Facilitate Cleaning your Code
(without being a Technical Coach)

@DigDeepRoots

Arlo Belshee

Principal Technical & Leadership Coach

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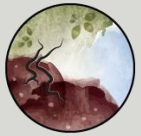
DEEP ROOTS

Why am I doing this?

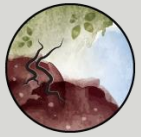
- Reduce time for each story
- Reduce bugs
- Reduce cost of future stories
- Make it easier and less frustrating for developers



DEEP ROOTS

How does THAT work?

Teach them to refactor code as they read it.

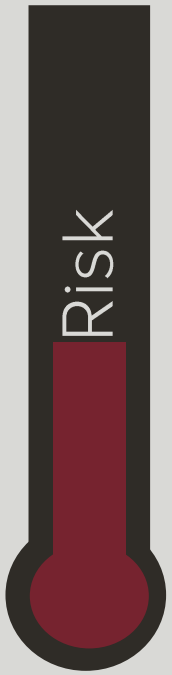


DEEP ROOTS

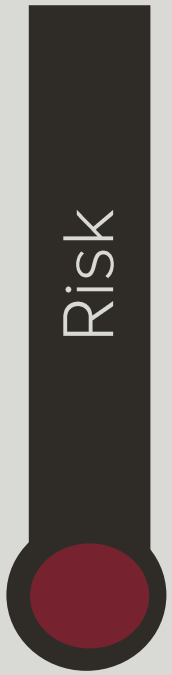
OK, so what is refactoring, really?

