

# Leadership is language

The Hidden Power of What You Say and What You Don't - L. DAVID MARQUET



## Redwork

Active production  
"Prove"



## Bluework

Thinking / Learning  
"Improve"



"We are all both Redworkers and Blueworkers"

"A real danger to use old thinking in new situations"

A NEW PLAYBOOK

### 1) Control the clock : exiting redwork

Bluework allows us to adapt BUT you have no chance to do bluework if you don't control the clock



Make a pause possible : Invite a pause  
Give the pause a name

Call a pause  
Preplan the next one

"If you are on the team and see something unexpected, it's your responsibility to call a pause"



#### Vote first, Then discuss

Anonymous polling, Ask probabilistic questions  
Use probability cards, Dot voting



"Before I tell you what I think we should do,  
what would you do if I weren't there"

LEADERS SPEAK LAST

Invite dissent rather than drive consensus

Dissent cards



Give information, not instructions'

From "Park there" to "I see a parking spot there"

"A leader's obligation is to listen to the dissenters"

### 3) Commit

#### Commit to Learn, Not (just) Do

Develop hypothesis to test rather than making decisions to execute



Chunk it small  
BUT do it all

#### Commit actions, not beliefs

Once the decision is made don't try to convince dissenters



### 4) Complete : the end of Redwork

#### Chunk work for frequent completes early

At the beginning of a project : shorter redwork periods  
More frequent bluework periods to bias toward learning and improving



Celebrate with, NOT For



#### Celebrate FOR

"Good job" / "I'm so proud of you"

Transference of the reward to us rather than leaving it with the person

Focus on behavior, not characteristics



#### Celebrate WITH

Use descriptive statements : "I see", "I noticed", "It looks like"

#### Focus on Journey, Not destination

Invite people to tell their story

### 5) Improve : completing the cycle

"Employees with the autonomy to decide how to go about solving problems and achieving goals innovate"

#### Forward, Not Backward

"What do we want to do differently next time ?"



#### Process, not people

"How could this be done better ?"

#### Outward, not inward

Focusing on others instead of oneself

"What could we do better serve our customers ?"

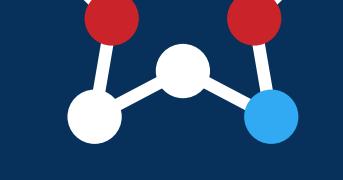
#### Achieve excellence, Not avoid errors

### Flatten the power gradient

Amount of social distance between one person and another

### Admit you don't know

Hard to connect with a Know-it-all



### 6) Connect : enabling play

#### Be vulnerable

"How is everyone feeling about this ?  
I think I'm moving away from excited toward worried"

#### Trust first

What do we want to do differently next time ?

"Changed the way we communicated, changed the culture"

#sharingiscaring

by Yoan THIRION @yot88

# CULTURE IS EVERYTHING

BY TRISTAN WHITE

THE STORY AND SYSTEM OF A START-UP THAT BECAME AUSTRALIA'S BEST PLACE TO WORK

## 1) DISCOVER THE CORE



### CORE PURPOSE

Define yours : Inspiring / Valid in Time / Help to think Expansively / Help you Decide / Truly authentic to your company

"A CORE PURPOSE IS THE REASON AN ORGANISATION EXISTS"

### CORE VALUES (3 TO 5)

- Inspire great behavior
- Make them short, sharp and memorable
- Each value should be an action statement



SHARE CORE VALUE STORIES TO REWARD / RECOGNIZE / REEDUCATE

- MVP Program
- Share stories of team members
  - Living core values
  - Celebrate their successes



## 2) DOCUMENT THE FUTURE

CREATE A TEN-YEAR OBSESSION THAT ACTS AS YOUR NORTH STAR



### PAINTED PICTURES - 3 YEAR GOALS

- Broken down vision
- Make it : clear / specific / possible
- Communicate progress often
- Obsess over it
- Make it fun

"A STRONG CULTURE NEEDS A CLEAR VISION"

## 3) EXECUTE RELENTLESSLY

HAVE AN ENERGETIC DAILY HUDDLE

- Aligns everyone to the Painted Picture
- 12 minutes / day



### ROBUST RECRUITMENT PROCESS

- Culture fit : examples of lived core values
- Passion for the work
- Passion for the company
- Key skills



"A STRONG CULTURE NEEDS EVERY TEAM MEMBER ALIGNED TO THE SAME VISION AND LIVING THE SAME VALUES."

## 4) SHOW MORE LOVE

MEMORABLE WELCOME EXPERIENCE

FACE-TO-FACE COMMUNICATION

PARTIES & CELEBRATIONS

GENUINE APPRECIATION / THKS



HAVE INTEREST FOR INFLUENCERS (Not on the payroll : Kids, Friends, Family, ...)



### CULTURE BOOK

Story of your organization



### 19 STEPS

To build a GPTW

"CULTURE IS THE CEO'S RESPONSIBILITY : TOO IMPORTANT TO DELEGATE"



# LEADERSHIP STRATEGY and TACTICS

by Jocko Willink

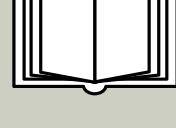
"A good leader has nothing to prove, but everything to prove."

## STRATEGIES



### Detach

Mentally from the problem



### Humility

Always learn



### Leaders tell the TRUTH

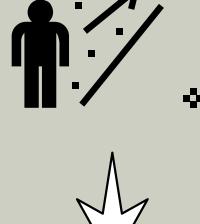


### Control Yourself

Don't overreact



### Earn Influence & RESPECT



### Self Discipline



### No Yes-men

Favor challenging people



### Pride

Drives positive behavior

## SKILLS to be a Good Leader



Simple Communication  
Confidence  
Charisma  
Read People

Acknowledge Strengths/Weaknesses

## The Power of Relationships

basis of all good leadership



## HOW TO SUCCEED AS A NEW LEADER ?

BEHAVIORS

### Take Ownership

Of failures and mistakes



### Get the Job DONE

Of failures and mistakes

### Pass Credit

For success up and down

### Treat People with Respect

Take care of them / will take care of you.

SELF-BEING

### Build

Build trust



### Listen

Ask for advice and heed it

RELATIONSHIPS

### Don't Act Like you Know Everything

You don't... Ask smart questions

### Be Balanced

Extreme actions / opinions  
are not good.



### Work Hard

Work harder than anyone

### Be Decisive

When it is time to make a decision  
make one

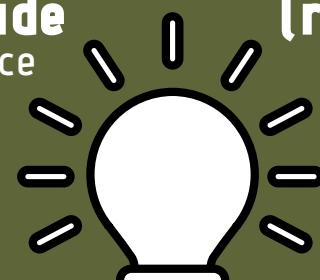


### Be Humble

An honor to be in a  
leadership position

### Have Integrity

Do what you say; say what you do.



### (re)Building Confidence

Fixing negative attitude  
Maybe not at the right place

### Building high-level team players

Put junior in charge

by Yoan THIRION

by Yoan THIRION

# SOFTWARE DESIGN X-RAYS

Fix Technical Debt With Behavioral Code Analysis by Adam Tornhill



## Technical Debt

- Explain the need for refactorings
- Communicate technical trade-offs



Apply at all levels (Micro and Macro)  
Interest Rate Is a Function of Time

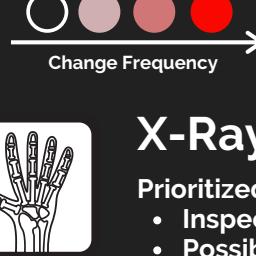
Bad Code is Technical Debt if you have to  
PAY INTEREST ON IT

## Identify Code with High Interest Rates

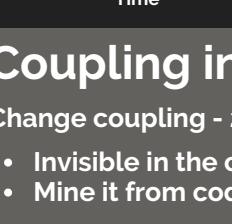
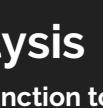
### Prioritize Technical Debt with Hotspots

Complicated code that you have to work with often

- Change frequency of each file
- Lines of code as a simple measure of code complexity

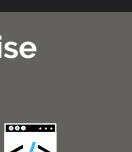


### Hotspot



### Evaluate Hotspots with Complexity Trends

- Complexity : indentation-based complexity
- Language agnostic



### X-Ray analysis

Prioritized list of function to :

- Inspect
- Possibly refactor

### Coupling in Time - A Heuristic for the Concept of Surprise

Change coupling - 2 (or more) files change

- Invisible in the code itself
- Mine it from code's history and evolution



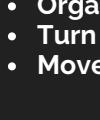
Is and Isn't Temporal Coupling  
(ex : Unit Tests)

Neither good nor bad  
all depends on context



"Change coupling can help us design better software as we uncover expensive change patterns in our code"

## Refactor Congested Code with the Splinter Pattern

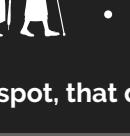


Break a hotspot into smaller parts

- Along its responsibilities
- Maintaining the original API for a transient period

"Parallel Development Is at Conflict with Refactoring"

### How to ?



1. Ensure tests cover the splinter candidate
2. Identify the behaviors inside your hotspot
3. Refactor for proximity
4. Extract a new module for the behavior with the most development activity
5. Delegate to the new module
6. Perform regression tests
7. Select the next behavior to refactor and start over at 4

## Stabilize Code by Age



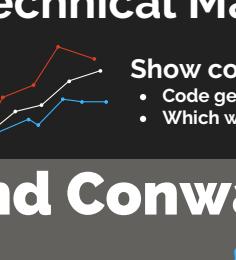
- Promotes long-term memory models of code
- Less cognitive load : less active code
- Prioritizes test suites to shorten lead times

"Always remember that just because some code is a hotspot, that doesn't necessarily mean it's a problem."

