

Open Organizing

Designing Sustainable Work Practices for the Engineering Workforce

Aditya Johri
Virginia Tech
ajohri@vt.edu

toolsLAB
technology, open organizing,
& learning sciences laboratory

Sustainability

NAE Grand Challenges report identifies as its core mission the improvement of **quality of life** while sustaining civilization's continuing advancement

We live in environments **we** design

From the environment to medicine, transportation to communication, household appliances to space exploration, engineers affect the world. Yet just as the technology born of engineering has transformed much about our world, so has it transformed the work of engineers.

Sheppard et al. 2008



The official seal of the
REAL DEAL.

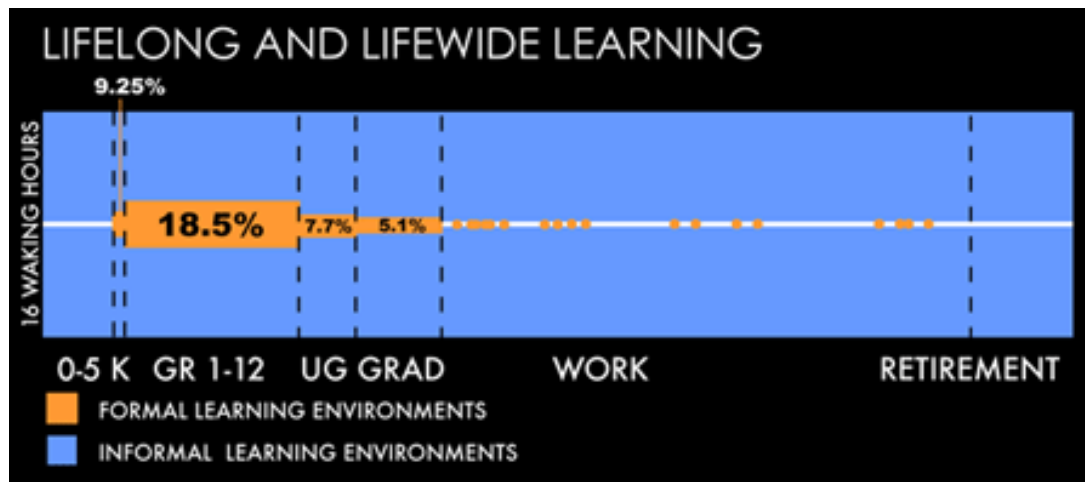


*Great milk comes from Happy Cows. Happy Cows come from California.
Look for dairy brands with the real California seals.*

Happy
COWS
Make
Great
Cheese!

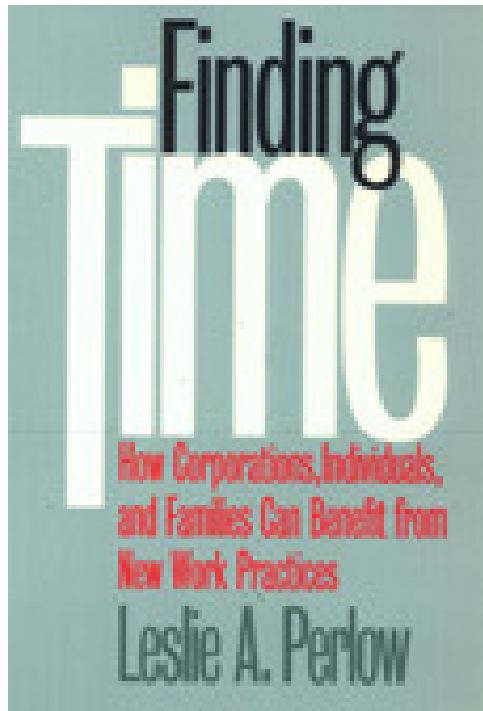
Why the Workplace?

Understanding of professional engineering practice is critical for design of long term sustainability



<http://life-slc.org>

Threats to (Work)Sustainability



Lack of work-life
balance

Frequent interruption

Problem in setting
boundaries

Open Organizing

Designed environment that enables individuals to productively contribute to an effort irrespective of their physical location by using information technology (and forming social connections)

