



# The Science of Productivity and Performance in Our Busy, Always-On World

Dr. Sahar Yousef

Cognitive Neuroscientist and Faculty, UC Berkeley

# Today, We Can Work:



Anytime



Anywhere



On Any Device



With Anyone



Yet We Struggle to Get Things  
Done More than Ever Before

# Our Productivity Has Been Hijacked



Constant  
Interruptions



Excessive Email/  
Communications



Unproductive  
Meetings



# An Alarming, Deteriorating Reality

3.5 hours or less

Portion of workday  
that is considered  
focused and productive

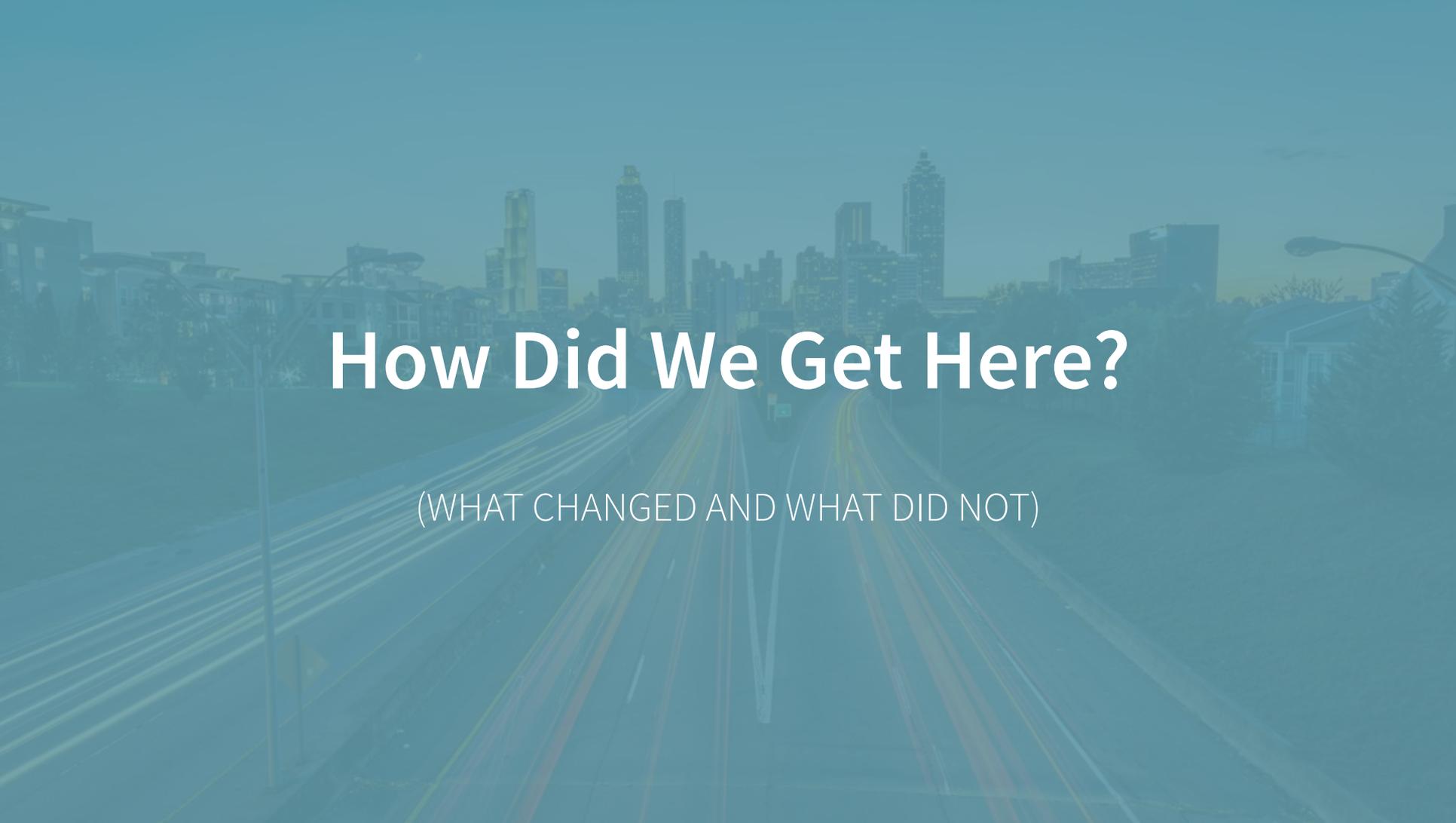
*ATLASSIAN*

90 seconds

Average amount of time  
between knowledge  
worker interruptions

*UC IRVINE*





# How Did We Get Here?

(WHAT CHANGED AND WHAT DID NOT)

# The Nature of Work Radically Shifted

*Pre-1990s*

*Post-2000s*

COMMUNICATION

In-Person



Email/Slack

WORK HOURS

9-5



24/7

OFFICES

Cubicles



Open Floor Plan

TEAMS

Local



Global



**But Human Brains Did Not...**

HOW DO WE ACTUALLY SOLVE THIS PROBLEM?

---

**We Need to Stop Fighting and  
Work in Line With Our Biology**

# What to Expect Today

---

- **6 biggest mistakes of WFH**
- **The scientific reasons behind WHY people commonly make those mistakes and what to do instead**

MISTAKE #1

---

# Muddled Associations



1

**Our behavior is driven  
by our neural networks**

**Stimulus → Neural Activation →  
Behavior**



A dimly lit living room with a sofa, coffee table, and large windows. The room is dark, with a lamp on the left and a potted plant on the right. The text is overlaid in the center.

# Home Associations are At Odds With Work

# 1. Design Cognitive Associations

---

The Ideal Set Up?

- Dedicated workspace in a separate or private area



# 1. Design Cognitive Associations

## The Ideal Set Up?

- Dedicated workspace in a separate or private area

## No Space?

- Use a physical/sensory trigger to automatically enter Focus mode
  - Music
  - Candle
  - Table cloth
  - Clothes
  - Beverage / mug



# 1. Design Cognitive Associations

---

Have a Trigger to Turn Off

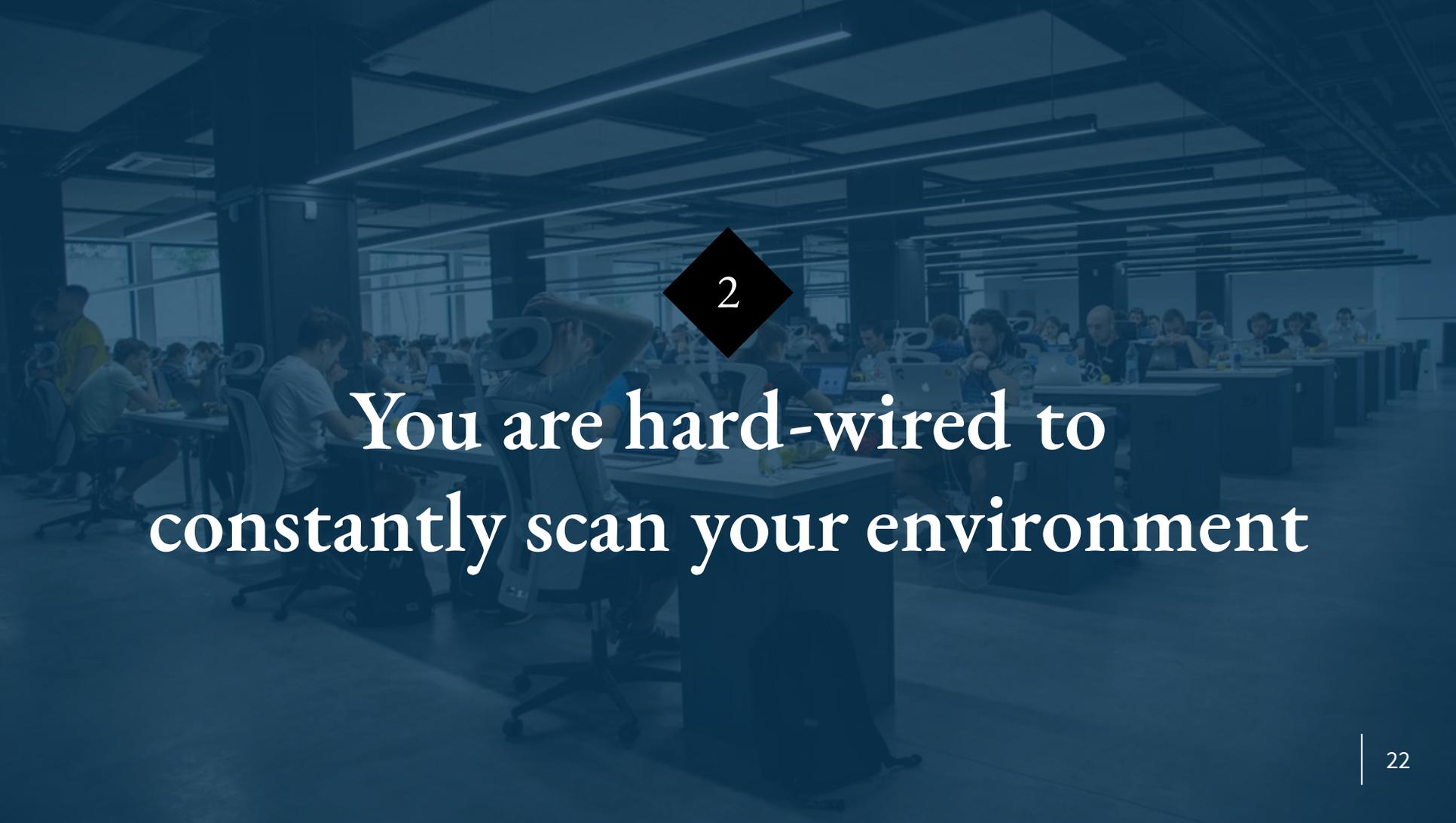
- Ramp down music
- Mug / beverage
- Consistent sleep position



