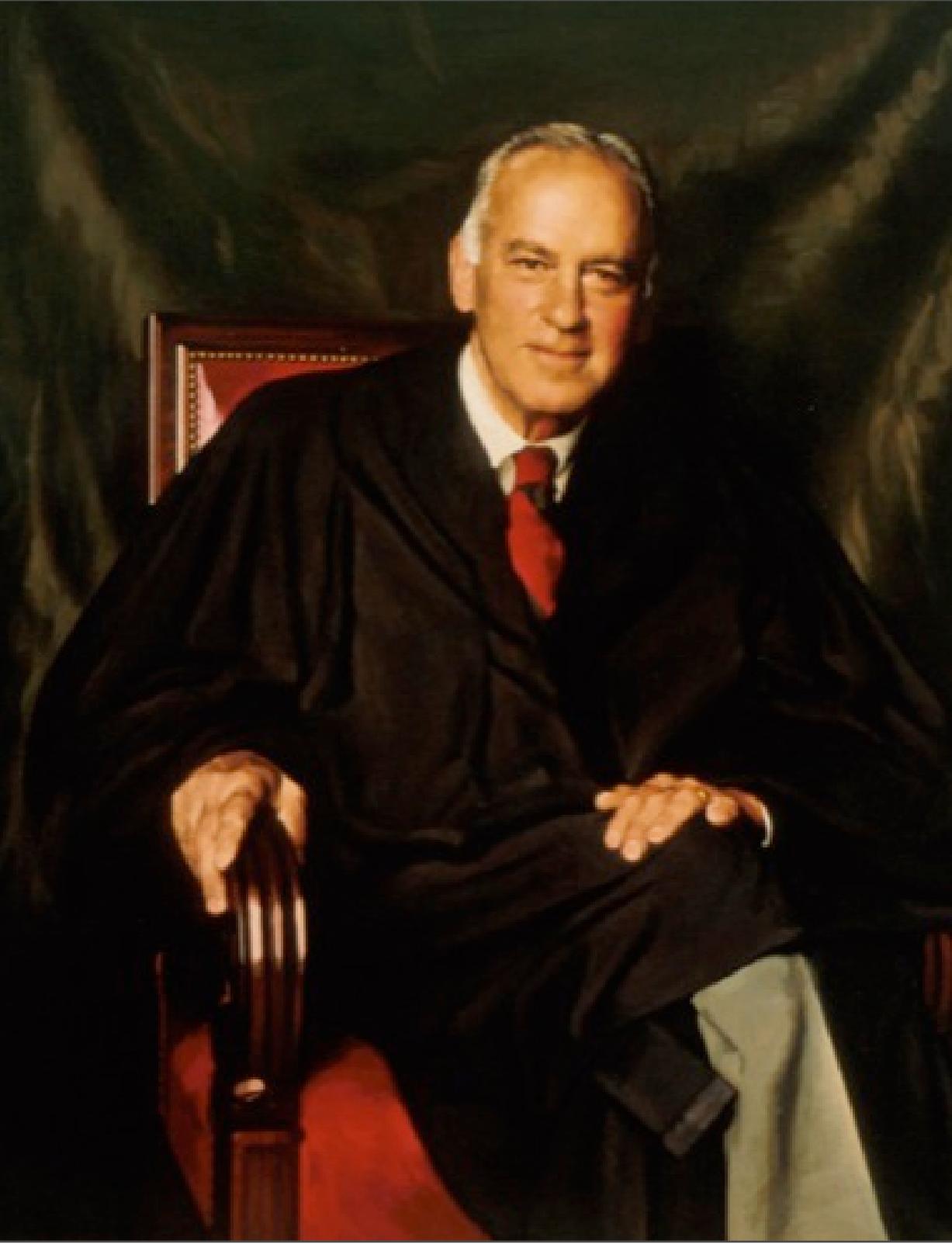


Ending Legacy Code in Our Lifetime

Stuart Halloway
Relevance, Inc.

<http://thinkrelevance.com>



Copyright 2007-8, Relevance, Inc.

