

Apache
CouchDB

Jan Lehnardt

CouchDB Developer

<http://twitter.com/janl>

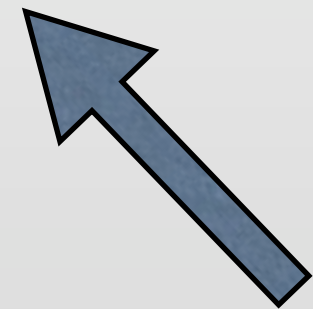
jan@apache.org

Director at couch.io



CouchDB for Erlang Developers

CouchDB for Erlang Developers

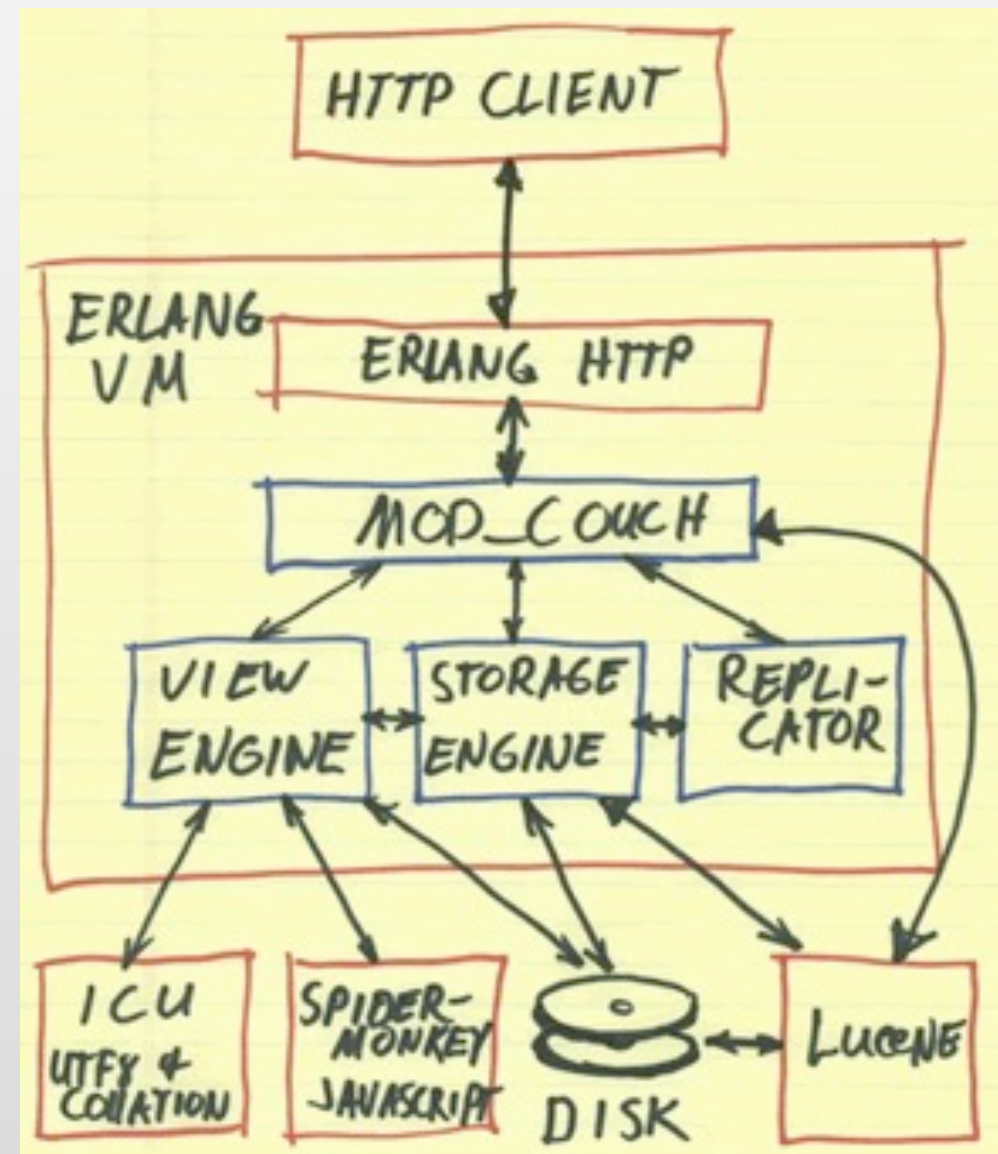


Ha-ha!

Relax

Features

- Relax
- Schema Free (JSON)
- N-Master Replication
- Web-scale (not Facebook-scale)
- Erlang!



