Hacking Your Brain For Fun and Profit

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Who am I?

• Nathaniel T. Schutta
  http://www.ntschtutta.com/jat/
• Foundations of Ajax & Pro Ajax and Java Frameworks
• UI guy
• Author, speaker, teacher
• More than a couple of web apps
The Plan

• Sleep
• Exercise
• Learning
• Managing Information
• Distractions
Our brain is our greatest asset.
Despite recent advances, still many unknowns.
Learn more daily.
Often via freak accidents.
Simple steps, big payback.
Sleep matters.
We’re not sure why we sleep.
Quite vulnerable...
Not about “rest.”
Brain is incredibly active.
Key to learning.
Use it to solve problems.
Lack of sleep hurts performance.
Naps improve it.
26 minutes = 34% improvement.
At 3 p.m., brain really wants to nap.
Bad time for meetings.
Part of some cultures.
Sleep deprivation severely affects the brain.
1959, Peter Tripp - stayed awake for 8 days.

http://www.youtube.com/watch?v=mXrANL9aqz8&feature=related
To raise money for charity.
Hallucinations, paranoia.
Randy Gardner stayed up.
For 11 days.
For the science fair...
After 5, mimicked Alzheimer's.
Hallucinations, paranoia.
Interrogation technique.
Skip a night?
30% loss in cognitive skill.
Sleep deprivation is only part of the story.
1/10 are early chronotype.
2/10 are late chronotype.
When are you at your best?
Does that work in your office?
We evolved by walking.
A lot.
Up to 12 miles a day.
Any of you walk 12 miles a day?
Brain loves glucose.
2% of mass, 20% of energy.
Generates a lot of waste.
Exercise improves blood flow.
“Paves new highways.”
Flushes free radicals.
Stimulates Brain Derived Neurotrophic Factor.
Improves brain function.
Exercisers significantly outperform.
Walking desks.
Walking meetings.
Boeing.
Mayo clinic: “office of the future.”
Learning.
Change is constant.
Must be able to learn.
How do we do that?
Cramming doesn’t work.
Elaborate, meaningful, context.
Stories, examples.
Repeat to remember.
Spaced repetition.
2,2,2?
Timing is key.
We forget.
Actually good that we do.
Information decay is predictable.
Not the same for everyone.
Or every fact.
Computers can help.
Piotr Wozniak.

http://www.wired.com/medtech/health/magazine/16-05/ff_wozniak
There is an open source alternative.
Mnemosyne.

http://www.mnemosyne-proj.org/
Skills acquisition.
Shu Ha Ri.

http://www.aikidofaq.com/essays/tin/shuhari.html
“Learn the principle, abide by the principle, and dissolve the principle.”

Bruce Lee
Dreyfus model.
5 stages.
Novice - recipes.
Advanced beginner - moves beyond rules.
Competent - can troubleshoot.
Proficient - self correct.
Expert - intuition.
Rules are key for beginners.
Rules *kill* experts.
Expert = 10 years?
Most folks are advanced beginners.
Dunning-Kruger effect.

Cognitive bias.
Lake Wobegon.
Incompetent people overestimate their skill.
Competent people underestimate.
Hmmmm...
Managing information.
There’s a lot of bits out there.
New languages, technologies, approaches.
Books, articles, blogs, podcasts, Twitter...
How do you keep up?
Be selective.
Can’t read it all.
Pick the areas you care about.
Go deep on that.
Skim the rest.
Use your friends ;)
Prune aggressively.
If you’re not reading it, delete it.
If they’re not updating...
**Feed Report: Dinosaurs**

**Show feeds that haven't updated in 180 days**

<table>
<thead>
<tr>
<th>Feed</th>
<th>Last</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Geary's Weblog</td>
<td>26 Feb 2006</td>
</tr>
<tr>
<td>3 below</td>
<td>20 Apr 2006</td>
</tr>
<tr>
<td>Godfrey's Blog</td>
<td>27 Jun 2006</td>
</tr>
<tr>
<td>Following the rewrite</td>
<td>06 Jul 2006</td>
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<tr>
<td>A Fistful of Languages</td>
<td>15 Sep 2006</td>
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<tr>
<td>lesscode.org</td>
<td>01 Oct 2006</td>
</tr>
<tr>
<td>Michael Feathers</td>
<td>16 Nov 2006</td>
</tr>
<tr>
<td>The Masked Blogger</td>
<td>20 Nov 2006</td>
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<tr>
<td>Uncommon Sense (for Software)</td>
<td>30 Nov 2006</td>
</tr>
<tr>
<td>Ajax Cookbook</td>
<td>09 Dec 2006</td>
</tr>
<tr>
<td>Hot Needle Of Inquiry</td>
<td>09 Feb 2007</td>
</tr>
</tbody>
</table>
A/B stream.
Take advantage of dead space.
Bring articles to meetings.
Read while waiting.
Listen on the way to work.
Or while you workout!
Books on “CD.”
Turn off the TV?
Two hundred billion hours annually (U.S.)
2,000 Wikipedias a year.
100 million hours a weekend watching ads.
That’s a Wikipedia a weekend. On ads.

That’s a lot of surplus.
Imagine what even a small change might mean.
Distractions.
Distracted drivers...
We can’t multitask.
IM, email, phone, Twitter, RSS, iPods...
Linda Stone.
Continuous partial attention.

http://continuouspartialattention.jot.com/WikiHome
Interruptions kill flow.
Think about debugging.
You’ve created a model in your head.
And I stop by to ask about the game.
Sorry about that.
Turn off interruptions.
Email, IM, etc.
Set expectations.
Immediate response?
Really?
Email apnea.

Zero inbox.

http://video.google.com/videoplay?
docid=973149761529535925
GTD.
No meeting Friday.
Quiet time/office hours.
Treat yourself.
50 on, 10 off.
Books

- Brain Rules
- A Whole New Mind
- Mind Hacks
- Lifehacker
- Getting Things Done
- Pragmatic Thinking and Learning
Websites

- http://www.brainrules.net/
- http://lifehacker.com/
- http://www.43folders.com/izer0
- http://www.mindhacks.com/
Thanks!