Enhancing Competitiveness Through Technology

MEF National Conference 2007: Enhancing Competitiveness Through Technology & Law Reforms – The Next 50 Years
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... or harnessing technology, to improve your business processes

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Who am I?

- Community Relations Manager, APAC
    - Distribution Ombudsman
    - Community Engineering
    - Generalised Dolphin Wrangler
- Previously:
    - Fedora Project FESCO and PowerPC hacker
    - OpenOffice.org contributor

What are my aims, today?

- Some theory

  - workflows, business process reengineering, methodologies to process improvements for gaining competitiveness

- Practical tools

  - that you can already use now, low barriers to entry (i.e. does not require your 14-year-old geeky & pimply nephew to set things up), productivity maximisers

What we won't **be covering today**

- This is **not** a MySQL pitch

- While open source technologies are being covered, this is not an open source talk

- How open source companies like MySQL and Red Hat make money (and the business models behind Software as a Service [SaaS])

- Buzzwords

- We can however talk about this (and more), over a cup of *teh tarik*

Deciphering the topic

- enhancing: to {advance, increase, heighten}

- competitiveness: aggressive willingness to compete

  - compete: to seek or strive for the same thing/position/reward for which another is striving

  - comparative concept of the ability and performance of a firm to sell/supply services in a given market

- technology: practical application of science to commerce or industry

  - expect interchanging use of the terms Information Technology (IT), ICT, etc. *(buzzword abuse!)*

Why not just rest on your laurels?

- Globalisation

  - Most jobs can really be done elsewhere, for less money, even with a possibly increased headcount

- Failure to improve can mean competitors improve, and leave you behind

- Basic human tendency to become or evolve into better beings, and this involves the competitive spirit
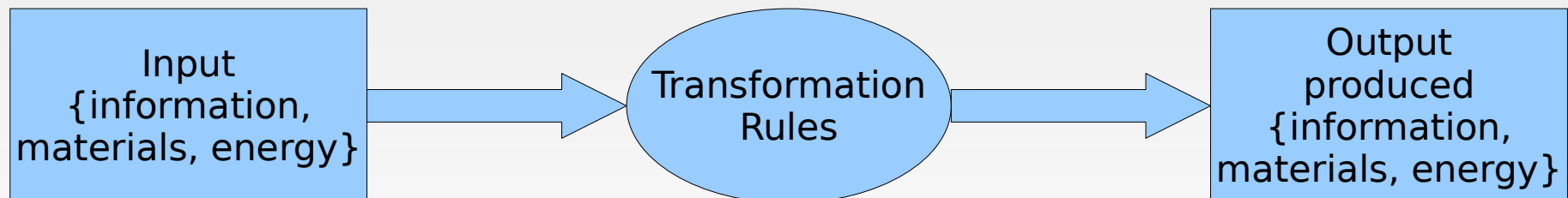
Part I: Theory

- Improving workflows
- There are many ways to do this:
    - Six Sigma
    - **Business Process Reengineering**
    - Total Quality Management
    - ... expect even more as folk decide to write books, and have the urge to make more money
- Getting Things Done!

Workflows

- "reliably repeatable pattern of activity enabled by a systematic organisation of resource, defined roles and information flows, into a *work process* that can be documented and learned"

- Largely, can be viewed as **planning** and **scheduling** problem solving

Input {information, materials, energy} → Transformation Rules → Output produced {information, materials, energy}

Business Process Reengineering (BPR)

- "management approach, aiming at improvements by means of elevating efficiency and effectiveness of the processes that exist within and across organisations"

- **Eliminate** non-value adding work

- Yes, it means starting over

- No, its not tinkering with what already exists

- Think *reinvention*

Better Faster Cheaper **Processes**	PRODUCE →	Better Faster Cheaper **Products**
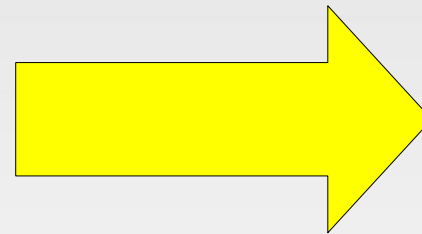
Simple example of BPR

tired   **wired**

- Receive CLJ/MLJ Law Journals via postal mail

- Scan, page by page

- Ensure OCR errors are minimised

- Input into database

- Repeat

- Subscribe to CLJ online

- Use the online search tool, which has access to the entire database!

What did we just eliminate?

