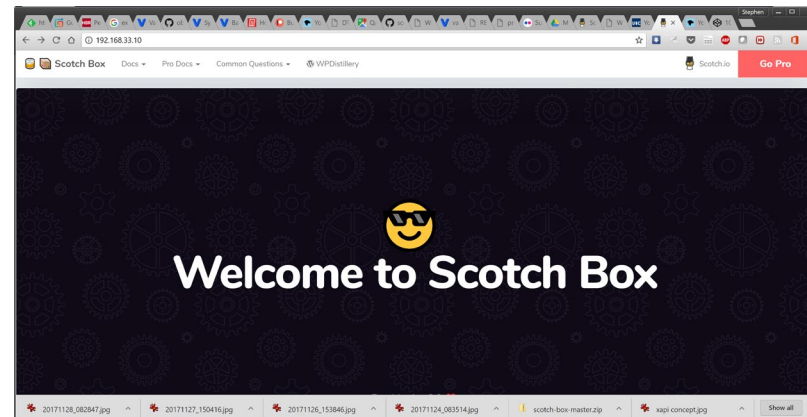
- **Homestead**

- Instructions - <https://laravel.com/docs/5.5/homestead#first-steps>

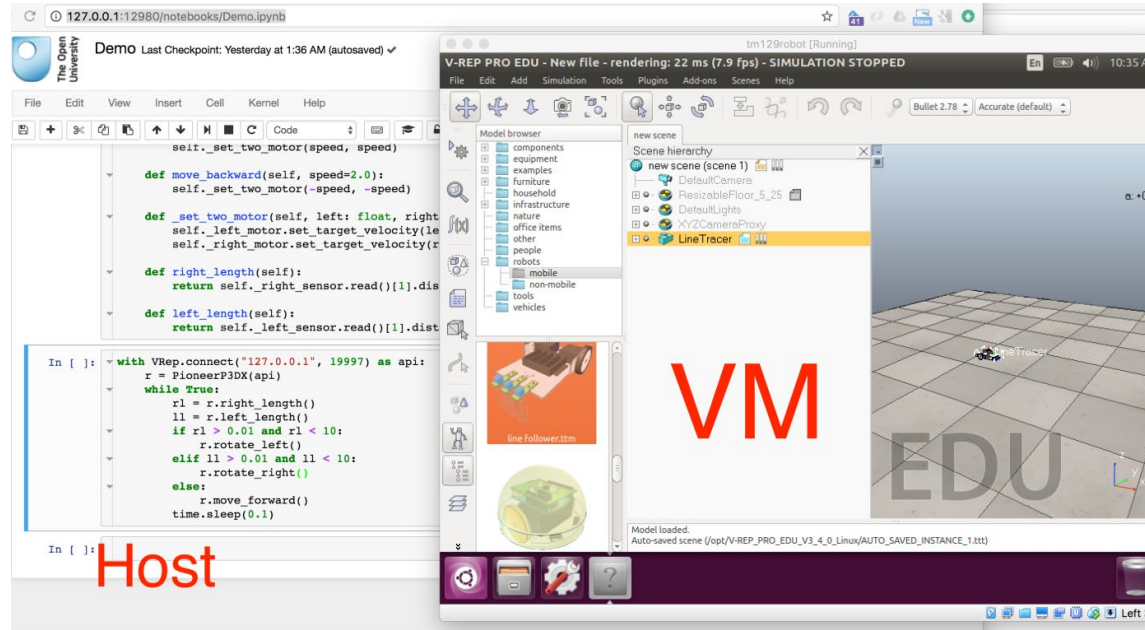
```
Command Prompt
Directory of C:\Users\steph\CodeProjects\Vagrant\lamp
11/27/2017 04:17 PM <DIR> .
11/27/2017 04:17 PM <DIR> ..
11/27/2017 04:17 PM <DIR> .vagrant
11/27/2017 04:17 PM          3,089 Vagrantfile
                1 File(s)          3,089 bytes
                3 Dir(s)  628,750,442,496 bytes free

C:\Users\steph\CodeProjects\Vagrant\lamp>cd ../scotchbox

C:\Users\steph\CodeProjects\Vagrant\scotchbox>vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
=> default: Box 'scotch/box' could not be found. Attempting to find and install...
default: Box Provider: virtualbox
default: Box Version: >= 0
=> default: Loading metadata for box 'scotch/box'
default: URL: https://vagrantcloud.com/scotch/box
=> default: Adding box 'scotch/box' (v3.0) for provider: virtualbox
default: Downloading: https://vagrantcloud.com/scotch/boxes/box/versions/3.0/providers/virtualbox.box
default:
=> default: Successfully added box 'scotch/box' (v3.0) for 'virtualbox'!
=> default: Importing base box 'scotch/box'...
=> default: Matching MAC address for NAT networking...
=> default: Checking if box 'scotch/box' is up to date...
=> default: Setting the name of the VM: scotchbox_default_1511952863136_42106
=> default: Clearing any previously set network interfaces...
=> default: Preparing network interfaces based on configuration...
default: Adapter 1: nat
```