MISTAKE #2

---

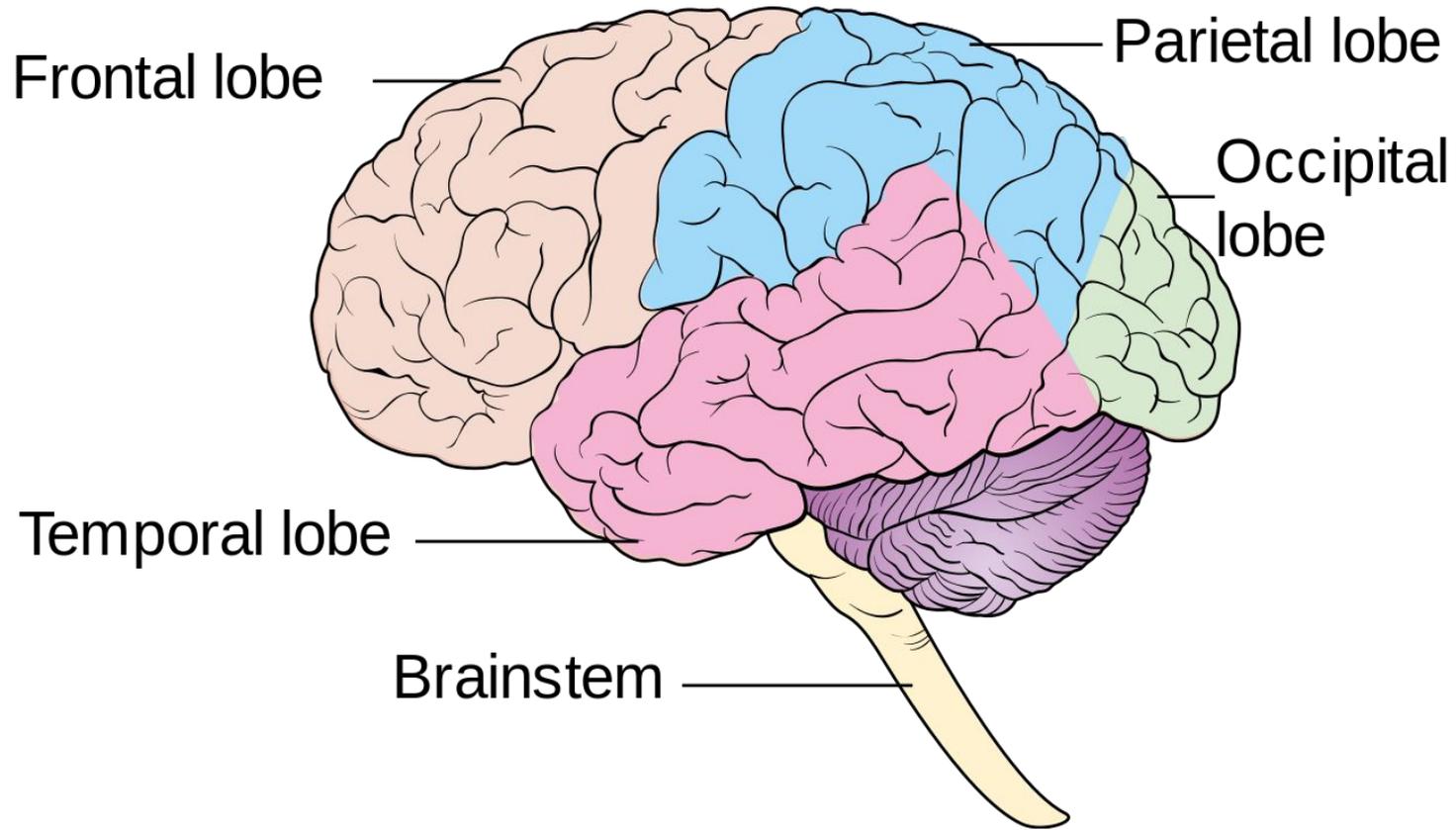
# Poor Hygiene



2

You are hard-wired to  
constantly scan your environment





*STUDY*

# Visual Distractions Reduce Productivity and Increase Cortisol

---

Constant faces and movement

All potentially relevant



# Auditory Distractions Make You Slower

---

Background noise (especially intelligible speech) → up to 10% performance decrement

# Auditory Distractions Make You Slower

---

Background noise (especially intelligible speech) → up to 10% performance decrement