Multi Language through HTTP

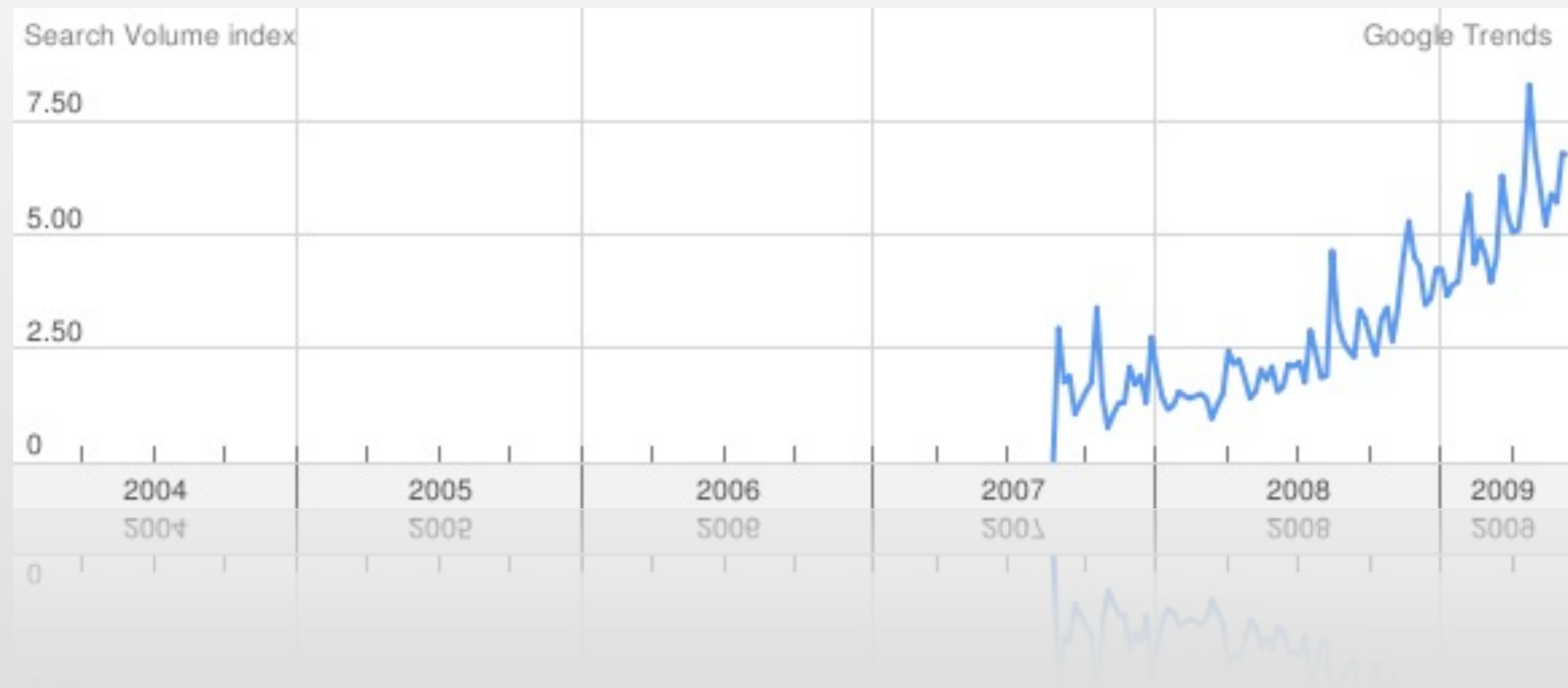
curl, Python,
PHP, Java, Perl,
Ruby, Lisp
(Emacs!), Ruby,
C, Obj-C, Scala

Why Bother?

