



# lovely.rest

## Presenters:

Jodok Batlogg

- Co-Founder Lovely Systems, Austria
- Plone Foundation Board Member

Stephan Richter

- Zope 3 core developer
- Zope 3 consultant
- Author/Editor of 3 Zope books

# WE

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# Jodok Batlogg

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# Stephan Richter

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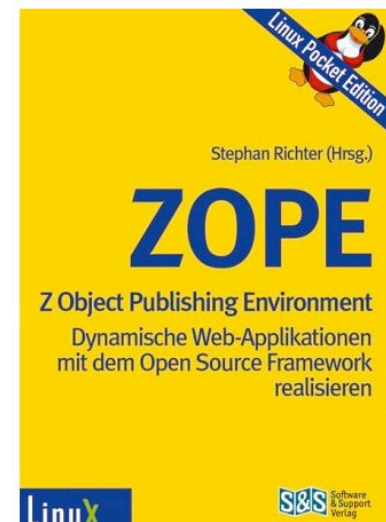
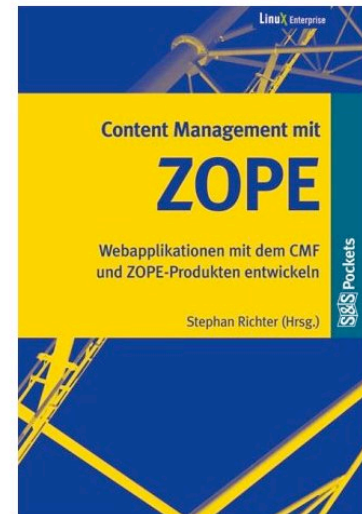
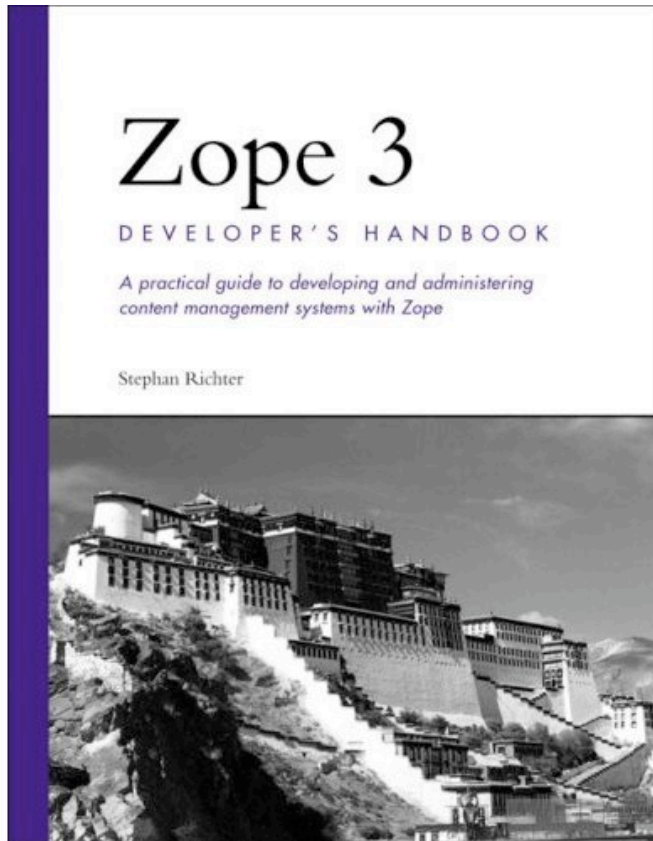
The logo features a blue circular icon with a stylized 'Z' shape inside, followed by the text 'ZOPE 3' in a large, black, serif font.