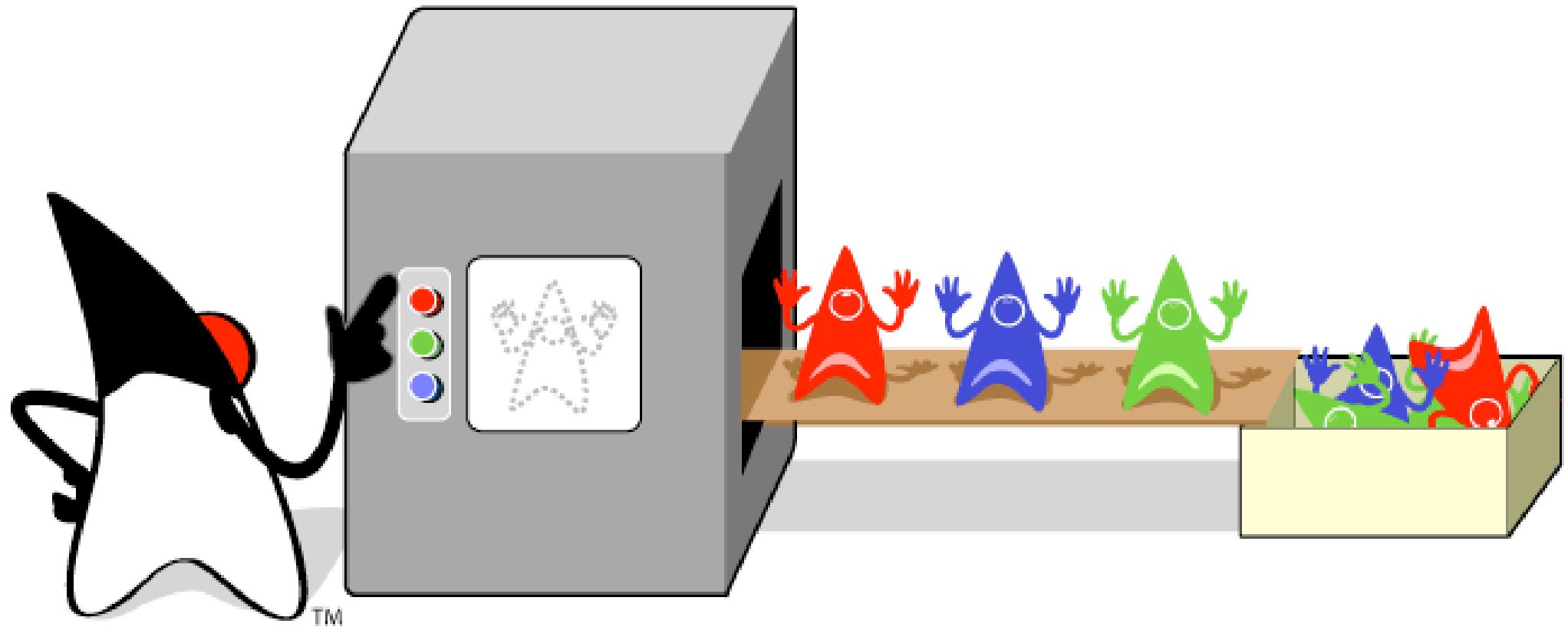
Friday, August 15, 2008

(image http://www.oyez.org/justices/potter_stewart)

Legacy Code is like Porn

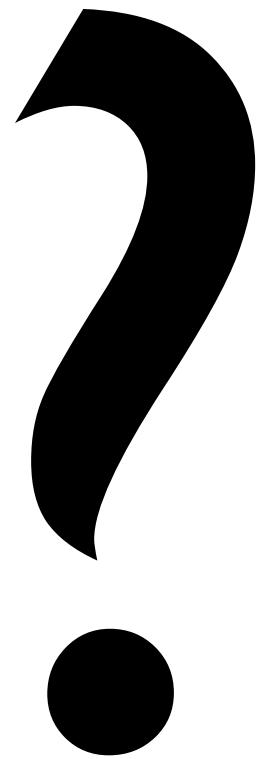
“I know it when I see it”
Ubiquitous on the internet
Ultimately dissatisfying*

*I have this on the authority of others.



Copyright 2007-8, Relevance, Inc.







Copyright 2007-8, Relevance, Inc.

Friday, August 15, 2008

7

The IT Buyer's View of Big Things (image <http://en.wikipedia.org/wiki/Sisyphus>)

Our Goal

Build so the next big thing is not a do-over.

A More Modest Goal

Reuse and maintainability

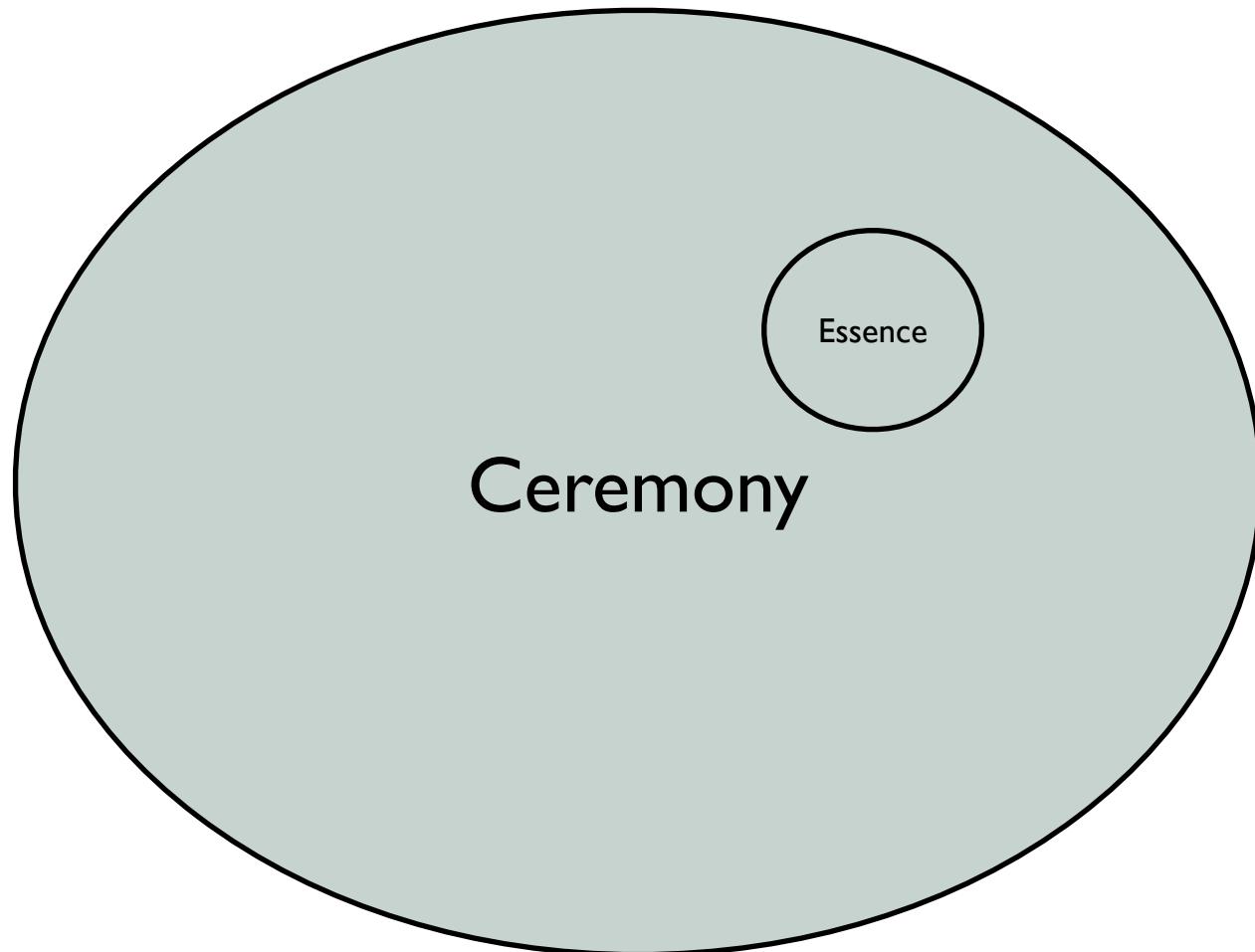
Legacy Code

Fails to capture intent

Fails to communicate intent

Carries unnecessary ceremony

Code Today (Death Star)

