JBoss
a division of Red Hat

Israel JBoss User Group
Session 09

Choosing a Web Framework

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Agenda

- Introduction
- The Problem
- How do you choose?
- Important Factors
- Q & A

Introduction

So, what's this presentation about?

How Do You Choose?

Ext JS

ZK Simply Rich

Struts 2

GRAILS

RAILS

JavaFX

fx

Stripes

dojo

webwork
WEB APPLICATION FRAMEWORK

Seam

My Faces

Spring 2.0

Google Code
Google Web Toolkit

WICKET

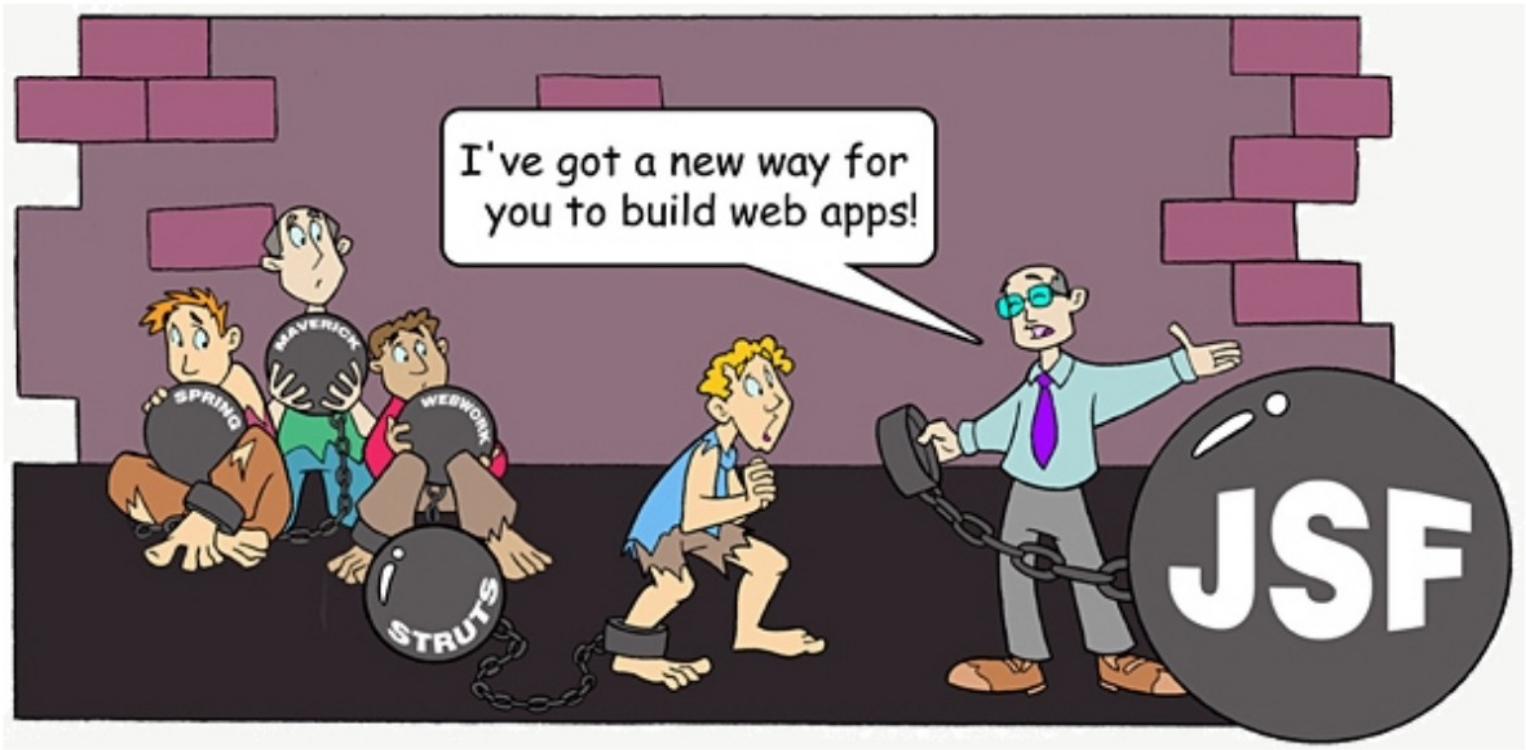
RIFE

OpenLaszlo

TIBCO
The Power of Now®

tapestry

Pros and Cons



Wicket

- Pros:
  - Great for Java developers
  - Tight binding between pages and views
  - Active community
- Cons:
  - HTML templates live next to Java code
  - OO is a requirement
  - Everything is done in Java only