## Divide and Conquer with Architectural Hotspots

Identify your architectural boundaries :

Often based on the folder structure of the codebase



Analyze the files in each architectural hotspot

Hotspot analysis on an architectural level :

- Identify the subsystems with the most development effort
- Visualize the complexity trend of a whole architectural component

Fight the Normalization of Deviance

- Each time you accept a risk, the deviations become the new normal
- Complexity trends as WHISTLEBLOWERS

"The more often something is changed the more important it is that the corresponding code is of high quality so all those changes are simple and low risk"

## Communicate with Nontechnical Managers - Data buys trust



% of commits involving top hotspots

- Demonstrate importance of this code
- Support new features and innovations



Show complexity trends

- Code gets worse over time
- Which will slow us down



Coordination bottlenecks

- Add people side to the presentation

## Beyond Conway's Law



Quality Suffers with Parallel Development

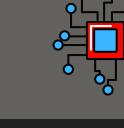
Increases risk of defects with the number of developers



Coordination needs

Number of authors behind each component

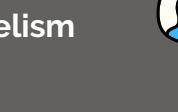
## Rank Code by Diffusion



Calculate a fractal value

- How many different authors have contributed
- How the work is distributed among them

0 : Single author  
1 : the more contributors there are



1 Color per Author

Module 1



Module 2

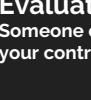
Module 1 : Many minor contributors  
Higher risk for defects

RISK

Module 2 : 1 main developer  
Reduced risks

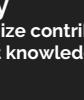
"Ranks all the modules in our codebase based on how diffused the development effort is"

## Use Fractal Values to



Prioritize code reviews

Done right - a proven defect-removal



Focus tests

Identify the areas to focus extra tests



Replan suggested features

If high developer congestion

Lead by example  
Model the behaviors you want to see in others



Gogogo...



Data  
Minimum amount of data



Incorrect author info  
Need a minimum amount of data



Copy-paste repositories  
Fails to migrate its history



Misused squash commits  
When applied to work committed by several individuals

## Use Social Data

Fight motivation losses in Teams

Evaluation  
Someone else cares about your contribution



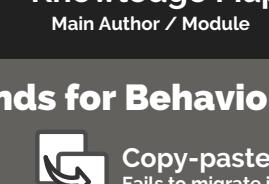
Visibility  
Recognize contributions  
Present knowledge maps

Lead by example  
Model the behaviors you want to see in others



Gogogo...

Small Groups



Guide On and Off-boarding

Identify the Experts  
Find out who to communicate with

Measure Future Knowledge Loss

React to Knowledge Loss  
Focus to maintain knowledge



Biases and Workarounds for Behavioral Code Analysis



Data  
Minimum amount of data



Incorrect author info  
Need a minimum amount of data



Copy-paste repositories  
Fails to migrate its history



Misused squash commits  
When applied to work committed by several individuals

# SUCCEEDING WITH OKRS IN AGILE

BY ALLAN KELLY <https://www.allankellyassociates.co.uk/>



## OBJECTIVES



AVOID BOXING YOURSELF  
INTO A SPECIFIC APPROACH OR SOLUTION



MAKE THE VALUE THAT BRINGS OBVIOUS  
SO THAT...

RETOOL THE DELIVERY PIPELINE TO FACILITATE CONTINUOUS DELIVERY



INCREASE ROI BY REDUCING TIME TO MARKET WITH  
A NEW DELIVERY PIPELINE AND CONTINUOUS DELIVERY PRACTICES

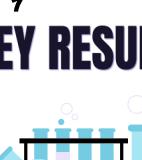
## KEY RESULTS



FIGHT AGAINST DOMINOS

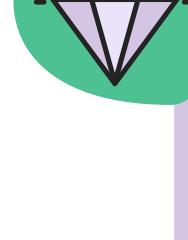
DON'T ACCEPT DEPENDENCIES

SMALLER GOALS THAT BUILD TOWARDS THE OBJECTIVE



EACH ONE MUST DELIVER VALUE

ALL ABOUT DELIVERING OUTCOMES THAT ADD VALUE



## KEY RESULTS TRICKS



### EXPERIMENTS

SAFER FOR THE TEAM TO TAKE ON RISK

SUCCESS = DOING THE EXPERIMENT ITSELF AND ABSORBING THE LEARNING

### USE SURVEY

MAKE CHANGES TO PEOPLE  
TEST IT WITH SURVEY

TAKE SURVEY



### TIME-BOXES

EXPERIMENT SOMETHING FOR N WEEKS



### HYPOTHESIS-DRIVEN DEVELOPMENT

WE BELIEVE <THIS CAPABILITY>  
WILL RESULT IN <THIS OUTCOME>  
WE WILL HAVE CONFIDENCE TO PROCEED WHEN <WE SEE A MEASURABLE SIGNAL>

"if you aren't failing, you aren't trying"

## WHY ?

FILL A NEED AT THE MID-TERM  
PLANNING LEVEL



LATER  
LOOK MONTHS / YEARS INTO THE FUTURE



SOON : OKRS  
LOOK TO THE NEXT FEW MONTHS

NOW : SPRINT PLANNING  
FEW WEEKS INTO THE FUTURE



CREATE FOCUS  
TELLS YOU WHEN TO STOP



## TRUE NORTH

GUIDE AND FIGHT TO STAY ON COURSE  
DON'T STICK BLINDLY TO OKRS AS THE WORLD AROUND CHANGES

OKRS ENHANCE COMMUNICATION



- EASIER TO COMMUNICATE WHAT A TEAM IS DOING
- A MEANS OF COMMUNICATING STATUS AND PROGRESS
- SUCCESS MOTIVATES CONTINUATION

## HOW TO ?

OBJECTIVE VALUE >  $\Sigma$  (KEY RESULTS VALUES)



### BOTTOM UP

DON'T IMPOSE OKRS FROM ABOVE  
TEAM RESPONSIBLE FOR SETTING THEIR OWN OKRS AND DELIVERING THEM



### LIMIT THEIR NUMBER

3 OBJECTIVES  
3 KEY RESULTS PER OBJECTIVE

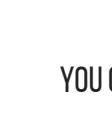


### LEADERS

BUILD PSYCHOLOGICAL SAFETY / MAKE FAILURE AN OPTION  
MAKE COMPLETELY CLEAR WHAT THE PRIORITIES ARE



### DECIDE WHAT YOU WANT : OBJECTIVE



### SET A SERIES OF ACCEPTANCE CRITERIA : KEY RESULTS

EACH KEY RESULT SHOULD BE MEASURABLE

### GET ON AND DEVELOP



DON'T CONSIDER YOURSELF DONE UNTIL

YOU CAN PASS THE TESTS

YOU MEET THE OBJECTIVES

"As with agile, you need to find your own way to OKRs [...] be prepared to experiment."

## OKRS AND BACKLOG

### BACKLOG FIRST

SUCCESS : BURN DOWN THE BACKLOG  
OKRS : ONE OF SEVERAL INPUTS



### OKRS FIRST

SUCCESS : DELIVER OKRS  
OKRS ARE EVERYTHING

## TIMELINE

SET OKRS A FEW WEEKS BEFORE NEXT QUARTER  
2 OR 3 SHOULD BE FINISHED



REVIEW AT THE END OF EACH QUARTER

## CULTURE

"if you aren't failing, you aren't trying"

### DELIVERY CULTURE

VALUE DELIVERY (WORKING PRODUCTS USED BY CUSTOMERS)  
NOT HOURS WORKED, NOT PARTIALLY DONE WORK



### SUPPORTIVE CULTURE

PSYCHOLOGICAL SAFETY  
FAILURES WILL HAPPEN



DON'T LINK REMUNERATION TO OKR OUTCOMES

IF MONEY ATTACHED

- PEOPLE FEEL COMPELLED TO CHASE 100% SUCCESS
- EASIEST WAY = REDUCE THE TARGET



WHERE ARE YOU ?