# 2. Protect Your Sensory Systems

---

## Visual

- Create a visual barrier / wall

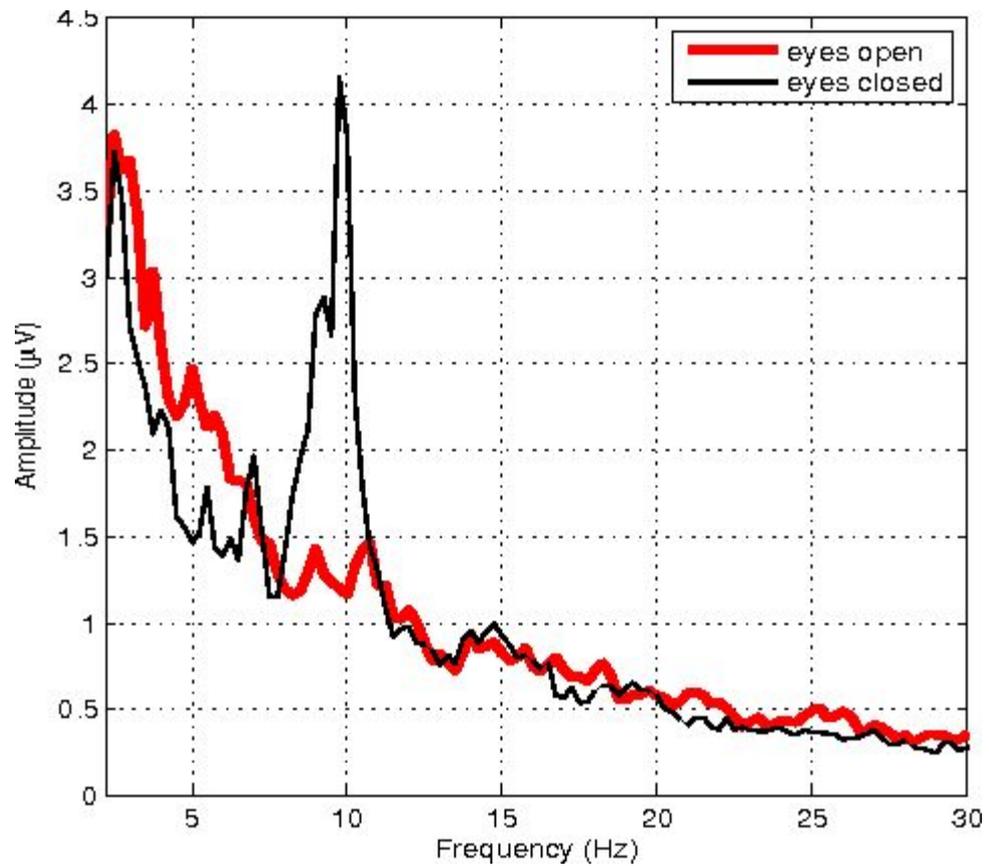


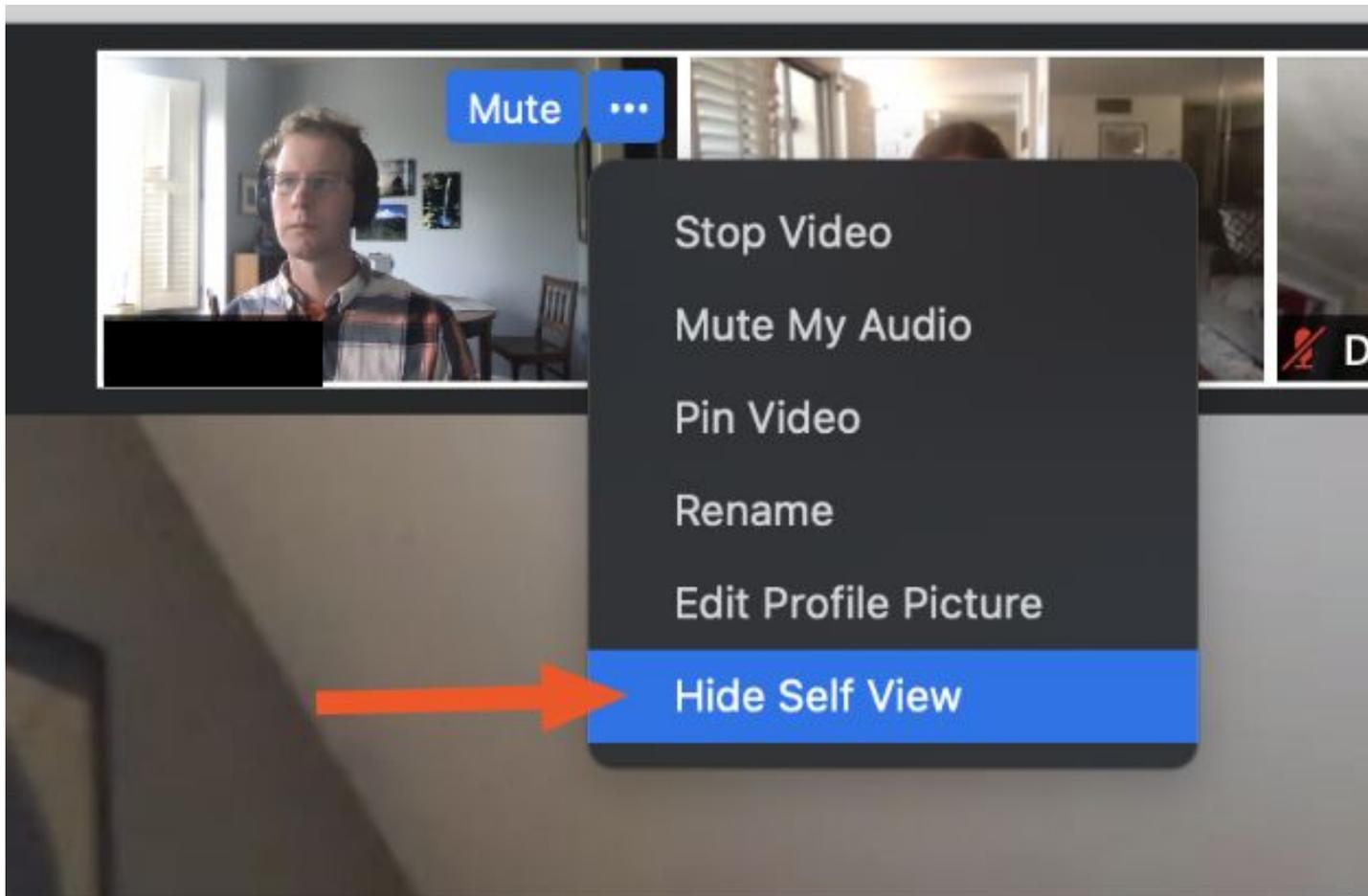
# 2. Protect Your Sensory Systems

---

## Visual

- Create a visual barrier / wall
- Turn toward a wall / away from foot traffic
- Close your eyes
- Hide “Self View”





Mute



Stop Video

Mute My Audio

Pin Video

Rename

Edit Profile Picture

Hide Self View



# 2. Protect Your Sensory Systems

---

## Visual

- Create a visual barrier / wall
- Turn toward a wall / away from foot traffic
- Close your eyes
- Hide “Self View”

## Auditory

- Noise-cancelling headphones
- Music with no lyrics or lyrics you don't understand

Now for the biggest drain...



*STUDY*

# Cognitive Capacity vs. Phone Location

---

*STUDY*

# Cognitive Capacity vs. Phone Location

---

“The mere presence of a smartphone reduces brain power, even if it’s turned over and even if it’s off.”