# Vagrant as Learning Environment




Distributing Virtual Machines That Include a Virtual Desktop To Students – V-REP + Jupyter Notebooks – Tony Hirst

<https://blog.ouseful.info/2017/09/10/distributing-virtual-machines-that-include-a-virtual-desktop-to-students-v-rep-jupyter-notebooks/>






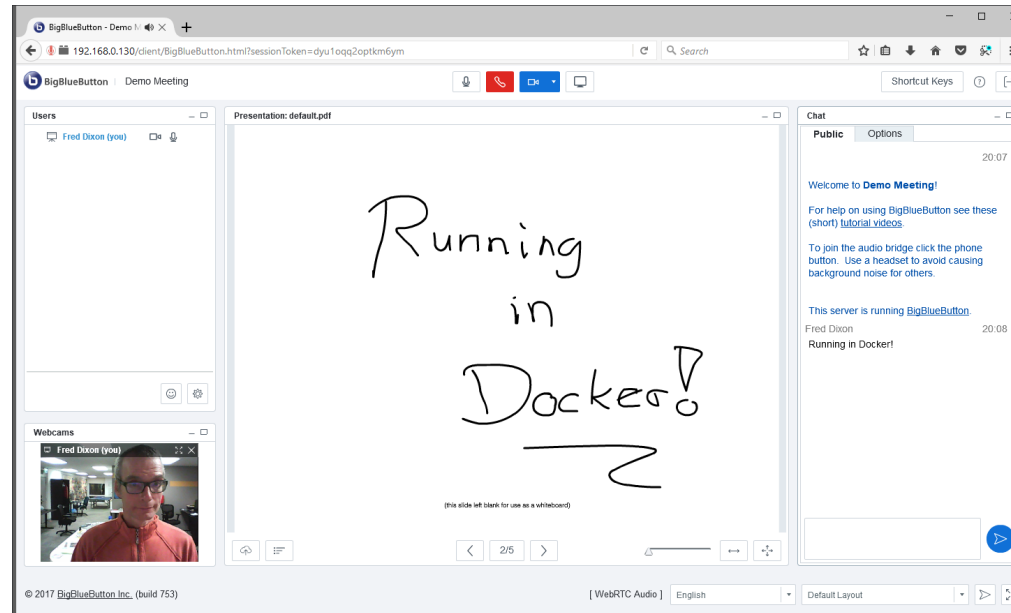
# Big Blue Button in Docker

Docker Pull Command 

```
docker pull bigbluebutton/bigbluebutton
```

Owner

 bigbluebutton



<http://docs.bigbluebutton.org/labs/docker.html>

<https://hub.docker.com/r/bigbluebutton/bigbluebutton/>

# Moodle on Docker

**docker-moodle** No Maintenance Intended

A Dockerfile that installs and runs the latest Moodle stable.