- Putting human capital to better use
  - Human(s) scanning in pages
  - Human(s) verifying pages of OCR text
- Human(s) input, into *individual* databases
- Information Sharing would have helped in the early days... pre-online search-able databases
- Storage space
- From a green perspective, we've also saved countless trees

The role IT plays in BPR

- In early days, described as *disruptive technologies* (Hammer & Champy, 1993)

- Nowadays, a lot of the initial thoughts, are generally taken for granted

- Not addressed in detail

  - automated identification and tracking

    - things tell you where they are, instead of requiring finding

  - high performance computing

IT-in-BPR: Shared Databases

- Make information available in many places

- What's here today?

  - Sharing between departments, various office branches, et al

- Customer Relationship Management (CRM) systems to mine information about clients

- Thought for the future? Sharing information contained in databases, between companies, even!

IT-in-BPR: Expert Systems

- Allows a generalist to perform specialised tasks

  - increases distribution of expertise

  - broader job description for individual workers

- Uses a set of rules that analyses information about a specific class of problems, and recommends one or more user actions

- Think of it as a Knowledge Base, that *formulates* answers based on input

IT-in-BPR: Telecommunications Networks

- Allows an organisation to be centralised, yet decentralised at the same time

- The **corporate intranet** seems to be common-place nowadays

  - Memos are clearly outdated, and intranet-based email is what's taken over

- Forward thinking companies, are Internet enabled

IT-in-BPR: Decision Support Tools

- Decision making is to be part of everybody's job

- Combine this with an Expert System and a Shared Database, and you really have decision making made easy

- The idea of an Interactive Videodisk (Live Support) can also be integrated quite nicely

  - allows one to get into immediate contact with potential clients, or support existing ones

- Project management, GANTT charts, can be created & maintained in tools

IT-in-BPR: Wireless Data Communications + Laptops

- Field personnel can now work independently from the office

- Works better if corporation is Internet enabled

- The Internet is pervasive

  - hotels, cafes, *mamaks*

  - cellular networks, provide 3G/GPRS/etc.

- Blackberries, PDA-phones sometimes make laptops a non-necessity when on the road

- Remote employees – work at home

Getting Things Done

- Popular book by David Allen

- Focuses on workflow processes

  - Collect – close all open loops

  - Process – get rid of what you don't need right now

  - Organise – support your working values

  - Review – always, place items in the right place

  - Do – honour your time, energy, and context at a given time

- Productivity, always helps increase one's competitiveness level

Part II: Utilising Technology

Enough with the theory, lets step into cool tools that *you* can use *right now*!

You're on the Internet already, aren't you?

- Hosted tools
  - requires online access/connectivity
  - easiest barrier to entry
  - starting to have *offline* support
- Self-installed tools
  - requires someone willing to get their hands dirty
  - you have an IT guy?
  - you willing to pay a service provider to install & maintain it?

Email

- Worked wonderfully in the early-90's, before corporations (and spam) became prevalent

- Can get very noisy

  - "no cost" mentality

  - makes it a lot harder to reply in a sensible speed

- However, its the best communication tool available, beating fax/snail mail/telex (?)

- Self-hosting (me@mycompany.com.my) or hosted (Google Apps for Domains, free email)

Instant Messaging (IM)

- Blocked in some companies

- Forward thinking ones, use it as a tool for inter-company communication

  - Quick response loop; logged

- Existing services that are popular:

  - MSN, Yahoo!, GTalk, AIM, etc.

- Self-installed: Jabber (XMPP)

  - advantage of keeping it corporate only, not having access to external services

Voice over IP (VoIP)

- Immediate cost saver, especially if you make long distance calls

- Works in computer (via a *softphone*), so desks do not need to be retrofitted with phones

- Logging is instant, and verbose

- Not ready to replace your PBX?

  - Use existing "free" services, such as Skype (video conferencing available), Gizmoproject, etc.

- Busy/travelling executives are *always* reachable via the same number

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Mailing lists

- Mail merge?

- Send out brochures via postal mail?