Flex

- Pros:
  - Produces Flash UI
  - Founded by Adobe
  - Great looks
- Cons:
  - Not search engine friendly
  - Doesn't render HTML content well
  - Printing issues

JSF

- Pros:
  - Java EE Standard - lots of demand and job
  - Proven on production
  - Lots of component libraries
- Cons:
  - Tag soup for JSPs
  - Doesn't play well with REST/Security
  - No single source for implementation

GWT

- Pros:
  - Write Java - Get JavaScript
  - Tools / Testing
  - Easy to learn and develop
- Cons:
  - Hard to attach on top of existing code
  - Not enough advanced widgets
  - No clear future
  - Performance Issues

SpringMVC

- Pros:
  - Integrates with many view options seamlessly: JSP/JSTL, JSF, Tiles, Velocity, FreeMarker, Excel, PDF
  - Inversion of Control makes it easy to test
- Cons:
  - Almost too flexible - no common parent Controller
  - No built-in Ajax support

Seam

- Pros:
  - A full stack framework
  - Conversations with jBPM
  - Heavily funded by JBoss/Red Hat
- Cons:
  - JSF
  - Works best on JBoss AS
  - Designed for EJB 3

Struts2

- Pros:
  - Simple architecture - easy to extend
  - Tag Library is easy to customize
  - Controller-based or page-based navigation
- Cons:
  - Missing documentation
  - Missing properties, invalid OGNL expressions

Grails

- Pros:
  - Less LOC => awesome productivity
  - Easy to learn for Java Developers
  - Spring/Hibernate based
- Cons:
  - Not as performant as using the raw frameworks
  - Hard to sell to stakeholders
  - Virtually unknown

Other Frameworks

- Tapestry
- Stripes
- WebWork
- Zk
- Dojo
- Extjs

So, How to Choose?

Eliminate, Don't Include

It's not about including choices, it's about eliminating them

Don’t believe the Hype

- Don’t believe blogs and articles
- Try it yourself
- Believe ***developers***, not ***evangelists***
- Appreciate ***real*** developer experience
- Beware of corporate / marketing interests
- Books are a good sign

Trial And Error

- Pick 2-3 frameworks for your type of application...
- ... and prototype!
- If prototyping is painful, switch
- Make sure you prototype more than one
- Do a presentation comparing the pros and cons of each
- Collect feedbacks
- Don’t be afraid to try new frameworks
- Don’t be afraid to use old frameworks
- Don’t be afraid to keep your existing framework

6 Important Factors

- What type of Application are you building?
- Ease of Development / Is full-stack an option?
- Project Community
- Project Future and Roadmap
- Testability
- Technical Features

Types of Applications

Request, Component or RIA?

- High-traffic, internet facing, infinite scalability
  - Request-based frameworks
- Intranet-based, behind firewall, few users
  - Component-based frameworks
- Products, to be maintained for 5-10 years
  - Largest Community, Vendor Support
- Legacy Backend
  - Same Language as backend

Types of Frameworks

- Request Based Frameworks
  - Struts 1/2, Spring MVC, Stripes
- Component Based Frameworks
  - JSF, Wicket, Tapestry, GWT
- Rich Internet Applications
  - Flex, OpenLaszlo
- One Size Fits All?
  - Seam, (G)Rails