## Installation

```
git clone https://github.com/jda/docker-moodle
cd docker-moodle
docker build -t moodle .
```

## Usage

To spawn a new instance of Moodle:

```
docker run -d --name DB -p 3306:3306 -e MYSQL_D
docker run -d -P --name moodle --link DB:DB -e M
```

You can visit the following URL in a browser to get started:

<http://192.168.59.103:8080>




The screenshot shows the Moodle administration interface. At the top, the Moodle logo is visible, along with the text "You are logged in as Admin User (Logout)". Below the logo, the navigation path "Moodle > Administration > Modules > Activities" is shown, and a "Blocks editing on" button is present. The main content area is titled "Activities" and contains a table with the following columns: "Activity module", "Activities", "Version", "Hide/Show", "Delete", and "Settings". The table lists various activity modules with their respective counts and versions.

Activity module	Activities	Version	Hide/Show	Delete	Settings
Assignment	0	2007020200		Delete	Settings
Chat	0	2007020200		Delete	Settings
Choice	0	2007020200		Delete	Settings
Database	0	2007022801		Delete	Settings
Forum	0	2007020202			Settings
Glossary	0	2007020200		Delete	Settings
Hot Potatoes Quiz	0	2007020202		Delete	Settings
Journal	0	2007020200		Delete	
LAMS	0	2007020200		Delete	Settings
Label	0	2007020200		Delete	
Lesson	0	2007020201		Delete	
Quiz	0	2007020200		Delete	Settings
Resource	0	2007020200		Delete	Settings
SCORM/AICC	0	2007070300		Delete	Settings
Survey	0	2007020200		Delete	
Wiki	0	2007020200		Delete	
Workshop	0	2007020200		Delete	

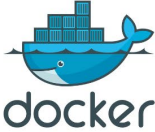
<https://hub.docker.com/r/jauer/moodle/>

# Options


applications cloud containers kubernetes enterprise support

---

## Launch Moodle now



[Launch Moodle using docker](#)  
Recommended if you're getting started with using containers on your workstation or laptop.



[Launch Moodle using Kubernetes](#)  
Recommended if you want to deploy your application on production infrastructure.

<https://bitnami.com/stack/moodle/containers>

# Cloud Infrastructure Providers



- AWS – Amazon - <https://aws.amazon.com/>



- Azure – Microsoft - <https://azure.microsoft.com>



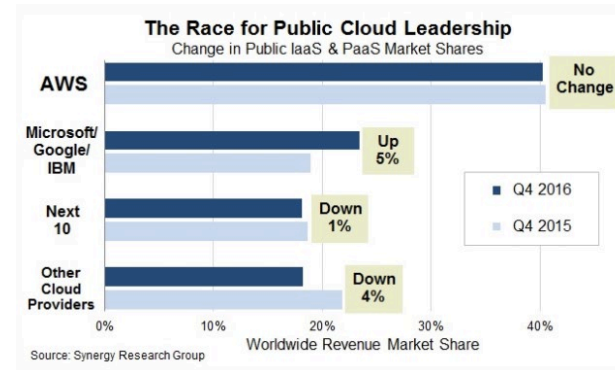
- Bluemix – IBM Cloud - <https://www.ibm.com/cloud/>



- Google Cloud Platform - <https://cloud.google.com/>




- Oracle Cloud - <https://cloud.oracle.com/>




<https://www.srgresearch.com/articles/microsoft-google-and-ibm-charge-public-cloud-expense-smaller-providers>




# Cloud Computing for Education




The banner is split into two sections. The left section has an orange background with the text 'How To Buy Cloud' and a 'Learn More »' button. The right section has a red background with the text 'AWS PUBLIC SECTOR SUMMIT' and 'Washington DC', along with a 'View Keynotes & Sessions »' button.