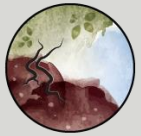
Editing Code

Refactoring and Testing Code



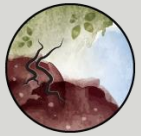
Transforming Code



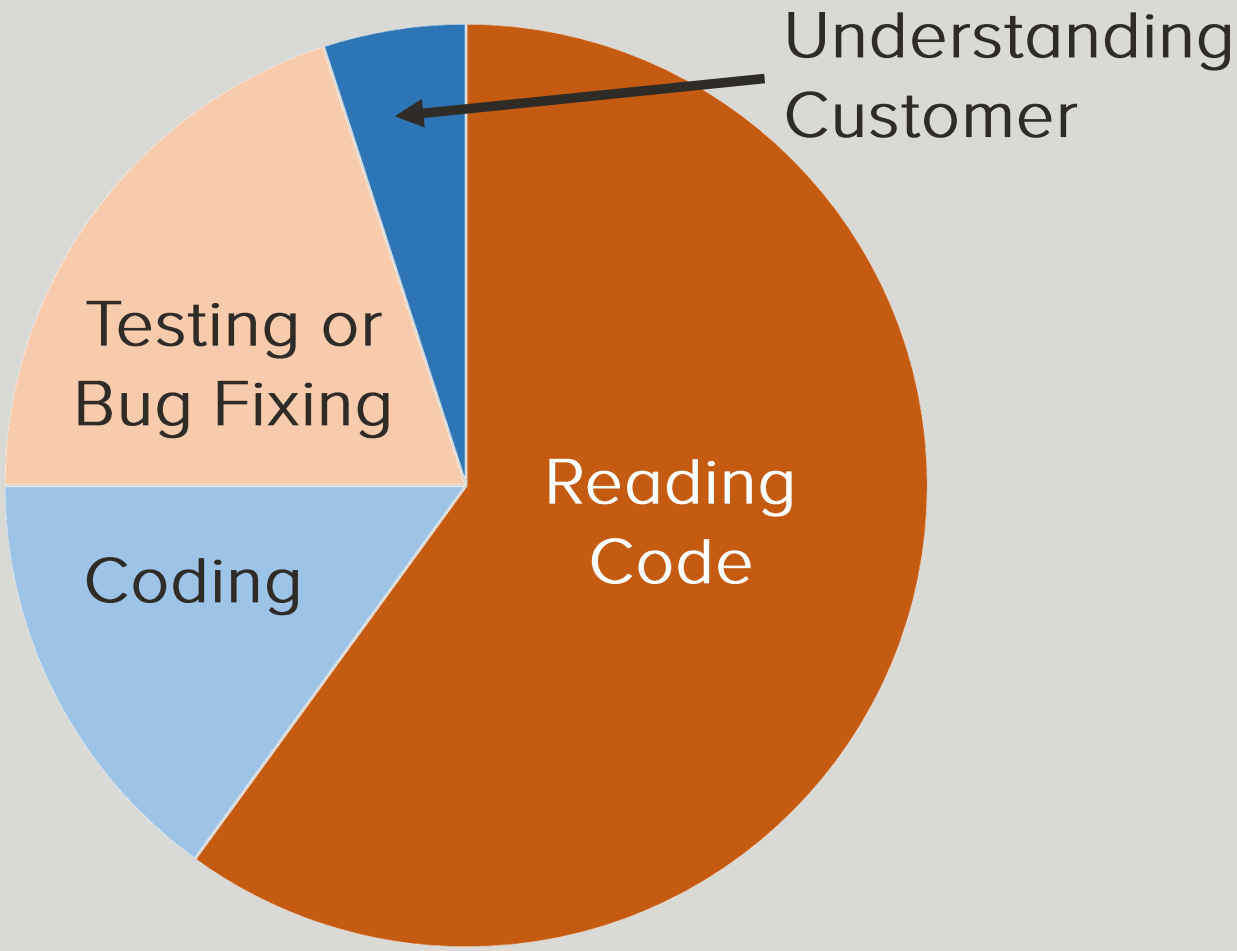


DEEP ROOTS

So when is the best time to refactor during story development?



DEEP ROOTS



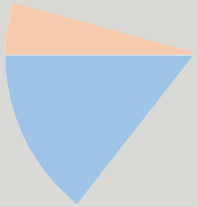
Well, where do we spend all the time in story development?

DEEP ROOTS

When is it safe to refactor?

