

BEdita, a semantic content management framework, a development platform

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Definition

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- BEdita [bi'edita]
a Web2.0 (3.0?) framework,
a tool for the (future?) Semantic
Web.
- Not just designed around WWW
but also for desktop, mobile,
paper-press



History/motivation

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Why BEdita?

CMS market is really crowded: choosing is difficult.

Why so many solutions? Different needs, different approaches, many incomplete solutions.... or?

What we needed:

- handle different semantic contents, with advanced tools (native multilanguage, multipublishing, free relations...)
- powerful tool to create advanced web user interfaces
- good design, code quality, re-use of web components/frameworks, accessible licensing



History/motivation

We have many good solutions: wordpress, drupal....with important limitations

Otherwise big enterprise solutions (ECM), too expensive!

We had a CMS-like software, completely redesigned/rewritten, kept some good ideas.

Software reuse is an important value, avoid **reinventing the wheel**: use *good* sw components available, BEdita has many many 3rd party libraries (like a *distribution*)

Focus on content-related business logic only

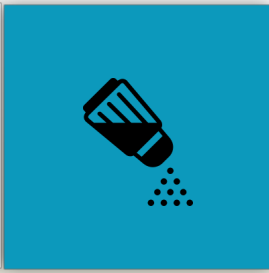
Needs driven design



Architecture

2 main elements:

- backend WebApplication: handling contents and their semantic relations; modern/elegant/ergonomic UI....featuring chromatic association between object types, lot of drag'n'drop, and other AJAX techniques;
- frontend API, services, specs, conventions to build frontend apps; Web apps mainly, but also desktop/mobile using the native REST/XML interface.



Architecture/2

Requirements:

LAMP architecture, Linux & Apache recommended on productions systems, only cross-platform components (Mac/Win/UNIXes...); **MySQL5** : referential integrity, views, stored procedures; other DBMS will be supported...; **PHP5** : OO syntax, extensive use of exceptions;

Bundled software:

CakePHP : webapp framework, like RubyOnRails; provides MVC, i18n/l10n, OR Mapping, UnitTesting, DBmigrations, security, caching, validation; **Smarty** : PHP templating library (MVC View); **jQuery** : Javascript library - AJAX, drag'n'drop, DOM manipulation; many other like phpThumb , TinyMCE

