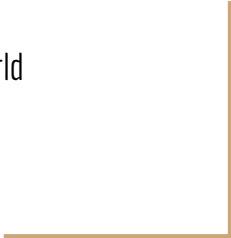




Web Technologies for the Digital Humanities

Facing an ever-changing world



Lorenzo Soligo - Ca' Foscari University of Venice
Master's Degree in Digital Humanities 2020 - Lesson 1

About me

Lorenzo Soligo (875566@stud.unive.it, [LinkedIn](#), [GitHub](#))

23 years old

Master's student in Computer Science

Previous experience in cybersecurity, AI, software development, research

Ask me anything!

What about you?

Is there anything you'd like me to know?

What's your background?

What do you expect from these lessons?

Agenda

- 1) Recap on CMS, WordPress, Databases, ...
- 2) Installing and using WordPress
- 3) Installation of data visualization plugins
- 4) Thoughts, recommendations, questions

1/4: A BRIEF RECAP

Content Management System (CMS)

- A software tool, running on a web server
- Allows and eases creation and modification of digital contents
- Encourages separation of content and presentation



WordPress



- Open source CMS written in PHP + MySQL
- Created in 2003
- Beware of the difference between *wordpress.com* and *wordpress.org*!

Web pages: static vs. dynamic

- Static web pages always return the same page (HTML code)
- Dynamic web pages may return different pages depending on many factors
- Is facebook.com static or dynamic?

Database (MySQL)



- Contains structured data
- MySQL is relational → tables!
- Fundamentals: CRUD operations (create read update delete)

CRUD operations: question time

- I am a new student at Ca' Foscari. The technicians need to add me to the University database. Which operation is this?
- I am studying Computer Science, but I feel computers are sterile and want to find some meaning in my life through Philosophy. What operation needs to be done on the DB in order to change my course of study?
- A Professor is looking me up in order to check whether I lied when I said I have only one exam left before graduating. Which operation is required?

CRUD operations: question time

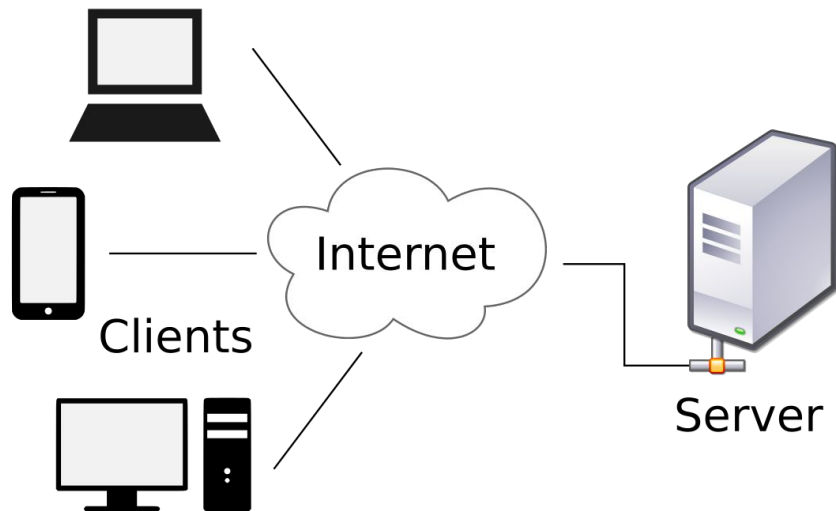
- I am a new student at Ca' Foscari. The technicians need to add me to the University database. Which operation is this? **INSERT/CREATE**
- I am studying Computer Science, but I feel computers are sterile and want to find some meaning in my life through Philosophy. What operation needs to be done on the DB in order to change my course of study? **UPDATE**
- A Professor is looking me up in order to check whether I lied when I said I have only one exam left before graduating. Which operation is required? **READ**

Web Server

NGINX



- Application that runs on a *server*
- Answers to requests received from *clients*
- Most famous: Apache, Nginx