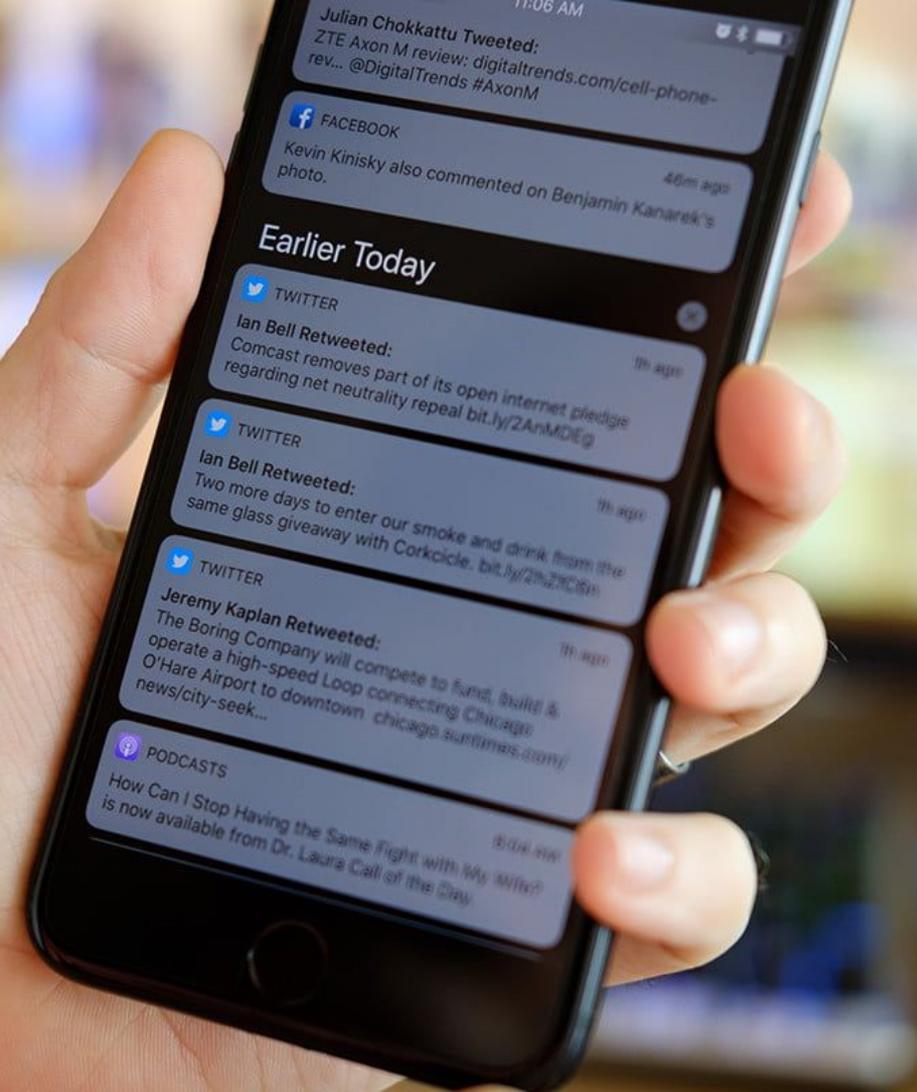


**TEXAS**

The University of Texas at Austin



DB  
CELL PHONES  
in basket



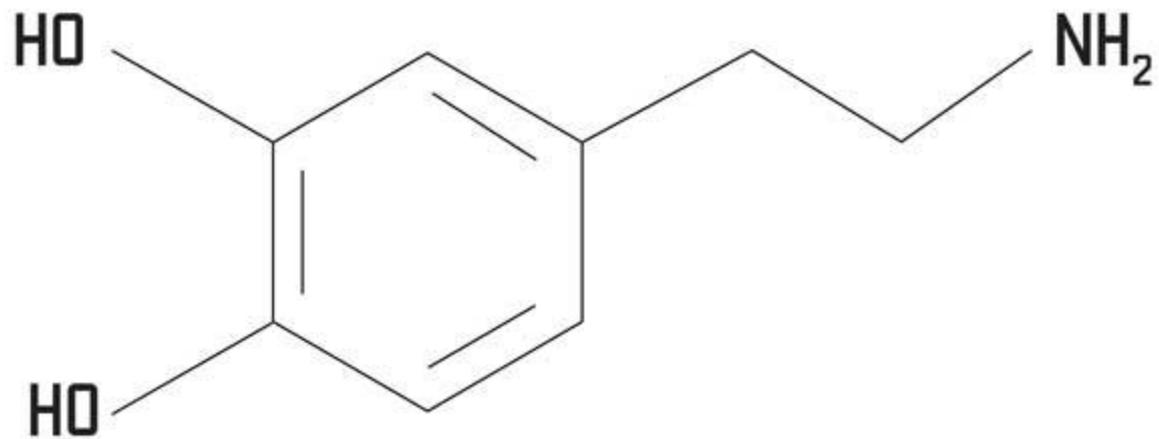
MISTAKE #3

---

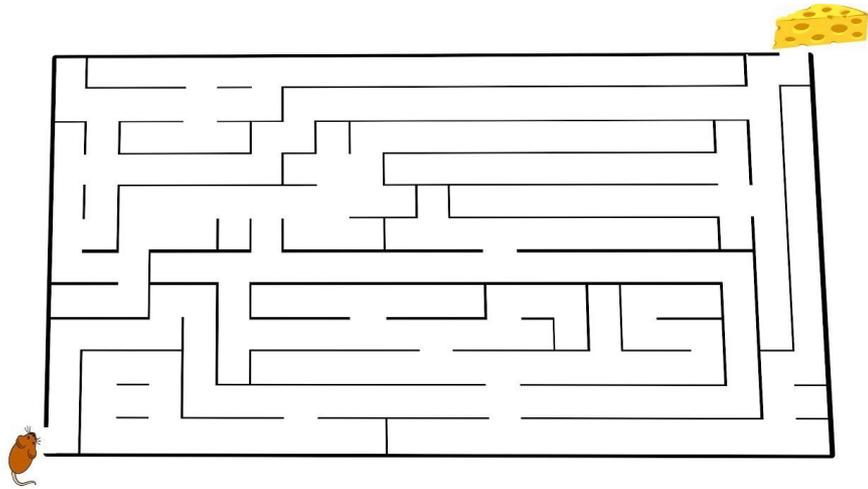
# Being a Passenger

3

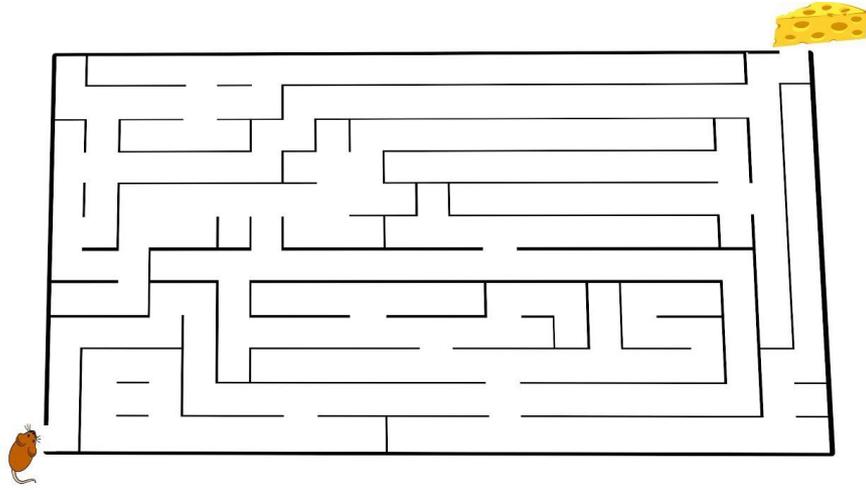
**We are wired to seek reward  
and avoid pain**



**DOPAMINE**



**Slow Dopamine**



**Slow Dopamine**



**Fast Dopamine**

MITs → Slow Dopamine

LITs → Fast Dopamine

*“What is your unique contribution?”*

# 3. Focus on Contribution

---

Most Impactful

- Prioritize your MITs (maximum 1-3) each day
- Avoid procrastination and accelerate execution by making MITs look like LITs

# 3. Focus on Contribution

---

## Most Impactful

- Prioritize your MITs (maximum 1-3) each day
- Avoid procrastination and accelerate execution by making MITs look like LITs

## Quick Win

- Know and ruthlessly de-prioritize your LITs

MISTAKE #4

---

# Constant Expenditure

A Hamilton watch with a black leather strap is shown on a wooden surface. The watch face is visible, featuring the Hamilton logo and 'SWISS MADE' text. The background is a dark blue overlay with a wood grain pattern.

4

The hours of the day are not equal

# Biological Chronotypes

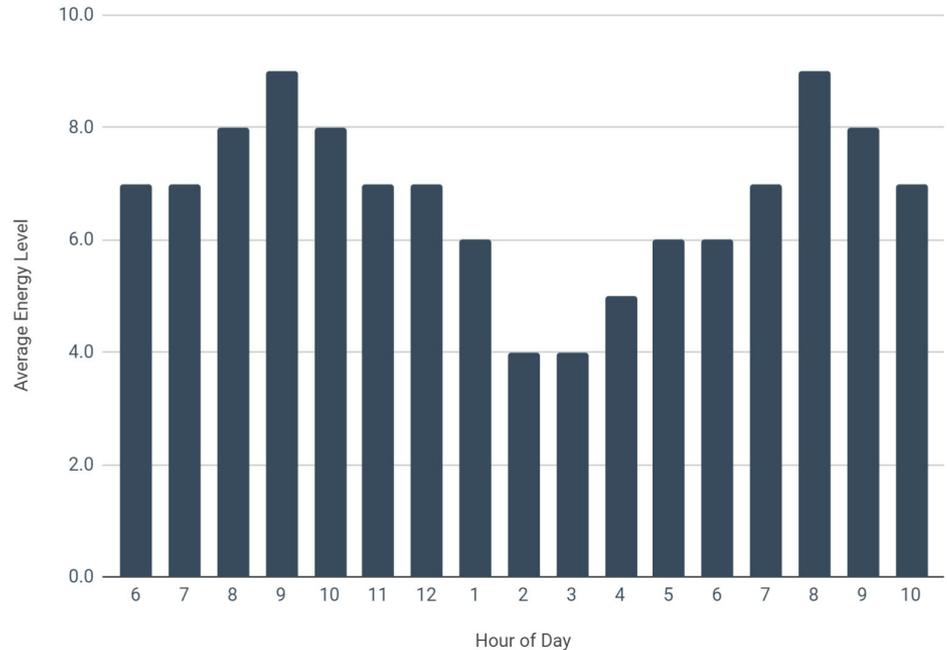
---

	<b>Population Distribution</b>
<b>Type 1: AM-Shifted</b>	20-25%
<b>Type 2: Bi-Phasic</b>	50+%
<b>Type 3: PM-Shifted</b>	~20%

# Biological Chronotypes

	Population Distribution
<b>Type 1: AM-Shifted</b>	20-25%
<b>Type 2: Bi-Phasic</b>	50+%
<b>Type 3: PM-Shifted</b>	~20%