#SHARINGISCARING

# TEAM TOPOLOGIES

by Matthew Skelton and Manuel Pais

TEAM AS THE MEANS OF DELIVERY



Team assignments  
First draft of the architecture



Inverse Conway manoeuvre  
Organize teams to match the architecture you want



- Not all communication / collaboration is good
- Restrict communication between teams
- Focus communication between specific teams

"Disbanding high-performing teams is worse than vandalism: it is corporate psychopathy."

— Allan Kelly, Project Myopia

## TEAM FIRST-THINKING

S-9

Dunbar's number

Seven-to-nine MAX  
> Trust will break down



Use Small, Long-Lived Teams

As the Standard  
Autonomous



Owns the Software

"Continuity of care"  
No shared ownership

Minimize Team Cognitive Load

Total amount of mental effort used in the working memory  
Use good boundaries



Embrace Diversity

Produce more creative solutions

Reward the Whole Team

Not individuals

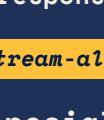


## TEAM TOPOLOGIES THAT WORK FOR FAST FLOW

STREAM-ALIGNED TEAM

Team aligned to a single  
valuable business  
stream of work

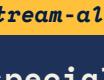
Product or service



User Journey

Set of features

User Journey



User Persona



Primary type in an  
organization  
(80/90 %)

- Work on the full spectrum of delivery
- Requires clarity of purpose and responsibility

"Purpose of the other fundamental team topologies is to reduce the burden on the stream-aligned teams."

ENABLING TEAM

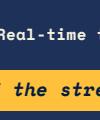
Help stream-aligned teams acquire  
missing capabilities

HIRE SPECIALIST



Composed of specialists

In a given technical or product domain



Collaborative nature

Focus on stream-aligned teams problems first  
Not the solutions per se

"Do not exist to fix problems that arise from poor practices, prioritization choices, or code quality within stream-aligned teams."

COMPLICATED SUBSYSTEM TEAM

Reduce cognitive load of  
stream-aligned teams that needs to  
use the complicated subsystem



Responsible for building / maintaining

A part of the system

That depends heavily on specialist knowledge

Examples : Video processing codec, Mathematical model, Real-time trade, Reconciliation algorithm, Face-recognition, ...

"Prioritizes and delivers upcoming work [...] respecting the needs of the stream-aligned teams that use the complicated subsystem."

PLATFORM TEAM

Provide internal services to reduce  
cognitive load of stream-aligned teams



Treat services as products

Reliable / Usable

Fit for purpose



Provision new server instance

Provide tools for access management

Thick platform

Combination of several inner platform teams

Providing a myriad of services



Thin platform  
Could simply be a layer on top of  
a vendor-provided solution



Responsible for building / maintaining

A part of the system

That depends heavily on specialist knowledge

"A digital platform is a foundation of self-service APIs, tools, services, knowledge and support which are arranged as a compelling internal product."

## Convert Common Team Types to the Fundamental Team Topologies

"Most organizations would see major gains in  
effectiveness by mapping each of their teams  
to one of the four fundamental topologies [...]  
to adopt the purpose and behavior patterns  
of that topology."



Infrastructure Teams



PLATFORM TEAM



Tooling Teams



ENABLING TEAM

Or

PLATFORM TEAM



Component Teams



PLATFORM TEAM



Architecture



Part time



User Personas  
Technology  
Change Cadence



Regulatory Compliance  
Team Location  
Performance Isolation



Business Domain Bounded Context

## EVOLVING TEAM INTERACTIONS FOR INNOVATION AND RAPID DELIVERY

3 INTERACTION MODES

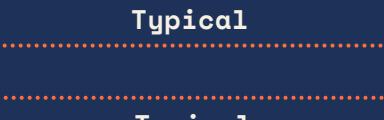
"Well-Defined Interactions Are Key to Effective Teams"

Interaction  
patterns per  
topology



Collaboration

2 teams work together  
On a shared goal  
During discovery of new  
technology or approaches



X as-a-Service (XaaS)

1 team consumes something  
Provided by another team  
Such as an API, a tool, or a full  
software product



Facilitating

1 team facilitates another  
team Learning / adopting  
new approach  
(usually an enabling team)

STREAM-ALIGNED TEAM

ENABLING TEAM

COMPLICATED SUBSYSTEM TEAM

PLATFORM TEAM

Typical

Occasional

Occasional

Occasional

Typical

Typical

Typical

Occasional

Typical

EVOLUTIONARY PATTERNS

Collaboration

X as-a-Service

X as-a-Service

Collaboration

Facilitating

No Interaction

Teams should ask

What kind of interaction should we have with this other team ?  
Should we be collaborating closely with the other team?  
Should we be expecting or providing a service?  
Or should we be expecting or providing facilitation?

Team Topologies alone : not enough  
IN ADDITION

Healthy organizational culture

Supports professional development of individuals and teams  
Safe to speak  
Learn continuously

Healthy funding / financial practices

Avoiding the pernicious effects of a CapEx/OpEx  
Avoiding project-driven deadlines and large-batch budgeting  
Allocating training budgets to teams or groups rather than individuals



How to get started ?

1. Start with the Team

2. Identify Suitable Streams of Change

3. Identify a Thinnest Viable Platform (services needed)

4. Identify Capability Gaps (Team Coaching, Mentoring,...)

5. Share and Practice Different Interaction Modes

Explain Principles behind New Ways of Working

#sharingiscaring

BY YOAN THIRION

ayot88

# Refactoring at Scale



By Maude Lemaire

## Refactoring

Restructure existing code  
WITHOUT changing its external behavior



## At Scale

- One that affects a substantial surface area of your systems
- Involves typically large codebases

## Benefits

- Increase developer productivity
- Greater ease identifying bugs



## Risks

- Serious Regressions
- Unearthing Dormant Bugs
- Scope Creep



## Shift in Product Requirements

## Performance issues

## Using a new Technology



## Code Complexity Hinders Development

Small Scope

## For Fun or Out of Boredom

Because You Happened to Be Passing By



## When You Don't Have Time

To Make Code More Extendable

When NOT ?

## PLANNING

## MEASURE OUR STARTING STATE



### Measure Code Complexity

- Halstead metrics
- Cyclomatic Complexity
- NPath Complexity



### Test Coverage Metrics

- Quantitatively : proportion of code under test
- Qualitatively : suitable test quality has been attained



### Documentation

- Formal : everything you most likely think of as documentation
- Informal : Chat / email transcripts, Bug Tracking system, ...



### Version Control

- Commit messages : keywords for given code
- Commits in Agg : change frequencies, authorship



### Reputation

- Low-effort means of collecting reputation data
- Interview fellow developers



### Build a Complete Picture

Pick one metric from every category

## DRAFT A PLAN



### Define your end state

Outline all starting metrics and target end metrics



### Map the shortest distance

- Open a blank document technique
- OR Gather a few coworkers



### Identify Strategic Intermediate Milestones

- 1) Does this step feel attainable in a reasonable period?
- 2) Is this step valuable on its own?
- 3) If something comes up, could we stop at this step and pick it back up easily later?



### Dark Mode / Light Mode

Compare pre-refactor and post-refactor behavior :

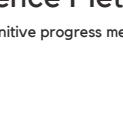
- Both implementations are called
- The results are compared

Light

The results from the OLD implementation are RETURNED

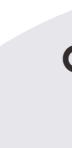
The results from the NEW implementation are RETURNED

### Choose a Rollout Strategy



### How To ?

- Put in place an abstraction
- Enable dark mode
  - Monitor any differences between the 2 result sets
  - Track down and fix any potential bugs in the new implementation
- Enabling dark mode to broader groups of users
  - Continue logging any differences in the result sets
  - Opt groups of users into light mode
    - Until everyone is successfully processing results from the new implementation
    - Disable execution of both code paths
    - Remove the old logic



### Clean Up Artifacts

- Feature Flags
- Dead Code
- Comments (TODOS)



### Reference Metrics

Include definitive progress metrics



### Share your plan

- Provide Transparency
- Gather perspective to strengthen it

"No refactor is complete unless all remaining transitional artifacts are properly cleaned up"

## GET BUY-IN

### Always remember



Aren't Coding

See the Risk

Are Evaluated Differently

Need to Coordinate

Managers

Using Conversational Devices

### Persuade Them

(some techniques)



Rely on Evidence

Play Hardball

## 2 Ways to Enlist Someone



### Active Contributor

- Heavily involved from day one
- Actively contributing to the effort by writing code
- Consulted for input on the execution plan

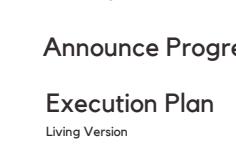


### Subject matter experts (SMEs)

- Agreed to be available to talk through solutions with you
- Answer questions
- Can do some code review

### Matchmaking

Match each expertise with one or more people



"To execute on a large refactoring effort successfully, we need our own Ocean's 11 [...]

a team just the right size with just the right skills"

## EXECUTION

### Stand-Ups

Everyone aligned at regular intervals



### Weekly Syncs

- 1st part : accomplishments
- 2nd part : discuss any important topics

### Retrospectives

Reflect on the latest iteration cycle

Within Your Team

### When Kicking Off

#### Single Source of Truth

Choose a platform to collect all documentation

#### Set Expectations

Draft a communication plan

### COMMUNICATION



### During Project Execution

#### Announce Progress

#### Execution Plan

Living Version

### Outside Your Team

## PROGRAM PRODUCTIVELY

### Early and often

Help move faster

### Know your solution won't be perfect

Not spend too much time perfecting the details

### Be willing to throw code away



### Keep Things Small

- Commit small, incremental changes
- Makes it much easier to author great code

### Test, Test, Test

- Confirm everything has remained unaffected
- Or pinpoint the precise moment at which the behavior diverged

### Asking the "Stupid" Question

- Prioritize clarity
- Over maintaining an illusion of omniscience

## MAKE THE REFACTOR STICK

### Foster Adoption through education



Active

Planning / leading workshops

- Step-by-step tutorials
- Online courses, ...