**Higher Education**  
From data center migration to student data and analytics, AWS has agile and flexible solutions.  
[Learn more »](#)



**K12 & Primary Schools**  
Streamline district IT operations, save money, and keep student information safe in the AWS Cloud.  
[Learn more »](#)



**Ed Tech Companies**  
Innovate and build the next generation of online learning, analytics, and campus management solutions.  
[Learn more »](#)

Amazon Web Services - <https://aws.amazon.com/education/>



# OER and Virtualization

- Open Distribution of Virtual Containers as a Key Framework for Open Educational Resources and STEAM Subjects Alberto Corbi and Daniel Burgos

<http://www.ejel.org/issue/download.html?idArticle=575>

“Unikernels represent and deeper simplification of the virtual container approach, given that all necessary computing elements (operative system kernel, basic libraries, frameworks, drivers, scientific application, etc.)”

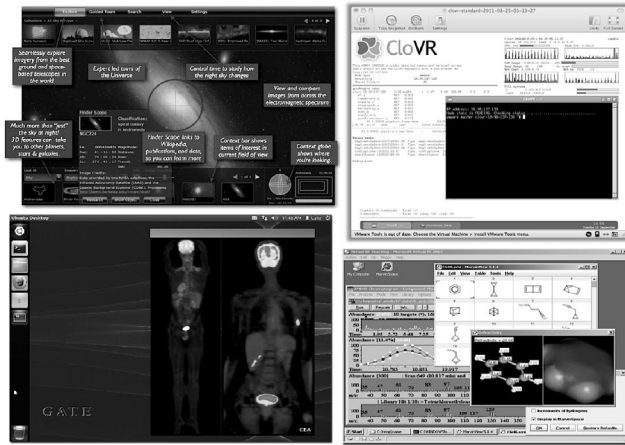


Figure 3: Some educational resources that are distributed as classic virtual machines (WWT, CloVR, vGATE, and a VirtualBox image for chemistry teaching).

# Mobile Authoring for ARLearn

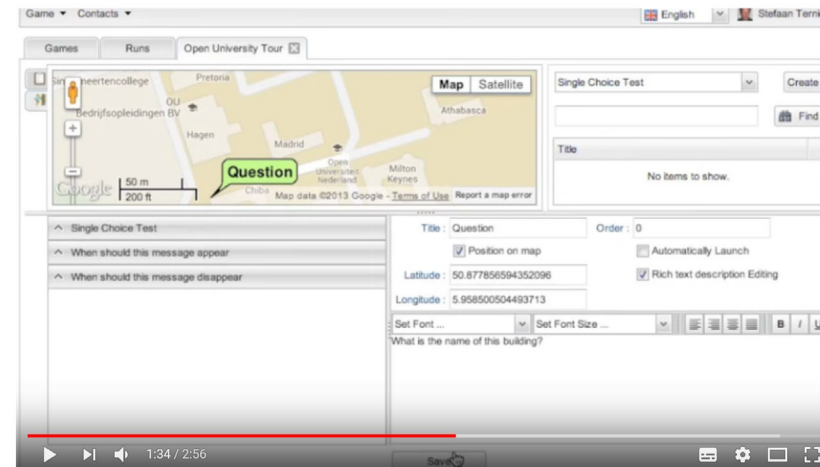
“The Mobile Authoring Tool complements the ARLearn desktop-based environment. Hence, a mobile game author can wander around creating items and synchronizing real world artefacts with game content.”

[https://dspace.ou.nl/bitstream/1820/5674/1/UAIS\\_Tabuenca\\_2014.pdf](https://dspace.ou.nl/bitstream/1820/5674/1/UAIS_Tabuenca_2014.pdf)