Average Energy Level vs. Hour of Day



**Mychronotype.com**

**Code: gobears**

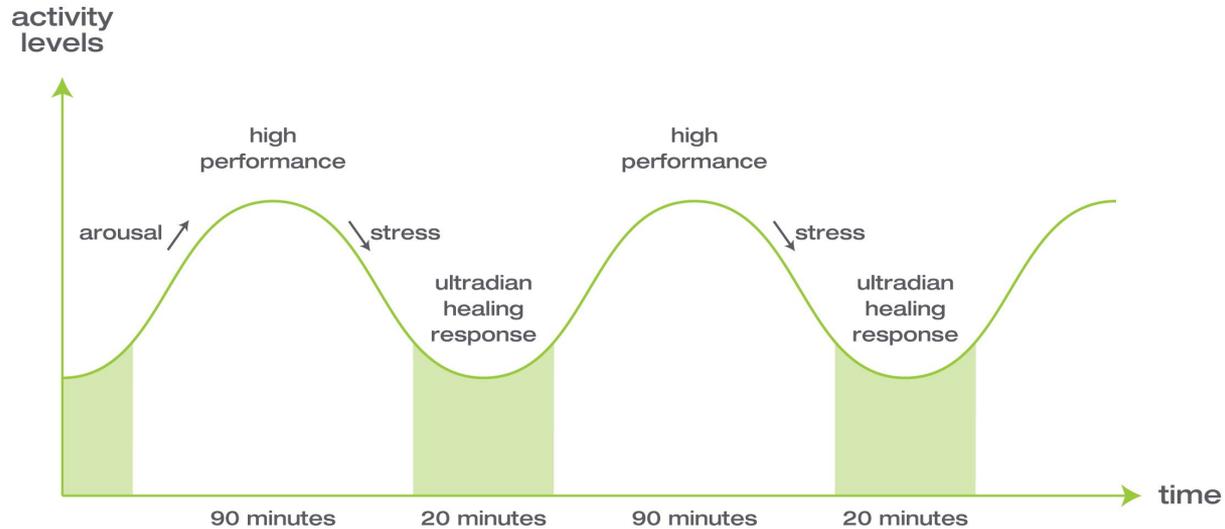
# 4. Strategically Design Your Day

---

## Most Impactful

- Protect your 1 of your Peak Performance Hours for strategic, cognitively intensive, high-value work
- Take periodic, brain breaks to regain energy and motivation

# Ultradian Rhythms



# 4. Strategically Design Your Day

---

## Most Impactful

- Protect 1 of your Peak Performance Hours for strategic, cognitively intensive, high-value work
- Take periodic, “cognitive” breaks to regain energy and motivation

## Quick Wins

- Schedule an email or administrative sprint during a low-energy period of the day



A group of people are performing box jumps in a gym. The gym has a dark floor, metal racks, and rings hanging from the ceiling. The people are wearing athletic wear and are in various stages of jumping onto white boxes. The text is overlaid in the center of the image.

# Intense Exercise Does Not Reverse the Negative Impacts of Chronic Sitting

MISTAKE #5

---

# Excessive Task-Switching

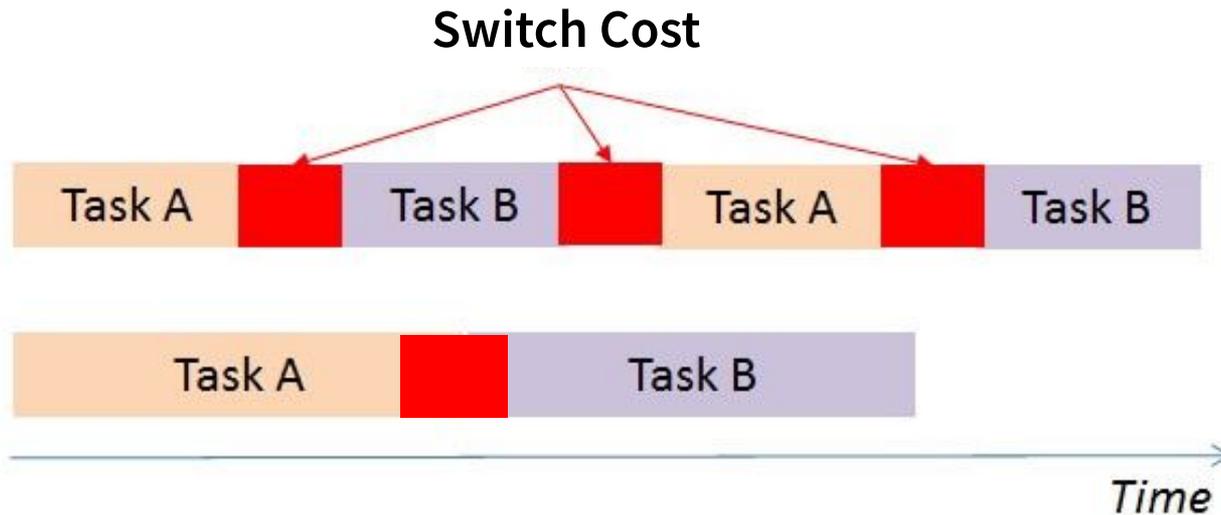


5

You pay a fine for every small switch

DIAGRAM

# “Multitasking” = Task-Switching



# 5. Minimize Switch Cost

---

Most Impactful

- Mono-task on one task or project at a time (i.e. Focus Sprint)

# 5. Minimize Switch Cost

---

## Most Impactful

- Mono-task on one task or project at a time (i.e. Focus Sprint)

## Quick Wins

- Maximize your screen / close out of email when you're working

# 5. Minimize Switch Cost

---

## Most Impactful

- Mono-task on one task or project at a time (i.e. Focus Sprint)

## Quick Wins

- Maximize your screen / close out of email when you're working
- Interruptive ideas → record them in “Parking Lot”



# 5. Minimize Switch Cost

---

## Most Impactful

- Mono-task on one task or project at a time (i.e. Focus Sprint)

## Quick Wins

- Maximize your screen / close out of email when you're working
- Interruptive ideas → record them in “Parking Lot”
- Tab hoarding → create “Active” and “Passive” windows for tabs

