## **Informal Learning**

Broadening the Spectrum of Corporate Training

Hans de Zwart

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## Who are you going to listen to?

### Things I like to talk about

Books, books, The Internet Revolution, Popular science, Free software (think free speech, not free beer), Nintendo (relevant for learning), Michael Jordan, Juggling, Digital civil rights, The Big Lebowski



## You are what you read







#### Favourite blogs

## ReadWriteWeb, Stephen Downes, iPhone Club, Wilfred Rubens, Mashable











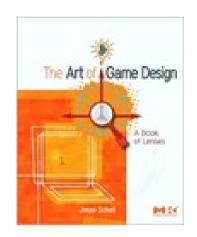
#### Favourite magazines

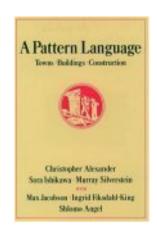
Wired, The Economist, Harvard Business Review, New York Review of Books, Linux Format

The New York Review of Books

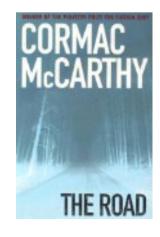








# The 5 best books I read this year Innovation to the Core, The Art of Game Design, A Pattern Language, The Road, The Forever War





### My career progression

23–29: Physical Education Teacher in the Bijlmer 29-31: Moodle Evangelist at Stoas Learning 31-35: Learning Adviser/Innovation Manager at Shell 35-40: Educational Technology Consultant at IBM 40-50: Independent Technology Consultant 50+: Professional Dominoes Player

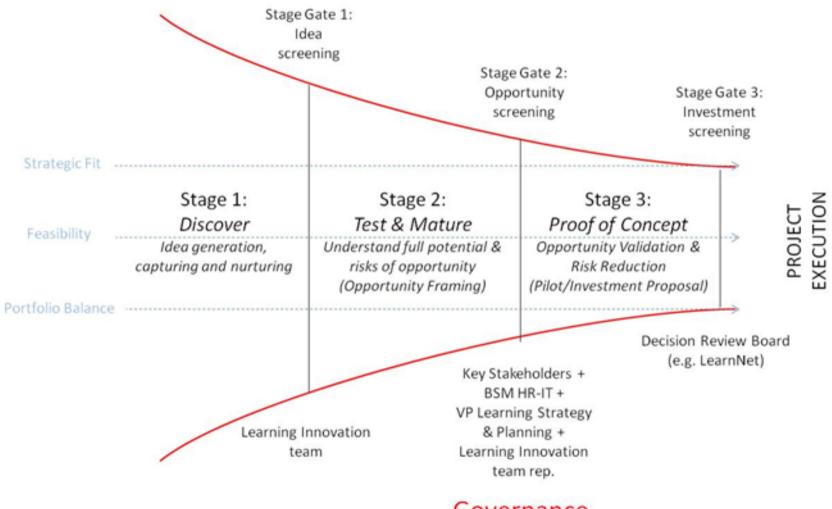
# What is it that I do? Innovation Manager for Global Learning Technologies

## Have medicine, need patient

## Have patient, need medicine

## "Sweating the asset"

#### **Stage Gates**



#### Governance

# "Early experimentation will lead to invaluable experience and fewer mistakes in the future"

### Three things to address here

- 1. What is in our "DNA"?
- 2. What have we been doing lately?
- 3. Where do I personally see the L&D function going?

## Where are we as a company coming from?

(in the learning space)

## Peter Senge – The Fifth Discipline

Personal mastery, Mental models, Building shared vision, Team learning, Systems thinking

MORE THAN 1 MILLION COPIES IN PRINT

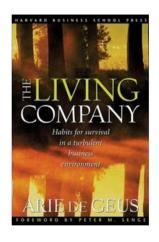
#### **Addie and ASTD**

#### **Global Learning Event Design Process**



### Arie de Geus – The Living Company

De Geus describes three preconditions for knowledge to flourish in an organization: innovation, social propagation, and mobility.