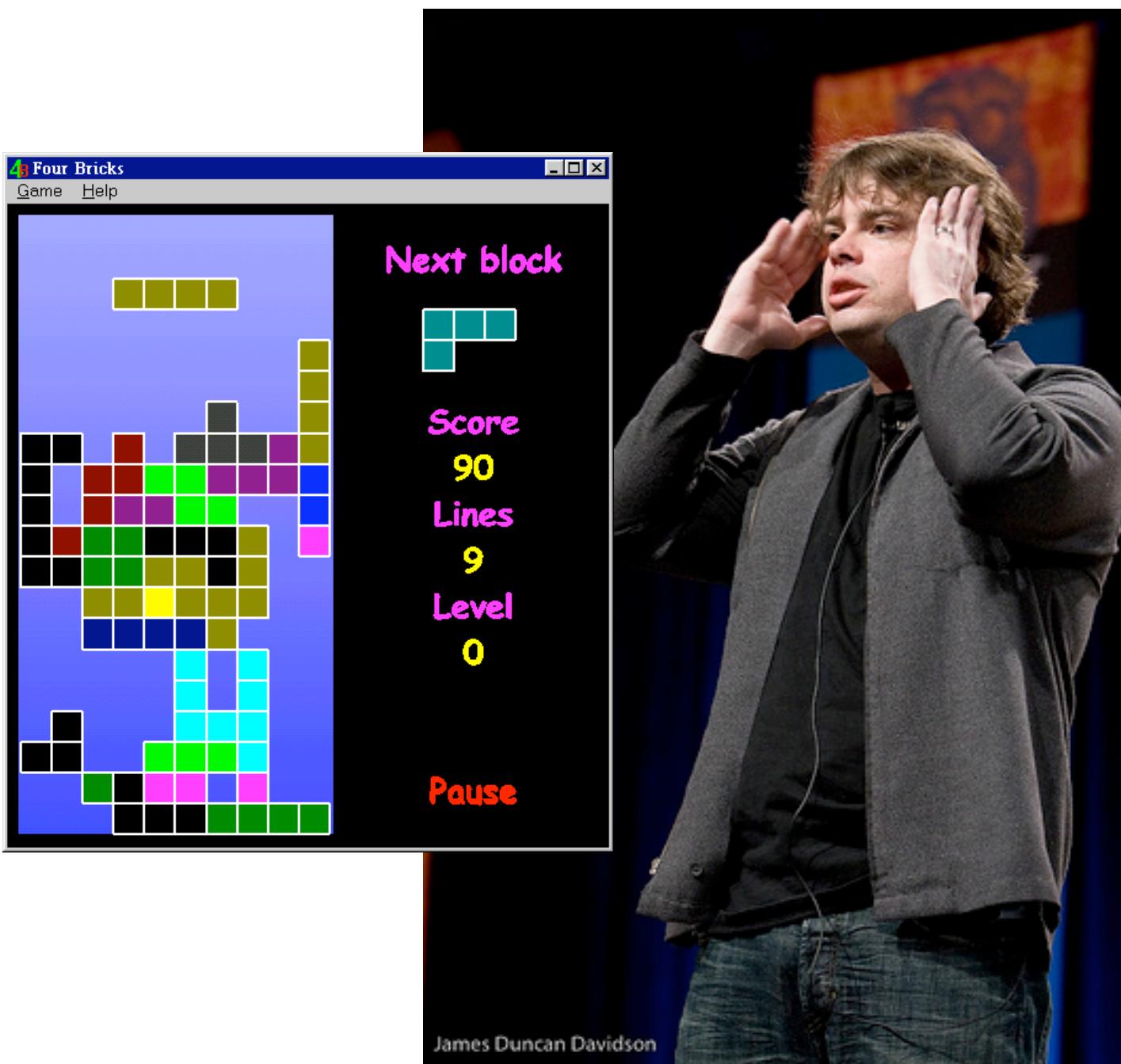




Friday, August 15, 2008

Ceremony is: checked exceptions.