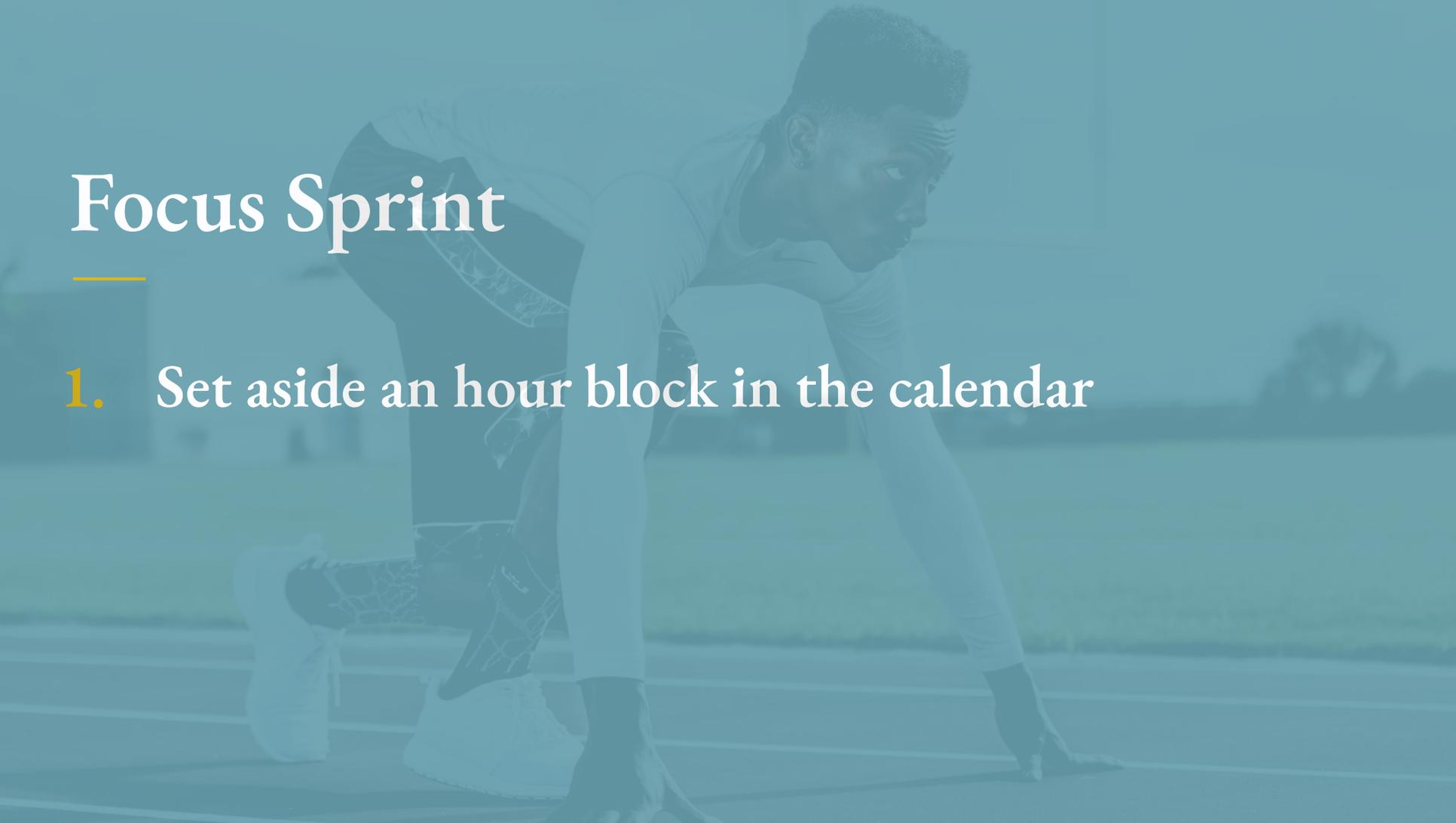
# Medium



THE SINGLE HIGHEST ROI PRODUCTIVITY METHOD

---

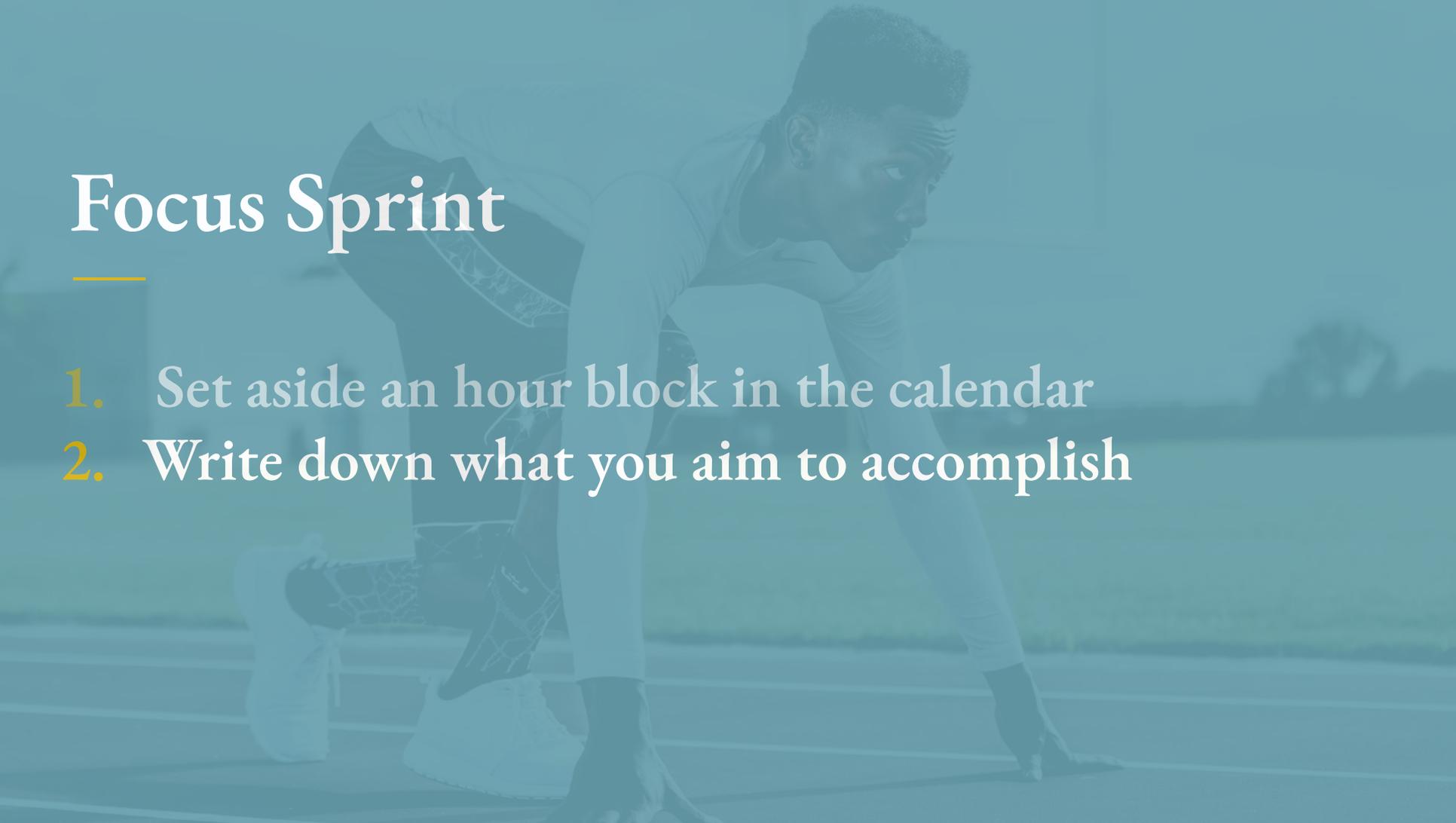
# Focus Sprint

A person in a starting crouch on a track, overlaid with a teal tint. The person is wearing a light-colored long-sleeved shirt and dark shorts, leaning forward with hands on the ground and feet in starting blocks.

# Focus Sprint

---

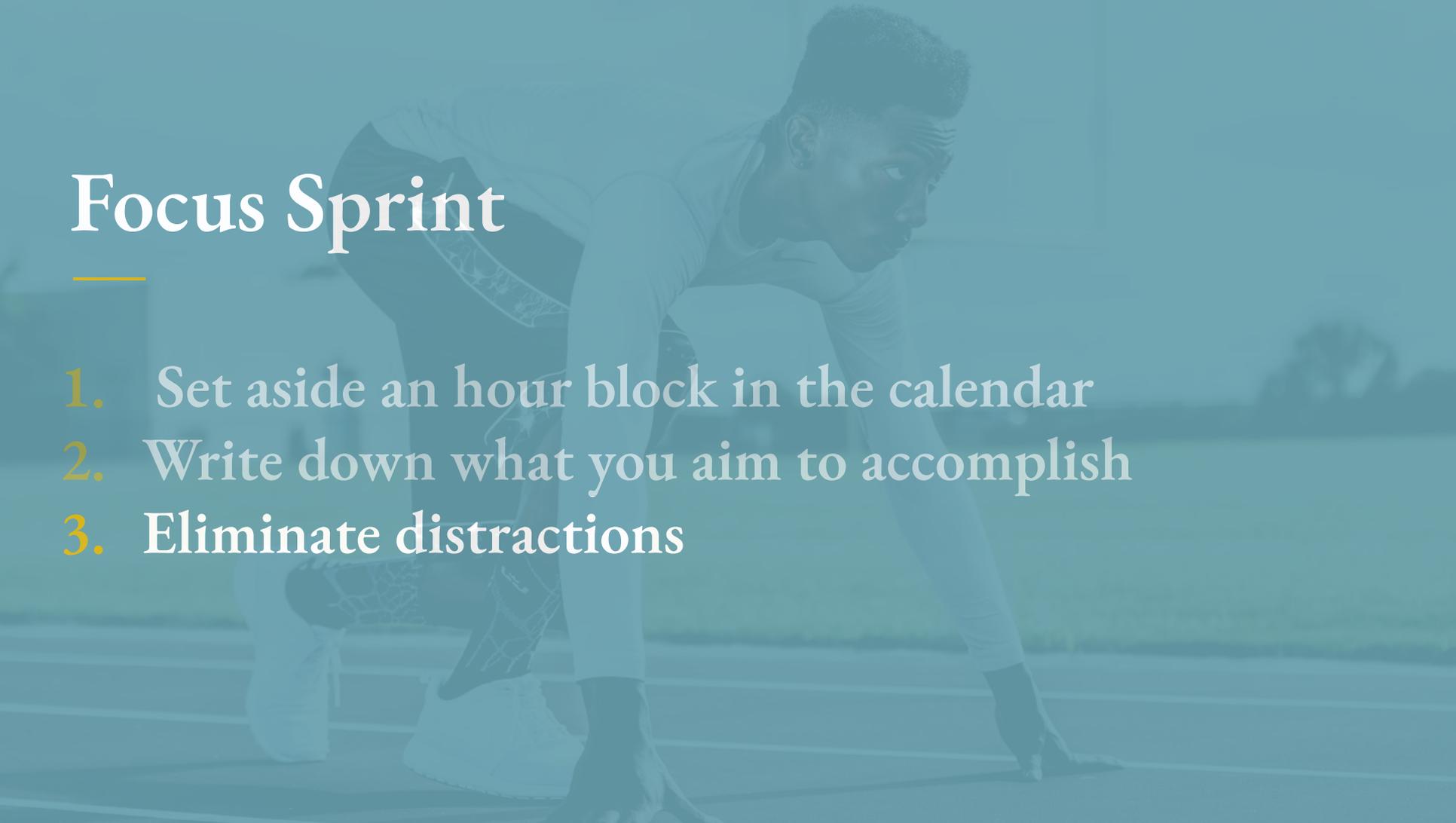
1. Set aside an hour block in the calendar