- Online distribution, is virtually cost-free

- Harnessed with a CRM system, sending out weekly **opt-in** newsletters or brochures when required, is easy

- Managing the relationship is key to retaining your customer (i.e. via regular communication)

CRM: SugarCRM

- http://www.sugarcrm.com/

CRM: SugarCRM Business Card Entry

SHORTCUTS
- Create Contact
- Enter Business Card
- Create From vCard
- Contacts
- Import

CONTACTS: BUSINESS CARD   Print   ? Help

CREATE CONTACT

First Name: Last Name: *   Title: Department:
--None-- ▼ [   ]   [   ]   [   ]   [   ]

Primary Address:
[   ]

City: State: Postal Code: Country:
[   ]   [   ]   [   ]   [   ]

Office Phone: Mobile: Fax: Home:
[   ]   [   ]   [   ]   [   ]

Email: Other Email: Other Phone: Lead Source:
[   ]   [   ]   [   ]   --None-- ▼
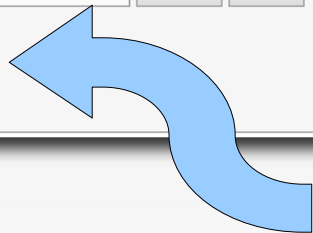
Description:
[   ]

Create Note

RELATED RECORDS

Select Account: [   ] Select   Clear
OR

☐ Create Account
☐ Create Opportunity
☐ Create Appointment

Creating/attaching to accounts, or notice allowing to create an opportunity (for future appointments, even)

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CRM: Highrise

- http://www.highrisehq.com/

- Hosted, online service

Cases are notes for groups

Tags are a modern way of categorising an object

Add significant dates, receive appropriate reminders

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Disrupting the encyclopaedia industry

