Bilgisayar Bilimcileri Haklıymış

Programlama dillerindeki son gelişmeler

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Last compiled on March 30, 2012

- Java is the new Cobol

- Java is the new Cobol
- lambda is the new boy on the block

- Anahtar kelimeler
- Functional,
- lambda,
- closure,
- first class functions,
- first class types,
- Generic types

λ

is the new boy on the block

- Yazılı geliştirme konferansları
- Let's Google for it
- http://bit.ly/GW7Gsb
- Biraz tarihi olanları seçelim

- QCON 2010, 2011, 2012
- %20 Functional Konuları

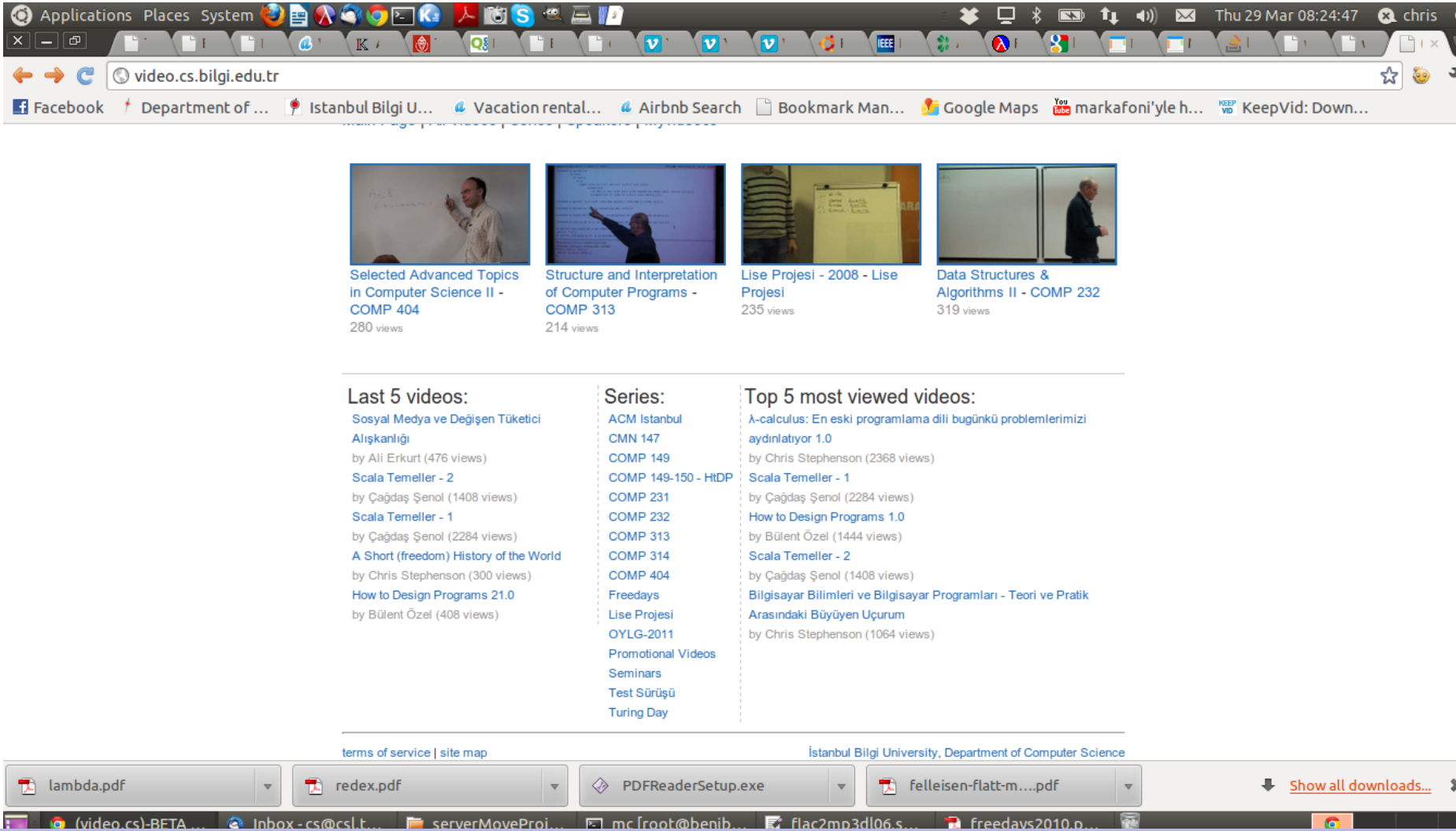
- QCON 2012
- Simon Ritter
- “Java is not the new Cobol”
- Sunuma bir göz atalım

- QCON 2012
- Philip Wadler
- Pizzayı kim ısmarlamış?