A person in a starting crouch on a track, overlaid with a blue tint. The person is wearing a light-colored long-sleeved shirt and dark shorts, leaning forward with hands on the ground and feet in starting blocks.

# Focus Sprint

---

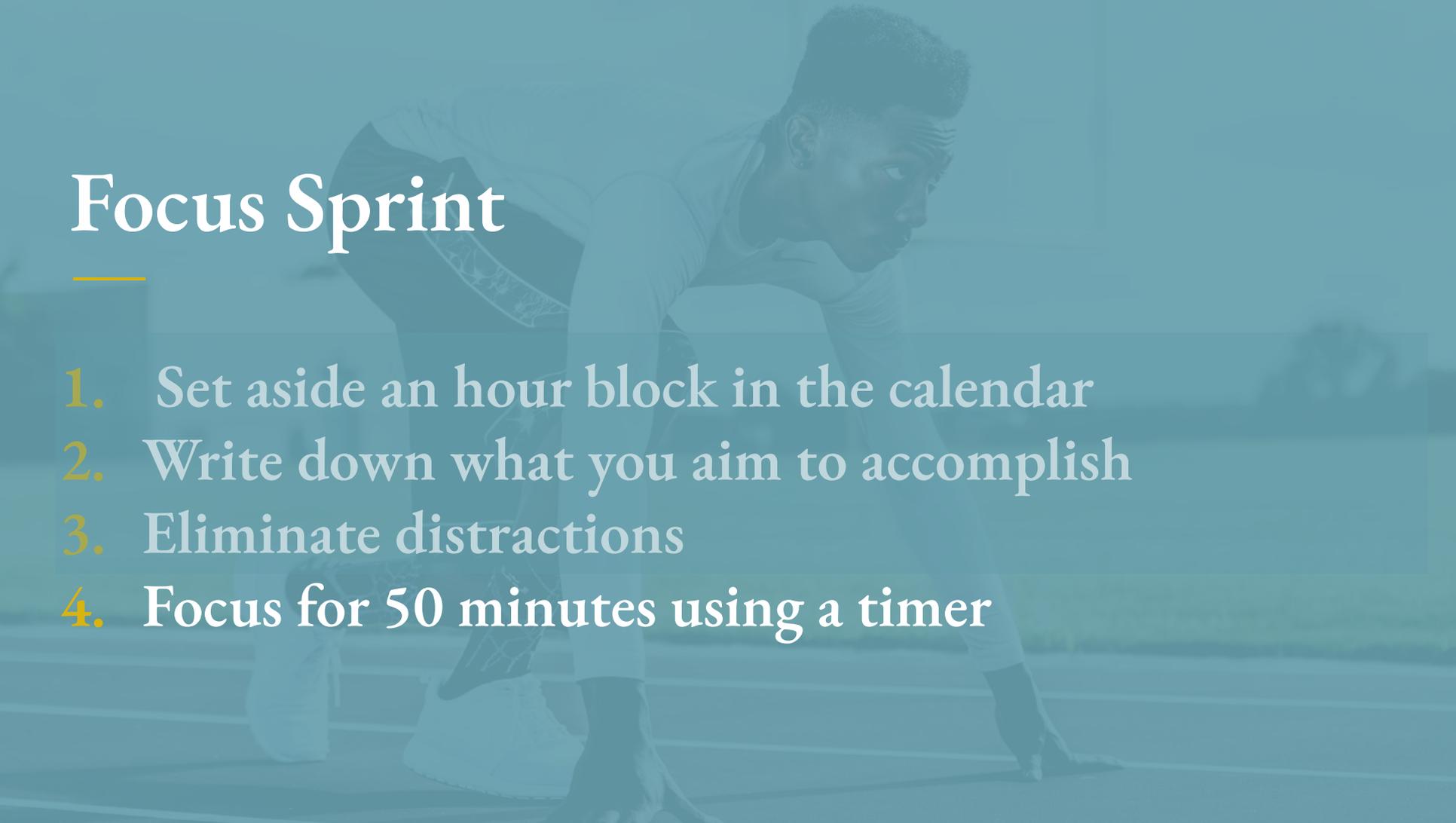
1. Set aside an hour block in the calendar
2. Write down what you aim to accomplish

A person in a starting crouch on a track, overlaid with a teal tint. The person is wearing a light-colored long-sleeved shirt and dark shorts, leaning forward with hands on the ground and feet in starting blocks.

# Focus Sprint

---

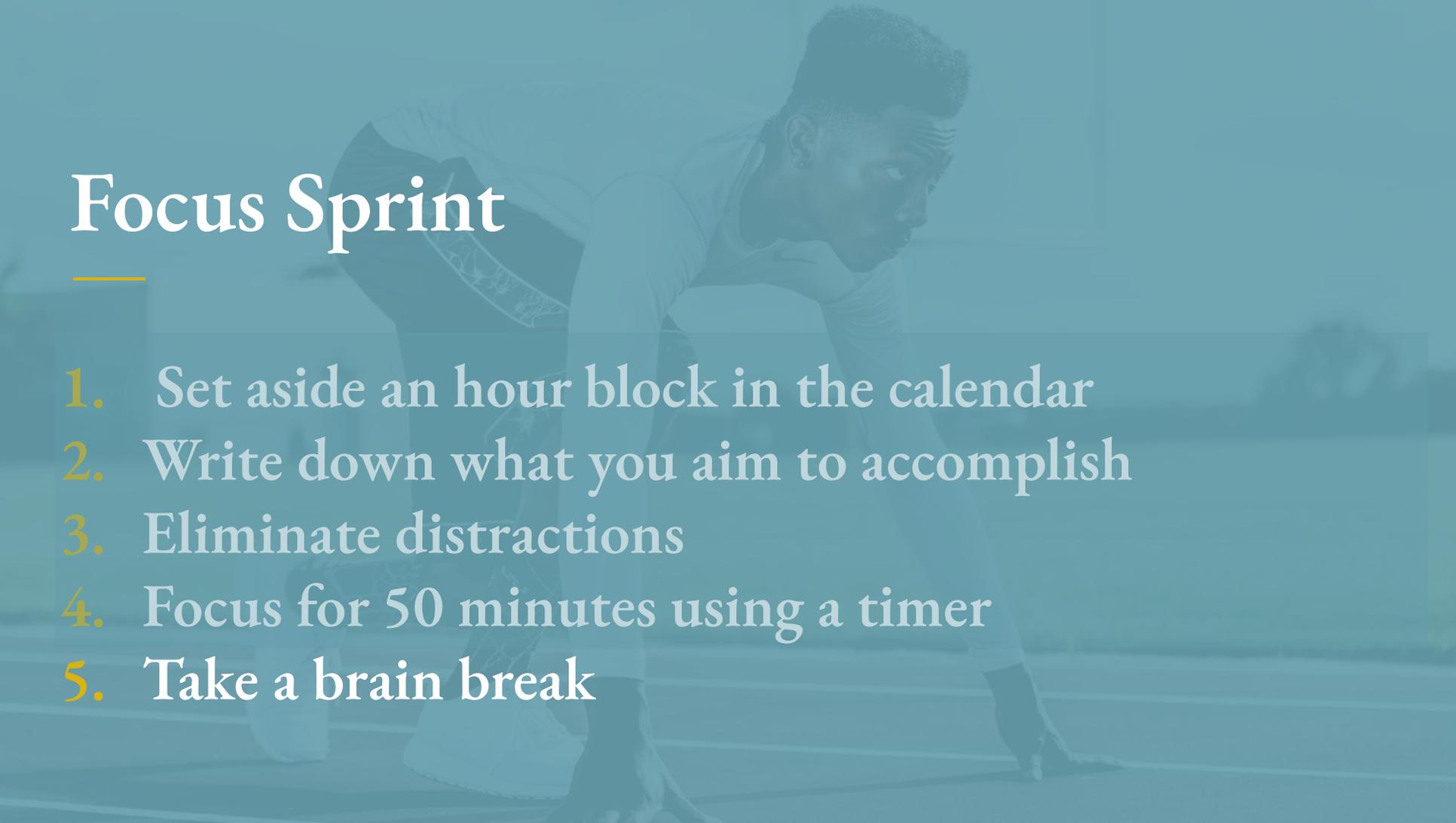
1. Set aside an hour block in the calendar
2. Write down what you aim to accomplish
3. Eliminate distractions