Editing Code

Refactoring and Testing Code



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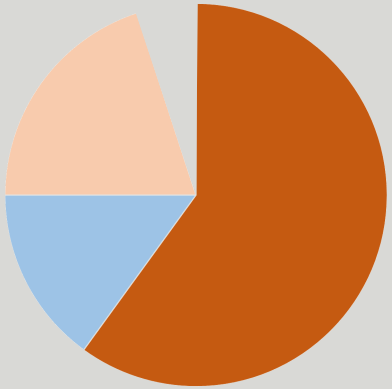
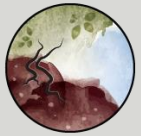
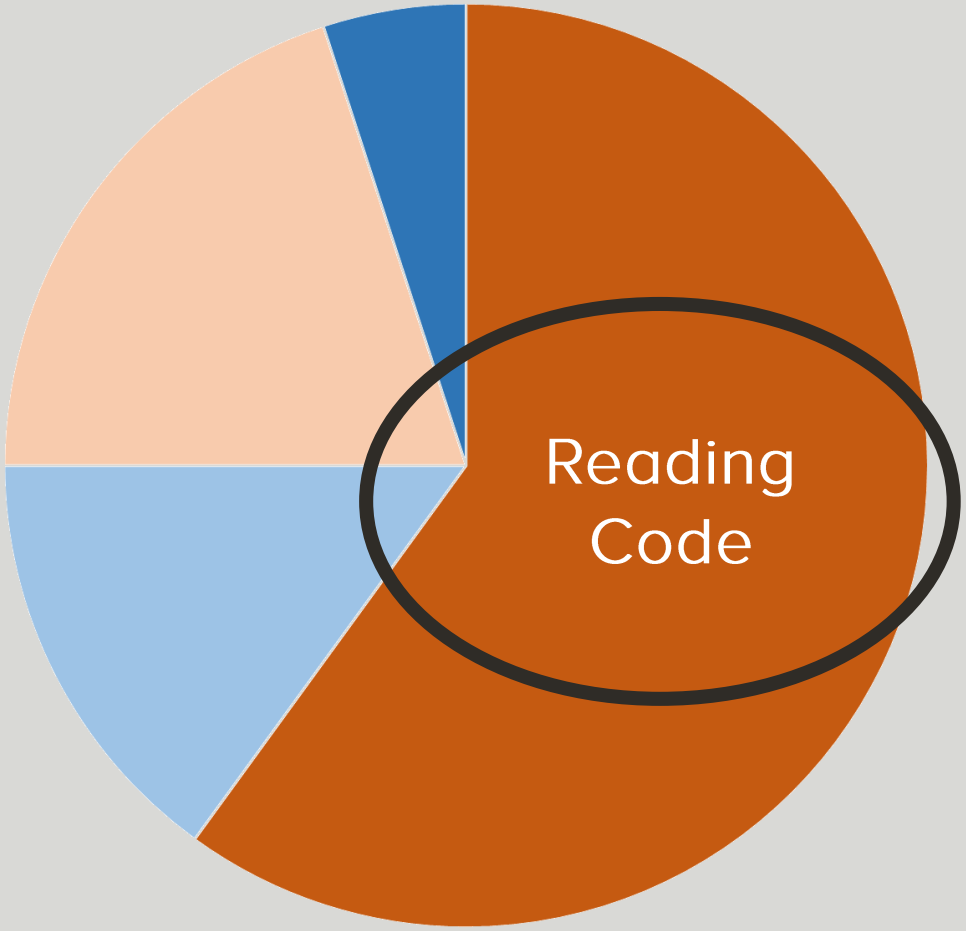




DEEP ROOTS



Let’s tackle the big number with the Read by Refactoring method.

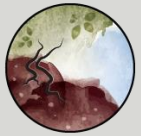
What does RbR do?

Traditional Code Reading

New Code Reading

DEEP ROOTS

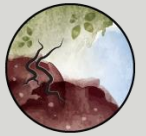
So now you'll learn how to facilitate a ½ day mob that introduces RbR skills!



DEEP ROOTS

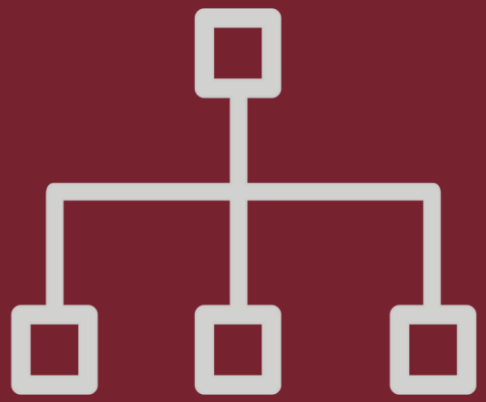
...and don't forget why!

- Reduce time for each story
- Reduce bugs
- Reduce cost of future stories
- Make it easier and less frustrating for developers



DEEP ROOTS

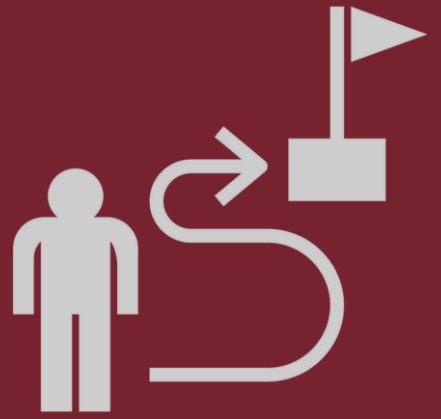
Let’s establish trust.



Authority Supported

Legitimate Project

Empathy for Devs



Expected Results

Write silently what you would do

Discuss

Pick what you will take home

DEEP ROOTS

Let’s establish your ability to do this.