### Integrate Improvement into the Culture

### To maintain a healthy codebase

- Continuous small refactoring
- Incrementally improve areas of the codebase

### Hold design reviews

- Early in the feature development process

### Encourage design conversations

### Case Studies @Slack

- Redundant Database Schemas
- Migrating to a New Database



# La liberté du commandement

L'esprit d'équipage

Vice Amiral LOÏC FINAZ



- Mener des hommes au combat pour porter la mort
- Peut conduire à la recevoir

Commander

Diriger une entreprise



Partager une vision, Mobiliser l'intelligence

Structurer l'organisation



Préserver le patrimoine

Faire réfléchir et grandir



Générer de la valeur / innover

Manager



Commander 1 bâtiment de guerre  
c'est aussi

Diriger 1 entreprise (manager)

Piliers de notre sagesse et de notre performance

Susciter l'initiative et accepter l'échec



AUTONOMIE ET SOLIDARITÉ

"Rassurez-vous, je suis là; si vous échouez, je corrigerai le tir; je suis là pour cela."

Des fonctions différentes, une même responsabilité



Fédérer Faire évoluer S'épanouir

FONCTIONS ET RESPONSABILITÉ

"La fonction fait l'homme tout autant que l'homme peut faire la fonction."

Hiérarchie importante pour prendre des décisions au combat



Intelligence collective pour trouver les solutions

Vis-à-vis de Soi-même (exemplarité) Ceux qui leur sont confiés

Culture participative très forte

Sans exigence 1 chef n'obtiendra / réussira rien



Sans bienveillance il détruira tout

HIÉRARCHIE ET PARTICIPATION

"Le système hiérarchique n'érigé pas la confiance, il utilise celle que fédère les chefs grâce à leur culture participative."

EXIGENCE ET BIENVEILLANCE

"[...] commander, diriger, est l'une des plus belles façons de servir ceux qui nous sont confiés."

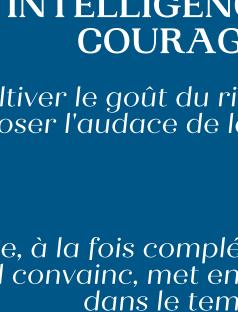
Le chef doit être une énergie : met en mouvement, convainc, fait durer, vivre et gagner



- La culture permet
  - De s'élever
  - De s'enrichir
  - De s'armer pour les luttes de l'existence

Besoin d'une cohérence entre ces 2 qualités

- Chef très intelligent et peu courageux, incapable de :
  - Décider
  - Agir



- Chef courageux et crétin :
  - Un maniaque
  - Ou 1 fou

INTELLIGENCE ET COURAGE

"[...] il faut cultiver le goût du risque et la capacité de l'assumer, oser l'audace de la solution originale."

C'est par la parole que l'action du dirigeant existe



"Par la parole, à la fois complément et expression de son énergie, il convainc, met en mouvement et s'inscrit dans le temps."

- Parole du chef adressée directement :
  - Suscite espoir et enthousiasme
  - Apaise les craintes
  - Remonte le moral (dans la crise ou la défaite)



PAROLE ET TEMPS

RESPONSABILITÉS

"Rien n'irrigue plus les bonnes pratiques du management que les exigences du commandement."



Ne bâtir que du beau et de l'utile

AMBITIONS POUR NOS

Apprenons à ne pas laisser de traces dans ce monde

QUE NOS PAS DEVIENTNENT SILLAGES

Qui n'en vaillent pas la peine



Porter nos regards sur l'horizon

AYONS TOUJOURS NOTRE REGARD SUR NOTRE LIGNE DE FOI

COMMANDER C'EST AIMER

Tout le reste n'est que discours

#sharingiscaring

@yot88

"Faites de vos équipes, de vos services, un équipage"





# Unit Testing

Principles, Practices, and Patterns



by Vladimir Khorikov

## Goal of Unit testing



### Project without tests

- Quickly slows down
- Hard to make any progress



### Fight entropy

- Constant cleaning and refactoring
- Tests act as a safety net

## What makes a successful test suite?



- Integrated into the development cycle
- Targets most important parts of the code base
- Provides maximum value
  - With minimum maintenance costs

A tool that provides insurance against a vast majority of regressions

## Not all tests are created equal



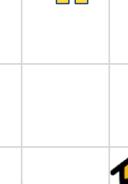
Bad tests : raise false alarms



- Unit tests are vulnerable to bugs
- Require maintenance

### Tests are code too

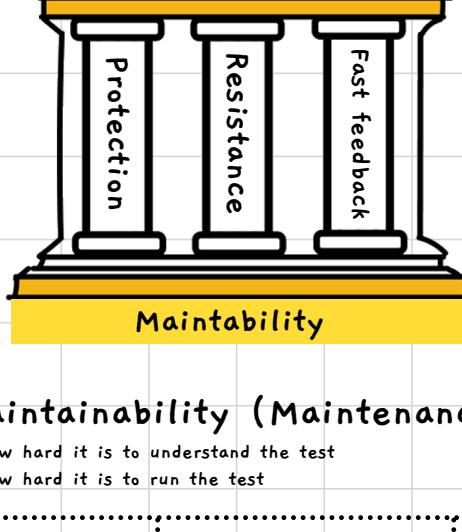
View them as part of your code base that aims at solving a particular problem: ensuring the application's correctness



### Automated test that :

- Verifies a small piece of code (also known as a unit)
- Does it quickly
- And does it in an isolated manner.

## What is a Unit Test ?



### Protection against regressions

- A regression = a software bug
- The larger the code base → the more exposure to potential bugs
- Tests should reveal those regressions

### Resistance to refactoring

The degree to which a test can sustain a refactoring of the underlying application code without turning red (failing)

### Fast feedback

The more of them you can :

- Have in the suite
- Run them → shorten the feedback loop

## Anatomy

### Test class name

Class-container for a cohesive set of tests

### Name of the test

- Don't follow a rigid naming policy
- Describe the scenario to a non-programmer
- Use sentences

### Arrange / Given

Bring the system under test (SUT) + dependencies to a desired state

### Act / When

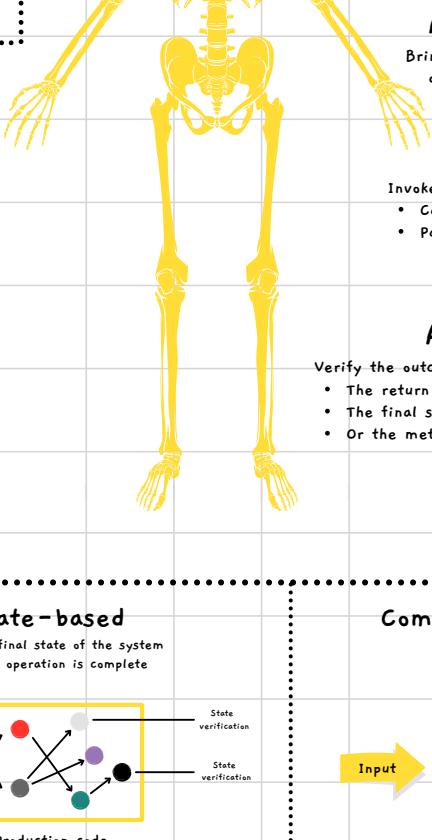
Invoke the behavior :

- Call method / function on the SUT
- Pass the prepared dependencies

### Assert / Then

Verify the outcome :

- The return value
- The final state of the SUT and its collaborators
- Or the methods the SUT called on collaborators



### Test doubles

Help to emulate and examine out-coming interactions

#### Mock

SMTP server

System Under Test

Send email

Get Data

Stub

Help to emulate and examine in-coming interactions

### Output-based

- Feed an input to the system under test (SUT)
- Check the output it produces

Assumes there are no side effects and the only result of the SUT is the value it returns to the caller → functional

Both school use it

Input

Output

Output verification

Resistance to refactoring

Maintainability costs

### State-based

Verify the final state of the system after an operation is complete

"State" can refer to the state of :