WAMP, LAMP, MAMP [, MEAN]

Acronyms:

- MAMP: macOS Apache MySQL PHP/Python
- WAMP: Windows Apache MySQL PHP/Python
- LAMP: Linux Apache MySQL PHP/Python

Something else:

- MariaDB instead of MySQL (especially on GNU/Linux)
- MEAN: MongoDB, Express.js, Angular, Node.js

Configuring a LAMP/WAMP stack

LAMP: <https://www.linuxbabe.com/ubuntu/install-lamp-stack-ubuntu-18-04-server-desktop>

WAMP: <https://websiteforstudents.com/getting-apache2-mysql-php-windows-10/>

But...

- A free hosting will be enough for this course :)
- We will use Alservista, since Wordpress.com wouldn't be enough
- If you want to create a real website consider relying on some of the plans proposed by Aruba, Alservista, Wordpress.com, ...

A small challenge :)

- When I open www.facebook.com on my laptop, am I the client or the server?
- I have a home server with Apache, Wordpress and MySQL installed. When I try to access it, who answers?
- What should I use as a tool to write articles for my new blog on english roses: Wordpress, Nginx or MariaDB?
- My web server runs Ubuntu Linux 18.04. Which stack am I probably using: MAMP, LAMP or WAMP?

A small challenge :)

- When I open www.facebook.com on my laptop, am I the client or the server? I am the client
- I have a home server with Apache, Wordpress and MySQL installed. When I try to access it, who answers? Apache
- What should I use as a tool to write articles for my new blog on english roses: Wordpress, Nginx or MariaDB?
WP
- My web server runs Ubuntu Linux 18.04. Which stack am I probably using: MAMP, LAMP or WAMP? LAMP

2/4: INSTALLING AND USING WORDPRESS

Unfortunately...

- Websites built with wordpress.com require a business account in order to get access to plugins
- No big deal! There are many free hostings around
- For the sake of simplicity, we will use Alservista



Esegui l'aggiornamento al piano Business per installare i plugin.

Coinvolgimento

Sicurezza

Aspetto

Scrittura



Carica plugin

In evidenza



WooCommerce
Automattic

★★★★★



Yoast SEO
Team Yoast

★★★★★



BuddyPress
The BuddyPress Community

★★★★★



TinyMCE Advanced
Andrew Ozz

★★★★★



Google Analytics for WordPress by ...
MonsterInsights

★★★★☆



Page Builder by SiteOrigin
SiteOrigin

★★★★★

Popolari

Visualizza tutto >



Contact Form 7
Takayuki Miyoshi

★★★★☆



Yoast SEO
Team Yoast

★★★★★



Akismet Anti-Spam
Automattic

★★★★★



Jetpack by WordPress.com
Automattic

★★★★☆

✓ Installazione eseguita



WooCommerce
Automattic

★★★★★



WordPress Importer
wordpressdotorg

★★★☆☆

Nuovo

Visualizza tutto >



Gkash Master
Gkash Tech Team



Media File Organizer
Sherif Mesallam



Woocommerce Photo Tags
Paul Ten-Bokum



Altervista.org

- Free hosting
- One-click WordPress installation
- Allows plugins to be installed!