- You will have recorded technical expertise to share with them at the right moments.
- You will have the flow for guiding them naturally through the habit shifts and first major mind shift of Read by Refactoring.
- You only need to know the questions that their default responses can’t solve.

...and we are here today to give you all of those resources.

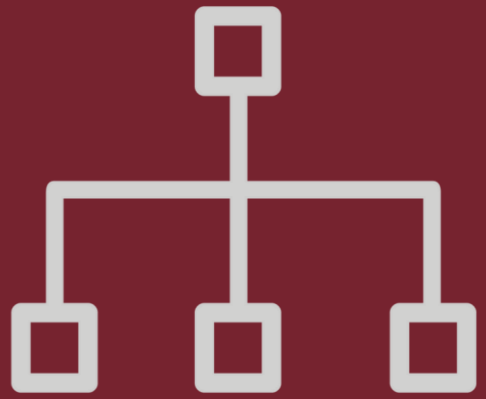
DEEP ROOTS

Facilitation Demo

Preparing you for your first mob facilitation!

DEEP ROOTS

What is your plan?



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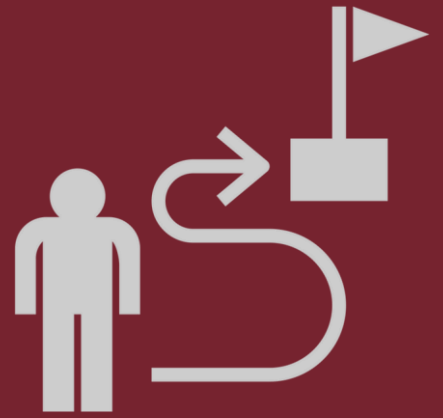
Legitimate Project

Empathy with Devs



Expected Results

Update your plan

Discuss

DEEP ROOTS

You can do this!

What are YOUR reasons that you can?

DEEP ROOTS

- [x] You can facilitate a mob through the Insight Loop
- [x] The team is now aware of a better way to read code
- [ ] The team has a structure to change sustainably

DEEP ROOTS

Cleaning your Code Easier Every Day
(without being a Technical Coach)

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DEEP ROOTS

- [x] You can facilitate a mob through the Insight Loop
- [x] The team is now aware of a better way to read code
- [ ] The team has a structure to change sustainably

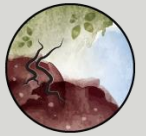
DEEP ROOTS

- [ ] Understanding the Insight Loop
- [ ] Shifting from awareness to behavioral change
- [ ] Applying the shift to the Insight Loop
- [ ] Making the Insight Loop a common practice for your team

DEEP ROOTS

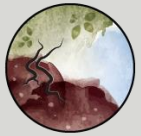
Mobbing was a sequence of tasks.

- One of these Things is Not Like the Other
- Tiny Commits
- Honest Names
- Bug-for-Bug Compatibility



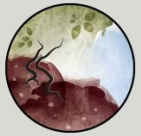
DEEP ROOTS

Habit Shift	One of these Things is Not Like the Other	Tiny Commits	Honest Names	Bug-for-Bug Compatibility
Old Behavior	Recognize one chunk of a method & try to hold in brain.			
New Behavior	Recognize one chunk of a method & record it in the code.			
Value	Explicitness: The chunk boundary.			



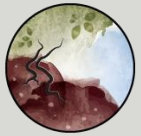
DEEP ROOTS

Habit Shift	One of these Things is Not Like the Other	Tiny Commits	Honest Names	Bug-for-Bug Compatibility
Old Behavior		Commit each movement.		
New Behavior		Commit each safe action, merge each movement		
Value		Explicitness: Each commit does exactly one thing.		