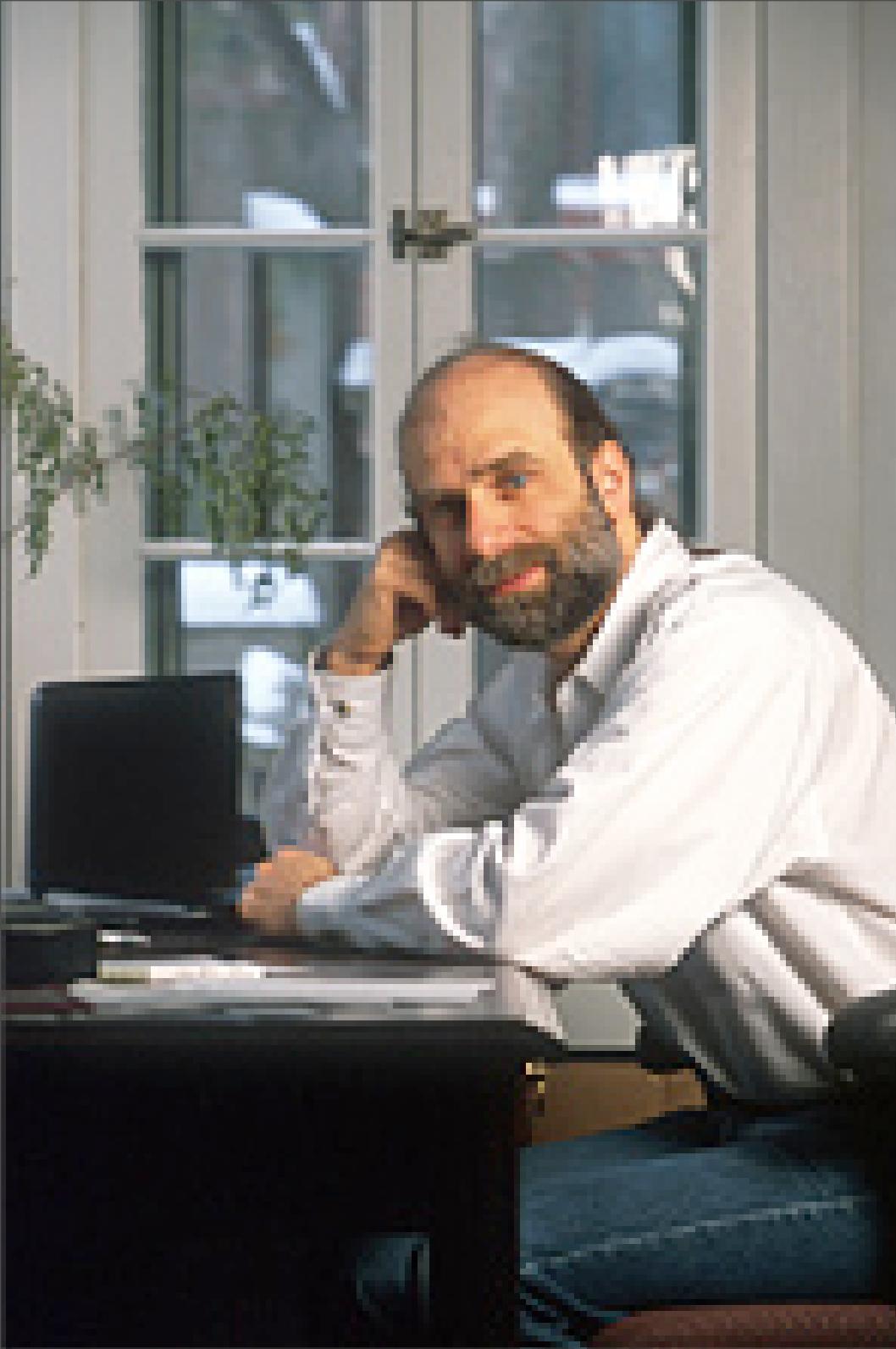
Photo credit: <http://www.flickr.com/photos/marinegirl/2036373729>



<http://steve-yegge.blogspot.com/2007/12/codes-worst-enemy.html>

Copyright 2007-8, Relevance, Inc.

```
Document d = new Document();  
  
Document d = DocumentBuilderFactory().  
    newDocumentBuilder().  
    new Document();  
  
@Autowired  
public void setDocument(Document document) {  
    this.document = document;  
}  
}
```



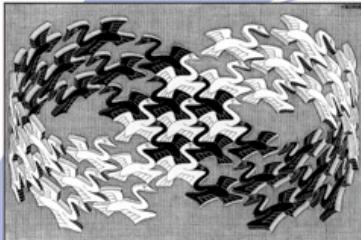
<http://www.schneier.com/blog/>

XML Configuration: Stay back for safe viewing.

Design Patterns

Elements of Reusable
Object-Oriented Software

Erich Gamma
Richard Helm
Ralph Johnson
John Vlissides



Cover art © 1994 M.C. Escher / Cordon Art - Baarn - Holland. All rights reserved.

Foreword by Grady Booch

ADDISON-WESLEY PROFESSIONAL COMPUTING SERIES



Design Patterns Cover Language Smells

<http://blog.thinkrelevance.com/2007/5/17/design-patterns-are-code-smells>



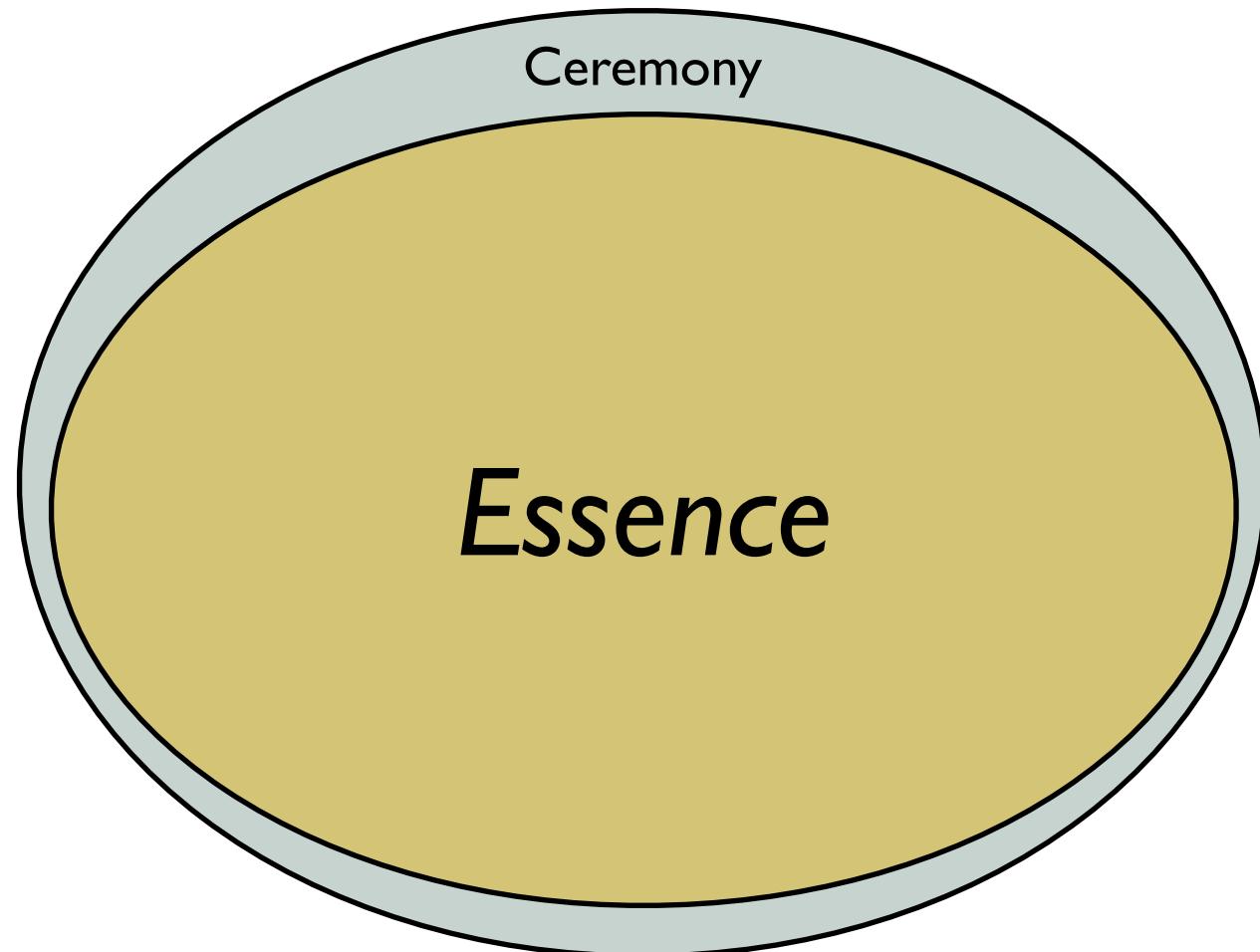
Copyright 2007-8, Relevance, Inc.