- ACCU (C ve C++)
- 2002-2007 %0 Functional
- 2008 Özel track %10 Functional
- 2009-2011 %10 - %15 Functional

- ACCU (C ve C++)
- 2012 %20 Functional
- “Lambdas in Java 8”
- “Refactoring to Functional”
- “Functional programming you already know”
- “Generic Types”

bizde bile...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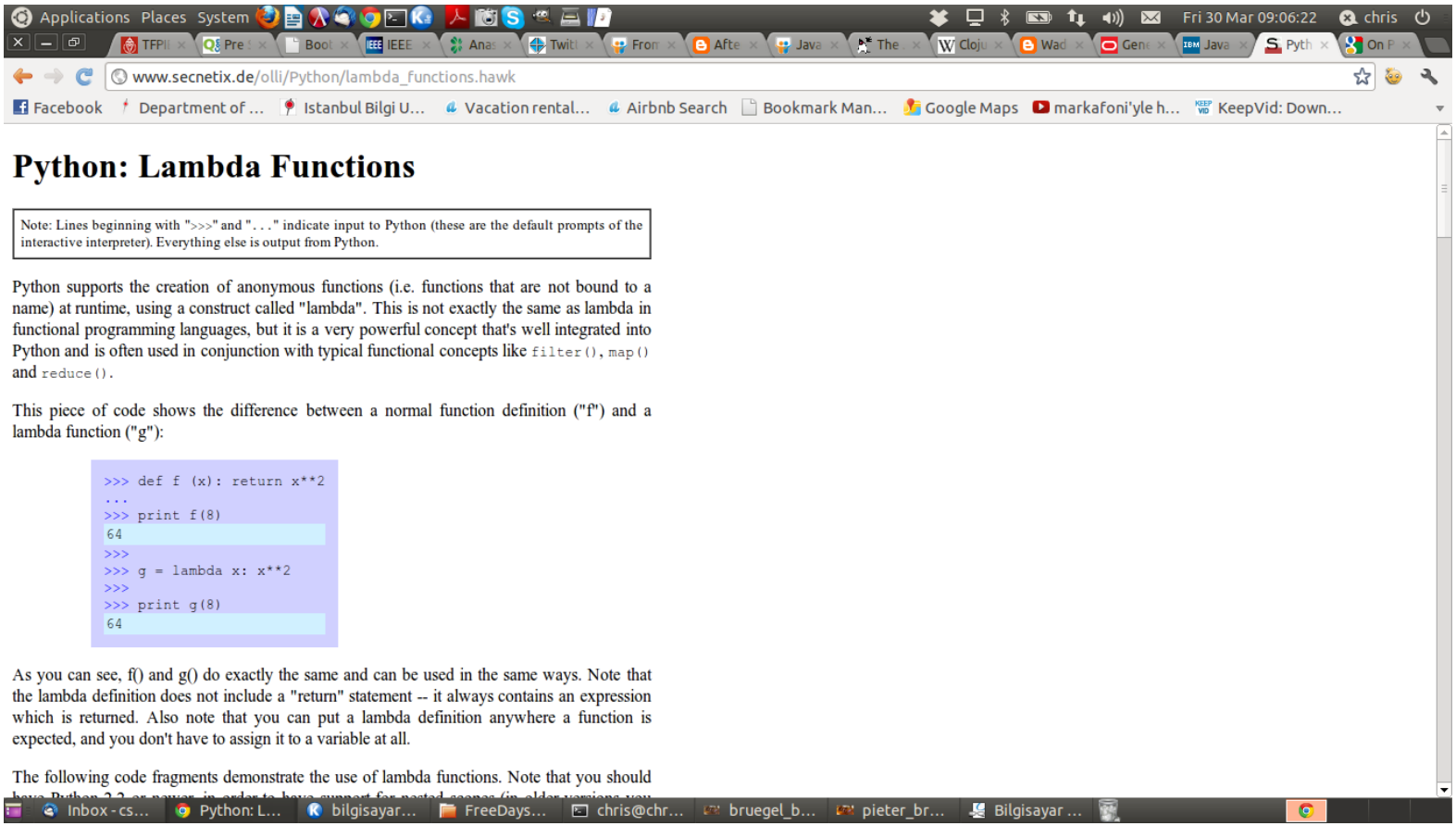