## **Betty Collis - Blended Learning**

Begin each course with an identified business need or competence gap

Design the course around a multi-step work activity, not around sequences of content

Let the participant and their supervisor complete a learning agreement

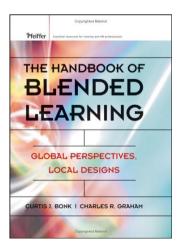
Design according to research based, best practice guidelines (web-based)

Build in: peer interaction, use of communinities, supervisor interaction, contacts with experts outside of the course

Integrate evaluation from different perspectives

Coach the supervisors and instructors

Reuse selected assignments



### **Accelerated Learning**

Total learner involvement enhances learning, Learning is not the passive storage of information but the active creation of knowledge, Collaboration among learners greatly enhances learning, Activity-centered learning events are often superior to presentation-centered ones, Activity-centered learning events can be designed in a fraction of the time it takes to design presentation-centered ones

# M. David Merrill – First Principles of Instructional Design

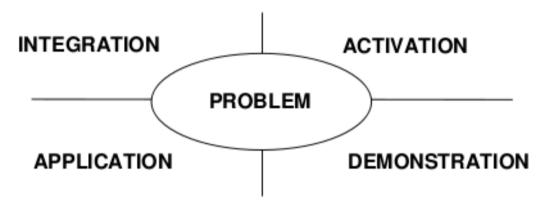


Figure 1 First Principles of Instruction Diagram

#### **Business anchoring**

To what extent do the activities engage the participants in solving work based problems?

To what extent do the activities use workplace materials or lessons learned?

#### Activation

To what extent is it clearly stated what prior knowledge participants are expected to have?

To what extent do the activities build upon what participants already know or can do?

#### Demonstration

To what extent are the participants shown rather than told what is to be learned?

To what extent are the participants guided to see the relevance of the learning event to their workplace?

#### Application

To what extent do participants have an opportunity to practice and apply their newly acquired knowledge or skill?

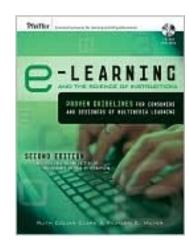
To what extent do the activities involve both "how-to" practice (carrying out a procedure, applying tools and processes to solve a problem, acting, practicing, thinking, trying, extending) and "what-if" practice (predicting a consequence of a solution and planning for contingency, refining, integrating, adapting)?

#### Integration

To what extent are there techniques provided that encourage participants to integrate the new knowledge or skill into their everyday work?

To what extent do the activities allow participants to reflect on the lessons learned?

## Clark & Mayer - E-learning and the Science of Instruction



#### Multimedia

To what extent are relevant graphics and text used to communicate content?

To what extent are words as on-screen text and words as narration different when there are graphics on the screen?

#### Personalisation

To what extent is a conversational style using the first and second person used?

to what extent are virtual coaches/on screen characters used to deliver instructional content such as examples and hints?

#### Segmentation and pre-training

To what extent is material presented in manageable segments controlled by the learner?

To what extent are key concepts named and their characteristics described before presenting them inside (complex) processes or procedures?

#### Examples and practice

To what extent are step-by-step examples provided before practice assignments?

To what extent is there a smooth transition from full step-by-step examples to practice assignments?

E-learning to build thinking skills

To what extent are real job tools and cases used to teach job-specific problem solving processes?

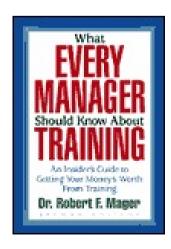
To what extent are lessons based on analysis of actions and thoughts of expert practitioners?

#### Navigation and learner control

To what extent are participants given pacing control

To what extent are important instructional events (e.g. examples or activities) part of the default navigational path?

## Robert F. Mager



#### **Performance Analysis Checklist**

- 1. Whose performance is at issue?
- 2. What is the performance discrepancy?

What's actually happening? What should be happening?

3. Is the problem worth solving?

What would happen if you ignored it?

4. Can we apply fast fixes?

Are expectations clear?

Are resources available and adequate?

Is quality of performance easily observed?

5. Are the consequences appropriate?

Is desired performance punishing to the performer?
Is poor performance rewarding to the performer?
Are consequences arranged effectively?

Do they already know how? (Could they do it if their lives depended on it?)

Could they do it in the past?

Are the tasks performed often?

7. Are there more clues?

Can the task(s) be simplified?

Can obstacles to performing be removed?