- The SUT itself
- One of its collaborators
- Or an out-of-process dependency (db / fs)

Classical preference

### Communication-based

Verify that the SUT calls its collaborators correctly

Tests substitute collaborators with mocks

London preference

Input

Mocks

Production code

Output

Output verification

State verification

Production code

Input

Output

Output verification

Production code

Input

# HOW TO AVOID A CLIMATE DISASTER BY BILL GATES

## Why zero ?

51

Billion Tons  
of greenhouse gases to the atmosphere per year

We are here today

0

"near net zero"

What we need to aim for



Trouble getting clean water  
Twice as many people

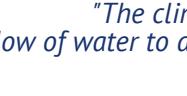


Corn production go down twice as much

2-degree rise wouldn't be 33 percent worse than 1.5. Could be 100 percent worse



Mosquitoes will start living in new places  
Malaria



Heatstroke  
Because of humidity



1°C increase since preindustrial times



Mid-century : between 1.5°C and 3°C



End of century : between 4°C and 8°C

By 2100 could be FIVE times as deadly than COVID 19

*"The climate is like a bathtub that's slowly filling up with water.  
Even if we slow the flow of water to a trickle, the tub will eventually fill up and water will come spilling out onto the floor."*

## Give a sense of how much is a lot / a little



How much of the 51 are we talking about ?

Convert numbers into a percentage of the annual total of 51 billion tons

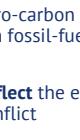


What's your plan for Cement ?

- A shorthand reminder that emissions come from 5 different activities
- We need solutions in all of them



How much power are we talking about ?



How much space do you need ?

- How much space will be required to produce that much energy
  - Wind : 1-2 Watts per square meter
  - Fossil Fuels : 500-10,000 Watts per Square Meter



The difference between the 2 prices : GREEN PREMIUMS

It can be negative : green can be cheaper

*"We need the premiums to be so low that everyone will be able to decarbonize."*

## Green Premiums

Difference in cost between a product that involves emitting carbon and an alternative that doesn't

## 5 types of activity

27 %

### How We Plug In

- Electricity : A cheap source of energy always available
- Getting all the world's electricity from clean source won't be easy

Fossil fuels account for two-thirds of all electricity worldwide



### Store electricity



Batteries

- Hard to improve on them
- Can improve by a factor of 3 but not by a factor of 50



Pumped hydro

- When electricity is cheap : pump water up a hill into a reservoir
- When demand goes up : let the water flow back down the hill



Thermal storage

- When electricity is cheap use it to heat up some material

16 %

### How we get around

Bigest cause of emissions in the United States



Do less of it

Walking / biking / car-pooling



Use fewer carbon-intensive materials

in making-cars

### 4 ways to cut down on emissions from transportation



Use fuels more efficiently



Switch to electric vehicles

alternative fuels

96

Millions tons of cement produced every year in America

600 pounds for every person in the country



- Bring the premium down
  - Public policies to create demand for clean products
  - Create incentives to buy zero-carbon cement / steel

19 %

### How we grow things

70% agriculture / 30% deforestation



40% more people

- We'll need more than 40% more food too
- As people get richer, they eat more calories



Methane : main agriculture culprit

- 28 times more warming per molecule than CO2 over the course of a century
- Nitrous oxide causes 265 times more warming



Food thrown away

- 20% Europe, Industrialized parts of Asia, Sub-Saharan Africa
- 40% in the US



We can cut down on meat eating while still enjoying the taste of meat :

- Plant based meat
- Artificial meats
- Cell based meat

7 %

### How we keep cool and stay warm

Heating / cooling / refrigeration

Global population is headed toward 10 billion people by 2100



*The cruel injustice is that even though the world's poor are doing essentially nothing to cause climate change, they're going to suffer the most from it*

”

## A plan for getting to Zero

Science tells us that in order to avoid a climate catastrophe, rich countries should reach net-zero emissions by 2050

Electrofuels  
Carbon capture  
Zero-carbon steel  
Drought and flood-tolerant food crops

Nuclear fusion  
Zero-carbon plastics  
Geothermal energy  
Zero-carbon fertilizer

Grid-scale electricity storage  
Underground electricity transmission  
Advanced biofuels  
Plant and cell-based meat

Pumped hydro

Zero-carbon cement

Thermal storage

Hydro-power

Natural Gas

Oil

Gas

Renewables

Nuclear

Geothermal

Direct air / point capture

Carbon capture  
Direct air / point capture

Renewables

Natural Gas

Oil

Gas

Renewables

Nuclear

Geothermal

Direct air / point capture

Carbon capture  
Direct air / point capture

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Direct air / point capture

Carbon capture  
Direct air / point capture

Renewables

Natural Gas

Oil

Gas

Renewables

Nuclear

Geothermal

Direct air / point capture

Carbon capture  
Direct air /

# TU FAIS QUOI DANS LA VIE ?

par Joséphine Bouchez / Matthieu Dardaillon



**80 000 HEURES**

Temps moyen de nos vies à travailler



**QU'ALLONS-NOUS EN FAIRE ?**

## L'URGENCE D'AGIR

**Notre système actuel n'est pas durable**

Fondé sur l'utilisation croissante de ressources naturelles présentes en quantités limitées

**Jour du dépassement**

(le jour où l'on consomme plus que ce la Terre est capable de produire en une année)



- 1970 : 29 décembre
- 1990 : 7 décembre
- 2019 : 29 juillet



**26 personnes**

Autant d'argent que la moitié la plus pauvre de la population mondiale



**1 continent de plastique**

Plus de 1.6 million de km<sup>2</sup> flotte dans l'Océan Pacifique



**Chute des populations d'oiseau**

Les populations d'oiseau ont chuté d'1/3 en 15 ans



**300 000 SDF en France**

"Qui pourra assumer face aux générations futures que nous avons cautionné et laissé faire ?"

## Notre responsabilité ?

**Nous sommes ce système**

**Chacun un rôle à jouer**

Est-ce que je contribue activement à construire la société dans laquelle j'aspire à vivre ?



## Quelles sont les causes qui vous touchent ?

**Agriculture / alimentation**

Permettre à tous de manger sainement

**Santé**

Permettre l'accès à des soins de qualité pour tous

**Habitat**

Permettre à chacun de se loger dignement



**Education**

Permettre une éducation de qualité et accessible

**Energies**

Permettre l'accès à une énergie propre

**Inclusion & lien social**

Permettre à chacun de trouver une place dans la société

**Environnement**

Préserver l'environnement, la nature, la biodiversité

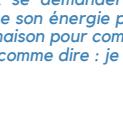
...

## LE LEVIER DU TRAVAIL

"Nous avons besoin de tous les métiers dans tous les secteurs"

**Travail**  
Semaine  
Pour gagner sa vie

**L'engagement**  
Soir / Week-end  
"Quand on a le temps"



réconcilier les 2 avec

**Des vies scindées**

**Intention**

"J'ai choisi cette activité dans le but d'être utile à la société"



**Impact**

"les conséquences de mon travail ont un impact positif sur la société"



**Engagement**

"le temps que je dédie à ces activités représente au minimum 50% de mon temps et de ma rémunération"



**Décisions**

Critères d'impact (social, environnemental) ont au moins autant de poids que les critères économiques



## LES CARRIÈRES À IMPACT



**Baisse MAX de notre empreinte carbone individuel**

Si chaque français adopte un comportement héroïque

25%



**Etat + Entreprises**



**NOUS SOMMES AUSSI L'ETAT ET LES ENTREPRISES**

"Chacun doit se demander si son travail perpétue ou non le problème. Dépenser toute son énergie pour une entreprise qui pollue et faire des "petits gestes" à la maison pour compenser, c'est être un pompier pyromane. C'est un peu comme dire : je travaille chez Monsanto mais j'y vais à vélo"

- Cyril Dion"

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# THE SOFTWARE CRAFTSMAN

BY SANDRO MANCUSO

## WHAT ?

NOT A RELIGION

NOT A METHOD

WORKING CODE = THE MINIMUM FOR A PROFESSIONAL

GOOD SENIOR DEVELOPER CODE

80'S

NOW

NOBODY UNDERSTANDS THE CODE

CLEAN  
HUMAN READABLE  
DOMAIN LANGUAGE

"CRAFTSMANSHIP OVER CRAP" - ROBERT C. MARTIN

## IDEOLOGY

LOWER THE COST OF QUALITY

### WHAT MODERN DEVELOPERS DO

- DEVELOP
- TEST
- ANALYZE
- MAKE TECHNICAL CHOICES
- HELP CLIENT
- RECRUIT
- ...