Wiki
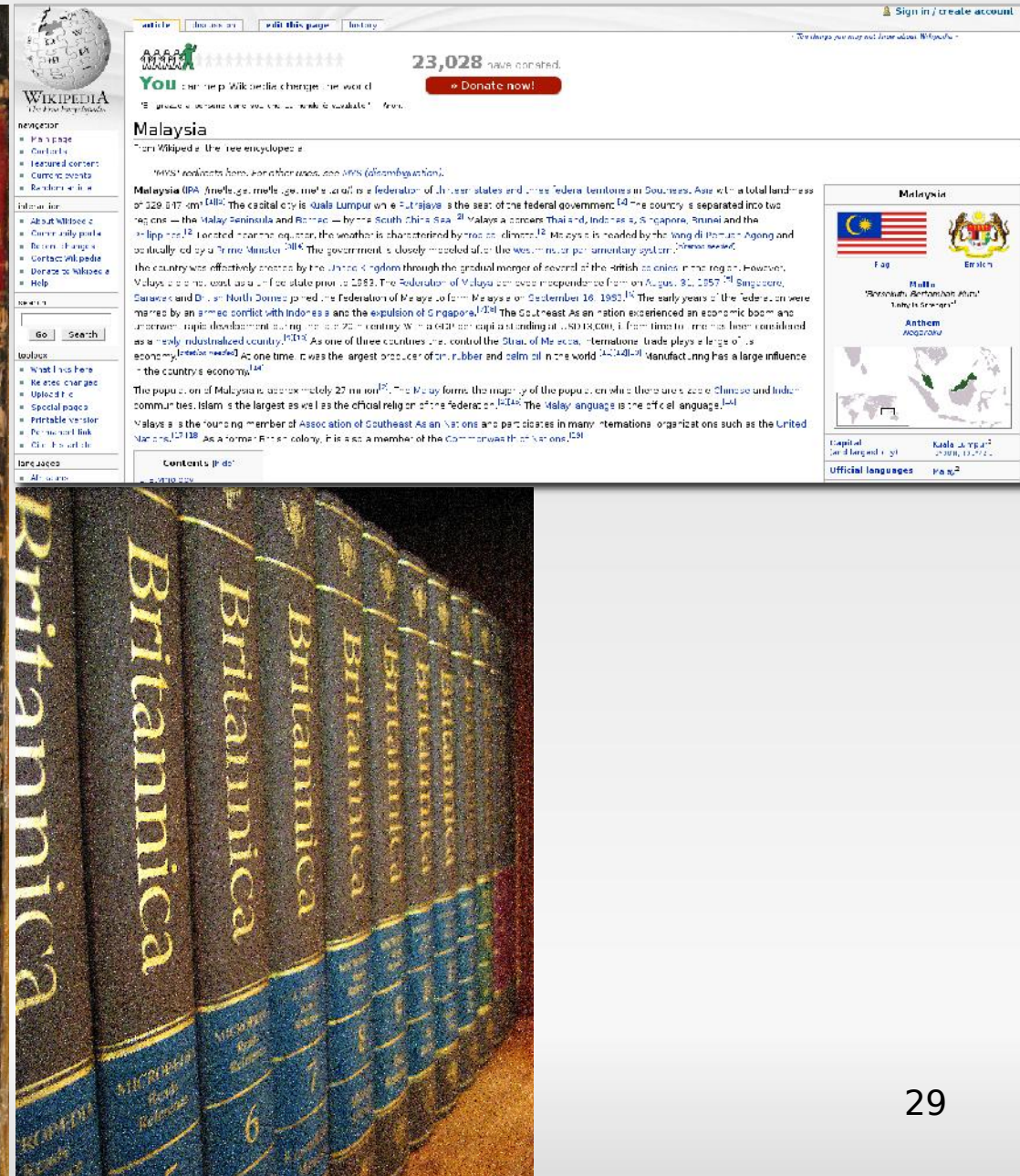
- To compete, you must collaborate

- Supports simple mark-up language

- Supports Roles

- Helps in achieving compliance/change management

- Subscribe to email facility, when changes are made to a page (i.e. "watch a page")

- Has RSS feed support, to track updates in a feed reader

Working with a Wiki

ColinCharles   my preferences   my watchlist   my contributions   log out

article | discussion | edit | history | protect | delete | move | watch

Eclipse/CDT on Linux and Mac OS X

navigation
- MySQLForge
- Main Page
- Current events
- Recent changes
- Random page
- Help

search

[Go] [Search]

toolbox
- What links here
- Related changes
- Upload file
- Special pages
- Printable version
- Permanent link

Discussion (i.e. write comments that are logged)

All edits are logged and can be rolled back. This is **version control**.

Protect page based on roles

Subscribe to changes in the page via email

See, and subscribe to Recent Changes

Create finer grained access controls, for different depts.

Edit
(default)
Block unregistered users
Sysops only

Move
(default)
Block unregistered users
Sysops only

Accountable for your work on the Wiki

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Wiki recent changes and compliance/change management

Summer of Code

Revision history
View logs for this page

(Latest | Earliest) View (previous 50) (next 50) (20 | 50 | 100 | 250 | 500).

Diff selection: mark the radio boxes of the versions to compare and hit enter or the button at the bottom.
Legend: (cur) = difference with current version, (last) = difference with preceding version, M = minor edit.

Compare selected versions

- (cur) (last) ○ 12:32, 2 October 2007 Guaka (Talk | contribs | block) m (SummerOfCode moved to Summer of Code: CamelC
- (cur) (last) ○ 04:15, 10 September 2007 ColinCharles (Talk | contribs | block) (→Participants in the Summer of Code 2007)
- (cur) (last) ○ 01:02, 10 September 2007 ColinCharles (Talk | contribs | block)
- (cur) (last) ○ 15:16, 4 September 2007 Mayssamj (Talk | contribs | block) (→Participants in the Summer of Code 2007)
- (cur) (last) ○ 13:52, 9 August 2007 Umairmehmood (Talk | contribs | block) (→Participants in the Summer of Code 2007)
- (cur) (last) ○ 07:17, 5 August 2007 Gmaxia (Talk | contribs | block)
- (cur) (last) ○ 07:17, 5 August 2007 Gmaxia (Talk | contribs | block)

Every change that was ever made to this page is logged

Performing a "diff", which is a comparison between revisions

Summer of Code

(Difference between revisions)

Revision as of 01:02, 10 September 2007 (edit)
ColinCharles (Talk | contribs | block)

← Previous diff

Current revision (12:32, 2 October 2007) (edit) (undo)
Guaka (Talk | contribs | block)   [rollback]
m (SummerOfCode moved to Summer of Code: CamelCaseIsUglyAndUnreadable)

(One intermediate revision not shown.)

Line 34:

* Milos Prodanovic - IPv6 network support - mentored by Brian Aker [http://www.livejournal.com/users/krow/ (blog)]

- * Senlin Liang [http://mysql-soc.spaces.live.com/ (blog)]- Unit Testing - mentored by Stewart Smith
[http://www.flamingspork.com/blog (blog)] - '''discontinued''' after mid-term **project**

= Resources =

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= Resources =

Really Simple Syndication (RSS)