Bernardo Tabuenca; Marco Kalz; Stefaan Ternier; Marcus Specht

ARLearn <http://ar-learn.com/>

ARLearn is a technical framework for creating mobile serious games



<https://www.youtube.com/watch?v=Lqk3yrcNjNI>

# Interaction and Access Data

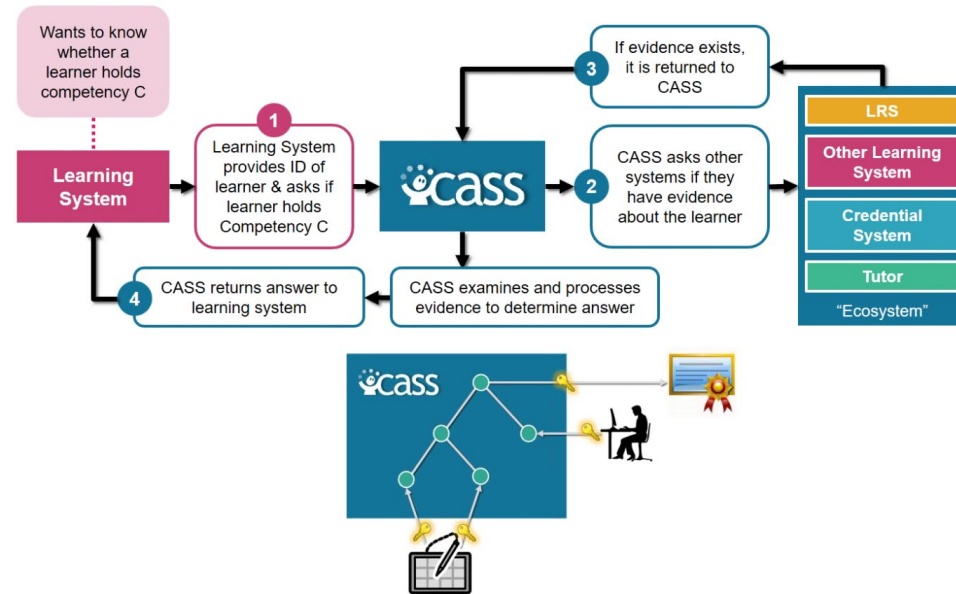
- Unlocking Open Educational Resources (OERs) Interaction Data -

David Massart, Elena Shulman

- <http://www.dlib.org/dlib/may13/massart/05massart.html>

- Creativity in the Open Workshop

- <http://blogs.ubc.ca/chenricks/>



## Advanced Distributed Learning (ADL):

- Competencies and Skills Systems
- Experience API (xAPI)