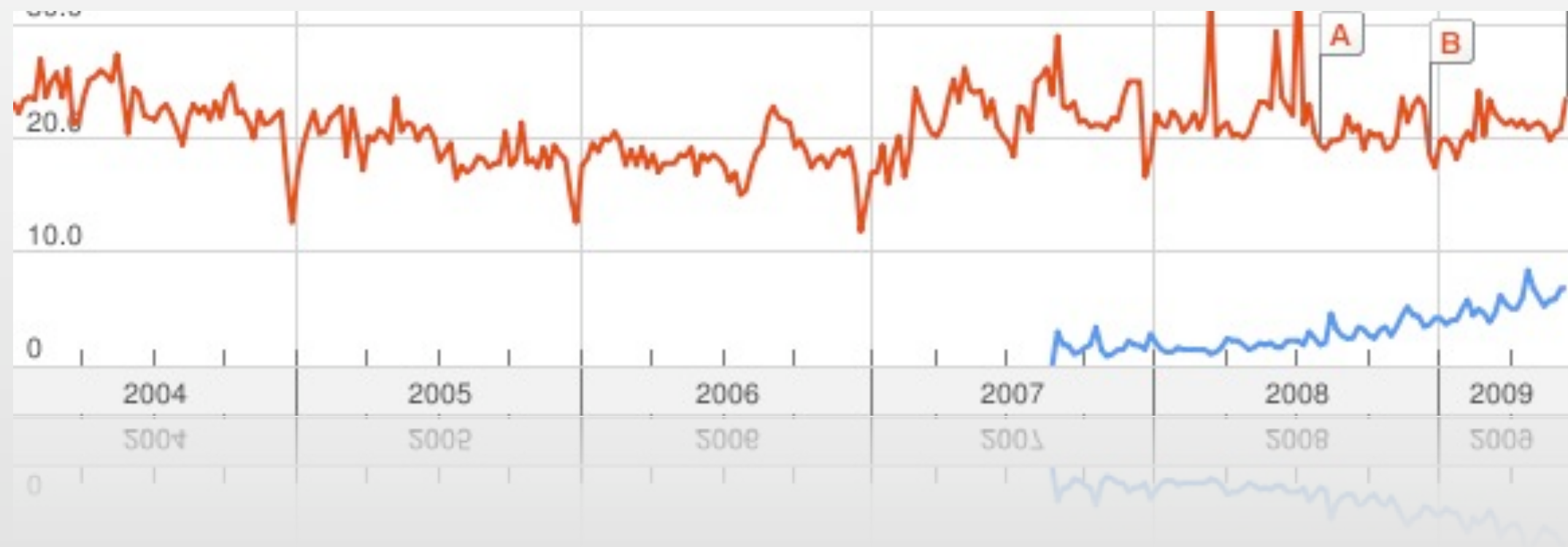
- Open Source is good for your résumé
 - Public code > interview code
 - (Hidden) project management
 - Meet great, smart people

Why Bother?

- Get the Erlang out there
 - Like ejabberd, CouchDB raises Erlang awareness
 - Growing the Erlang community should be on your agenda



Why Bother?



Why Bother?



ubuntu



mozilla.org



Industry Interest

and many more...

What For?

- Distributed logging & archiving
- Message persistence with RabbitMQ
- Aggregation
- Web-endpoints for Erlang systems
- non-tiny Mnesia

RESTful HTTP API

CRUD

- **Create**

HTTP PUT /db/mydocid

- **Read**

HTTP GET /db/mydocid

- **Update**

HTTP PUT /db/mydocid

- **Delete**

HTTP DELETE /db/mydocid

Formats

- {
 "name": "Joe",
 "job": "hacker",
 "grades: [3, 5, 8]
}

- {[
 {<<"name">>, <<"joe">>}
 {<<"job">>, <<"hacker">>},
 {<<"grades">>, [3 ,5 8]}
]}

Erlang Libraries

- erlang_couchdb
 - Used in production
 - Well tested
 - Used as an example in a book

- `erlang_couchdb:create_database(
 {"localhost", 5984}, "factory").`
- `erlang_couchdb:database_info(
 {"localhost", 5984}, "factory").`
- `erlang_couchdb:server_info(
 {"localhost", 5984}).`

- `erlang_couchdb:create_document(
 {"localhost", 5984}, "factory",
 [{<<"name">>, <<"joe">>},
 {<<"job">>, <<"hacker">>}]).`

- `erlang_couchdb:retrieve_document(
 {"localhost", 5984}, "factory", DocId).`

- `erlang_couchdb:update_document(
 {"localhost", 5984}, "factory", DocId,
 [{<<"_rev">>, RevId},
 {<<"name">>, <<"joe">>},
 {<<"job">>, <<"hacker">>},
 {<<"grades">>}, [3, 5 8]})`.

- `erlang_couchdb:delete_document(
 {"localhost", 5984}, "factory",
 DocId, RevId).`

- `erlang_couchdb:create_view(
 {"localhost", 5984}, "factory",
 "people", <<"javascript">>,
 [{<<"hackers">>,
 <<"
 function(doc) {
 if (doc.job == 'hacker') {
 emit(doc.name, null);
 }
 }
 ">>}]).`

- `erlang_couchdb:invoke_view(
 {"localhost", 5984}, "factory",
 "people", "hackers",
 [{"key", "\"joe\""}]).`

See Also

- erl-couch & ecouch
- both used in production, both actively maintained
- similar APIs



Text

Hovercraft

- Everybody loves hovercrafts
- Fast, bypasses HTTP & JSON
 - Premature optimization
- Does not scale
- Use with care



Hovercraft

- Everybody loves hovercrafts
- Fast, bypasses HTTP & JSON
 - Premature optimization
- Does not scale
- Use with care



We Need You!

eep0018

erlview

OTPiification

couchdb-lounger1

Windows





Love in a box

Compaction blows the
filesystem cache

Politics

- Apache CouchDB
- Apache Software Foundation
- Meritocracy
- Project Stability
- CLAs for legal protection
- Patent shield



Fun

Thank
Relax
You!