ZOPE 3

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**LOVELY** SYSTEMS



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Lovely Systems:

- headquartered in Dornbirn, Austria
- Office in Sweden
- Starting in Romania and Boston
- Consultants all around the planet

# Dornbirn, Austria

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# Malmö, Sweden

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# Maynard, MA

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# Oradea, Romania

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# dobee

Bernd Dorn



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experienced zope3 developers

# jukart

Jürgen Kartnaller



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with experience in mission critical systems around the globe

# srichter

Stephan Richter

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Extremely Lovely  
Consultants



# projekt01

Roger Ineichen

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and  
Freelancers

# fRiSi

Harald Frißnegger

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A good mix of experienced Plone Developers

# timte

Tim Terlegard



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# wreutz

Wolfgang Reutz



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# oliruhm

Oliver Ruhm

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# wolfabua

Armin Wolf



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user interface  
specialists

# komenda

Klaus Komenda

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and html/css/javascript  
gurus

# wynny

Markus Wynnyczenko



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# schwendinger

Manfred Schwendinger



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a lovely management  
team

# sashav

Sasha Vinčić



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with well known plone people

# batlogg

Jodok Batlogg



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# byzo

Michael Breidenbrücker

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and the co-founder of  
last.fm



# miann

Maria-Anna Lang

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and a really lovely  
administration

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# growing

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# Lovely is Hiring

Austria – Sweden – Maynard – Romania



# 1 Client

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Publishing company

1000 employees in Germany, Austria, Hungary and Romania



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Using PHP,  
ASP.NET

10000

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Employees

60

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[Party](#)

[Video](#)

[Classifieds](#)

[Jobs](#)

VIENNA  
ONLINE

VORARLBERG  
ONLINE

INFORM MEDIA



VORARLBERGER MEDIENHAUS

QUOKA.de

HEUTE KAUFEN MORGEN FAHREN  
**laendleauto.at**

Vorarlberg's schnellste Adresse für alle Fahrzeuge

Publi'Tim

1036hallo!

medienhaus.com  
Wien • Vorarlberg

**video.vol.at** BETA  
VERSION

vorarlberg.com

Newspaper  
of the Year 2006  
**VN**  
Vorarlberger  
Nachrichten

HEUTE KAUFEN MORGEN WOHNEN  
**laendleimmo.at**

high  
speed

VERKAUFEN ODER KAUFEN – GANZ EINFACH  
**laendleanzeiger.at**

**laendlejob.at**  
JOB SUCHEN. KARRIERE STARTEN.

austria.com

**VOLKSBLATT**  
DIE TAGESZEITUNG FÜR LIECHTENSTEIN

party  
people.at



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News  
Party  
Video  
Classifieds  
Jobs

# 67,608,744

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## Pageviews in Austria (Sept. 2006)

85% of the people in State of Vorarlberg access the portals at least once a week

Applications are up to 10 years old

our plone based video portal servers 100GB of videos a day

# 10

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Years old applications



# Web 2.0

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Lovely Systems has experience with Web2.0.  
Actually, the first european Web2.0 investment was last.fm



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Youtube is attracting Millions of Users