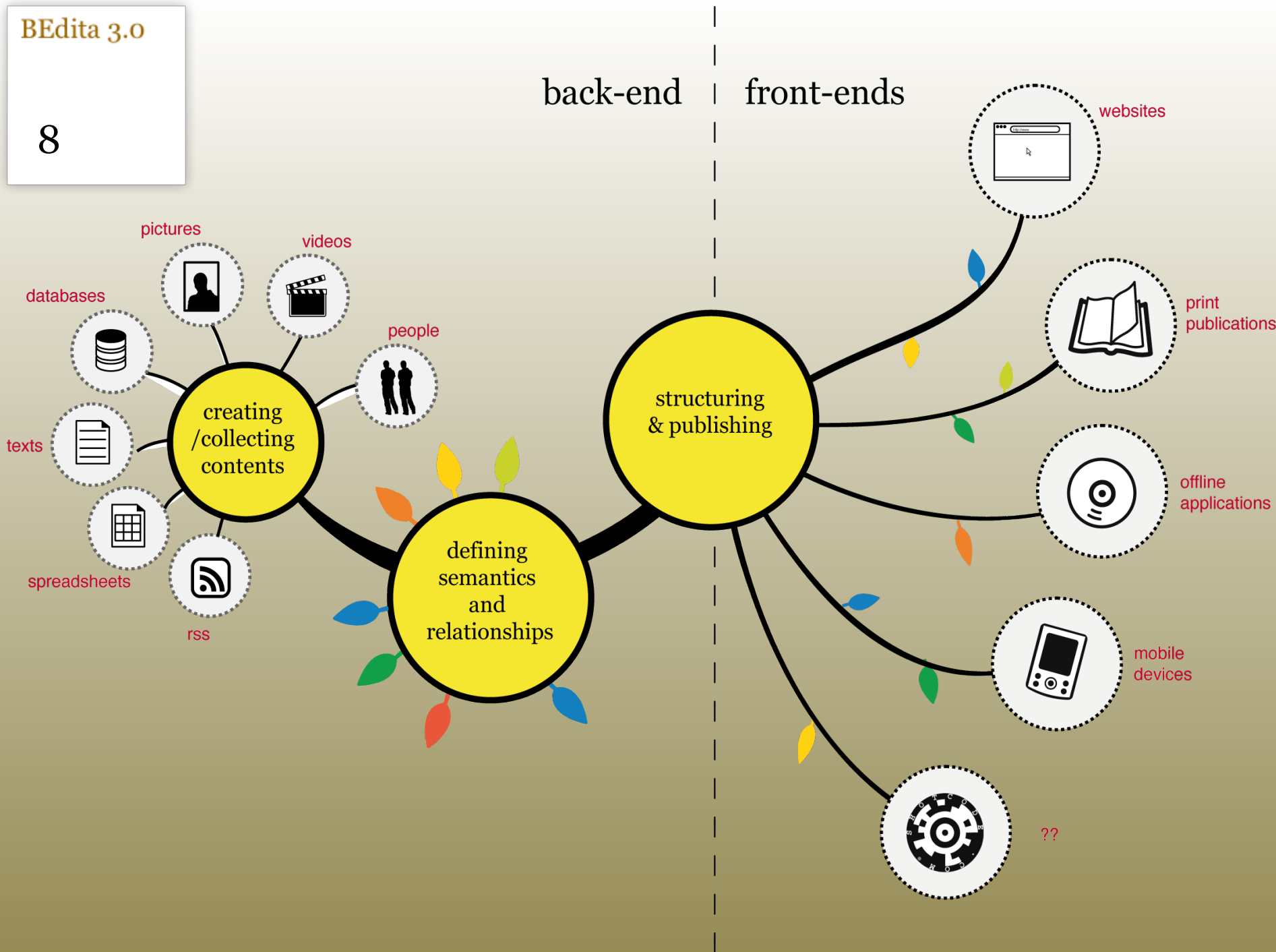


Framework or CMS?

CMS : “a tool that enables tech and non tech staff to create, edit, manage and publish a variety of content (text, graphics, video, ...)”

Framework : “incomplete, though concrete, driving solution to recurring high-value problem”

- *incomplete*: tool for [web]designer/[web]devs
- *high value problem*: applications with dynamic, multimedia contents, complex, many semantic relations





BEdita Frontends

Not a *finished, ready* system: not a solution for our customers

- can't preview customer/project needs (user interaction, features, webservices, integrations..) - but say NO! sometimes :-)
- don't want to limit graphic/design ideas -> help instead, provide a tool for creative communication ideas

a blackboard to draw **quick** and **easy** – with BEdita:

- start with basic apps, easy to modify/extend: KISS - *convention over configuration* – no annoying xml setups
- clear and simple view layout (V in MVC) - cakephp conventions – custom view for a given content or section (using *nicknames*)

Developing with BEdita is **agile** :-)



BEdita Frontends

Frontend: application to show and interact with a *publication* [*content repository* with hierarchic and semantic structure] – can be: website, doc archive, magazine, book, multimedia online service...??? - 1 backend / N frontends - completely decoupled from backend, for efficiency, security, scalability...

• **How publish? which media?** web, feeds, newsletter, paper, iphone, kindle ... also social networks like facebook, twitter....an *ever growing list*

<<..there will never be a single *black box* device...>> - “The Black Box Fallacy” - H. Jenkins (Convergence Culture)

• **What kind of user interaction? Who are my users?**

People demand interaction, rich experience → but also software/computers – Web2, Semantic Web, SEO



Web2, 3?, Semantic Web

Web2.0, a concept emerged in 2004/2005: web applications that help sharing, interoperability, collaboration; user-centered design; users fundamental *active players*

Web As Platform - Harness Collective Intelligence - End of the Software Release Cycle - Lightweight Programming Models - Rich User Experiences (Tim O'Really - 2005)

Semantic Web, publish informations and data with formats for automatic interrogation/elaboration. XML formalization to describe contents in a *semantic way*.

A universal medium to interconnect/exchange data, creating a Web browsable by other software - Ontologies: DublinCore, FOAF, Microformats... RDFa already usable!