AGILITY

HOW TO BUILD THE RIGHT THING

FOCUS ON THE PROCESS CUSTOMER CENTRIC

DOES NOT MAKE DEVELOPERS BETTER

CRAFTSMANSHIP

HOW TO BUILD THE THING RIGHT

## WHAT ?

## BE PROUD TO BE A DEVELOPER

DEVELOPMENT IS A CRAFT

LEARNING FROM OTHERS

OWN YOUR CAREER VS "PETER'S PRINCIPLE"

FAILURE



A LONG JOURNEY TO MASTERY



SUCCESS

CARING ABOUT WHAT THEY DO

RESPONSIBILITY / PROFESSIONALISM / PRAGMATISM / PRIDE

SUCCESS

ADVANCEMENT

## MANIFESTO FOR SOFTWARE CRAFTSMANSHIP - 2008

### 1 NOT ONLY WORKING SOFTWARE, BUT ALSO WELL-CRAFTED SOFTWARE

WELL-CRAFTED = HIGH QUALITY CODE



"CODE QUALITY IS NOT A GUARANTEE OF SUCCESS  
BUT CAN BE THE MAIN CAUSE OF FAILURE"

- AUTOMATED TESTS
- BUSINESS LANGUAGE IN THE CODE
- SIMPLE DESIGN



### 2 NOT ONLY RESPONDING TO CHANGE, BUT ALSO STEADILY ADDING VALUE

CONSTANTLY IMPROVE YOUR CODE



- TESTABLE
- EXTENDABLE
- REFACTOR

BOY SCOUT RULE

"ALWAYS LEAVE THE CAMPGROUND CLEANER THAN YOU FOUND IT."

### 3 NOT ONLY INDIVIDUALS AND INTERACTIONS, BUT ALSO A COMMUNITY OF PROFESSIONALS

SHARE / MENTOR



- KNOWLEDGE
- IDEAS
- SUCCESSES AND FAILURES

CRAFTSMEN WANT TO WORK WITH  
PASSIONATES & INSPIRING PROFESSIONALS  
A.K.A OTHER CRAFTSMEN

### 4 NOT ONLY CUSTOMER COLLABORATION, BUT ALSO PRODUCTIVE PARTNERSHIPS

WE ARE NOT FACTORY WORKERS



- MUST HELP OUR CLIENTS
- MUST SAY NO FOR CLIENTS GOOD

SOME CLIENTS ARE NOT READY :

VERY DIFFICULT ENVIRONMENT FOR CRAFTSMEN

REDUCE THE GAP BETWEEN THE AGILE METHODOLOGIES AND THE TECHNICAL WORLD

## ATTITUDE

## PRACTICE THROUGH



CODE KATAS

OPEN SOURCE PROJECTS



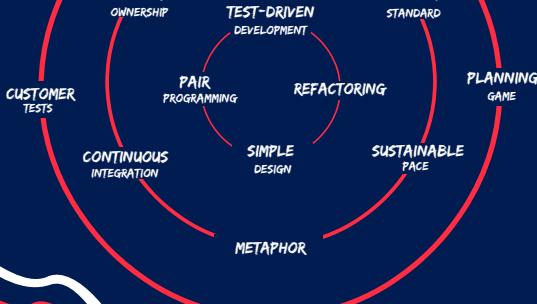
PAIR/MOB PROGRAMMING

PET PROJECTS

DISCOVERY

## PRACTICES

EXTREME PROGRAMMING



MOTIVATION

EXTRINSIC

SOMEONE WANTS YOU TO DO IT

"MAKE THIS PROJECT SUCCESSFULLY AND YOU GET A BONUS"

"I REALLY WANT TO WORK ON THIS PROJECT"

"DO THIS PROJECT OR YOU ARE FIRED"

"I REALLY DON'T WANT TO WORK ON THIS PROJECT"

POSITIVE MOTIVATION TOWARDS A GOAL

INTRINSIC

YOU WANT TO DO IT

NEGATIVE MOTIVATION AWAY FROM SOMETHING

## CONTINUOUS LEARNING



INJECT PASSION

CREATE A CULTURE OF IMPROVEMENT

IMPROVE



CREATE A CULTURE OF SHARING

BROWN BAGS



LEAN COFFEES

CODE REVIEWS

BOOK CLUB

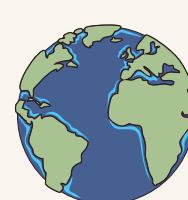
LIGHTNING TALKS

COMMUNITIES OF PRACTICE



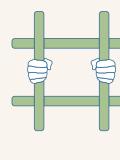
# UNE VIE SUR NOTRE PLANÈTE

David Attenborough



## Déclin accéléré de la biodiversité

Véritable tragédie de notre temps



## Nous sommes tous coupables

- "Ce n'est pas notre faute"
- Nous sommes nés dans un monde humain qui n'est pas durable

Continuer

De vivre notre existence heureuse en ignorant la catastrophe à nos portes



Changer



Nous devons faire 1 choix

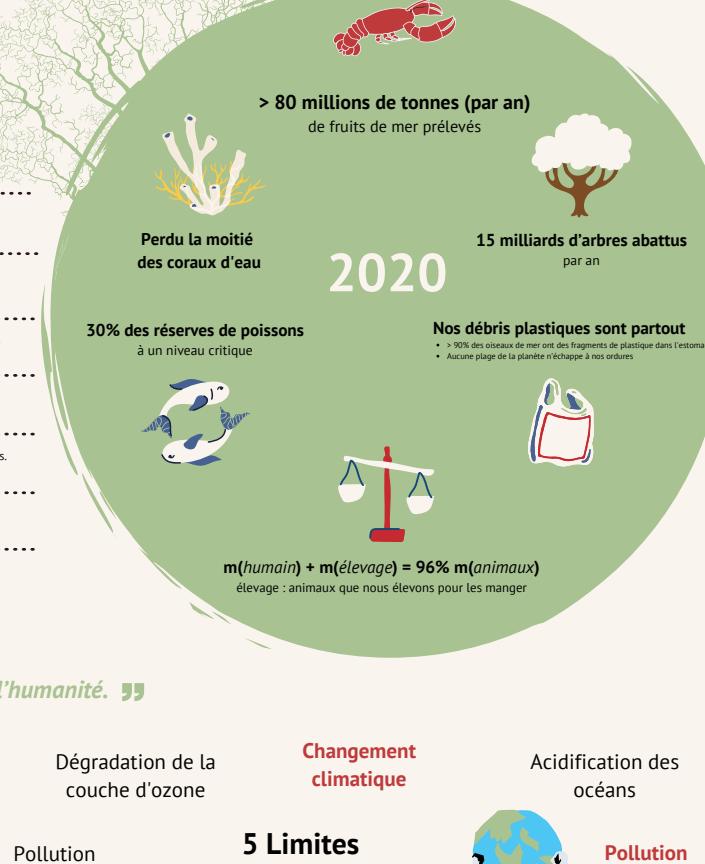
## MON TÉMOIGNAGE



	en milliards	en Parties Par Million de Molécules d'air	monde sauvage subsistant	Observations
1937	2,3	280	66%	L'agriculture a changé notre rapport entre l'humanité et la nature. Apprivoisement d'une partie du monde sauvage.
1954	2,7	310	64%	Émission Zoo Quest Nature sauvage florissait. Personne n'avait conscience des problèmes qui se posaient déjà.
1960	3	315	62%	Comprendre le fonctionnement global de l'écosystème du Serengeti. Histoire d'interdépendance / écologie.
1989	5,1	353	49%	Le monde compte trois trillions d'arbres de moins qu'à début de la civilisation humaine.
1997	5,9	360	46%	L'humanité avait éliminé 90% des gros poissons dans tous les océans. Prétez les poissons au sommet de la chaîne trophique
2011	7	391	39%	Température moyenne de 0,8°C plus chaude qu'en 1926
2020	7,8	415	35%	Notre impact est vraiment mondial...

## Encore temps d'arrêter le réacteur

Il existe une alternative viable



" Nous avons remplacé le monde sauvage par un monde apprivoisé.  
Nous considérons la Terre comme NOTRE planète, gouvernée par l'humanité, pour l'humanité. "

## CE QUI NOUS ATTEND



### Monde du vivant en passe de s'effondrer

a déjà commencé à s'effondrer

Dégénération de la couche d'ozone

Changement climatique

Acidification des océans

Pollution atmosphérique

### 5 Limites planétaires dépassées

Erosion de la biodiversité

Changement d'utilisation des sols

Pollution chimique

Changement d'utilisation des sols

Consommation d'eau

Usage d'engrais

"

Nous vivons déjà hors de l'espace de fonctionnement sécurisé de notre planète "

2030

- 75% de la surface de la forêt amazonienne
- Pôle Nord : été libre de glace



2040

- Pergélisol fondu : 1400 GT de carbone stocké
- Glissements de terrains / inondations gigantesques



2050

- Acidité très élevé des océans
- Commencement de la fin pour la pêche



2080

- Engrais : sols stériles et épuisés
- Déclin des espèces d'insectes
- Affecter les 3/4 de nos cultures



### Migrations forcées de populations



+0.9 m

du niveau de la mer

+4°C Température de la Terre

2100



1/4

de l'humanité vivra > 29°C

Fin de la stabilité de l'Holocène (notre jardin d'Eden)

### 6ème extinction massive

"

Pour lui rendre sa stabilité, nous devons restaurer sa biodiversité.