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Myspace.com took  
off

Google™

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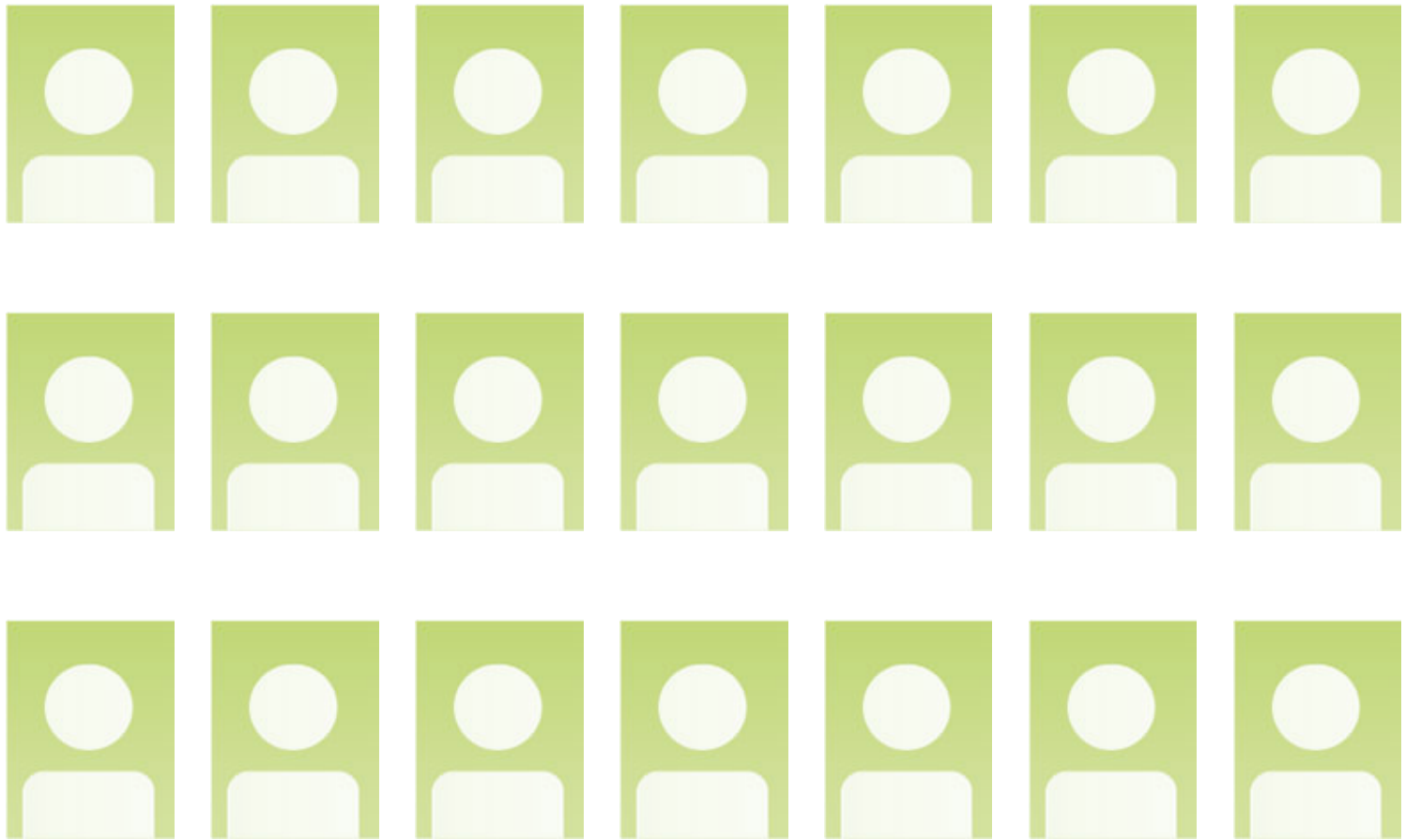
# Local Markets

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Our Client is about local markets. And google tries to infiltrate them.