<https://www.adlnet.gov/xapi/>

# gRSShopper Functionality

## Harvester

- atom, RSS, JSON
- blogs, discussions, pages
- Twitter, Facebook, etc

Feed Manager

## Site Manager

- Course pages
- Events, etc.
- Newsletter pages



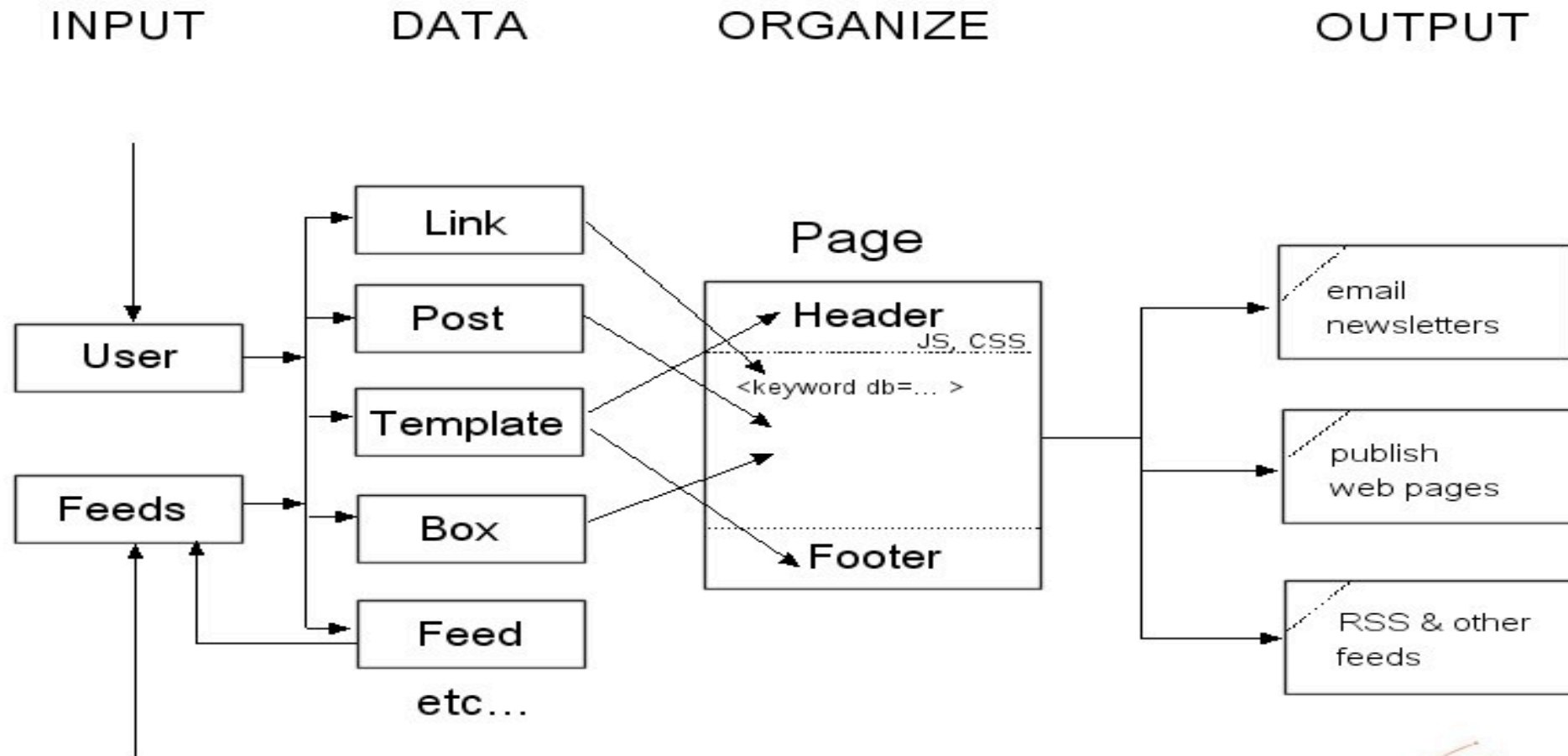
## User management

- Login and authentication
- Newsletter subscription
- Social network information

## Distribution

- Email newsletter
- RSS / Atom / JSON feeds
- API to Twitter, Facebook, etc

# gRSShopper Flow



# Feed Harvesting

Listing 0 to 1000 of 14 feeds

- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [A french point of view for edfuture](#) (category)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [All The Young \(edu\)Punks](#) (category)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [Ben Harwood](#) (category)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [Blogue de Florian Meyer](#) (category)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [creative becoming](#) (category)
- [\[Approve\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [Current/Future State of Education | Content](#) (Student)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [Educational Technology and Change Journal](#) (category)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [Learner Weblog](#) (category)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [Lifelong Learner » CFHE12](#) (category)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [Mox Box](#) (category)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [OPENBLOCK \(Public\) F](#)
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [RJ Hogue Consulting \(S](#)
- [\[Analyze\]](#)[\[Approve\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [Science of the Invisible](#) (categ
- [\[Analyze\]](#)[\[Harvest\]](#)[\[Retire\]](#)[\[Edit\]](#)[\[Delete\]](#) Links: [This is my feed title](#) (cat

YOU ARE LOGGED IN AS **ADMIN** [\[OPTION\]](#)

[General](#) [Harvester](#) [Users](#) [Newsletters](#) [Database](#) [Meetings](#) [Logs](#) [Permissions](#) [View](#)

### Edit Feed

[\[VIEW FEED\]](#) [\[LIST ALL FEEDS\]](#) [\[CREATE NEW FEED\]](#) [\[H\]](#)

Title:

Link:

Html:

Baseurl:

Feed Category:

Genre:

Feed Type:

Class:

YOU ARE LOGGED IN AS **ADMIN** [\[OPTIONS\]](#) [\[LOGOUT\]](#)

[General](#) [Harvester](#) [Users](#) [Newsletters](#) [Database](#) [Meetings](#) [Logs](#) [Permissions](#) [Viewer](#)

## Harvester

On this page you can manage and operate your harvester. To turn on automated harvesting, set 'Enable Harvester' to 'yes' (requires cron). The harvester will process one feed every 'Harvester Interval' minutes. To add, manage and delete content sources, create, edit and delete feeds (see the menu at left) or use the OPML options below.