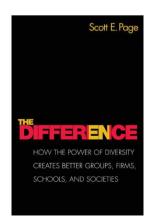
Can the performer(s) learn to perform?

- 8. Describe solutions.
- 9. Calculate the cost of each solution.
- Select the most practical of the cost-effective solutions.
- 11. Implement the solution(s).

## Don't forget Organizational Effectiveness

Performance consulting, Lean Six Sigma

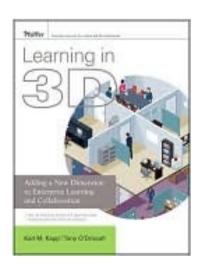
# and Diversity & Inclusiveness from the General Business Principles (moral) viewpoint and from a business effectiveness point of view



## Informal Learning as an attempt at keeping the L&D function relevant

## Kapp & O'Driscoll - Learning in 3D

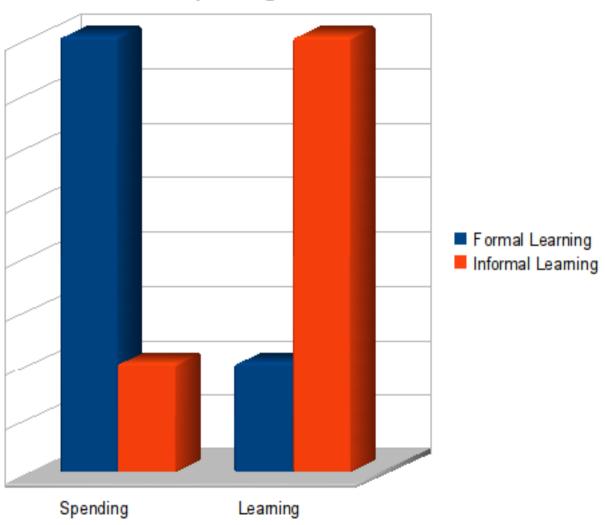
7 problems with the way learning is done



#### The Autonomous Learner Problem

"From a tactical perspective, the learning function appears to be allocating the majority of the effort in the area of least impact."

#### The Spending/Outcomes Paradox



### **The Timing Problem**

"The rapid pace of business almost guarantees that most formal learning programs will be outdated shortly after launch."

### The Packaging Problem

"Courses are organized around topics rather than tasks." and "The traditional packaging of formal learning is not aligned with the time sensitive needs of today's employees."

#### The Performance Problem

"Lack of knowledge and skill is only a small part of the reason that organizations don't perform as desired."

#### The Routinization Problem

Peter Drucker: Routinization is a phenomenom whereby existing industries initially apply radically new technology to automate and accelerate age-old processes and methods.

# E-learning modules? Learning Management systems? Virtual Classroom sessions?

#### The Transfer Problem

"Studies show that as much as 80 to 90 percent of investments in training programs fail to result in behavior change on the job."

#### The Value Problem

"The learning function has very little understanding as to what executives expect from the learning function, and as a result it often defaults to justifying its existence based on learning throughput as opposed to performance outcome."

"Collectively, the autonomous learner, timing, and packaging problems that are not being addressed by the learning function account for the de-selection of at least 80 percent of the addressable opportunity space for learning."

## What are some of the things have we been trying to do?

# One-stop-shop for Learning Integrated triangle with: LMS (SumTotal), LCMS (Force 10) and VLE (Moodle)

## Portfolio management with learning reviews

E.g. Aircraft, Assessment Solutions, Business Administration, Business to Business, Chemicals, Commercial Academy, Communications, Contracting and Procurement, Country Mandatory, Diversity and Inclusion, etc.