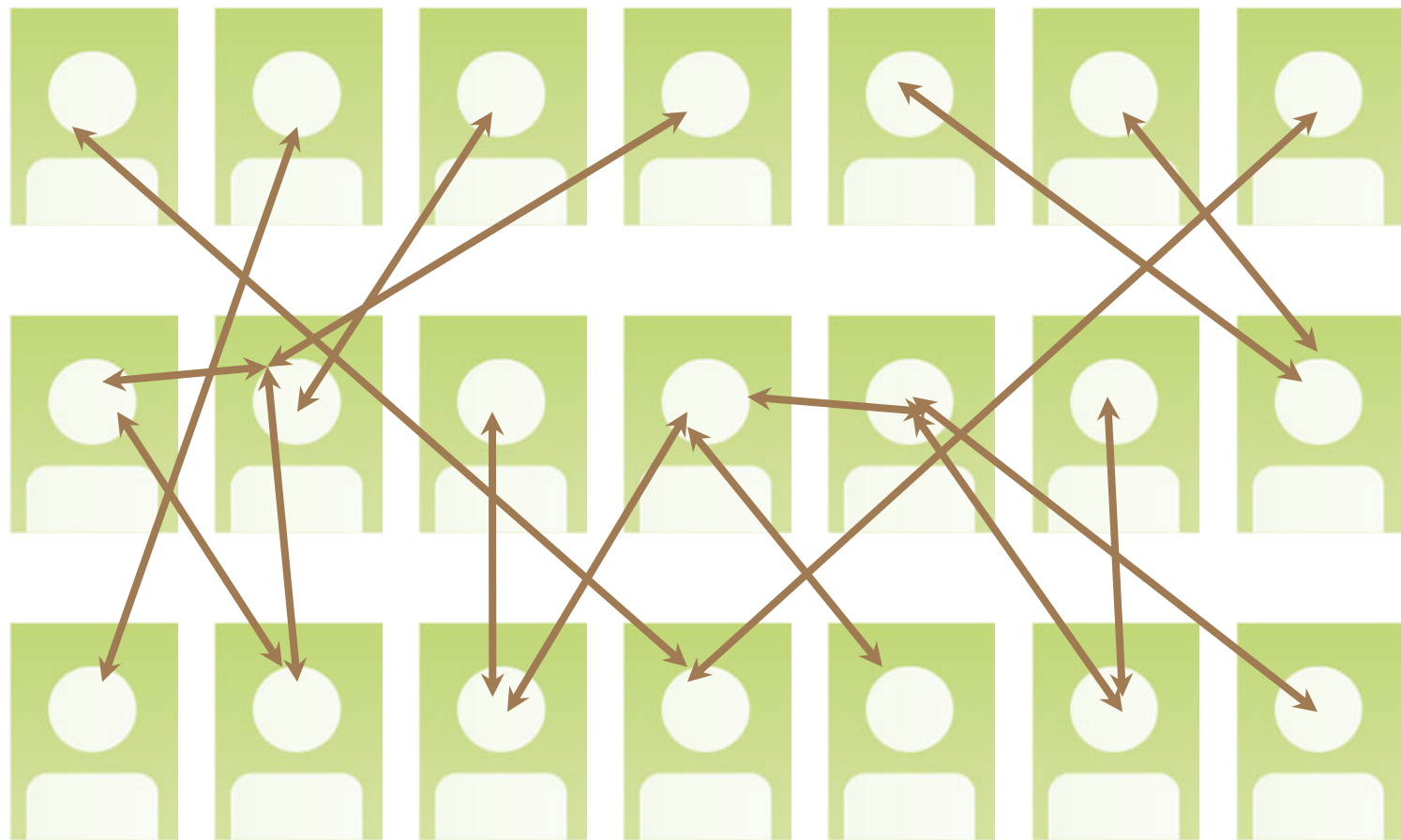


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There are a lot of people on the web



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They communicate with each other



# connect

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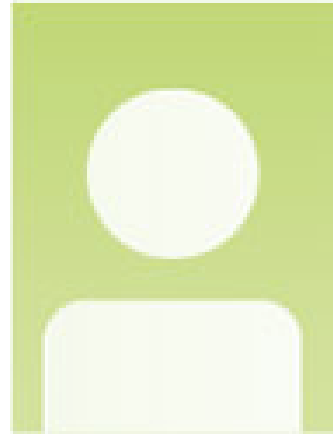
We'd like to connect  
them

Feelings

Family

Party

Work



Hobbies

Vacation

Books

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people express their  
feelings.

# share

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they like to share that personal information - their ideas, thoughts, opinions, feelings

# The Right Software

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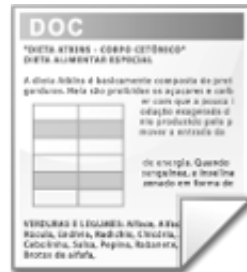
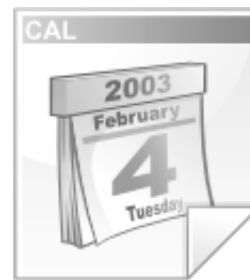
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# Plone?

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Plone is a content Management System.

We love it. We hate it. We earned our Living with it.



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But content management isn't our focus and the focus of WEB2.0

look  
below

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Look below the  
stack



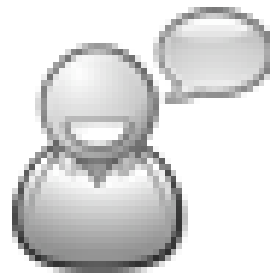
The ZOPE 3 logo features a blue circular icon with a stylized 'Z' shape inside, followed by the text 'ZOPE 3' in a large, black, serif font.The Python logo consists of two interlocking snakes, one blue and one yellow, positioned to the left of the word 'python' in a lowercase, grey, sans-serif font. A small 'TM' trademark symbol is located to the upper right of the word.