- Information overload, time wastage, by visiting too many websites

- Idea behind RSS: Let the websites tell you when they've been updated
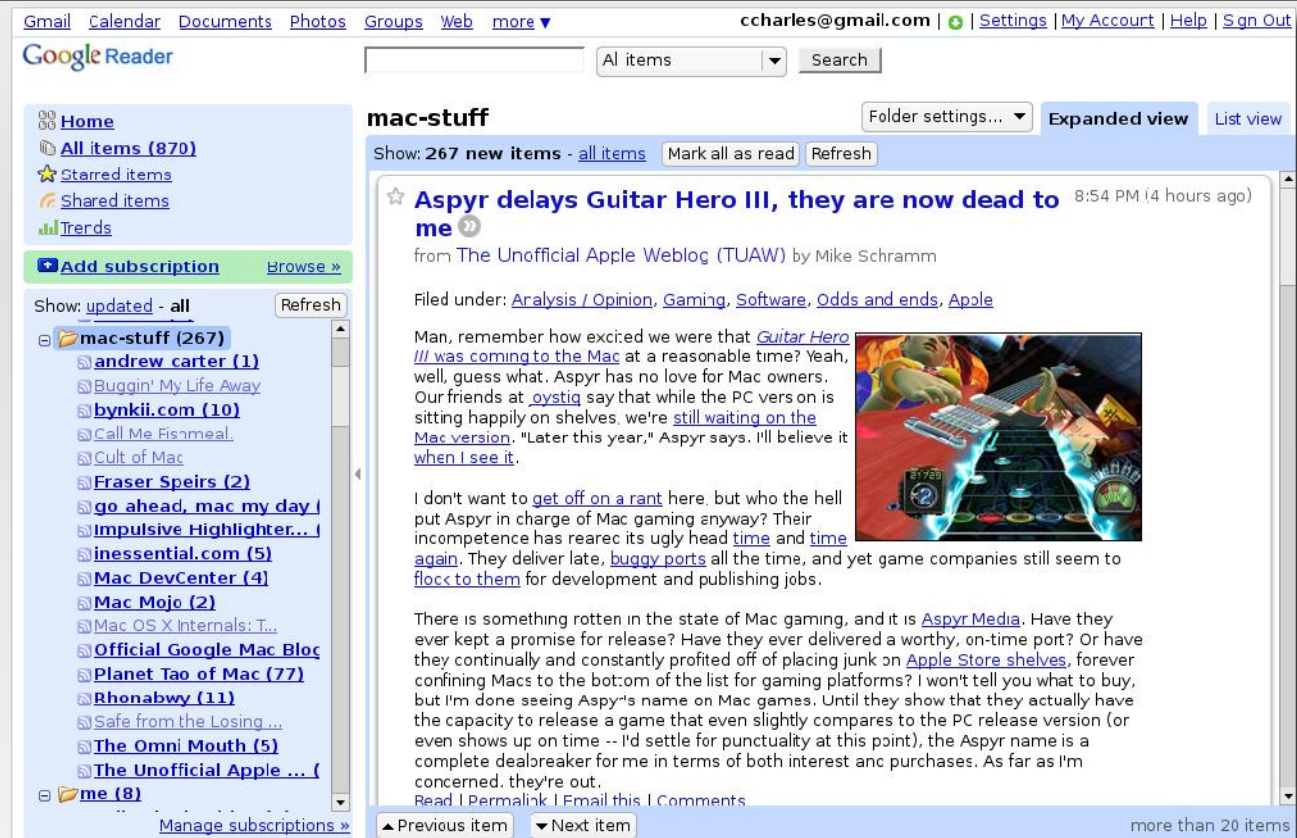
Google Reader: An example of a Feed Reader (comes with Mobile reading capabilities, as well as offline syncing)

Thunderbird, NetNewsWire, Liferea, and many more are other feed readers

Web logs (blogs)

- Posts are chronologically written, but displayed in a reverse chronological order

- Can help an organisation reach its goals
  - Public accountability
  - Like a mailing list
  - Feedback loop: allows comments, a conversation is then built with your readers

- Great for organisational public relations
  - Technology companies look at it very favourably nowadays

Blogs

- Internal blogs?

  - Better than discussions on a common mailing list (or CC list), with free discussion of issues, harnessing collective intelligence

  - Removes layers between management & peons

- Entry level is so low – can you write in a word processor? You can blog

  - Wordpress.com, Blogspot, etc.

- Corporate blogs are best kept on the corporate domain

Podcasts/Videocasts

- The power of recording audio and video has been reduced to even popular mobile phones

- YouTube hosts video, that can contain product demonstrations, interviews, etc.