Ease of Development

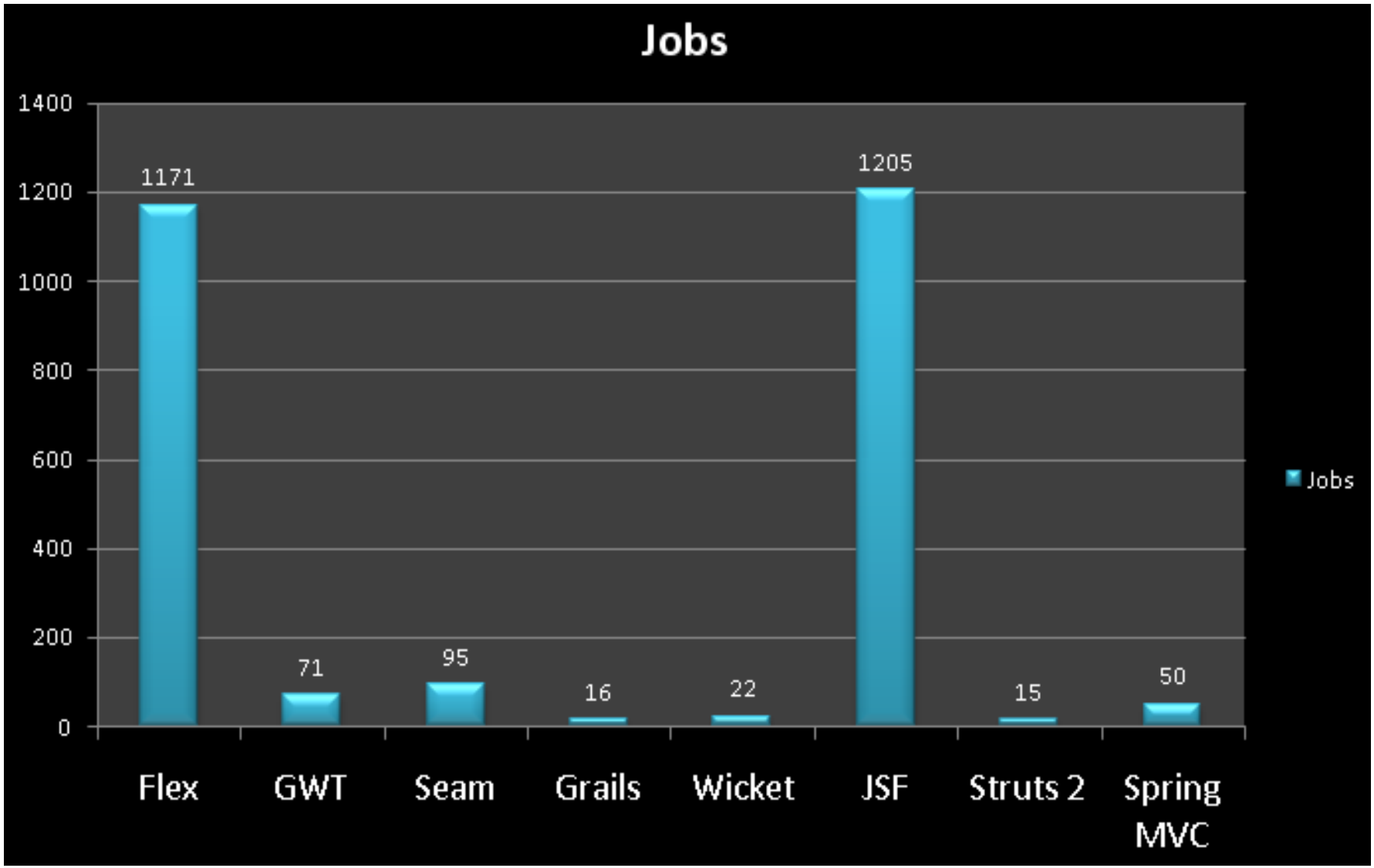
- Can new developers learn the basic concepts on their first day?
- Does the framework follow the principle of least surprise?
- Are you migrating from an existing web framework?