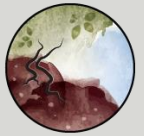
DEEP ROOTS

Habit Shift	One of these Things is Not Like the Other	Tiny Commits	Honest Names	Bug-for-Bug Compatibility
Old Behavior			Read method definition to understand it & try to hold in brain.	
New Behavior			Scan to understand one thing it does & record it in the code.	
Value			Explicitness: Name is honest about what is and is not known.	



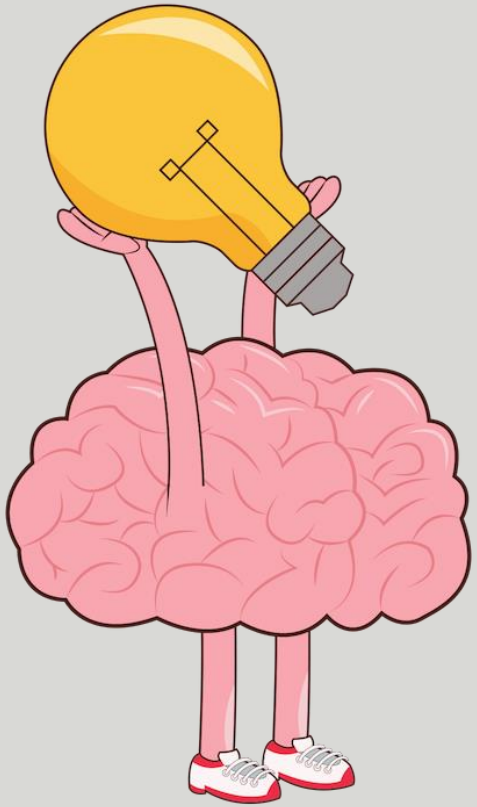
DEEP ROOTS

Habit Shift	One of these Things is Not Like the Other	Tiny Commits	Honest Names	Bug-for-Bug Compatibility
Old Behavior				Commit message states what you did.
New Behavior				Add tag indicating level of risk, then state what you did.
Value				Explicitness: Commit message states the level of risk caused by that commit.



DEEP ROOTS

Mindset Shift: The Insight Loop



- Insight is now much more explicit in coding.
- Making each part explicit makes the process explicit.

The Insight Loop:

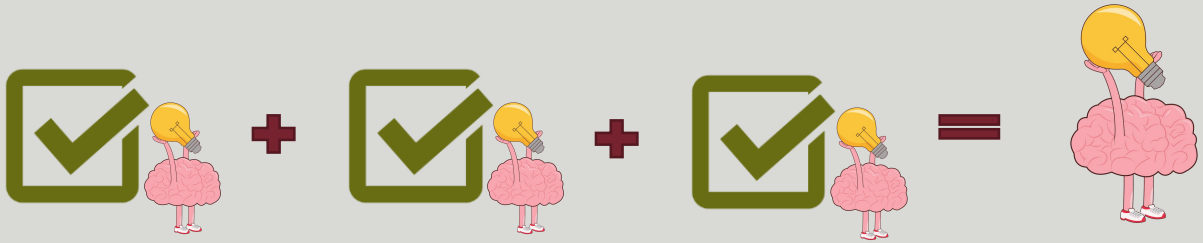
1. Have a single insight
2. Write it down in the code
3. Commit explicitly

Ways to shift mindsets

Pick behaviors that don't align or build up to a mindset shift

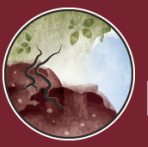
Pick behaviors that do align to a mindset shift, but are INTERDEPENDENT

Pick behaviors that do align to a mindset shift, but are INDEPENDENT



DEEP ROOTS

- [x] Understanding the Insight Loop
- [ ] Shifting from awareness to behavioral change
- [ ] Applying the shift to the Insight Loop
- [ ] Making the Insight Loop a common practice for your team



DEEP ROOTS

You can now facilitate a mob for introducing and practicing the Insight Loop.