Friday, August 15, 2008

17

Elephant Poop Photo Credit: <http://flickr.com/photos/alex-photos/408993350>

The Future (Golden Egg)



Is Ruby the answer?

Ruby: The Glue That Doesn't Set



http://pragdave.pragprog.com/pragdave/2006/06/glue_that_doesn.html

Copyright 2007-8, Relevance, Inc.

Domain Layer DSLs

Dynamic Layer
Ruby, Groovy

Stable Layer
Java (Scala?)

<http://ola-bini.blogspot.com/2008/01/language-explorations.html>



Problems:

- (1) Too much code written in stable layer platform
- (2) Stable layer exposes wrong abstractions



Friday, August 15, 2008

22

Humpty says: words mean what I say they mean.

Photo credit: <http://www.flickr.com/photos/uhduh/92437037/sizes/l/>



Friday, August 15, 2008

23

Legos are a composable abstraction (concretion?)

Photo credit: [http://www.flickr.com/photos/sklar/488582712/sizes/o/in/
set-72157600117558440/](http://www.flickr.com/photos/sklar/488582712/sizes/o/in/set-72157600117558440/)

Ruby “Design Patterns”

class instance attributes
accessor method
constant registry
I is for lambda

@params
@session
@flash
@request
@cookies
@headers
@response

<http://www.rubyonrails.org/deprecation>

Ruby is Blub.next

<http://www.paulgraham.com/avg.html>



Copyright 2007-8, Relevance, Inc.

Friday, August 15, 2008

26

Blub isn't just about languages. It is about anything that requires good abstraction. Wrong abstractions create ceremony.

See <http://c2.com/cgi/wiki/fullSearch?KeyLanguageFeatures>

(Image of Paul over Norris from <http://globalnerdy.com/2007/09/28/tired-bruce-schneier-facts-wired-paul-graham-facts/>)



Friday, August 15, 2008

27

Complexity is long, unorganized, masses of code.
Photo credit: <http://flickr.com/photos/challiyan/1487906404>

```

def list
  self.crud_context = :list
  @options = {}
  unless exporting_a_full_download
    @options.smart_merge!(pagination_options)
  end
  @options.smart_merge!(order_options)
  @options.smart_merge!(filter_options)
  merge_count_or_find_options(@options)

  if pagination && !exporting_a_full_download
    if @options[:non_ar_column]
      col = @options[:non_ar_column]
      dir = @options[:dir]
      @options.delete :non_ar_column
      @options.delete :dir
      model_pages, models = paginate model_name.downcase.pluralize, @options
      if model_ui.has_sortable_column?(col)
        model_ui.sort_models(models, col)
      else
        logger.warn("Possible intrusion attempt: Invalid sort column #{col}")
      end
      models.reverse! if dir == 'DESC'
    else
      model_pages, models = paginate model_name.downcase.pluralize, @options
    end
  else
    model_pages = []
    models = model.find(:all, @options)
  end

```



Friday, August 15, 2008

29

Most is not enough.