A person in a starting crouch on a track, overlaid with a blue tint. The person is wearing a light-colored long-sleeved shirt and dark shorts, leaning forward with hands on the ground and feet in starting blocks.

# Focus Sprint

---

1. Set aside an hour block in the calendar
2. Write down what you aim to accomplish
3. Eliminate distractions
4. Focus for 50 minutes using a timer

A person in a starting crouch on a track, overlaid with a blue tint. The person is leaning forward with their hands on the ground, ready to start a race.

# Focus Sprint

---

1. Set aside an hour block in the calendar
2. Write down what you aim to accomplish
3. Eliminate distractions
4. Focus for 50 minutes using a timer
5. Take a brain break

# Outcomes Within 2 Weeks

**Google**



26% greater individual productivity

MISTAKE #6

---

# Always Being Connected



6

We are afraid of letting down our pack

“If people can’t see me,  
how will they know I am working?”

*STUDY*

# Remote/Flexible Work Leads to Hyper-Responsiveness

---

- The freedom to choose when and where one works typically leads to perpetual presenteeism (i.e. hyper-responsiveness) out of obligation



# Set a status



What's your status?

Embrace “asynchronous”

communication



In a meeting — 1 hour



Busy. Do not disturb. — 1 hour



Out sick — Today



Vacationing — Don't clear



Working remotely — Today

# 6. Combat Constant Connectivity

---

Most Impactful

- Create an urgent line for others or enable VIP notifications

# 6. Combat Constant Connectivity

---

## Most Impactful

- Create an urgent line for others

## Quick Win

- Batch process your responses to email/chat (e.g. every 30 or 60 minutes)

# Email “Batchers” Report Greater Productivity and Lower Cortisol

---

- People who primarily check email through self-interruptions report higher productivity compared to those who rely on notifications.
- The less daily time spent on email, the lower measured stress.

IF YOU WANT TO BE 25+% MORE PRODUCTIVE

---

# 1. Set MITs at start of the day

IF YOU WANT TO BE 25+% MORE PRODUCTIVE

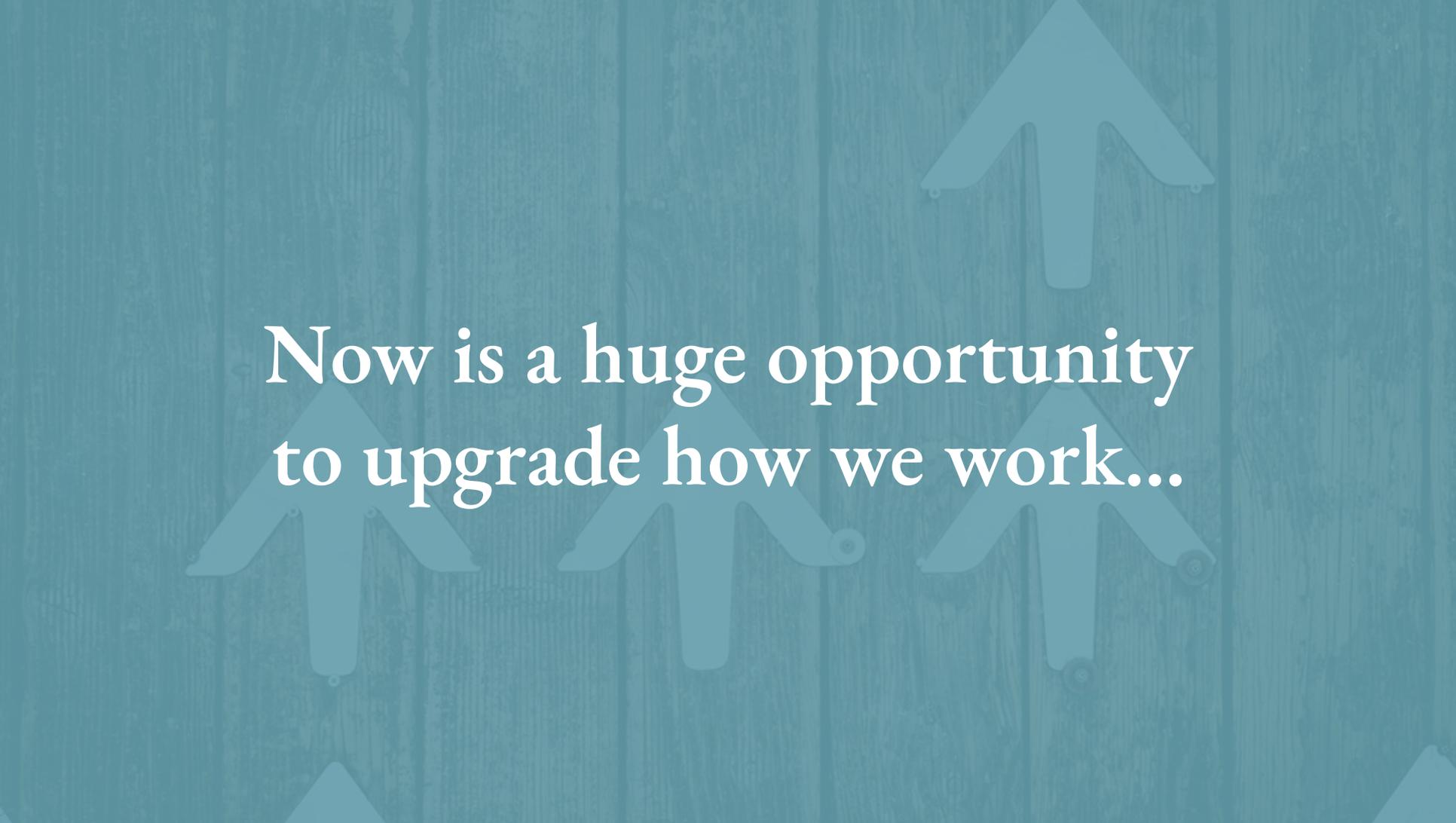
---

- 1. Set MITs at start of the day**
- 2. Clean up digital hygiene**

IF YOU WANT TO BE 25+% MORE PRODUCTIVE

---

- 1. Set MITs at start of the day**
- 2. Clean up digital hygiene**
- 3. Focus Sprints (3/week)**

The background is a teal color with a vertical wood grain texture. Overlaid on this are several stylized, light teal human figures. Each figure has a triangular head, a rectangular torso, and two arms extending outwards. The figures are arranged in a staggered pattern, with some appearing to be in the foreground and others behind them, creating a sense of depth. The text is centered in the middle of the image.

Now is a huge opportunity  
to upgrade how we work...

Get additional Becoming  
Superhuman insights!

[bit.ly/wfh-superhuman](https://bit.ly/wfh-superhuman)

Code: “gobears”

[syousef@berkeley.edu](mailto:syousef@berkeley.edu)