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ZODB fits Semantic Web  
Data



Chat



Media



Aggregation



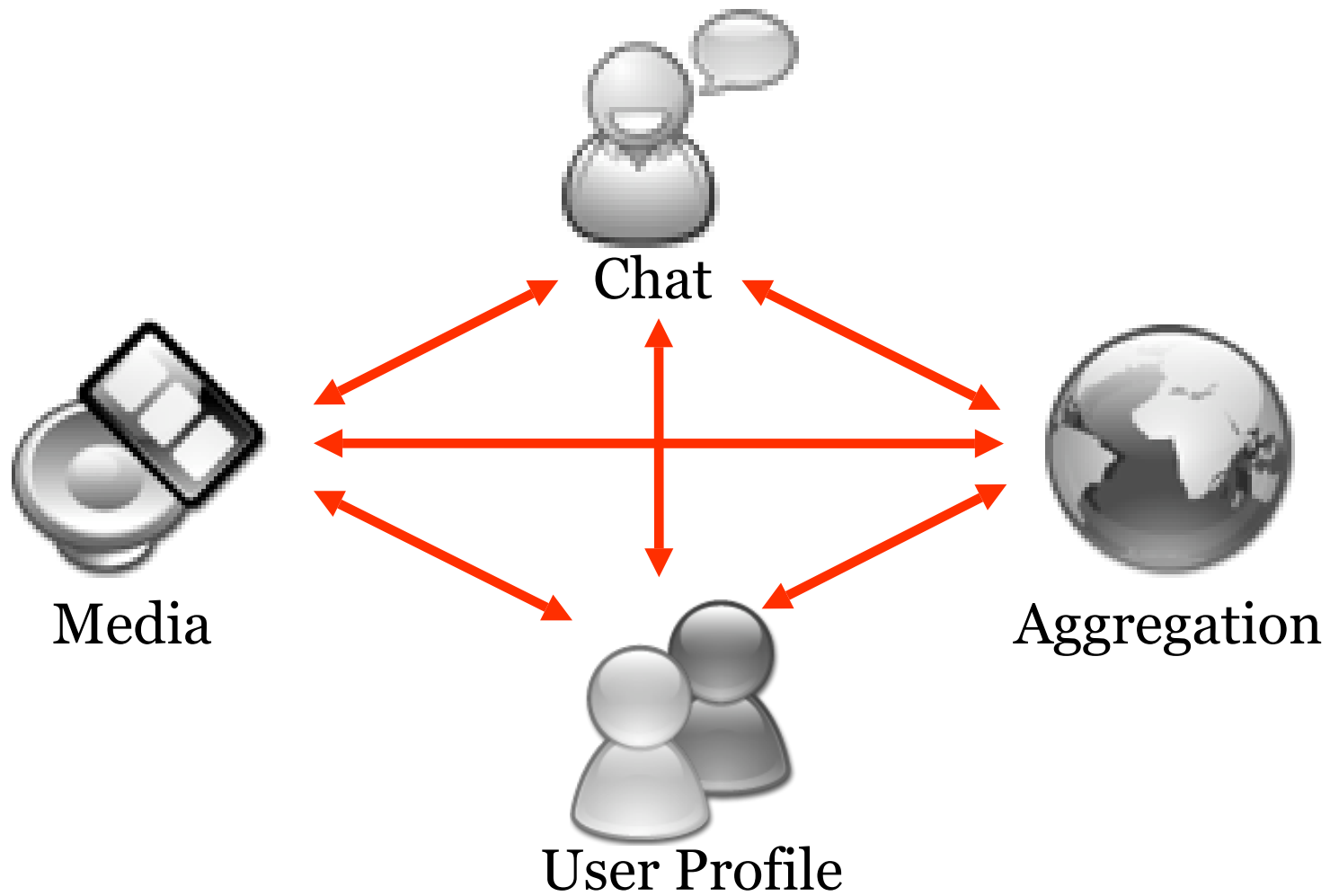
User Profile



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Users of the  
Client



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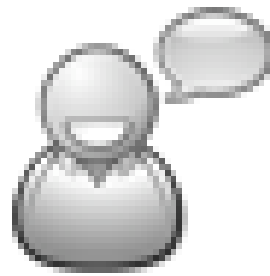