Photo credit: <http://flickr.com/photos/bethanyking/304692199>

The Essence-Driven Life

Scripture

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

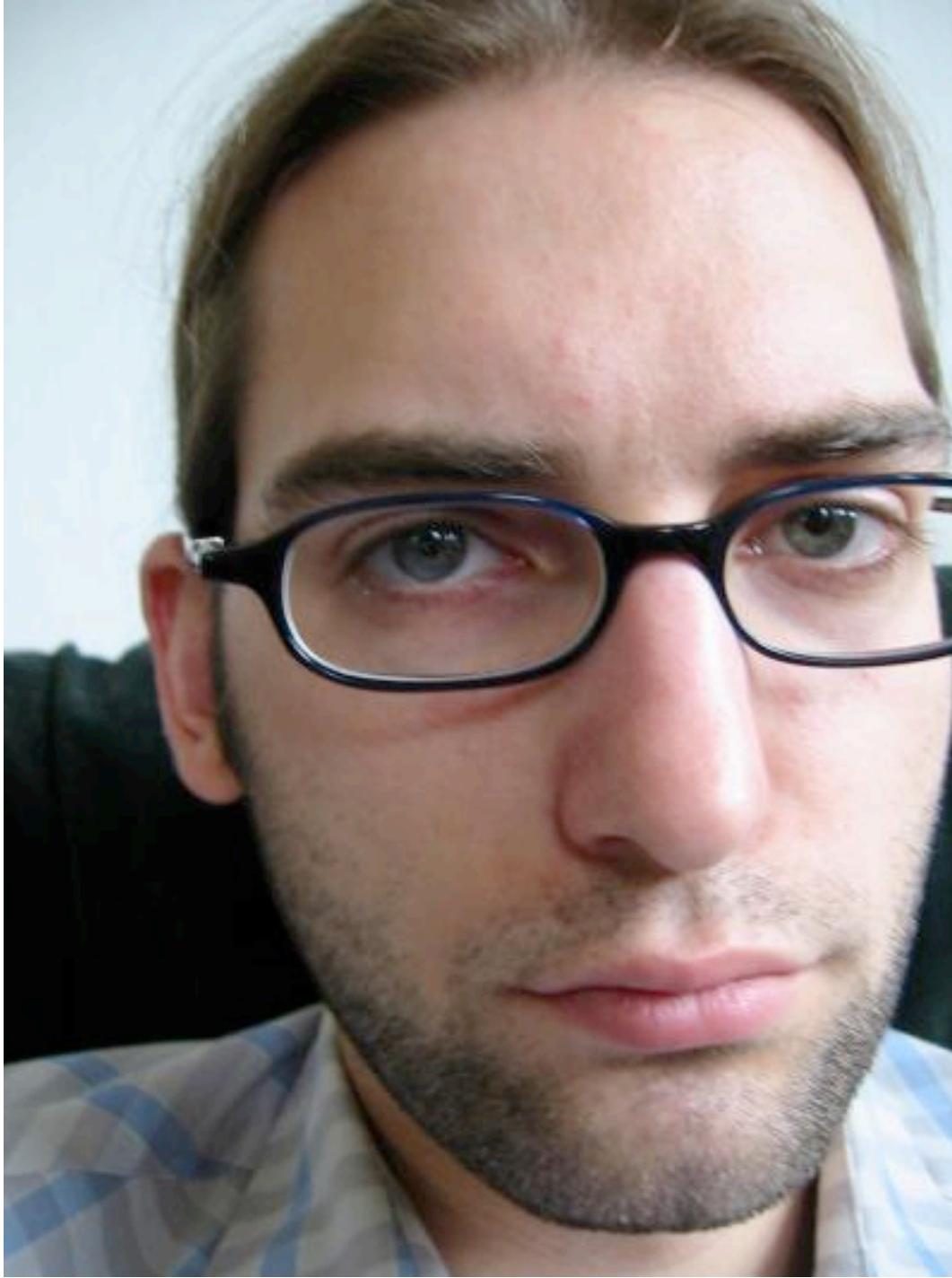
- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more..

Source: <http://www.agilemanifesto.org/>

Commandments

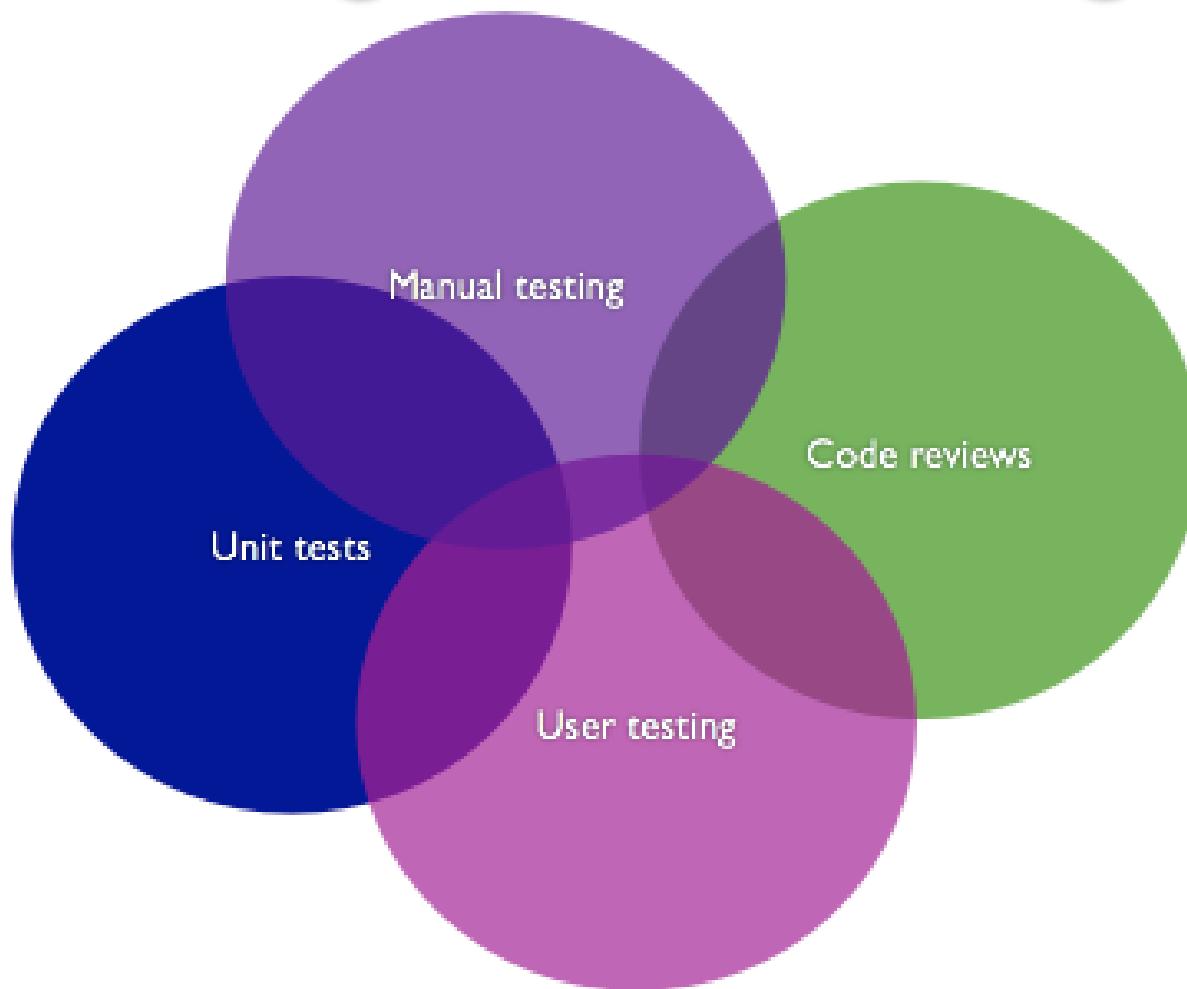
- 100% code coverage
- Continuous integration
- Real unit tests
- Metrics (flog, saikuro, et al)
- Relentless review and audit
- Peer-to-peer, versioned filesystems (git)