Nous devons réensauvager le monde ! "

## UNE VISION POUR L'AVENIR



### Monde limité

rien ne peut grandir indéfiniment

Construire 1 modèle économique durable

3 P



### Croissance verte

Sans impact négatif sur l'environnement

"

Nous avons tout pris au vivant sans songer aux dégâts

Personne

Profit

Planète



- Abandon du PIB comme critère principal du succès
- 3 P au complet
- Déplacer les priorités de son pays tout entier

### Dépasser la croissance



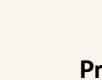
### Budget carbone

montant réduit de carbone pouvant être rejeté

Mettre fin à notre dépendance aux combustibles fossiles

Elever le prix des émissions au niveau mondial

Taxe carbone



Accélérerait la révolution durable dont nous avons besoin



### Favoriser la pêche durable

Les entreprises la pratiquant

"

Si notre principal critère pour juger nos actions est la renaissance du monde naturel nous ne pourrons manquer de prendre les bonnes décisions "

### Passer à l'énergie propre



### Budget carbone

montant réduit de carbone pouvant être rejeté

Elever le prix des émissions au niveau mondial

Taxe carbone



"

Créer des zones interdites à la pêche

Permet aux poissons de devenir plus vieux et plus gros



### Pêche durable à long terme

1/3 des océans en zones sans pêches suffirait



### Favoriser la pêche durable

Les entreprises la pratiquant

"

Réensauvager les mers

Ex : Cabo Pulmo

"

Occupier moins d'espace



### Monde limité

rien ne peut grandir indéfiniment

Culture du soja pour nourrir le bétail

Personne

Profit

Planète



### Produire + en cultivant moins de terre

Agriculture régénératrice revivifier les sols



"

Créer des espaces sauvages



### Viandes propres cultures cellulaires

80% de la terre agricole consacrée à la production de viande / lait



### Protéines alternatives



### Remédier au gaspillage alimentaire



"

Réensauvager les terres



### Viandes propres cultures cellulaires

80% de la terre agricole consacrée à la production de viande / lait



### Protéines alternatives



### Remédier au gaspillage alimentaire



"

Planifier pic démographique



### Elever le niveau d'éducation dans le monde

changerait le cours de la croissance démographique



"

Entre 9,4 et 12,7 Mds d'humains (en 2100)

### Atteindre le pic de croissance

- le plus tôt possible
- avec un minimum d'individus
- 2060 : 8,7 Mds



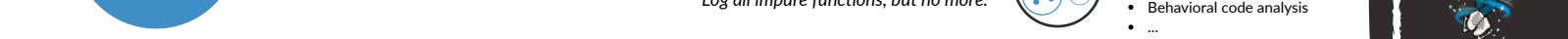
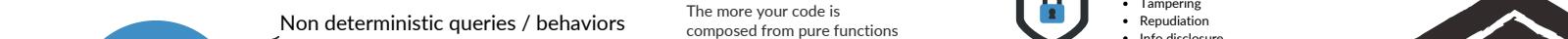
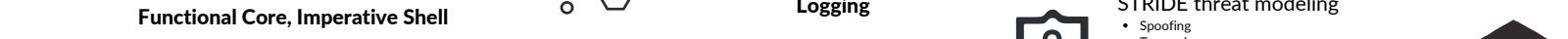
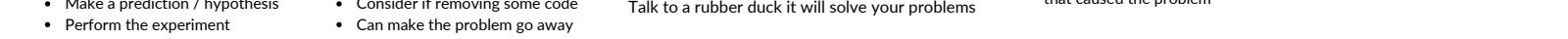
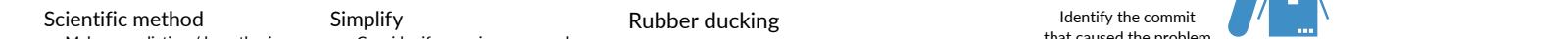
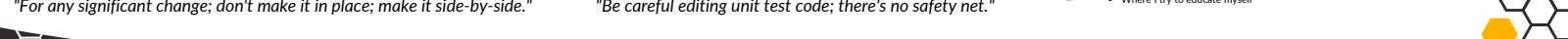
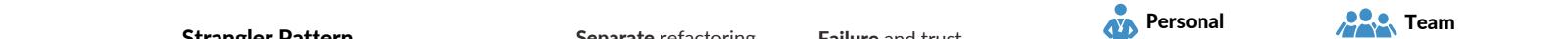
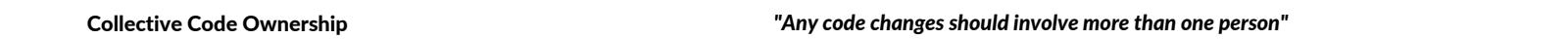
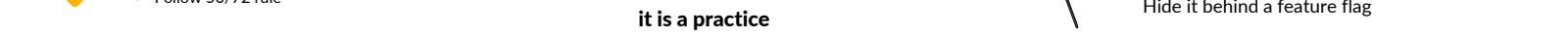
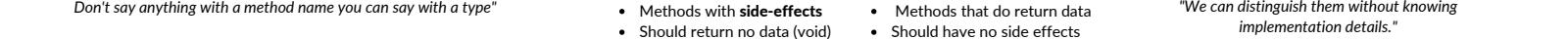
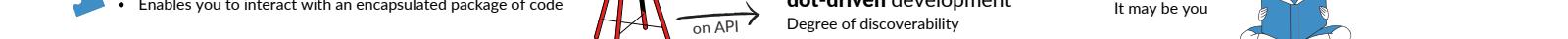
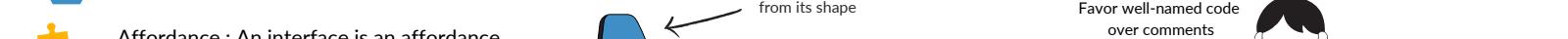
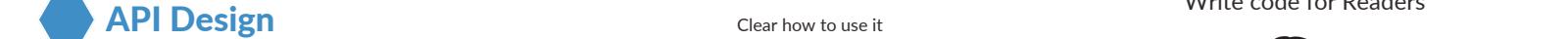
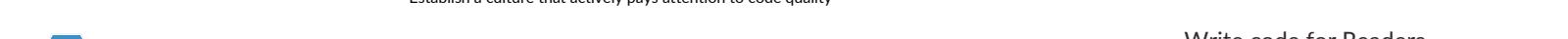
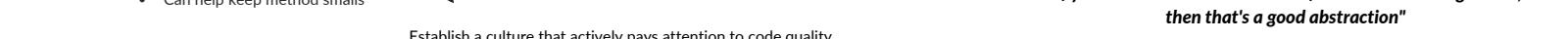
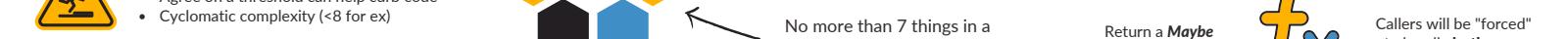
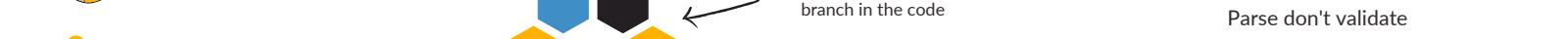
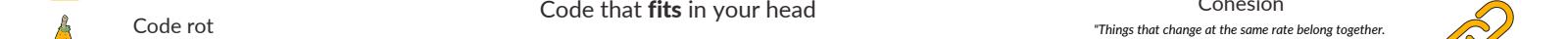
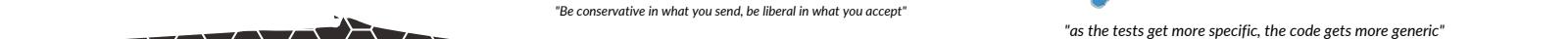
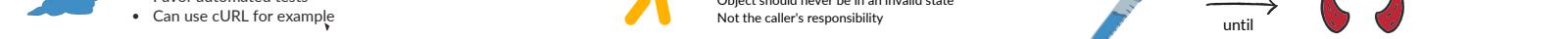
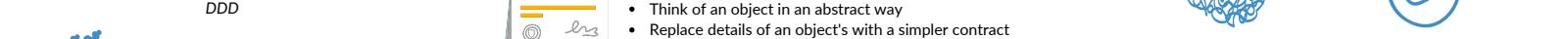
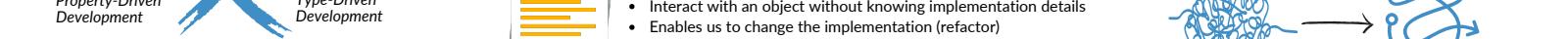
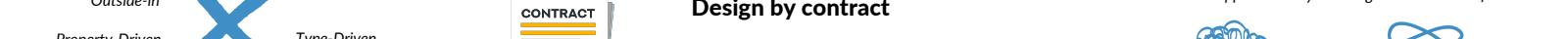
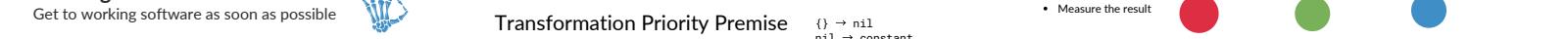
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Recréer des espaces sauvages



# Code That Fits in Your Head

By Mark Seemann



# The Good Life

## Ce que nous apprend la plus longue étude scientifique sur le bonheur et la santé

1938

2 générations

Une étude "longitudinale"  
examiner des vies à travers le temps1300 descendants des  
724 participants initiaux"Prospective"  
interroger les participants sur leur vie telle qu'elle est

L'étude de Harvard sur le développement des adultes



Identifier ce qui compte pour la santé et le bonheur

- Quels investissements en valaient vraiment la peine ?
- Ce qui maintient les personnes heureuses et en bonne santé ?