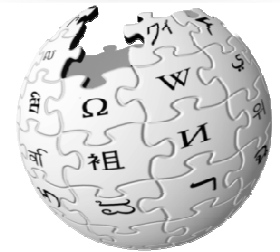
Open Organizing Trends

Geographically Dispersed Work

Telework/Telecommuting

Crowdsourcing/Wisdom of
Crowds/Collective Intelligence

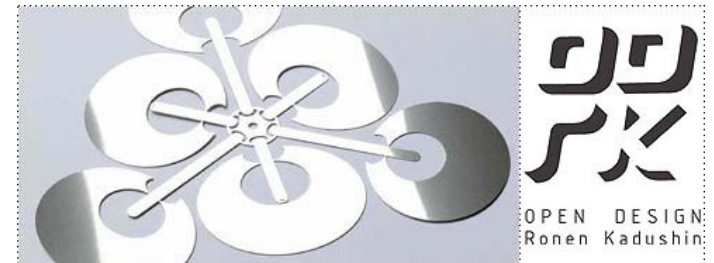
Open Source Development



WIKIPEDIA
The Free Encyclopedia



open source

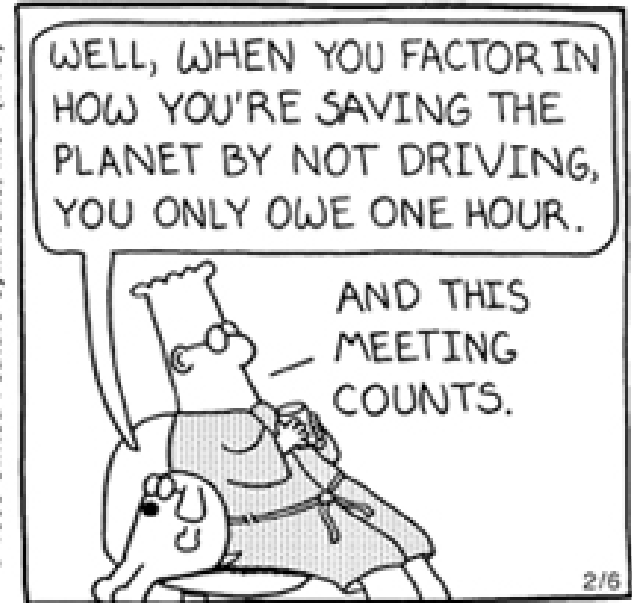




J. Adams E-mail: SCOTTADAMS@AOL.COM



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www.dilbert.com scottadam@aol.com



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Research Questions

- What does open organizing look like?
 - Work practice
- What makes it works?
 - Resources: Social & Technical
- What are the problems?
 - Social & Technical

Field Study: Digitech



- Software firm with “Open work” initiative; Open Source component
- 50 interviews over 6 months
- Site visits to CA & Ireland for field observations
- Face-to-Face and Phone
- Informants in U.S., France, England, Japan; representation also from India, Spain, Poland

Findings

I. **Achieving Work-Life Balance**

“For myself, I think it’s the balance between your private life and your work. I can work in the day or I can work in the evening...take a break in the middle of the day. I can’t do that if I was working in the office. **For me, that’s probably the most important – balancing life and work. For Digitech, I think, it’s probably also important the employees are not stressed.**”

“My impression is that **I can be more productive working from home that working from the office.** I probably also work for more hours than if I was working in the office. **So when I was in the office, I was interrupted very often.**”

Findings

II. Use of Communication Technology:

Multiplicity: “The primary way of communication is through **e-mail**. Second will be **instant messenger** which is kind of good for one of small communications like when we need **to ask a quick question**. We also have a **chat room** we use if there is an **issue that we need to all get together** and work on or maybe we want to have a meeting. And the third way of communicating is with the **phone**, either a **conference call** or just a one-on-one talk.”

Relational: “Sometimes, I found that **when you have compatible personalities, it doesn't matter**. My gatekeeper is coming on board [soon], I never met him face- to-face. And yet we crack each other up all the time on IRC and e-mails, so I know when I meet him, what he is going to be like because you get a strong sense of personality. “

Findings

III. Managing Open Organized Teams

Common Ground: “You have to make sure that the *information that’s coming to you is filtered to all the right people and that I’m giving the same information to the guys here that I’m giving to the guys in Beijing*. So, things like minutes are important and circulating agendas and minutes, that’s important because sometimes you think, people aren’t paying attention and then you get questions and you’re like ‘They do read them.’”

Managing Time and Time Zones: “Tomorrow my day starts at **8 o’clock**, staff meeting at 8 and then I have a **one-to-one with one of my [China] staff at 9**. Then I have a one-to-one meeting with [staff] at **10:30**. Then, I have a one-to-one with [facilities manager] and a one-to-one with [one of my senior managers] at **1 o’clock**. Then, at **6:30PM** there is the [product approval committee] meeting. Then on **9:30 in the evening until 11 o’clock...**”

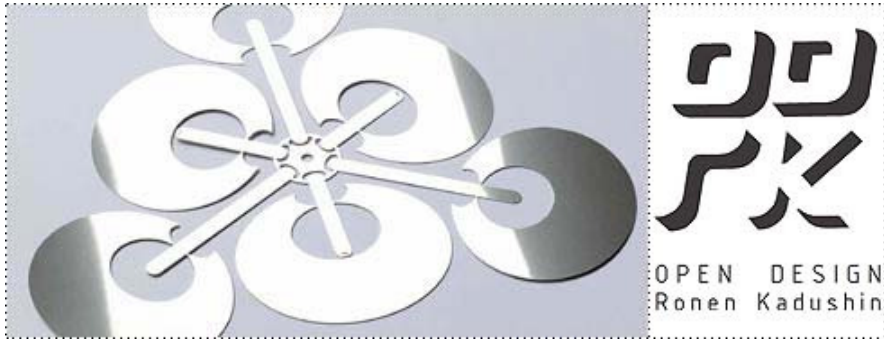
Findings

Benefit to the Firm: Access to expertise, Retention (low turnover), Better quality of life for employees

Environmental Benefits: Reduction in commute (carbon emissions), energy saving in buildings, less stress on urban transportation infrastructure



open happiness™



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