Testing is Overrated?

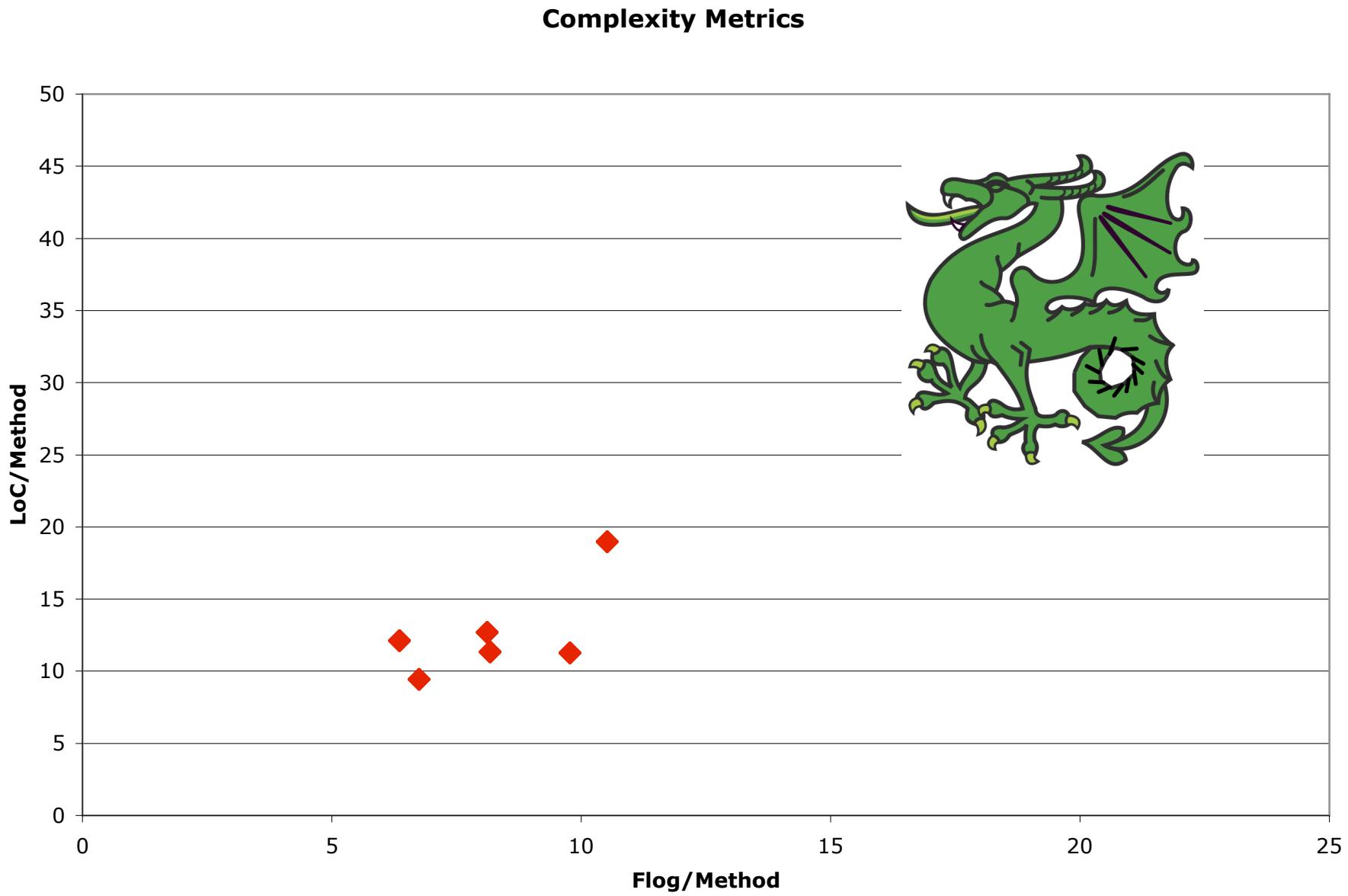
[http://railspikes.com/2008/7/11/
testing-is-overrated](http://railspikes.com/2008/7/11/testing-is-overrated)

Testing is Not Enough



<http://railspikes.com/2008/7/11/testing-is-overrated>

Bad Code is Easy to Find



Source | Commits | Info | Wiki (1) | Network (5) | Admin

Graph Members Feed

Feed

Feed

relevance / tarantula

Description: a big hairy fuzzy spider that crawls your site, wreaking havoc [edit](#)

Homepage: <http://opensource.thinkrelevance.com/wiki/tarantula> [edit](#)