#### **Shell Wiki**

Q3 2010: 40.000 articles, 70.000 registered users, 22.000 contributions, Integrated in many learning courses

## Shell International Global Networks

Q3 2010: about 40 communities (e.g. Wells Global network, IT 4 Capital Projects, Knowledge Sharing Global Network, Learning Professionals Online Network), 41.000 registered users, 13.000 active users, 188.000 views, 4100 contributions

#### **Shell Tube**

Most played, top three: 25.564, 15.286 and 13.550 views. Most commented, top three: 181, 160 and 154 comments



Uploaded | Most Played | Most Discussed | Top Rated

Today | This Week | This Month | All Time

### Lecture capturing

Replacement for a sick facilitator,
Preparations for local versions of the course,
Delivery of a completely virtual course,
Creation of learning nuggets



## Personal examples

(my learning events for the year)

## Learning in 3D Reading Group

#### Hans de Zwart: Technology as a Solution...

#### Learning in 3D: Please Join My Reading Group

with 36 comments

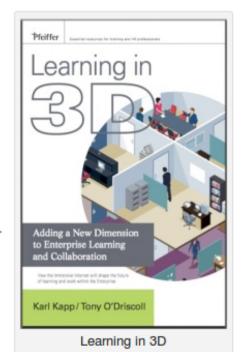
My company is piloting serious gaming in the learning domain using an immersive 3D environment based on the <u>Unreal engine</u>. We are on the cusp of developing a game around hazard recognition scenarios that are based on real life experiences. Because of this I am reading up on serious gaming and game design in general. After finishing the brilliant <u>The Art of Game Design</u> by Jesse Schell (more about that book in a later post), I now want to tackle <u>Learning in 3D</u>, Adding a New Dimension to Enterprise Learning and Collaboration by Kapp and O'Driscoll.

I have decided to start a reading group which will read the ten chapters of the book in ten weeks (there is a preview of the chapters <a href="here">here</a>). We will use blogs, Twitter, Delicious and a weekly teleconference to communicate around the book.

So how will this work?

#### Goal

The book provides principles for architecting 3D learning experiences (including a maturity model for immersive technologies) and has lessons on and examples of implementations in enterprise situations. The goal of the reading group is to actively internalise these lessons and see how they can be applied in our own organisation(s).



A techno believer's path in learning..

#### Hans de Zwart

I am Innovation Manager for Global Learning Technologies at Shell.

This is my personal blog where I write about things I have passion for: (open) technology and learning.

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### http://www.hansdezwart.info/lin3drg

10 internal participants, 10 external participants, 43 posts with summaries and reflections, 273 tweets, 47 bookmarks on Delicious, 10 recorded teleconferences

Design time: 8-16 hours

## **Capability Building Workshop**

250+ links based on 20 pre-work onepagers <a href="http://bit.ly/capbuild10">http://bit.ly/capbuild10</a>

#### Hans de Zwart: Technology as a Solution...

#### The Future State of Capability Building in Organizations: Inspirations

with one comment

I have been involved in organizing a workshop on capability building in organizations hosted on <a href="mailto:my employer">my employer</a>'s premises (to be held on October 20th). We have tried to get together <a href="mailto:an interesting group of professionals">an interesting group of professionals</a> who will think about the future state of capability building and how to get there. All participants have done a little bit of pre-work by using a single page to answer the following question:

What/who inspires you in your vision/ideas for the future state of capability building in organizations?

Unfortunately I cannot publish the one-pagers (I haven't asked their permission yet), but I have disaggregated all their input into a <u>list of Delicious links</u>, a <u>YouTube playlist</u> and a <u>GoodReads list</u> (for which your votes are welcome). My input was as follows:

#### Humanistic design

We don't understand ourselves well enough. If we did, the world would not be populated with bad design (and everything might look like Disney World). The

principles that we use for designing our learning interventions are not derived from a deep understanding of the humand mind and its behavioural tendencies, instead it is often based on simplistic and unscientific methodologies. How can we change this? First, everybody should read Christopher Alexander's A Pattern Language. Next, we can look at Hans

Mondorman (accessible through the book Traffic) to understand the influence of our curroundings on our behaviour. Then



CC-licenced photo by Flickr user kevindooley

A techno believer's path in learning..

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### The teaching paradox

"Constructionism asserts that learning is particularly effective when constructing something for others to experience."

## Some of the things we are struggling with right now...

## Innovation versus stabilizing the one-stop-shop

## Taxonomies and information management/architecture

Everything is Miscellaneous! Tagging middleware? Turning it upside down?



### Finding people

Profiles?! How come LinkedIn is a better way to find people that work for us, than what we have internally to do that job?