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User wants to have his videos and images in his blog.  
His Party Friends online in his Messenger  
His blog aggregated on his profile page



Plone



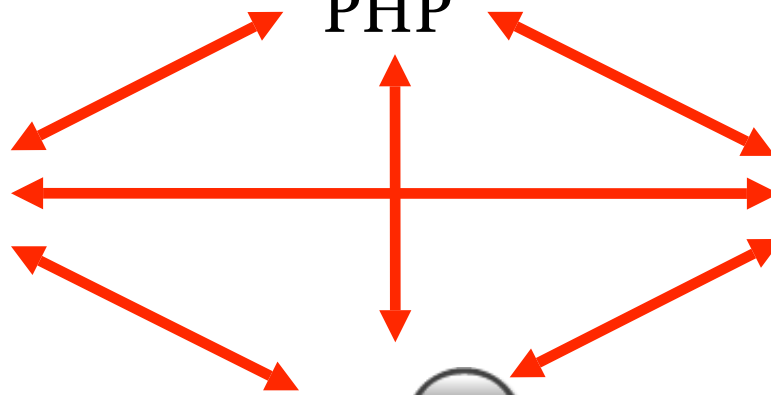
PHP



Java



.NET



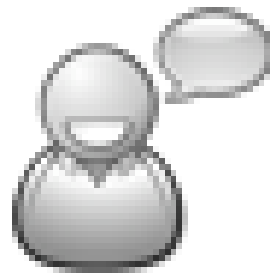
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Plone



PHP



Java



.NET

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How  
?

# Solutions

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# XML-RPC

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lightweight  
method-calling protocol  
uses well the URL namespace

**REFLECTED**  
XML-RPC

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is a remote procedure call protocol  
http is not made for that  
can't transfer large files



# SOAP

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supported by many large frameworks  
our client is already using SOAP

**SCALP**  
**REJECTED**

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is too complex  
again, it is a RPC protocol  
URLs

# REST

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isn't a strong protocol  
architectural style  
works perfectly for the web

# REST



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approve  
d

# Roy Thomas Fielding

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# HTTP 1.1

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one of the authors for HTTP1.0  
prime author of HTTP1.1

# WebDAV

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on the technical committee of the webdav standard  
thus webdav feels so right for the web



# Apache

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he has also been one of the prime authors of the apache webserver

# Proposal

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# Architectural Styles and the Design of Network-based Software Architectures

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# Chapter 5

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# REST

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The Architectural Style of the Web

REST was used to develop all the standards he has been involved in

# Resources

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# Representation

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# Representational State

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# Representational State Transfer

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# Interface Constraints

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# Resource

# Roy Thomas

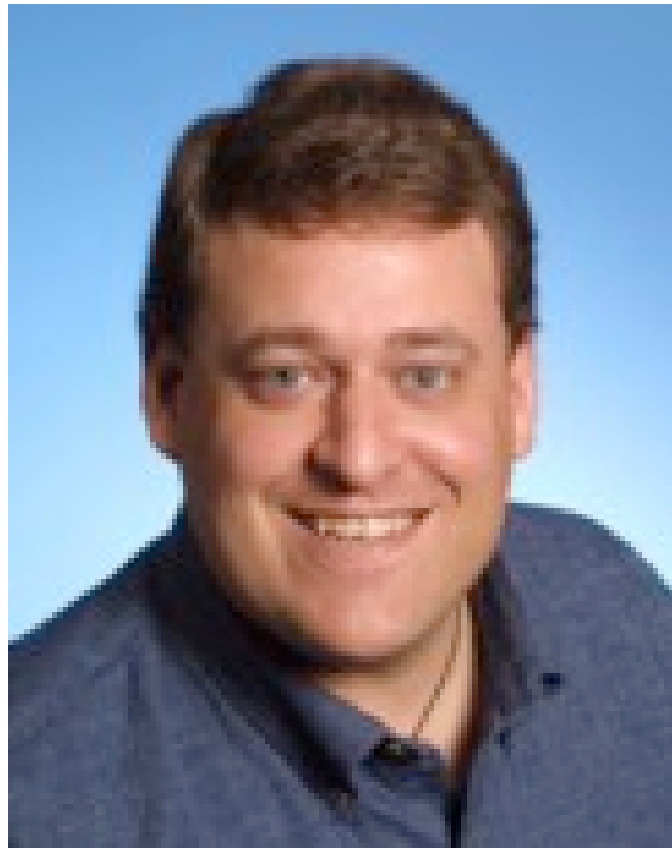
# Fielding

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Example  
Resource



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1

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# Resource Identifier



ID Card

Roy Thomas Fielding  
More information here.