→ *Metadata, metadata, metadata!!*

BEdita **designed** to be *Semantic*



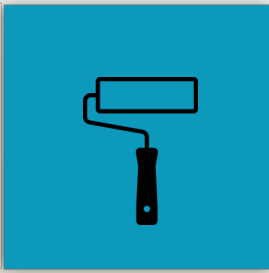
BEdita Applications

Web: companies, public administrations, projects, campaigns, portals ; > *webagencies, communication, marketing, software house, system integrators;*

publishing : online vertical applications (books, magazines, newspapers, tv/radio); > *publishing companies*

dedicated vertical solutions : specific fields/domains where e.g. festivals/events/fairs management; > *consulting and services companies (main ICT), startups;*

new web services – any cool idea? > *startups;*



Licensing

BEdita: dual licensing business model

Affero GPLv3 license: a relatively new license, created for software on the net (our case), resolving the ASP loophole problem.

Proprietary version: same software with a few vertical add-on modules (like *e-commerce*).

A clear choice to users:

- choosing AGPL: all free software rights, but same license for apps published on Internet (...source code available);
- choosing proprietary license: I may publish my Internet applications not under AGPL, also vertical proprietary sw;

- › Italiano
- › **english**
- › deutsch
- › português

your 5 recent items —

Marco Antonio

Dune.jpg

Innaugurazione

Il primo documento

Publishing

your profile and preferences +

search —

GO

all recent items +

connected user +

tags +



archivio

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contents

sections

properties

1	■	19-20-21 settembre WEEK-END IN GALLERIA con START	ita	>>	X
2	■	'Dynamic Table. Un dialogo fra profit e non profit'. From vol...	ita	>>	X
3	■	4 ottobre: Giornata del Contemporaneo	ita	>>	X
4	■	Test news	ita	>>	X
5	■	6 maggio, conferenza stampa di presentazione del festival	ita	>>	X
6	■	Al festival si parla di dismissioni creative	ita	>>	X
7	■	A conclusione della seconda giornata del festival, Suoni e lu...	ita	>>	X
8	■	Questa è una nuova news	ita	>>	X
9	■	Arte e design. Alberto Bassi intervista Alexander Von Vegesack	ita	>>	X
10	■	Ci vediamo all'Adunata del contemporaneo	ita	>>	X
11	■	Coming shows	ita	>>	X



all multimedia

798 multimedia

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next

prev

Add new item

Select by type

order by:

id

title

name

type



Image



Video



Audio



Text



Spreadsheet



Presentation



Drawing



Chart



Formula

All



After Judgment S01E01:
video/blip 0KB
Apr 30, 2009



The Presets Just Wanna
video/blip 0KB
Apr 30, 2009



The Crew #109 - V
video/blip 0KB
Apr 30, 2009



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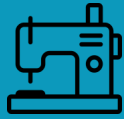


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800x600px, 136KB

User: **ChannelWeb**
Global User

› Home

› Exit



Features

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i18n: contents & UI in every language (ISO-693-3, gettext, custom structure, dedicated module)

object design: every type may be (geo)tagged, categorized, translated, published on different nodes...; videos, events, newsletters, cards...

obj extensions: create new types, or new custom properties to existing types

modularity: software modules for specific tasks and to handle different types



Features (more)

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- free **semantic relations** between objects;
- **authentication**: internal or external (like LDAP, OpenID)
- dedicated **newsletter** module
- integrated **statistics** , on contents and publications (external providers like Google analytics, webserver log)
- **access granularity**: users and groups (dynamic privileges)
- **XML/REST** (JSON) native interface for published objects
- **nicknames** : unique alphanumeric semantic ID for URLs/apps



Strength

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- Clean separation between backend and frontends
- Clear framework nature
- Extensible object design
- Reuse: web app frameworks and other libs..
- Advanced i18n
- Elegant, ergonomic, powerful web2.0 backend UI
- Free semantic relations
- *Enterprise* features on LAMP architecture

A unique or rare set of features.... almost....or??



Standards

- classic W3C web technologies standards
- Dublin Core: metadata for objects/contents
- RSS /Atom automatic feeds generation
- Sitemap: automatic map generation, new sitemap protocol
- REST: webservices *like* – not SOAP (in the future?)
- CMIS: Content Management Interoperability Services, OASIS interop. standard (draft) between CMS (work in prog.)
- OpenDocument: import/export filters (work in prog.)
- Other lower level standards: ISO 639-3, UTF-8



Thank you!

See you on

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