### Enable Harvester

Enable Harvester:

Harvester Interval:

### Operate Harvester

- Harvest Next In Queue
- Harvest Feed:
- Harvest URL:
- Harvest File:

# Viewing and Posting

## List links

Find:  Sort:

Listing 0 to 100 of 80 links

- [Edit] [Delete] text/html An Open Online Course on the Current and Future State of Higher Education. (0 hits)
- [Edit] [Delete] text/html Madness vs. method (0 hits)
- [Edit] [Delete] text/html Following the sun (0 hits)
- [Edit] [Delete] text/html Walking the talk – creative praxis as research
- [Edit] [Delete] text/html It's like a jungle ... metaphors for literacy
- [Edit] [Delete] text/html A forest ... more metaphor wrangling (0 hits)
- [Edit] [Delete] text/html The guru of praxis ... (0 hits)
- [Edit] [Delete] text/html Threshold concepts, liminality, uncertainty
- [Edit] [Delete] text/html From trees to rhizomes, a line of flight
- [Edit] [Delete] text/html back to the future – ePortfolios Australia
- [Edit] [Delete] text/html Cultivating my digital garden (0 hits)
- [Edit] [Delete] text/html Presenting with the iPad – Part 2 Settings
- [Edit] [Delete] text/html How I'm going to participate in Mobile Learning
- [Edit] [Delete] text/html How I use my iPad (0 hits)
- [Edit] [Delete] text/html My Mobile Device List (0 hits)
- [Edit] [Delete] text/html Setting up your personal iPad for presentation
- [Edit] [Delete] text/html Workflows – Annotating PDF Articles on the iPad
- [Edit] [Delete] text/html Using iAnnotate to mark student papers
- [Edit] [Delete] text/html Using Siri to take notes on my iPhone

You are logged in as **admin** [Op]

Displaying resource number 80 of 80

<< < > >>

Status: Fresh

### Viewer

Tag:

Feed:

- All Feeds
- A french point of view for edfut
- All The Young (edu)Punks
- Ben Harwood
- Blogue de Florian Meyer

Category:

## An Open Online Course on the Current and Future State of Higher Education.

Source: [Lifelong Learner » CFHE12](#), by Claudia Scholz. Claudia's Personal Learning Portfolio and Journal

Date: October 8, 2012

I am far too busy to sign up for another MOOC! Nevertheless, I've added myself to the open online course on the Current and Future State of Higher Education. Part of the reason is that the topics are things that I might want to blog about anyway, and the course is a way of structuring and [...] Direct Link: [http://claudiascholz.wordpress.com/2012/10/05/cfshe\\_1/](http://claudiascholz.wordpress.com/2012/10/05/cfshe_1/)

### Comment



# Mixing and Publishing

## Publishing Options

Publish to:

Archive page?  yes  no [\[View Page Archive\]](#)

Autopublish?  yes  no How often?

Note that pages are also autopublished and archived when sent as newsletters.

## Newsletter Options

Enable newsletter subscriptions?  yes  no

Auto-send newsletters turned on?  yes  no

Autosubscribe to this newsletter?  yes  no

Weekdays	Days of Month	Time
<input type="checkbox"/> Sunday <input type="checkbox"/> Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday <input type="checkbox"/> Thursday	<input type="text" value="01"/> <input type="text" value="02"/> <input type="text" value="03"/> <input type="text" value="04"/> <input type="text" value="05"/>	<input type="text" value="9"/> : <input type="text" value="00"/>

When should the newsletter be published and sent? Select more than one weekday or date as desired