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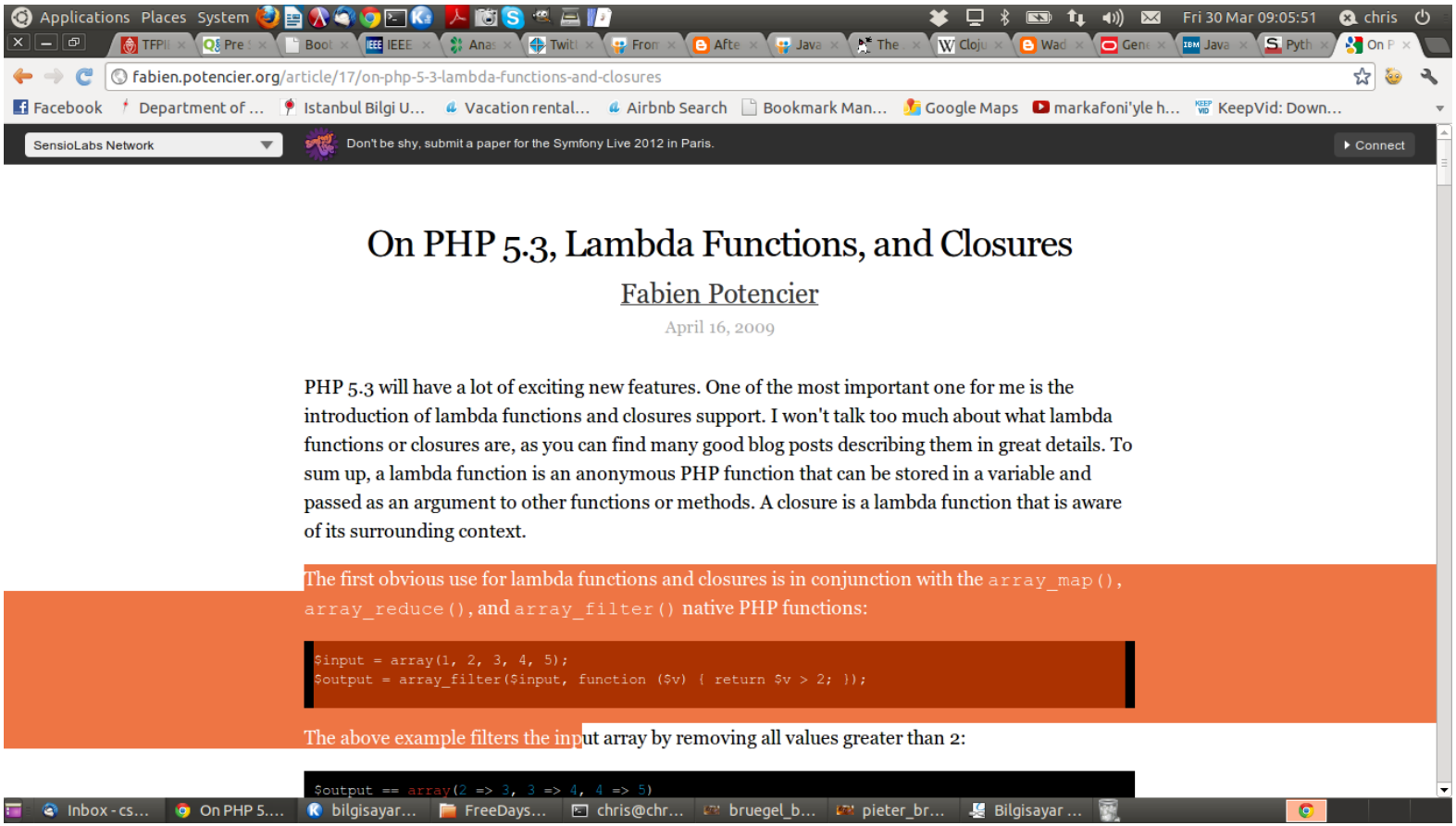


Dart and Go -
Google has started to lose the plot.