Project Community

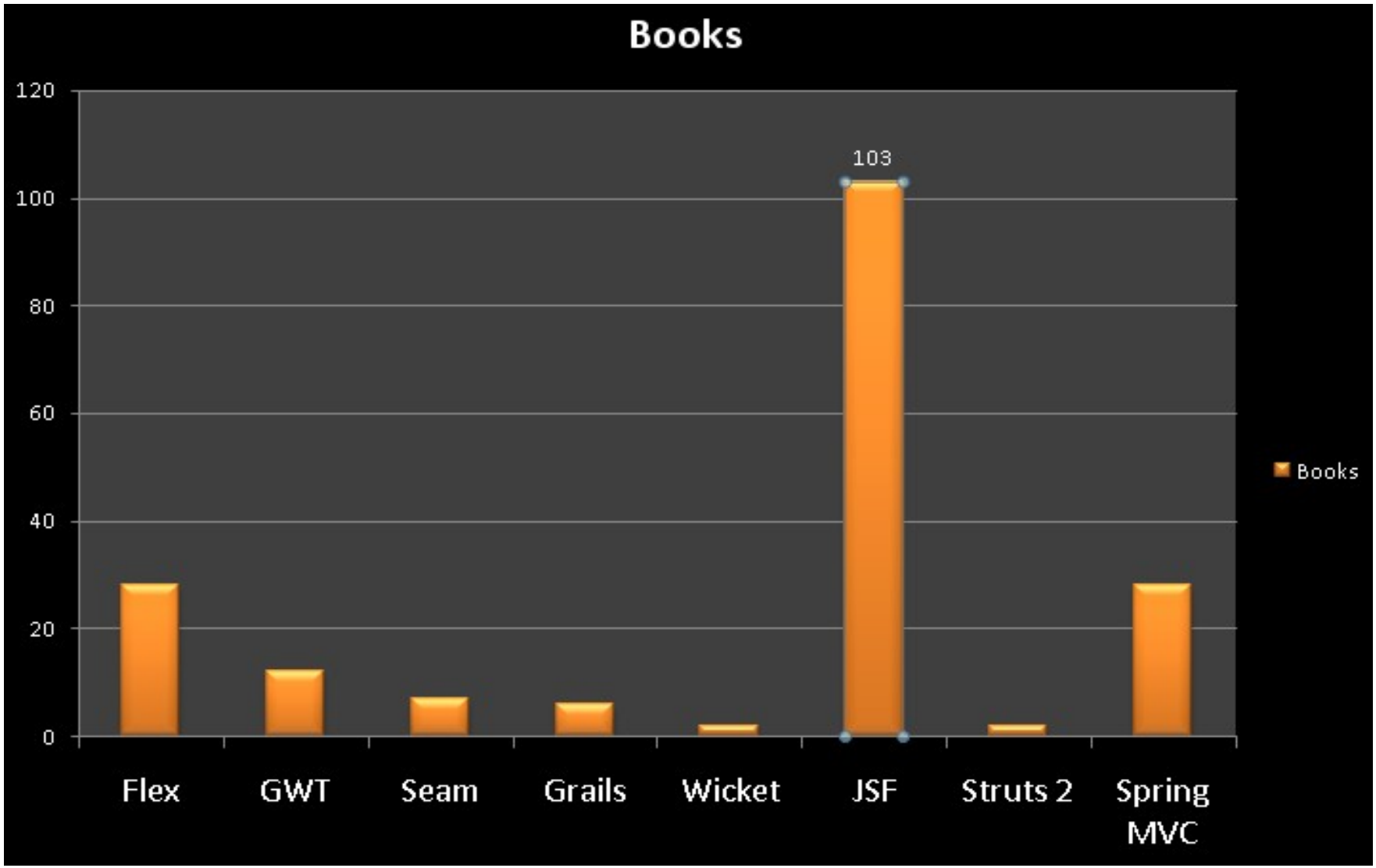
- Is there a company backing the project?
- Are vendors jumping on board? Consultants?
- Healthy mailing list traffic?
  - Users and developers are both important
- Are there frequent releases?
- What's the level of real-world usage?
- Are there books written about it?