Inizia a creare il tuo sito

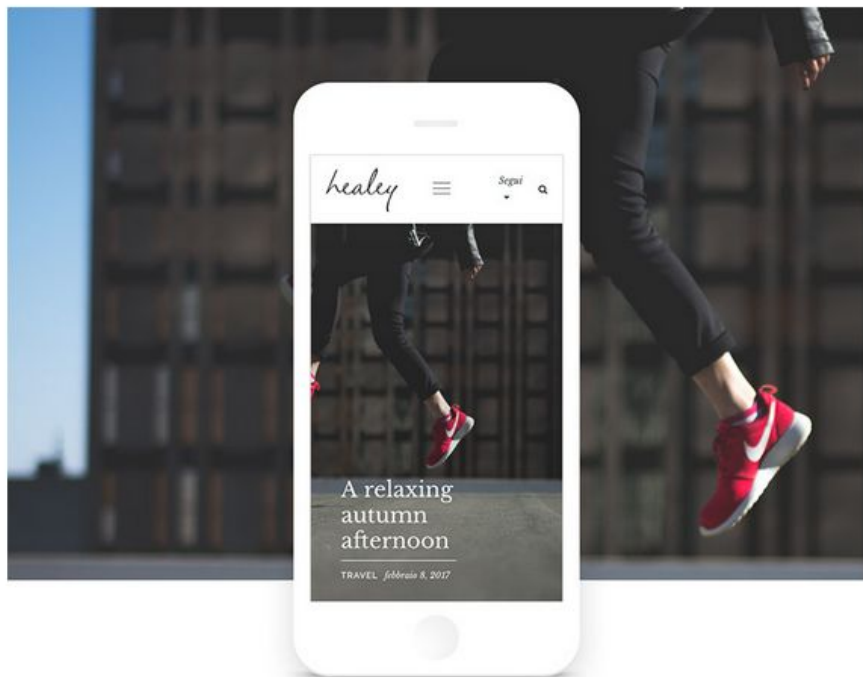
Il migliore WordPress gratuito

Il tuo sito funzionerà con WordPress, la migliore piattaforma per pubblicare i tuoi contenuti.

PROSEGUI >

Vuoi il solo servizio di hosting?

① Hosting con supporto PHP, Mysql e FTP



If you feel brave

Here is how to install Wordpress on a LAMP stack:

<https://www.rosehosting.com/blog/how-to-install-wordpress-with-lamp-stack-on-ubuntu-18-04/>

Notice that the first part overlaps with the standard installation of the LAMP stack!

Post

- Content which has a publish date
- Can belong to *categories* and be labelled with *tags*
- Have an author

Page

- Organized hierarchically with respect to other pages
- Contains static content

Post vs. page

- A post represents some timely content, written by some author. It appears in a page in our blog.
- A page represents some static content (e.g. the Contacts page), doesn't have a publish date, and might contain a collection of posts.

×

Stai personalizzando ► Menu navigazione

Publicato

Nome menu

navigazione

Home Link personalizzato ▼

Pagina di prova Pagina ▼

[Riordina](#) + Aggiungi voci

Posizione menu

Qui è dove appare il menu. Se desideri modificarlo, seleziona una diversa posizione.

☒ Menu Primario (Attuale: navigazione)

Opzioni del menu

☐ Aggiungi automaticamente le nuove pagine di primo livello a questo menu

[Elimina menu](#)

◀ Nascondi i controlli

Blog di digitalhumanities2019

Un nuovo sito targato WordPress

Home

Pagina di prova

Homepage

SENZA CATEGORIA APRILE 9, 2019

... [Continua »](#)

Articolo 1

SENZA CATEGORIA APRILE 9, 2019

Benvenuti nel sito di prova del Master in Digital Humanities! Questo è un... [Continua »](#)



Il primo articolo

SENZA CATEGORIA MARZO 30, 2019

Ciao, il tuo nuovo sito inizia qui! Puoi scegliere il tema grafico, mobile (menu Mobile) e desktop (Aspetto). Se vuoi guadagnare... [Continua »](#)

ULTIMI ARTICOLI

2 MINUTI FA

[Homepage](#)

21 MINUTI FA

[Articolo 1](#)



1 SETTIMANA FA

[Il primo articolo](#)

Another small challenge

- Is <https://www.giallozafferano.it/ricette-cat/Antipasti/> a post or a page?
- Is <https://ricette.giallozafferano.it/Tiramisu.html> a post or a page?

