Think Better
Neuroscience: The Next Competitive Advantage
Rick Mohr, Workplace Consultant, Advanced Solutions Team
Attention is a scarce resource.
Too much information is resulting in an “epidemic of overwhelm.”
204 MILLION
204 MILLION

Emails sent per second

MASHABLE
4.9 BILLION
4.9 BILLION
Connected devices in use in 2015
GARTNER
200%
200% 
Increase in average time spent on mobile devices since 2012
GLOBALWEBINDEX
"It keeps me from looking at my phone every two seconds."
Intensification of work
We are experiencing more distractions, more often.
3 MINUTES
3 MINUTES

How frequently the average office worker is interrupted or distracted

UNIVERSITY OF CALIFORNIA, IRVINE
23 MINUTES
23 MINUTES

How long it takes to return to a task after being interrupted

UNIVERSITY OF CALIFORNIA, IRVINE
Humans are hardwired to be distracted.
Average number of times per hour an office worker checks his or her email inbox

NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION
8
Average number of windows open at the same time on a worker’s computer
TORKEL KLINGBERG
And here’s the challenge for everyone in this room
Workplaces and schools are not helping.
Understanding attention
What neuroscience is teaching us
Understanding attention

Controlled attention is our capacity to intentionally and willfully direct our minds to a specific item or task.
Understanding attention

Stimulus-driven attention is an involuntary attraction to any external or internal lure.
Understanding emotion is also understanding ... why
Our brains at work
3 key findings
1. Brains get tired
The brain comprises merely 2% of the body’s weight, but consumes more than 20% of the daily caloric intake of energy—more than any other organ in the human body.
2. Multitasking attention is inefficient
Research shows that multitasking increases your error rate by 50%.
“Change focus ten times an hour, and your productive thinking time is only a fraction of what’s possible.”

DAVID ROCK
“Change focus ten times an hour, and your productive thinking time is only a fraction of what’s possible.”

And every time we switch our attention,
We consume more energy.
Flow

Being fully immersed in a feeling of energized focus, full involvement and enjoyment in the process of the activity.
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Only 20% have flow moments at least once a day
15% never enter the flow state during a typical day
3. Mindfulness trains the brain
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Called neuroplasticity, it trains the brain's neurons to fire in sync.
“Meditation can actually change the structure of your brain, which impacts self-awareness, perception and cognitive functioning.”

RICHARD DAVIDSON
“Engaging in mindfulness means that we are practicing our ability to recognize when our minds have wandered and gaining ability to redirect our attention. The more we practice this, the better we get at it.”

BEATRIZ ARANTES, SENIOR RESEARCHER, STEELCASE
“The workplace and schools can be designed to mitigate distractions and prime us to better manage our attention.”

JOHN MEDINA
Respecting brain modes
Steelcase researchers and designers have identified three brain modes that each require distinct behaviors and settings.
RESPECTING BRAIN MODES

Brain modes

Focus
RESPECTING BRAIN MODES

Brain modes

Focus

Regenerate and inspire
RESPECTING BRAIN MODES

Brain modes

Focus

Regenerate and inspire

Activate
RESPECTING BRAIN MODES

(1) Focus

When we need to deeply focus on something, it is important to avoid unwelcome distractions.
RESPECTING BRAIN MODES

(2) Regenerate and inspire

When overwhelmed minds need a break, regenerative activities strengthen brain functioning.
RESPECTING BRAIN MODES

(3) Activate

When we need to boost our attention, movement pumps oxygen and fresh blood through our brain and triggers enhancing hormones.
Movement engages the brain.
Movement engages the brain.

One study found that those who worked from a treadmill desk were 34.9% more likely to answer a complex question correctly.
Respecting the rhythms of our brain

RESPECTING BRAIN MODES

Focus
Regeneration and inspiration
Activation

Taking a moment / plan the day
Serendipitous encounter / coffee + food
Brainstorm session
Project review
Lunch
Thinking work
Taking a moment / movement
Taking a moment / personal phone call
Building & developing relationships

Thinking work
How might we
Design to support attention
No single solution for everyone, all the time
“Making the Car a Mobile, Connected Workspace”

There’s a revolution under way in the automotive industry, and Carlos Ghosn wants to make sure he’s among the winners.
Think of an Ecosystem
of interconnected and interdependent spaces that support the physical, cognitive and emotional needs of people.
Choice + Control
49%

Workers who can’t choose where to work depending on the task

STEELCASE WELLBEING SURVEY GLOBAL AVERAGE, 17 COUNTRIES
DESIGN TO SUPPORT ATTENTION

Palette of place

Posture
DESIGN TO SUPPORT ATTENTION

Palette of place

Posture

Presence
DESIGN TO SUPPORT ATTENTION

Palette of place

Posture
Presence
Privacy
Thought Starters
Focus
Focus
Regeneration and inspiration
Regeneration and inspiration
Regeneration and inspiration
THOUGHTSTARTERS

Activation
Activation
Activation
Neuroscience provides a new lens through which we can understand cognitive wellbeing and optimize performance.
A NEW PARADIGM

COLLABORATION
isn’t always a group activity.
A NEW PARADIGM

PRIVACY
isn’t always about four walls and a door.
A NEW PARADIGM

NO SINGLE SOLUTION
for everyone, all the time.
4 Design Principles:

Permission to be alone
The freedom to focus and innovate without interruption from an otherwise highly stimulating workplace.
Design Principles:

Permission to be alone
Control over environment
User control over environment, the ability to control elements of the workspace.
Design Principles:

Permission to be alone
Control over environment
Sensory balance
The ability to control sensory stimulation, often in the form of calming, more intimate influences.
Design Principles:

Permission to be alone
Control over environment
Sensory balance
Psychologically safe
Having the choice of places to be unseen and unable to see others.
Thank you.