- Diller - syntax ve semantics
- Space and time

- Church - λ - motation yok
- Turing Makinesi - mutation
- birleştiler
- Church-Turing thesis

Vision

It is not the task of the University to offer what society asks for, but to give what society needs.

Edsger W Dijkstra

- eski bir slayt

Vision - eski bir slayt

- FOSS - 2000
- Java - 2000
- Data Driven Design and functional programming - 2003

Bilgisayar Bilimlerinin (eski) Türkiye Bayisinin vizyonun üç (deli) maddesi

- Java (2000)
- FOSS (2000)
- Functional programming (2003)

Bilgisayar Bilimlerinin (eski) Türkiye Bayisinin vizyonun üç (deli) maddesi
Java - yep yeniydi (1995)

Bilgisayar Bilimlerinin (eski) Türkiye Bayisinin vizyonun üç (deli) maddesi
FOSS:
"We think of Linux as a competitor in the student and hobbyist market but I really don't think in the commercial market we'll see it in any significant way." Bill Gates, 2001

Bilgisayar Bilimlerinin (eski) Türkiye Bayisinin vizyonun üç (deli) maddesi
FOSS:

Bilgisayar Bilimlerinin (eski) Türkiye Bayisinin vizyonun üç (deli) maddesi
FOSS:
Windows Phone'i unutmayalım...

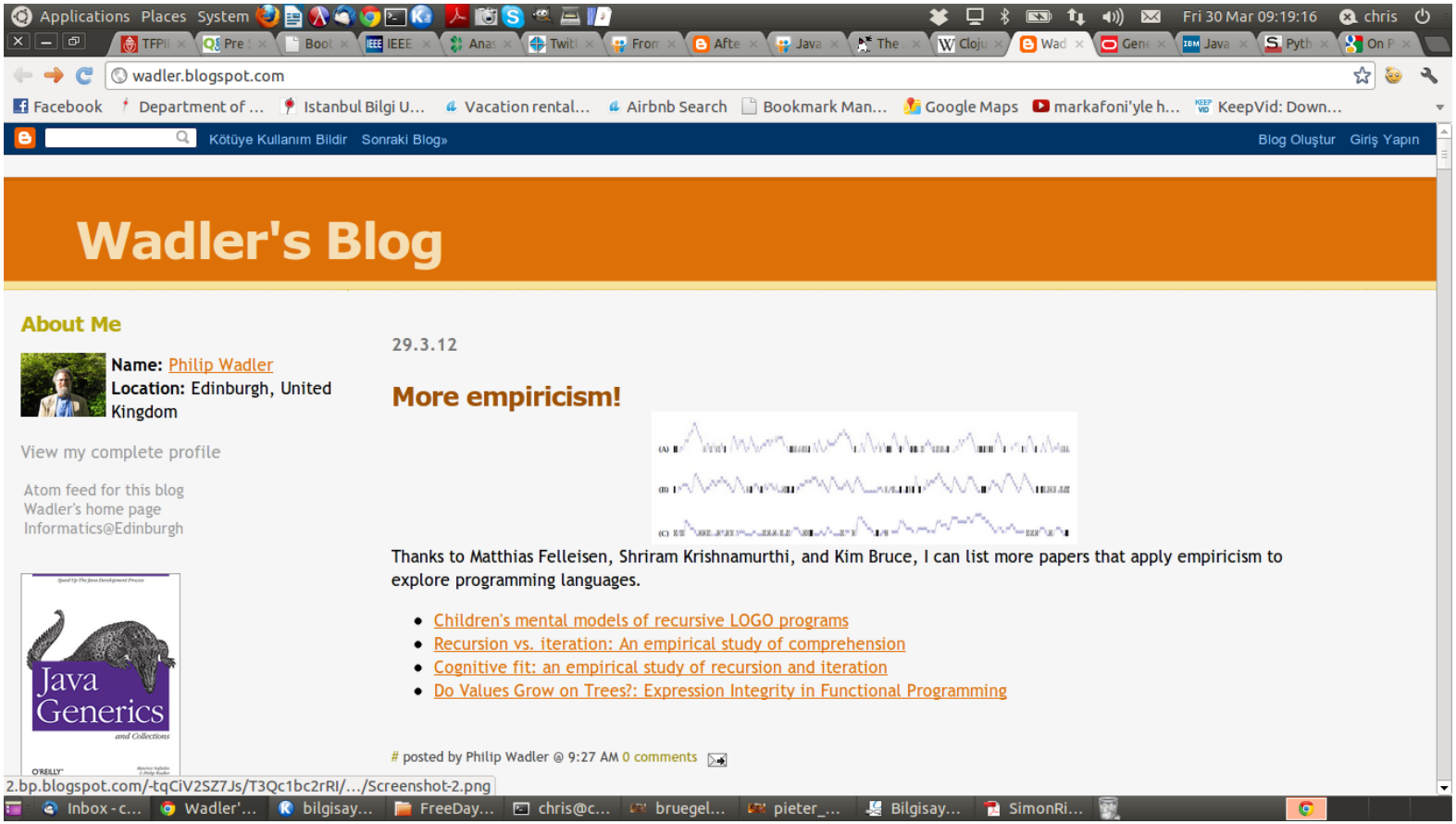
Bilgisayar Bilimlerinin (eski) Türkiye Bayisinin vizyonun üç (deli) maddesi
Functional Programming