- Podcasts, are hosted via blogs (RSS feeds, technically), and dish out audio (or video) to subscribers

- iPod's are common devices. iTunes, Windows Media Player, Rhythmbox, support podcasting out of the box

Online Collaboration Tools

- **Exchange or Zimbra, to handle messaging and collaboration (calendering, contacts)**

- **Allows access via POP/IMAP client, as well as web-based interface**

- **Hosted, or self-install (latter, preferable)**

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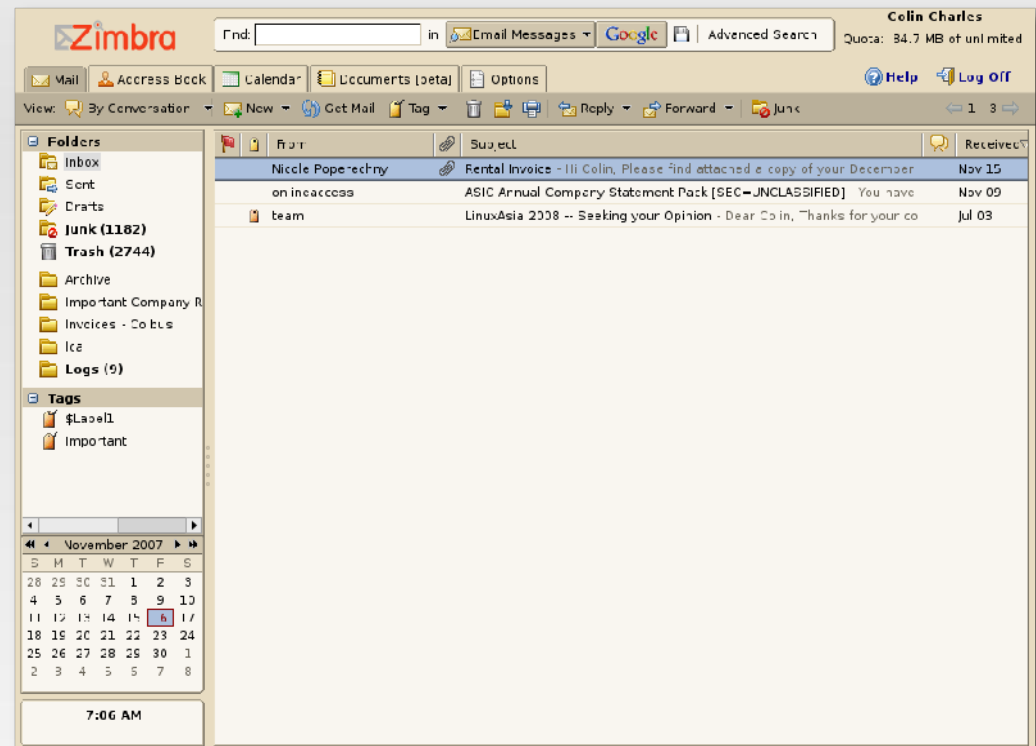
Using Google Apps for Your Domain

- Google handles the hosting, with your domain name, for *free* (outsource your IT infrastructure)

- Use the Calendar, email, IM, as well as Google Docs – in-browser productivity

- Standalone office software, is clearly going out of fashion...
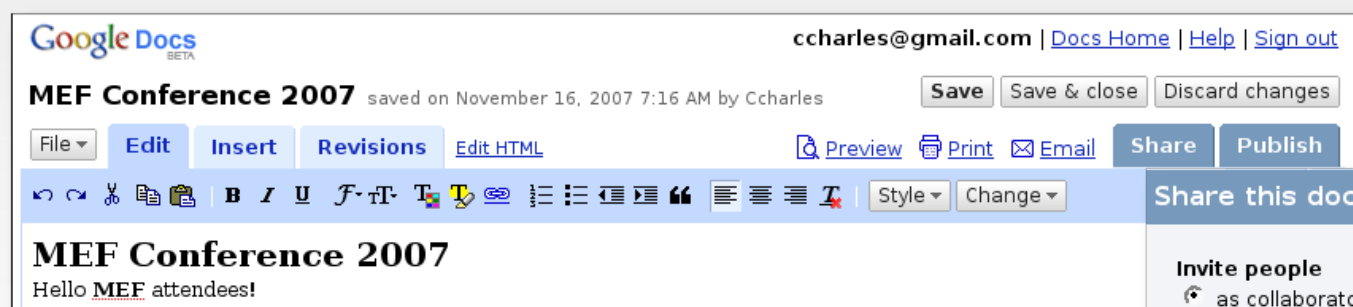
A word processor

Many people can work on the document at the same time!