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URL

URN

URI

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<http://roy.gbiv.com/>

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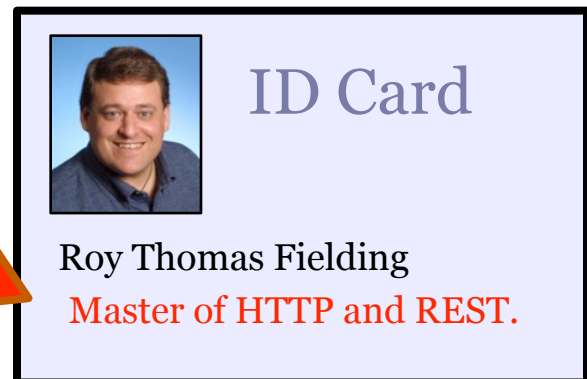
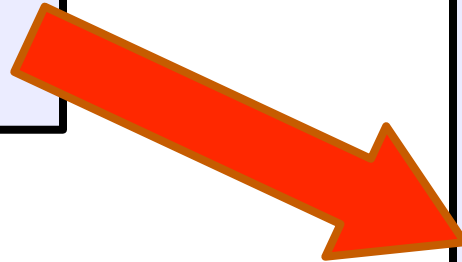
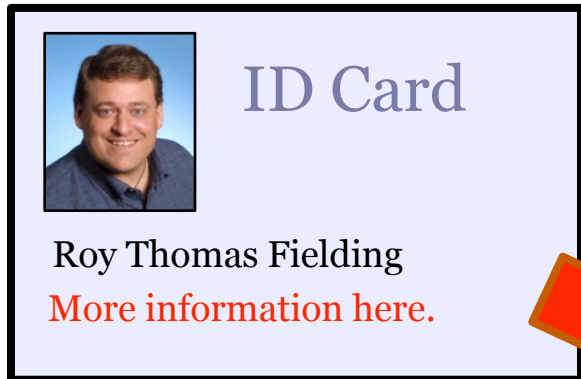
2

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# Manipulation through Representation