Another small challenge

- Is <https://www.giallozafferano.it/ricette-cat/Antipasti/> a post or a page? Page
- Is <https://ricette.giallozafferano.it/Tiramisu.html> a post or a page? Post

Categories and Tags

"Categories provide a helpful way to group related posts together" → *broad* grouping of posts!

"Tags provide a useful way to group related posts together and to quickly tell readers what a post is about. Tags also make it easier for people to find your content." → *specific* details of posts!

The “customize” world

- Unleash your fantasy and creativity!
- You can easily work on the appearance of your blog and get it to look the way you like!
 - well... you might need to know some CSS to make more “advanced” modifications

CSS basics

- Classes: *.classname*
- IDs: *#id*
 - Difference: an ID can be used to identify one element, whereas a class can be used to identify more than one
- Properties: too many

Media

- Insert all the media you create in a library
 - this includes pictures you use in your articles, videos, ...
- Also, media contents (e.g. plots) created by plugins are usually put into a library

Themes

Try playing with them by yourself and see what happens :)

Widgets

Add content and features to your Sidebars (see demo)

Settings: such a mess...

- Permalink: format of the URLs to your posts
- HTTPS: enable it!
- CloudFlare: enable it!
- Cache: ?
- Mobile: configure as you wish

WordPress shortcodes

- Small codes to add some functionality to the website
 - to be used in pages and posts
- Some examples:
 - [playlist]
 - [gallery]
 - [audio]
- Useful websites:
 - <https://codex.wordpress.org/Shortcode>
 - <https://generatewp.com/shortcodes/>

Google Analytics

We can create an account and try together if you are interested in using them :)

Some useful plugins

- Disable comments
 - can also be done through Wordpress' settings
- PDF Embedder
 - embed PDFs in a post
- Duplicate post
 - copy posts without effort
- Polylang
 - support multiple languages
- ... too many to list them all!

Honorable mentions: Ninja Forms, Elementor, Quiz and Survey Master, Social Networks Auto-Poster, ...

Disable Comments

☐ **Ovunque:** Disabilita tutte le impostazioni e preferenze relative ai commenti in WordPress.

Attenzione: Questa opzione è globale e avrà effetto su tutto il tuo sito. Usala solo se vuoi disabilitare i commenti *Ovunque*. Una descrizione completa sull'effetto di questa opzione è [disponibile qui](#).

☒ **Su alcune tipologie di contenuto:**

☐ Articoli

☒ Pagine

☐ Media

Disabilitando i commenti saranno anche disabilitati i trackbacks e i pingbacks. Tutti i campi relativi ai commenti saranno nascosti anche dalle schermate di modifica/modifica-veloce degli articoli coinvolti. Queste impostazioni non possono essere sovrascritte per i singoli articoli.

Salva le modifiche



3/4: DATA VISUALIZATION PLUGINS FOR WORDPRESS



Timeline Express

- "create a beautiful animated vertical timeline on your site"
- `[timeline-express]` shortcode
- compatible with Polylang

Usage

1. Create announcements
2. Use the shortcode [timeline-express] in an article to show the timeline
3. Enjoy!

A nice example: <https://www.wp-timelineexpress.com/examples/basic-timeline/>

NextGen Gallery

A nice gallery which supports different styles

digitalhumanities2019.altervista.org/test-di-galleria/ an example

Photo Gallery

Yet another gallery, can be used instead of standard ones or NextGet if you like it better

Map Multi Marker

- Simple tool to mark locations of interest on a map
- Free and versatile
- Might want to add a Google Maps API key

WP Google Maps

Beware of the billing!

<https://developers.google.com/maps/documentation/api-picker> (you'll probably need the JavaScript API)

<https://developers.google.com/maps/documentation/javascript/tutorial> "API Key and Billing Errors"



4/4: THOUGHTS, RECOMMENDATIONS, QUESTIONS



Useful resources

[Cristian Baldi - Guida galattica per aspiranti Web Developer](#)

[MDN Web Docs](#)

[W3schools](#)

Thanks for your attention!