Public Clone URL: <git://github.com/relevance/tarantula.git>

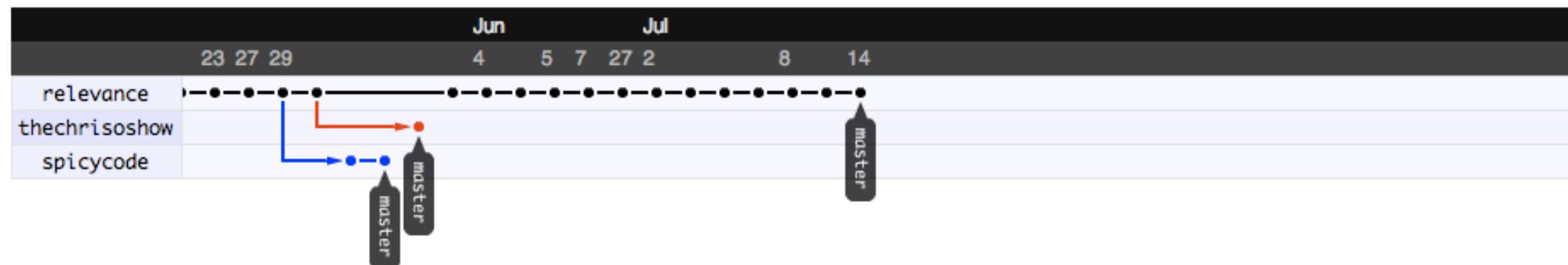
Your Clone URL: <git@github.com:relevance/tarantula.git>

Search Repo: Code ▾ Go

The tarantula network graph

All branches in the network using **relevance/tarantula** as the reference point. [Read our blog post about how it works.](#)

Show Help



Conclusions

Legacy code is ubiquitous

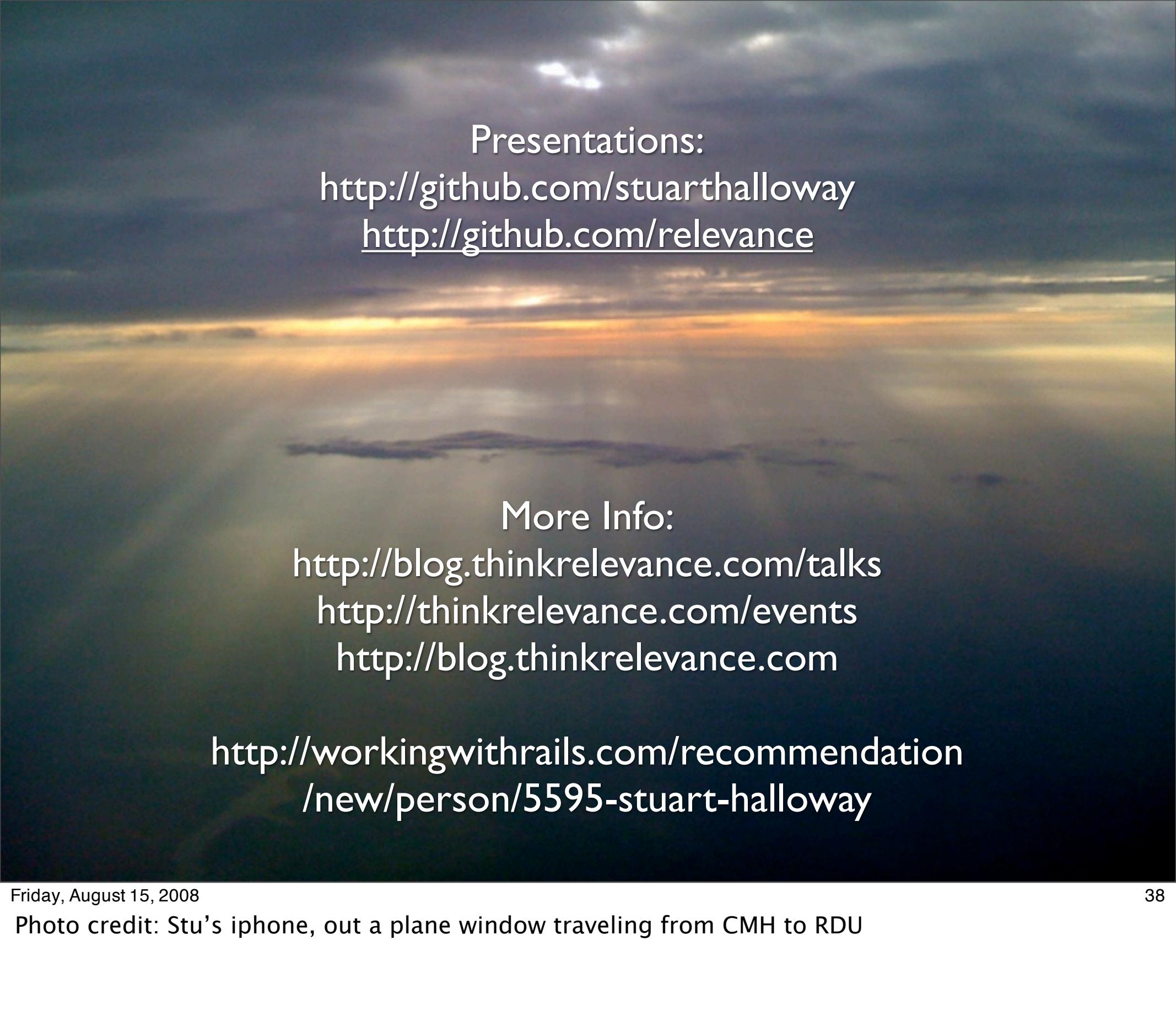
Ruby is the next language

Ruby is not the *last* language

Most code is high ceremony, even *in Ruby*

Ruby is the new Blub

Live The Essence-Driven Life



Presentations:
<http://github.com/stuarthalloway>
<http://github.com/relevance>

More Info:
<http://blog.thinkrelevance.com/talks>
<http://thinkrelevance.com/events>
<http://blog.thinkrelevance.com>

[http://workingwithrails.com/recommendation
/new/person/5595-stuart-halloway](http://workingwithrails.com/recommendation/new/person/5595-stuart-halloway)