Pretty Graphs

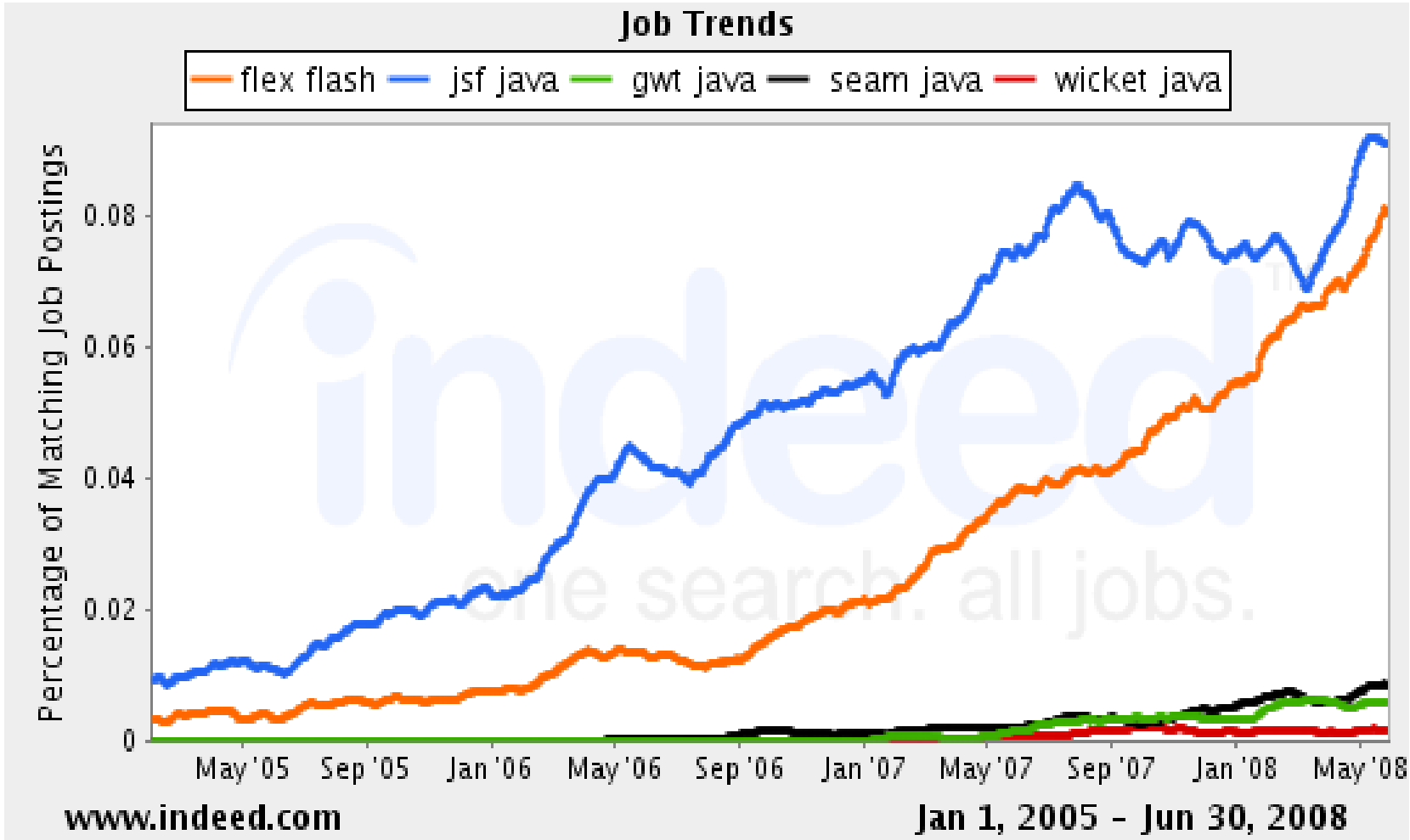
Jobs on Dice.com



Books on Amazon



Job Trends


Job Trends
flex flash
jsf java
gwt java
seam java
wicket java
Percentage of Matching Job Postings
0.08
0.06
0.04
0.02
0
May '05
Sep '05
Jan '06
May '06
Sep '06
Jan '07
May '07
Sep '07
Jan '08
May '08
www.indeed.com
Jan 1, 2005 - Jun 30, 2008

Thank You!