# Nine (non-exhaustive) things I see coming in the near future and a question to you for each of them

## 1. Creating opportunities to share

## Bert De Coutere – Homo Competens Learn, Do, Share

Homo Competens Let's talk about competent

people in the network age



Bert De Coutere

## Q: Have you shared something explicitly last week?

(Have you encouraged somebody else to share in the last week?)

## 2. Need for a deeper understanding of people

## Hans Monderman - <u>Shared Space</u>

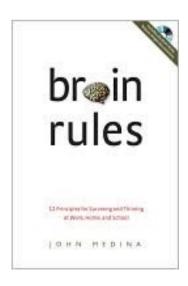
The best way to slow people down is to make the road more narrow

## Lawei plein in Drachten





### John Medina - Brain Rules





EXERCISE | Rule #1: Exercise boosts brain power.



SURVIVAL | Rule #2: The human brain evolved, too.



WIRING | Rule #3: Every brain is wired differently.



ATTENTION | Rule #4: We don't pay attention to boring things.



SHORT-TERM MEMORY | Rule #5: Repeat to remember.



LONG-TERM MEMORY | Rule #6: Remember to repeat.



SLEEP | Rule #7: Sleep well, think well.



STRESS | Rule #8: Stressed brains don't learn the same way.



SENSORY INTEGRATION | Rule #9: Stimulate more of the senses.



VISION | Rule #10: Vision trumps all other senses.



GENDER | Rule #11: Male and female brains are different.



EXPLORATION | Rule #12: We are powerful and natural explorers.

Q: Do you feel you are an expert on what makes a human brain tick and where motivation comes from?

# 3. Video check brain rule #10

## Nuggets, On demand, Pull







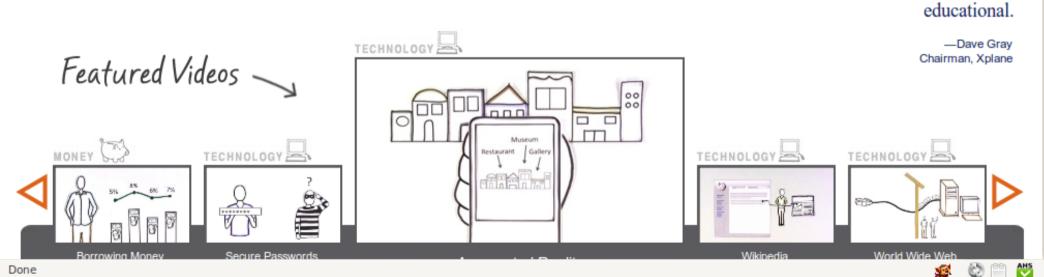
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21st century enlightenment

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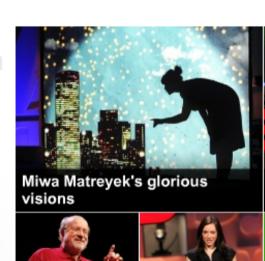
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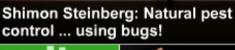
Jessica Jackley:

Poverty, money -- and

Heribert Watzke: The

brain in your gut





Joel Burns tells gay

teens "it gets better'

Peter Haas: Haiti's

disaster of

















Dianna Cohen: Tough

















# Q: Do you have the capability and the capacity to capture and deliver video?

# 4. A further segmentation of audiences (specialization)

## Cynefin framework

= one way of looking at things

Complex | Complicated | S-A-R

Emergent Practice

> Simple Chaotic

A-S-R Novel Practice

Good

Practice

Practice

# Q: Are you creating multiple learning strategies (i.e. are you diversifying)?

### 5. Mobile?

### Unique opportunity space

It knows who you are, it knows where you are (it even knows what direction you are facing), it allows for collaboration (all your contacts are already there), it is a content production device (video once more)

# Do you own an Android/iOS/Windows 7 smartphone?

### If not...

how will you participate in and learn about the feasability space for social practice that this technology creates?