## Description

```
<h2>Discussion Posts</h2>
<p style="font: 400 12pt/16pt Verdana,Arial, sans-serif; color: #000040;">Discussion posts will be available here.
</p>

<h2>Delicious Links</h2>

<p style="font: 400 12pt/16pt Verdana,Arial, sans-serif; color: #000040;">Links from the shared bookmarking site delicious.
<a href="http://www.delicious.com/tag/cck11">Add your own bookmarks</a> and be sure to tag them as CCK11.</p>

<keyword db=link;expires=24;truncate=500;format=email;feedid=2637;all;sort=crdate DESC>

<keyword db=link;expires=24;truncate=500;format=email;feedid=2641;all;sort=crdate DESC>

<h2>Twitter Posts</h2>

<p style="font: 400 10pt/12pt Verdana,Arial, sans-serif;color:#000040;">
<keyword db=link;type=twitter;format=twitter;sort=crdate DESC;expires=24>
</p>
</div>
```



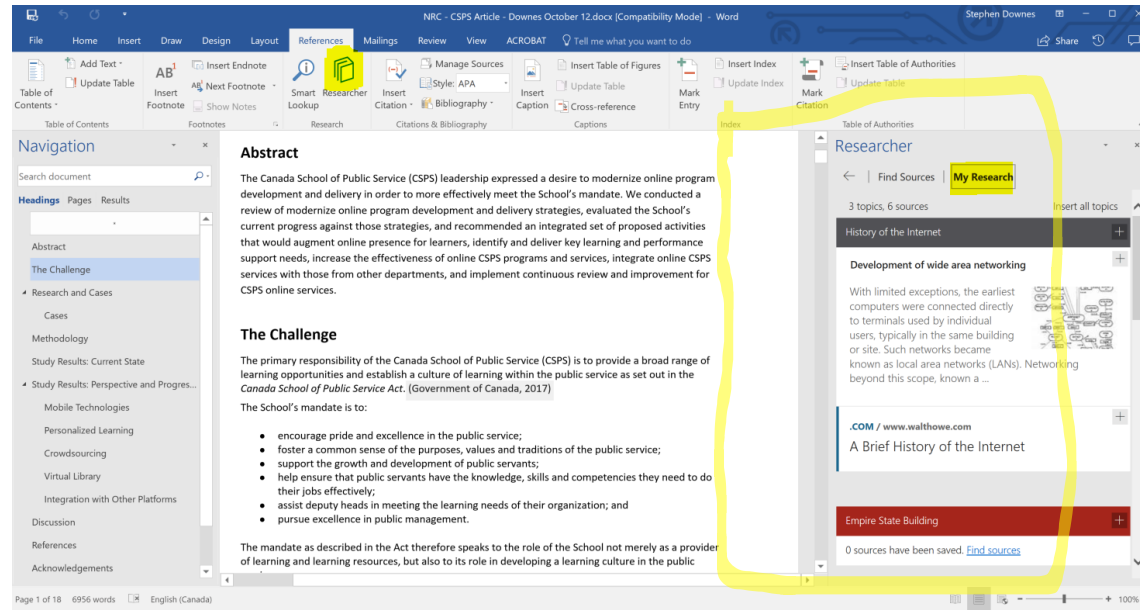
# Applications in Other Applications

- gRSShopper in Vivaldi

The image shows a Vivaldi browser window with two tabs. The left tab displays a YouTube video titled "The Twins" by Discovery Education, featuring two young men, Lucas and Liam, standing outdoors. The right tab shows a blog post on CogDogBlog titled "On Transformations" by Alan Levine. The blog post includes a link to a previous article from 2017 and a paragraph of text about a fellowship ceremony in Melbourne. The gRSShopper interface is visible, showing fields for "Enter post\_author name" (Alan Levine) and "Enter post\_feed name" (CogDogBlog).

# Applications in Other Applications

## Research and References in an MS-Word Plugin



[https://www.officetooltips.com/office\\_2013/tips/advanced\\_research\\_with\\_research\\_pane.html](https://www.officetooltips.com/office_2013/tips/advanced_research_with_research_pane.html)