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### Presentation

#### Goals

- 1. Understand what is Web 2.0
- 2. Know Tiki Wiki CMS/Groupware https://tiki.org
- 3. Learn the basics of developing web interfaces for R with "Tiki" and "PluginR".
- 4. Perform practical exercises:
  - 1. See simple example calls to PluginR
  - 2. Make a web interface to request 3 parameters and will return the 4th to calculate the power of a test with R
    - + Http://www.statmethods.net/stats/power.html
- 5. Know where to get help from now

### 1.2. Web 2.0?

YouTube: Web 2.0 ... The Machine is Us/ing Us (4'32'') http://www.youtube.com/watch?v=6gmP4nk0EOE . See also http://es.wikipedia.org/wiki/Web\_2.0

http://es.wikipedia.org/wiki/Web\_2.0

## 1.3. Introduction to Tiki (15')

• "Tiki for Dummies Smarties at VHIR". 4/5/12

Slide in realtime from http://ueb.vhir.org/TikiSeminar

Or shown in Slideshare once converted to PDF:

Así, este sitio web basado en Tiki funciona con:

- un servidor web Apache (http://www.apache.org),
- el lenguaje de programación PHP (http://www.php.net)
- la base de datos MySQL (http://www.mysql.com)
- un gestor de bases de datos mysql escrito en php: PhpMyAdmin (http://www.phpmyadmin.net)
- El programa web "Tiki" (Tiki Wiki CMS/Groupware https://tiki.org)
- El Plugin adicional "PluginR" (http://doc.tiki.org/PluginR), para comunicar Tiki con R
- R 2.15 en el servidor (http://www.r-project.org)

Thus, this web site powered by Tiki runs on:

- Apache web server (http://www.apache.org)
- PHP programming language (http://www.php.net)
- MySQL database (http://www.mysql.com)
- A database manager written in php mysql: PhpMyAdmin (http://www.phpmyadmin.net)
- The "Tiki" web program (Tiki Wiki CMS/Groupware https://tiki.org)
- Additional Plugin "PluginR" (https://doc.tiki.org/PluginR), to communicate Tiki with R
- R 2.15 or later on the server (http://www.r-project.org)

## 1.4. Introduction to PluginR (15')

See: "Web 2.0 for R scripts & workflows: Tiki & PluginR". Xavier de Pedro Puente, Ph.D. & Àlex Sánchez Pla, Ph.D.

The R User Conference 2011. University of Warwick, Coventry, UK. August 16-18th. http://www.warwick.ac.uk/statsdept/user-2011/

Slides and Slidecast from the oral communication: http://ueb.vhir.org/tools/show:2011+UseR

#### See the slideshow in Slideshare.net

View more presentations from UEB.

# 1.5. Access your online space for the course (10')

Like

http://r.tiki.org

but one for each participant, with shell access, phpmyadmin, and space to upload your tiki.

# 1.6. Install Tiki

Installation of Tiki

## 1.6.1. Detailed steps

- Once the domain, the database name and the database user, as well as the ssh user, we can connect to our ssh account at the server, and download Tiki there and install it on the server.
  - To download go to the Tiki http://tiki.org/Download
    - We will download the latest Long Term Support (LTS) version of Tiki: version 9.x LTS at the time of this writing http://sourceforge.net/projects/tikiwiki/files/Tiki 9.x Herbig Haro/
    - we copy the url to the compressed file, for instance, the tar.gz one, which would be something like: http://sourceforge.net/projects/tikiwiki/files/Tiki\_9.x\_Herbig\_Haro/9.7/tiki-9.7.tar.gz/down load?use mirror=heanet
  - connect to your ssh account in r.tiki.org from a terminal in your GNU/Linux or Mac computers, or dopwnload and run Putty if you are on Windows. And connect to the server **r.tiki.org**, with the ssh username and password that you have been provided when you enrolled the training session or course.

Run this in the terminal:

ssh youruser@r.tiki.org

 Download the file with wget and the url you got in that previous step, in your home folder where you are after that simple ssh conection

wget -c

"http://sourceforge.net/projects/tikiwiki/files/Tiki\_9.x\_Herbig\_Haro/9.7/tiki-9.7.tar.gz/downl oad?use\_mirror=heanet" -O tiki-9.7.tar.gz

If it fails for whatever reason, run the same command again from the same folder, and the download will continue from where it was interrupted.

• Once downloaded, we extract it. Run in the terminal:

tar -xzvf tiki-9.7.tar.gz

 $\circ$  then move the whole folder inside your public html folder in your account **www**:

mv tiki-9.7 ./www

 Then change directory to that new folder location, and run the installation script server side that will change the file and folder permissions for you (so that the installation through the web installer can be performed in a safe way in a later step):

cd ./www/tiki-9.7/ sh setup.sh

 and answer to the questions:
 f [and press enter, to get the permissions fixed for you] [multi]: [leave blank and press enter]
 x [and press enter, to quit the setup script]. • Now we connect with our browser to our site and from there install Tiki through the web installer.

http://myuser.r.tiki.org/tiki-9.7/tiki-install.php

- 1. Welcome
  - Press continue
- 2. Review system requirements
  - We accept default values
- 3. Set the Database connection
  - Database type : MySQL
  - Host name: localhost
  - Database name: your\_db\_name
  - Database user: your\_db\_user
- Once connected to the database you are shown a button to start the installation process.
  Click to Install. This will create a new user called "admin" to log in Tiki for the first time.
- Then you are shown some options to fine tune some settings ("Configure general settings").
  Answer for your case, or leave default values if unsure. And continue.
- $\circ\,$  Last, you are shown two options:
  - 1. Enter Tiki and lock installer
  - 2. Enter Tiki without locking installer
- $^\circ$  Choose the first option "Lock installer" to provide extra security for your installation
- The first time that you enter Tiki, you are requested to change the password for user "admin"

# 1.7. Apply profile r\_test

Go to "Admin home > Profiles", search for "r\_test", and apply profile. As a reference, you can see the example of applying the "Bug\_Tracker" profile in the screencast below.

#### Applying the configuration profile "Bug\_Tracker"

## 1.8. Install PluginR

#### Installing PluginR for the first time