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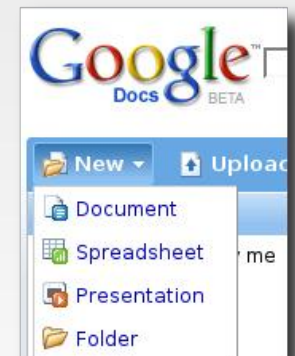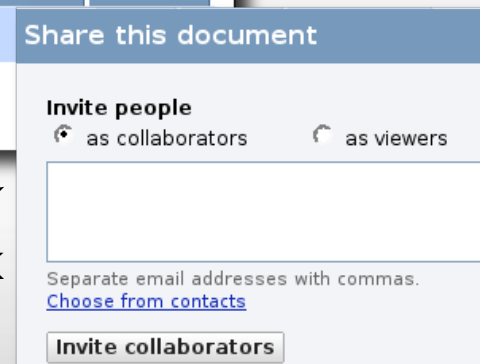
Document Management

- 1,000 information workers = USD$5 million wasted looking for information, and not finding it?

- 1,000 middle managers say half of the information found during searches are useless?

- 10% of salary costs are wasted on ineffective searches?

- Finding information quickly, and effectively, is the key to enhancing one's competitiveness

http://www.networkworld.com/news/2007/012307-wasted-searches.html

Document Management II

- Google Search Box? Google online apps?

- KnowledgeTree (http://www.knowledgetree.com/)

  - Access via the Web, Microsoft Office, Microsoft Windows, WebDAV clients (Mac OS X, Linux)

  - Tag your documents

  - Keep them in version control

  - Scan directly into KnowledgeTree

  - Support for document workflow

- Hosted, or install yourself

Content Management Systems (CMS)

- Usually used to easily maintain web content

- Building a public facing website?

  - Have others, rather than just IT-savvy folk update and create content

  - Has workflow support, and to some extent document management

  - **Drupal**, Plone are good examples

    - Can expand with forums, etc.

- Similar to Wiki or Blogging to the end-user

Advantages of a CMS

Consultants are a locally run Malaysian company, Inigo Tech Sdn. Bhd.
Implementation performed by the company in question, by themselves!

- "shorten time for hard-coding work, whilst providing user more time for delivering content"

- "has no hidden cost to use. Just install & use, which great for SME, no worry for TCO or obtaining ROI"

- "very user friendly (even my HR staff can work with very little supervision) - no worry for error"

- Company in question: Malaysian distributor/wholesaler, for electrical components, under-50 employees, yearly USD $5 million turnover

Enterprise Resource Planning (ERP)

- An attempt to integrate all data and processes of an organisation into a unified system

    - key component: unified database

    - also uses much hardware and software components to achieve integration

        - automated identification and tracking?

- Opentaps (http://opentaps.org/)

    - functionality from the customer (online store) perspective, to the sales (CRM) perspective, to the warehouse perspective, as well as an administration point-of-view

Does technology have drawbacks?

- Time wastage
  - not trusting one's employees to know how to balance work/personal time during the 9-5 work day, is a bad idea
    - trust them
  - Gen Y workers want access to tools they're used to
    - Facebook, IM, etc. - give it to them
- Remember, measure productivity, not time spent (as is common)
- Can you think of more drawbacks (without being a Luddite)? Discuss

Automated Hiring

- A *great* decision support tool

- Computerised testing

- Results evaluation, mostly automated

		Candidate passes	Human Review + Interview
Invite candidate for testing	Candidate performs test in given time frame	Computer evaluates coverage	
			Candidate rejected
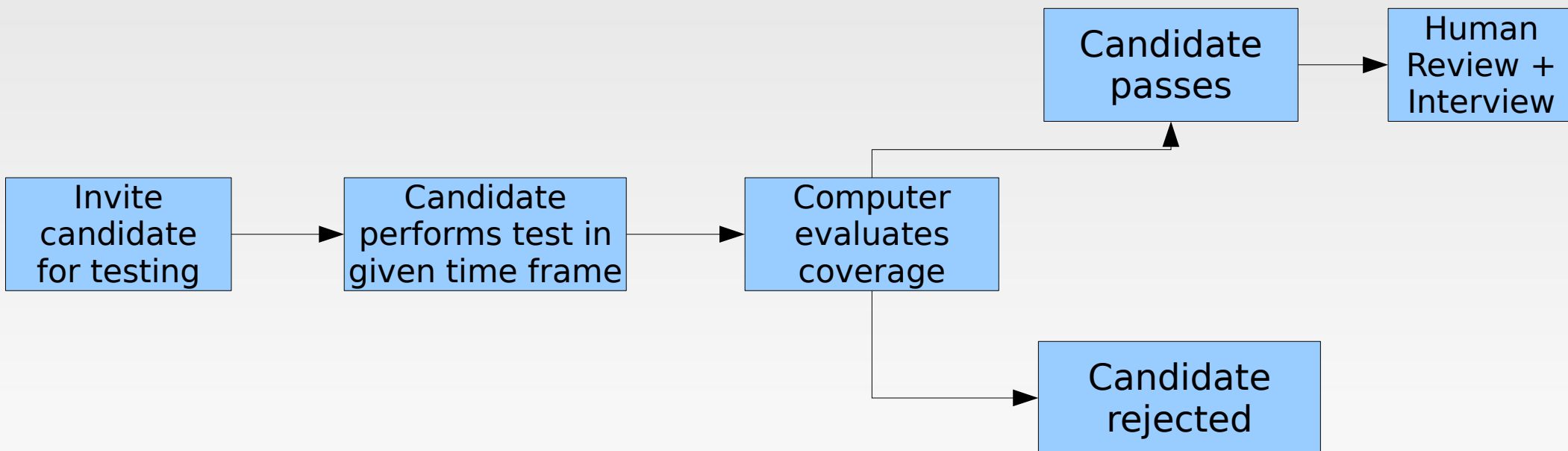
Software as a Service (SaaS)