Awareness

STEP TWO

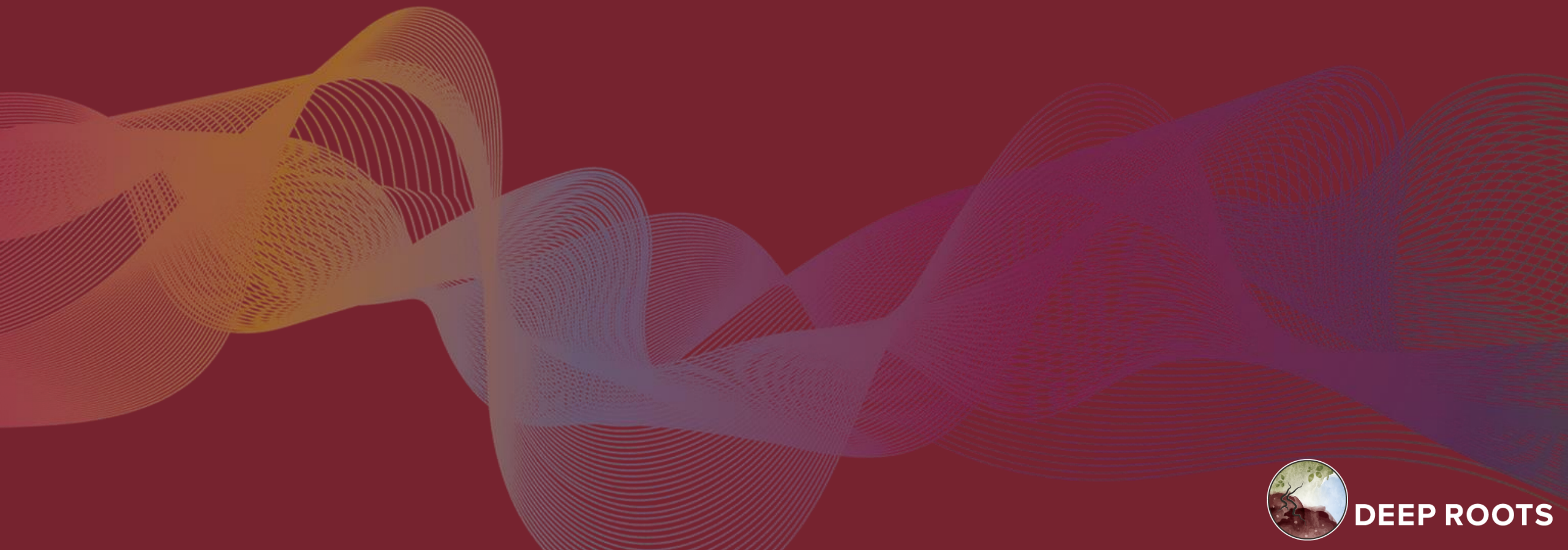
Now we can create daily habits to make the Insight Loop a common practice.

Behavior Shift

DEEP ROOTS

The Path to Long Term Change

DEEP ROOTS



DEEP ROOTS

The Path to Long Term Change

DEEP ROOTS

TRAINING

Awareness Increased!

We are told. We now know something better!

(but don't usually listen)

DEEP ROOTS

The Path to Long Term Change

DEEP ROOTS

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Awareness Increased!

We are told. We now know something better!

(but don't usually listen)

EXPERIENCE

Embodied Realization!

We resonate with the experience and got excited!

(but we later forgot)

DEEP ROOTS

The Path to Long Term Change

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DAILY PRACTICE

Do Without Thinking!

Our default has changed!

(getting a new default result)

DEEP ROOTS

The Path to Long Term Change

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DEEP ROOTS

The Path to Long Term Change

DEEP ROOTS

where change happens!

TRAINING

Awareness Increased!

We are told. We now know something better!

(but don't usually listen)

EXPERIENCE

Embodied Realization!

We resonate with the experience and got excited!