Questionnaires

- Qu'est-ce qui compte pour cette personne en particulier ?
- Qu'est-ce qui donne un sens à ses journées ?
- Qu'avalait-elle appris de ses expériences ?
- Que regrettait-elle ?

Entretiens attachés

- Étudier la façon dont les participants parlent l'un de l'autre
- Signaux non verbaux

Examiner leur bien-être

- Scanners cérébraux
- Analyses de sang
- Echantillons capillaires
- Poids
- Activité physique
- -

Autres données

- Nature de leur emploi
- Nombre d'amis proches ...

### Qu'est-ce qu'une vie réussie ?



1 vie réussie c'est 1 vie compliquée

- Pour tout le monde
- Se forge à partir de ce qui la rend difficile



Le secret = la qualité des relations

Permettent de vivre plus heureux et en meilleure santé

Expérience de prévision affective

Imaginer un état émotionnel dans une situation future

Parler à un inconnu

vs

Rester dans son coin



Meilleur trajet en parlant à un inconnu

Des inconnus dans un train

### De l'importance des relations

Mauvais en prévision

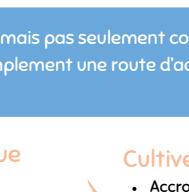
- Éviter les complications de la relation à autrui
- Surestimer les complications
- Sous-estimer les effets bénéfiques du lien humain

Culture : prédicteur de bonheur ?

- Des injonctions culturelles permanentes
- Ex: l'argent est le fondement d'une vie réussie

Parfois, les pratiques et les messages culturels nous éloignent du bien-être et du bonheur

### Liens sociaux forts et espérance de vie

148 études examinées  
Pays du monde entier

Taux de mortalité des personnes ayant le moins de liens sociaux

♂ 2,3 ♀ 2,8

fois plus élevé que celui des personnes en ayant le plus

Etude de Angus Deaton et Daniel Kahneman  
Etats-Unis en 2010

Espérance de vie &gt; 10 à 15 ans

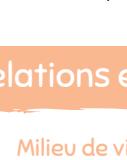
Hauts revenus

75 000\$ / an chiffre pivot

Chiffre pivot dépassé

- L'argent en plus
- Pas important pour atteindre le bonheur

L'argent fait-il le bonheur?



Pas la bonne question

Qu'est-ce qui me rend réellement heureux?

"Les relations sont essentielles, mais pas seulement comme des tremplins vers d'autres choses, et elles ne sont pas simplement une route d'accès vers la santé et le bonheur. Elles sont des fins en soi."

La vie est chaotique



Cultiver de bonnes relations



- Accroît le côté positif de ce chaos
- Augmente ainsi les chances de faire des rencontres bénéfiques

Milieu de vie = point d'inflexion

Entre 1 mode de vie égocentrique  
Replié sur soi-même

### Questionnements

Au milieu de notre vie



À la fin de notre vie

"Qu'aimeriez-vous avoir moins fait et au contraire davantage fait ?"

"J'aurais aimé ne pas avoir perdu autant de temps."

"J'aurais aimé ne pas avoir tant tergiversé."

"J'aurais aimé ne pas m'inquiéter autant."

"J'aurais aimé passer plus de temps avec ma famille."

Les adultes les plus heureux, ceux qui avaient réussi à transformer la question...



"Que puis-je faire pour moi ?"

"Que puis-je faire pour le monde qui m'entoure ?"

### La forme sociale - Comment muscler sa sociabilité ?

#### Les ravages de la solitude



#### Ses causes

- Une expérience subjective
  - Ce qui cause un sentiment de solitude chez un individu
  - Peut n'avoir aucun effet sur un autre
- Besoin d'amour, de lien et d'un sentiment d'appartenance
  - Comment répondre à ces besoins ?
  - Dans des environnements sociaux compliqués

La solitude augmente notre risque de mortalité autant que le tabagisme ou l'obésité.

#### Investir du temps / énergie sur nos relations



Le pouvoir de la générosité

Donner ce qu'on aimerait recevoir



La curiosité radicale

- Permet aux autres de se sentir compris et reconnus
- Crée un environnement bienveillant
- Poser une question, écouter la réponse, voir où cela mène

@ Spirales ascendantes

#### Notre propre étude de Harvard



"À quoi pensiez-vous alors ?"

"Qu'est-ce qui vous inquiétait ?"

"Qu'est-ce que vous abordiez avec confiance ?"

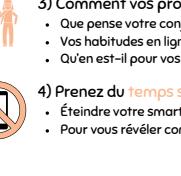
"Quels étaient vos projets ?"

"Avec qui passiez-vous votre temps ?"

"Qu'est-ce qui était le plus important pour vous ?"

"Quand vous pensez à cette époque, que regrettiez-vous ?"

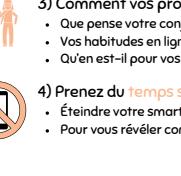
#### Prendre du recul de temps en temps.



#### Votre observatoire social

1) Qui fait partie de ma vie ?

Qui sont mes amis et parents les plus proches ?



Stimulant

Donne un sentiment de lien

Permet de se sentir mieux que si vous étiez seul

Rare

Fréquent

#### 2) Placez les noms sur le graphique

- Pourquoi est-elle à cette place ?
- À l'endroit où vous voulez qu'elle soit ?
- -

Haut

Réfléchir comment consolider / favoriser leurs aspects positifs

Dites à ces personnes combien vous les appréciez / pourquoi

Bas

Comment les tirer vers le haut ?

Épuisant

Provoque des tensions

Agacement ou de l'anxiété

#### 3) Allez du haut vers le bas

#### 4) Prenez du temps sans écran

Haut

Réfléchir comment consolider / favoriser leurs aspects positifs

Dites à ces personnes combien vous les appréciez / pourquoi

Bas

Comment les tirer vers le haut ?

Épuisant

Provoque des tensions

Agacement ou de l'anxiété

### Notre attention en ligne



Comment ces nouvelles formes de communication affectent nos relations / notre bonheur ?



- Entretenir les relations avec les amis et la famille
- Renforcer le sentiment de connexion et d'appartenance
- Lutter contre l'isolement



#### 1) S'engager dans une communication active avec les autres

Les gens qui s'engagent sont plus heureux que les "passifs"



#### 2) Après avoir surfé, sondez votre humeur

- Avez-vous l'impression d'avoir fait le plein d'énergie ?
- Vous sentez-vous éprouvé après un long voyage à travers Internet ?

#### Arrêtez de cliquer, discutez



#### 3) Comment vos proches perçoivent votre utilisation ?

- Que pense votre conjoint de la façon dont vous utilisez votre téléphone ?
- Vos habitudes en ligne l'affecte-t-il (ou elle) ?
- Qu'en est-il pour vos enfants ?



#### 4) Prenez du temps sans écran

- Éteindre votre smartphone, votre ordinateur
- Pour vous révéler comment la technologie vous affecte

"Nous avons un avantage crucial sur tous les géants de la technologie: la conquête de notre attention se déroule sur notre propre terrain, littéralement dans notre esprit. Et c'est là que nous pouvons gagner la guerre."

### Braver la tempête - s'adapter aux défis relationnels

#### Modèle W.I.S.E.R



• ralentir ses réactions dans n'importe quelle situation émotionnelle

• les examiner au microscope



• Notre "réalité": pas forcément celle des autres

• Essayer de comprendre les enjeux

• Qu'est-ce qui m'échappe, ici ?



• Ralentir permet d'envisager des possibilités

• Compte tenu de l'enjeu et des ressources dont je dispose



• Que puis-je faire dans cette situation ?



• L'environnement, la personne

• La situation est-elle inhabituelle ou courante ?

• Quel est votre ressenti, pourquoi ?

#### Le contact aimant l'équivalent d