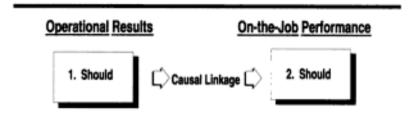
# 6. A further merging of the Learning function and Organizational Effectiveness

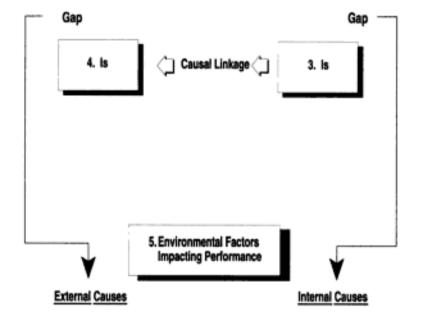
### Focus on performance!

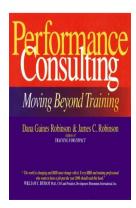
Star performers,
Performance Relationship Map

Figure 3.1. Performance Relationship Map.

#### **Business Need:**

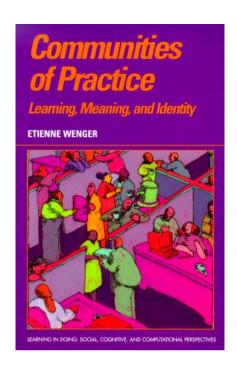


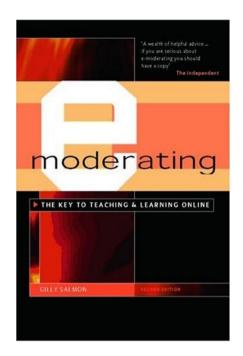


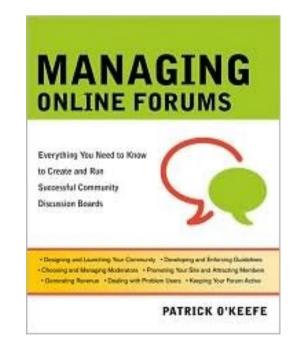


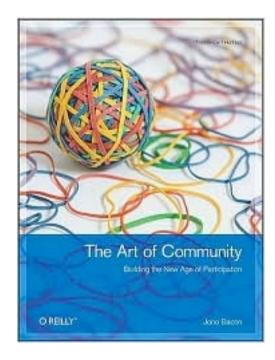
# Q: Have you ever started with the best performers to see how something should be done?