(but we later forgot)

REFLECTION

Motivations and Triggers!

Why do I really care and what reminds me?

(going meta for a sec...)

DAILY PRACTICE

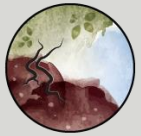
Do Without Thinking!

Our default has changed!

(getting a new default result)

DEEP ROOTS

FOR EXAMPLE



DEEP ROOTS

The Path to Long Term Change

DEEP ROOTS

where change happens!

TRAINING

Given data and stats of what happens with speeding

EXPERIENCE

Used cruise control as a tool to stay aware

REFLECTION

DAILY PRACTICE

DEEP ROOTS

Let's Reflect...

What was the pain point that caused my old behaviour?

Panic that I was always going to be late.

What is the trigger that reminds me there is a better way?

Assurance that I would always know exactly the time I would arrive.

What is the trigger that reminds me to do the better way?

Putting my phone (already addiction) on dash and setting a route.

DEEP ROOTS

The Path to Long Term Change

DEEP ROOTS

TRAINING

Given data and stats of what happens with speeding

EXPERIENCE

Used cruise control as a tool to stay aware

REFLECTION

Motivation:
Get there faster.

Trigger:
Google Maps kept showing me the arrival time

DAILY PRACTICE

Indulge my phone addiction at start of drive by setting a route that keeps me informed

DEEP ROOTS

NOW you can facilitate sustained behavior change!

DEEP ROOTS

The Path to Long Term Change

DEEP ROOTS

TRAINING

You have been trained that the best way to manage is to walk around.

EXPERIENCE

You go through the steps of becoming a walking manager instead of emailing.

REFLECTION

What makes you want to email?

What reminds you there's a better way?

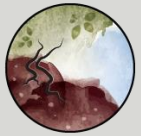
What reminds you to DO the better way?

DAILY PRACTICE

What existing practice are you going to use to make sure that better way is easy and daily?

DEEP ROOTS

“This matters because business results depend on what they DO every day instead of what they are DESCRIBING to you.”



DEEP ROOTS

- [x] Understanding the Insight Loop
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DEEP ROOTS

The Path to Long Term Change

TRAINING

Read Arlo's blogpost series on *Naming as a Process* and watch a short video on the Insight Loop.

EXPERIENCE

Go through the mobbing cycles for the workshop.

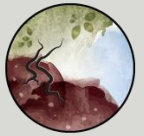
REFLECTION

DAILY PRACTICE

Devs running the insight loop as many times as you can with explicit awareness.

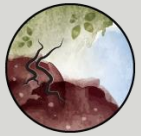
DEEP ROOTS

	One of these Things is Not Like the Other	Tiny Commits	Honest Names	Bug-for-Bug Compatibility
Pain Point of Old Behavior	It's simply how they've learned.			
Trigger that Reminds of Better Way	Having a process to easily understand hard to read code.			
What Trigger to Use as Reminder	When you're looking at a large chunk of code or lots of indents.			
Daily Practice	Extracting as many chunks as they can that day.			



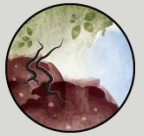
DEEP ROOTS

	One of these Things is Not Like the Other	Tiny Commits	Honest Names	Bug-for-Bug Compatibility
Pain Point of Old Behavior		Transaction cost of a commit is high.		
Trigger that Reminds of Better Way		Code review will be easier and not get lost.		
What Trigger to Use as Reminder		Having just finished an extraction and naming.		
Daily Practice		Checking in after every refactoring and maximizing the number of commits.		



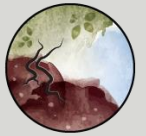
DEEP ROOTS

	One of these Things is Not Like the Other	Tiny Commits	Honest Names	Bug-for-Bug Compatibility
Pain Point of Old Behavior			Following social norms (keeping it short).	
Trigger that Reminds of Better Way			You can now trust the names and when to do read the code for info or when to ask somebody for it.	
What Trigger to Use as Reminder			Any time you make a new name or renaming something that was confusing.	
Daily Practice			Renaming anything that does not immediately tell you what it is.	