Bilgisayar Bilimlerinin (eski) Türkiye Bayisinin vizyonun üç (deli) maddesi
Functional Programming
The future is functional - the time has come.

The future is functional - the time has come.

- Scala (who is there?) Martin Odersky
- Clojure
- Javascript
- Whalesong

The future is functional - the time has come.



Neden yeni diller? Yeni yaklaşımlar?
Sorunlar var.

Tabii, Ama neden fonksiyonel?

Scala'dan birkaç örnek.

Twitter diyor ki:
" I think it may just be a property of large systems in dynamic languages, that eventually you end up rewriting your own type system, and you sort of do it badly. You're checking for null values all over the place. "

Twitter diyor ki:

" It is a shame to have to write all that when there is a solution that has existed in the world of programming languages for decades now. "

Twitter diyor ki:
" .. it was wonderful to use a runtime I was familiar with and be able to use functional combinators and closures and higher order functions, all these things that I've wanted to use more in production systems. "

Twitter diyor ki:
" To me, languages like Ruby, Scala, and Python are very high level, because you can write a few lines of code to do what might take ten or twenty lines in Java, or 250 lines in C. "

Twitter diyor ki:

“ The hardest part was just switching over from the Ruby mentality to the Scala mentality. Trying to think more functionally. Trying to think more immutably. Thinking about static typing for the first time in several years. ”

http://www.artima.com/scalazine/articles/twitter_

The Guardian diyor ki:
“ It took us a while to realise that most of the loops we wrote in Java were actually ’map’ or ’flatMap’ ”
http://www.slideshare.net/tackers/java-to-scala

Ne var?

- First class functions -parametre ve sonuç olabilir
- lambda
- Static, nested, scope
- Closures
- Comprehensions, map, filter, fold ve saire
- Mutation - yoook
- (bazen) First class static types

Ufak örnekler:

Bunlar da lazım

- Program by Design
- Data Driven design
- Test Driven Development

Çalışyor mu?

- No mutation -> optimisation
- Higher order -> optimisation
- Deforesting

Bilgisayar Bilimlerine İhtiyaç var.

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Çünkü....Standart müfredat budur

Pieter Bruegel the Elder, 1568, The blind leading the blind

And if you do not believe me, the news from the European job market is:
http://bit.ly/H31VgK