# 7. Turning into community managers





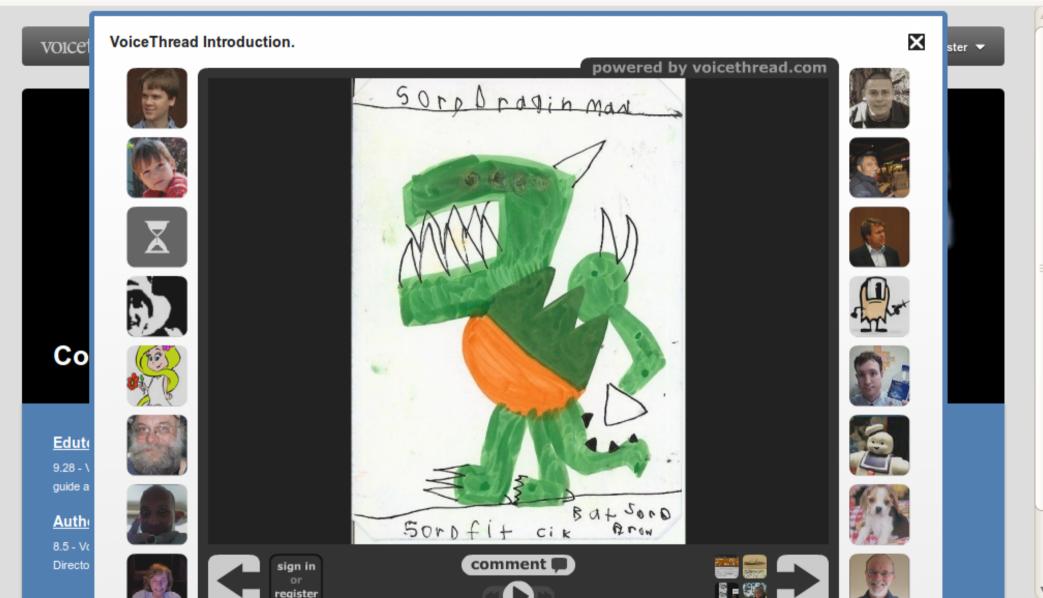




# Q: Have you been the steward of an online community of practice?

# 8. Social Contextualization of Content

### You have heard it here first...!



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Read, Review, Remember,

#### Most Highlighted of All Time

**Passages** 

Books

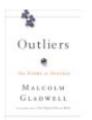
#### **Heavily Highlighted Recently**

<u>Passages</u>

<u>Books</u>

#### Most Highlighted Passages of All Time what's this?

1



...the more money they made the next day on the streets. Those three things—autonomy, complexity, and a connection between effort and reward—are, most people agree, the three qualities that work has to have if it is to be satisfying. It is not how much money we make that ultimately makes us happy between nine and five.

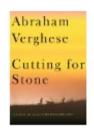
Highlighted by 2520 Kindle users

#### Outliers: The Story of Success

by Malcolm Gladwell

See this book on Amazon.com

2.



Ghosh sighed. "I hope one day you see this as clearly as I did in Kerchele. The key to your happiness is to own your slippers, own who you are, own how you look, own your family, own the talents you have, and own the ones you don't. If you keep saying your slippers aren't yours, then you'll die searching, you'll die bitter, always feeling you were promised more. Not only our actions, but also our omissions, become our destiny." AFTER GHOSH LEFT, I wondered if the army man was my pair of slippers. If so...

Highlighted by 2266 Kindle users

#### **Cutting for Stone**

by Abraham Verghese

See this book on Amazon.com

3.

ELIZABETH BILBERT

<sup>&</sup>quot; "He probably was. Your problem is you don't understand what that word means. People







#### How do I use my Facebook account to personalize Pandora?

Back to the FAQ main page

In the lower right corner of our <u>Pandora homepage</u>, under "Friends' Music," click "check it out," and then click "Connect with Facebook."

TIP: If you have previously added friends on Pandora, you will need to click "Add Friends" at the top of your friend list before you can click "Connect with Facebook."

IMPORTANT NOTE: Pandora is one of three trusted partners that Facebook hand-picked to make use of their "Instant Personalization" features. If you were part of the group offered these features automatically on Pandora, you should have received notice-- and the ability to opt out with a single click-- immediately upon signing in. If you missed that notice for any reason, we apologize!

IMPORTANT NOTE: Facebook features on Pandora are entirely optional. Any Pandora listener can opt out of these features at any time.

Here's an overview of the Facebook personalization features on Pandora:

You'll be able to see which of the artists and songs you're hearing on Pandora are
"liked" by your friends and loved ones on Facebook. A small bubble will appear
below the main Pandora controls when one of your Facebook friends is a fan of the

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#### Related entries

For topics: <u>Pandora community options</u>, <u>Pandora on your computer: Advanced</u> <u>features</u>

Can I listen to Pandora on any third-party software?

How do I troubleshoot the Pandora Windows Gadget?

How do I download the Pandora Windows Gadget?

What adaptations are available for visually impaired Pandora listeners?

What keyboard shortcuts are available?

How do I ban another Pandora user from leaving comments?

How do I delete or edit a comment?

How do I use the comment features on Pandora?

How do I opt-out or disconnect from Facebook on Pandora?

**1** 

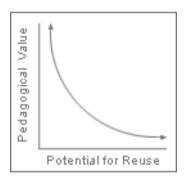




# Q: Does your organization have a meta-layer on top of its content/information?

### 9. Re-use!

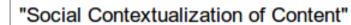
## David Wiley - Reusability paradox



# This presentation does not contain a single original thought!

[Hans ducks for the tomatoes]





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Instant is on ▼

1 result (0.19 seconds)

•



13 Aug 2009... the need for a comfortable and easy user experience is paramount to bringing in an age of **social contextualization of content**. ...

rlavigne42.wordpress.com/.../the-2009-toronto-information-overload-awareness-day-presentations/ - Cached

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# Q: Is your first instinct to find the great learning materials that already exist before you create your own?

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carquestions.ca presents a short video on the correct way to check the major



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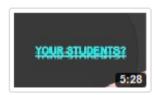
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## Final question...

Is there anyone with 9 affirmitives?

## That's all, I hope to see you again!

(either virtually or in meatspace)

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http://www.slideshare.net/hansdezwart

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