DEEP ROOTS

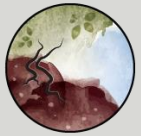
	One of these Things is Not Like the Other	Tiny Commits	Honest Names	Bug-for-Bug Compatibility
Pain Point of Old Behavior				Proving safety is hard with large commit.
Trigger that Reminds of Better Way				You know where the risk is during code review so it's faster and easier.
What Trigger to Use as Reminder				You already leave log message / you're just reflecting the new thing that happened.
Daily Practice				Practice to write a formatted log message for every single commit.



DEEP ROOTS

RESULTS

Running the insight loop as many times as you can with explicit awareness.



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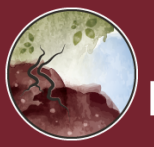
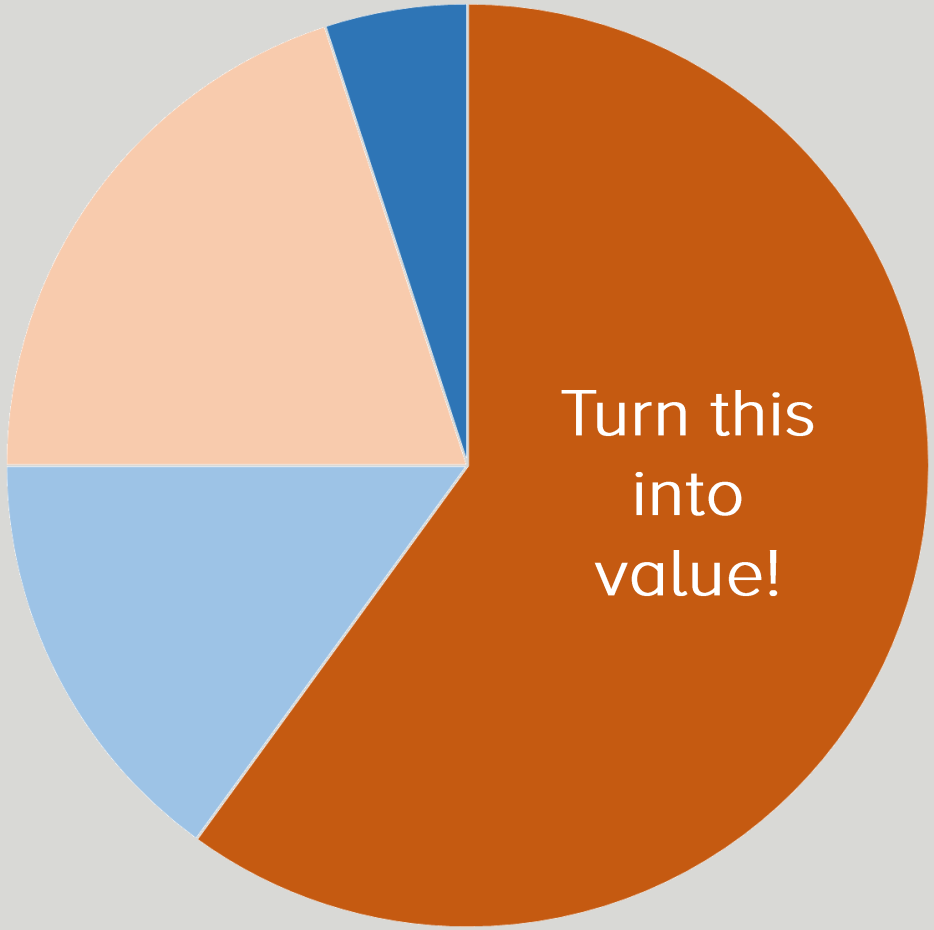


DEEP ROOTS



DEEP ROOTS