- Zimbra, Google Apps for Your Domain, Highrise, SugarCRM, and many others don't sell you a license agreement

- They sell you a monthly/yearly service

    - To some this is a paradigm shift to wrap around

    - ... how do I pirate it? ;-)

- Most of these SaaS applications are open source based, or generally have a free version

Spend some…

(and vice versa)

… to save time   47

Open Standards

- How many of you still run WordPerfect 5.1?

- Do your Word 2.0 documents open in Word 2007?

- Ensure continuity of your digital documents, use open standards and formats

- OpenDocument Format (ODF) backed by Sun, IBM, and many others vs. OOXML backed by Microsoft

  - Go ODF, its an ISO standard (ISO 26300)

What it really all boils down to?

- Bottom-line:

  - Have sensible processes? Have technology? Marry them, for efficiency

- No excuse to **not** have processes

- The tools **are** here, so use them

- My tip for the next 50 years?

  - Information sharing, is key, get the culture ingrained and etched in your skin

  - Have efficient access to your information

Resources

- Lifehacker - http://lifehacker.com/

  - "Tech tips to help you at work or play"

- Open Standards Primer by Nah Soo Hoe

  - http://www.iosn.net/open-standards/foss-open-standards-primer

- 43folders - http://www.43folders.com/

Some HRM/law related Internet blogs

- Management Skills Blog

  - http://www.managementblog.org/

- Project Management Blogs

  - http://projectmanagement.ittoolbox.com/blogs/

- WSJ Law Blog

  - http://blogs.wsj.com/law/

- Harvard Law Blogs

  - http://blogs.law.harvard.edu/

  - http://cyber.law.harvard.edu/home/

Some HRM/law related Internet podcasts

- Management Issues

  - http://www.management-issues.com/podcasts.asp

- Project Management Podcast

  - http://www.thepmpodcast.com/

- University of Southhampton, School of Management

  - http://www.management.soton.ac.uk/news/podcast/

- Law & Technology Podcasts

  - http://www.llrx.com/features/techpodcasts.htm

Local Technology Resources

- Inigo Tech (http://www.inigo-tech.com/)

- My Directory (http://www.md.com.my/)

- ... probably others, just make sure your vendor/ISV knows that they're doing

  - due diligence on your part will help keep you happy

  - remember to include training – untrained staff, make suboptimal application usage

Credit, where credit is due

- Unix `dict(1)` + the dictionaries it accesses

- Reengineering the Corporation: A Manifesto for Business Revolution, Harper Business (1993) by Michael Hammer & James Champy

- Business Case Development, Pearson (2002) by Yen Ping Cheung & Ian Martin

- Getting Things Done, Penguin (2001) by David Allen

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- http://www.flickr.com/photos/lwr/103199569/

People Credits

- Raja Vishnu Sivarajah (MEF) for tolerating my demands, providing input

- Alfred Charles (Pro Act Management & Consultancy) for providing input

- Khairil Yusof (Inigo Tech) for helping me get a local quote, and formulate IT resources list

Hammering on about online goodness...

- I've uploaded the slides for this talk, and you're free to download it, including the notes that accompany it

  http://bytebot.net/talks/mef-2007/

Thanks! Questions?

E-mail me:

colin@mysql.com / colin@arenatechniques.com