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# XML

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HTML  
JSON

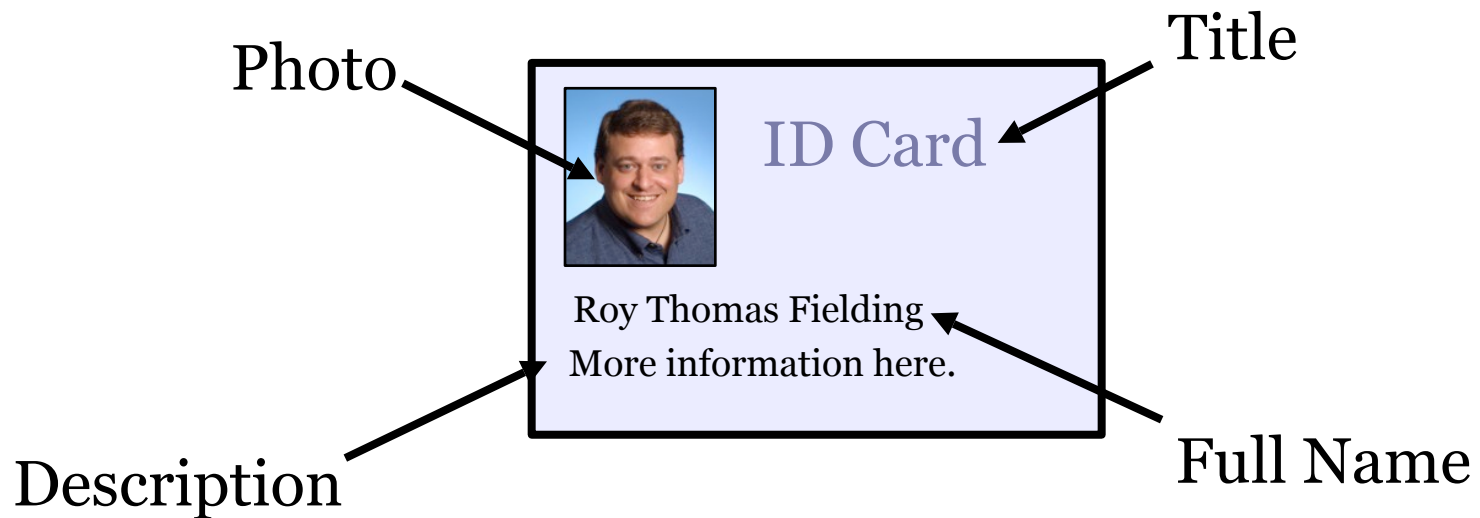
3

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# Self-Description



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# XML Schema Relax NG DTD

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# Hypermedia as the Engine of Application State

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???

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no idea what the forth constraint  
means

# Advantages

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it allows us to cache at several  
layers

# scale

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Proxies, Load  
Balancers

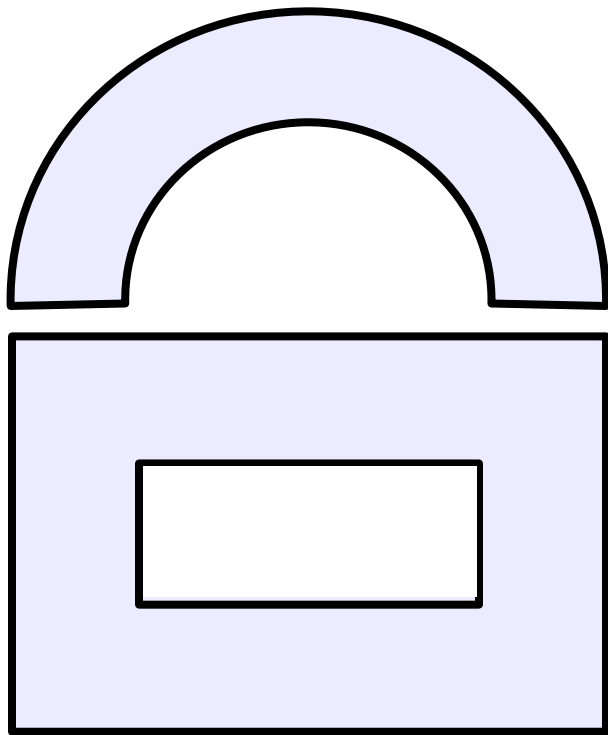
# General Interface

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not specific to a particular problem  
domain



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# Latency Encapsulation

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allows transparency in evolving  
applications

# Model Agnostic

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# REST

&



# ZOPE

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# SchoolTool

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Zope 3 based School Administration Tool  
Funded by the Shuttlesworth Foundation  
serves as a good prototype and example application

# Our REST Framework

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This will be included in the Lovely REST package.

# Rest Browser (Testing)

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like zope.testbrowser, but specific to REST API  
supports XML parsing, XPath, and XLink Following

# Rest Request & Publication

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to split the REST API from the Browser views  
might seem “unrestive”, but necessary to avoid unwanted behavior

# Rest Traverser

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Based on  
[z3c.pluggabletraverser](#)

# XML Tools (XLink)

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generate and parse output XML, like resource lists and XLink

# Documentation Generation

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# RelaxNG Generation

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# Stay Tuned!

@

lovely.\*

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go to  
[svn.zope.org](http://svn.zope.org)

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- Murata, Makoto et al. RELAX NG Specification. Committee Specification: 3 December 2001.
- O'Reilly, Tim. What is Web 2.0. <http://www.oreillyn.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>.
- Eby, Philip J. PEP 333: Python Web Server Gateway Interface v1.0. <http://www.python.org/dev/peps/pep-0333/>.
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# Thanks!

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# Thanks.

INES

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- Zope 3 consultant
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