

SAFESTART HUMAN FACTORS



CONFERENCE

2022

Orlando, FL

November 8 & 9

TECHNOLOGY-DRIVEN BEHAVIOR CHANGE *IS IT THE NEW FRONTIER?*

Mike Shaw, Implementation Specialist and
International Projects Manager at SafeStart

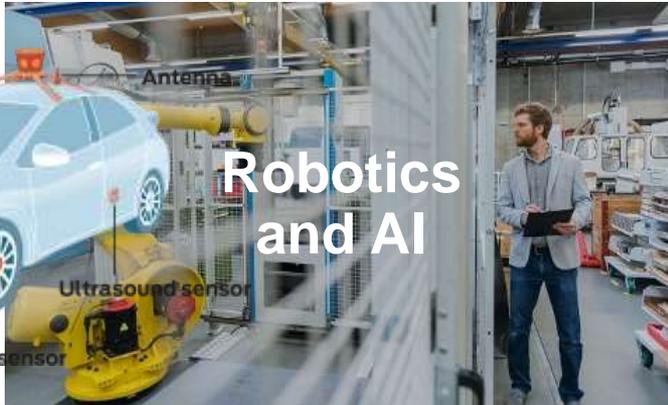
How is technology impacting behavior change?



Wearables



Virtual Reality



Robotics and AI



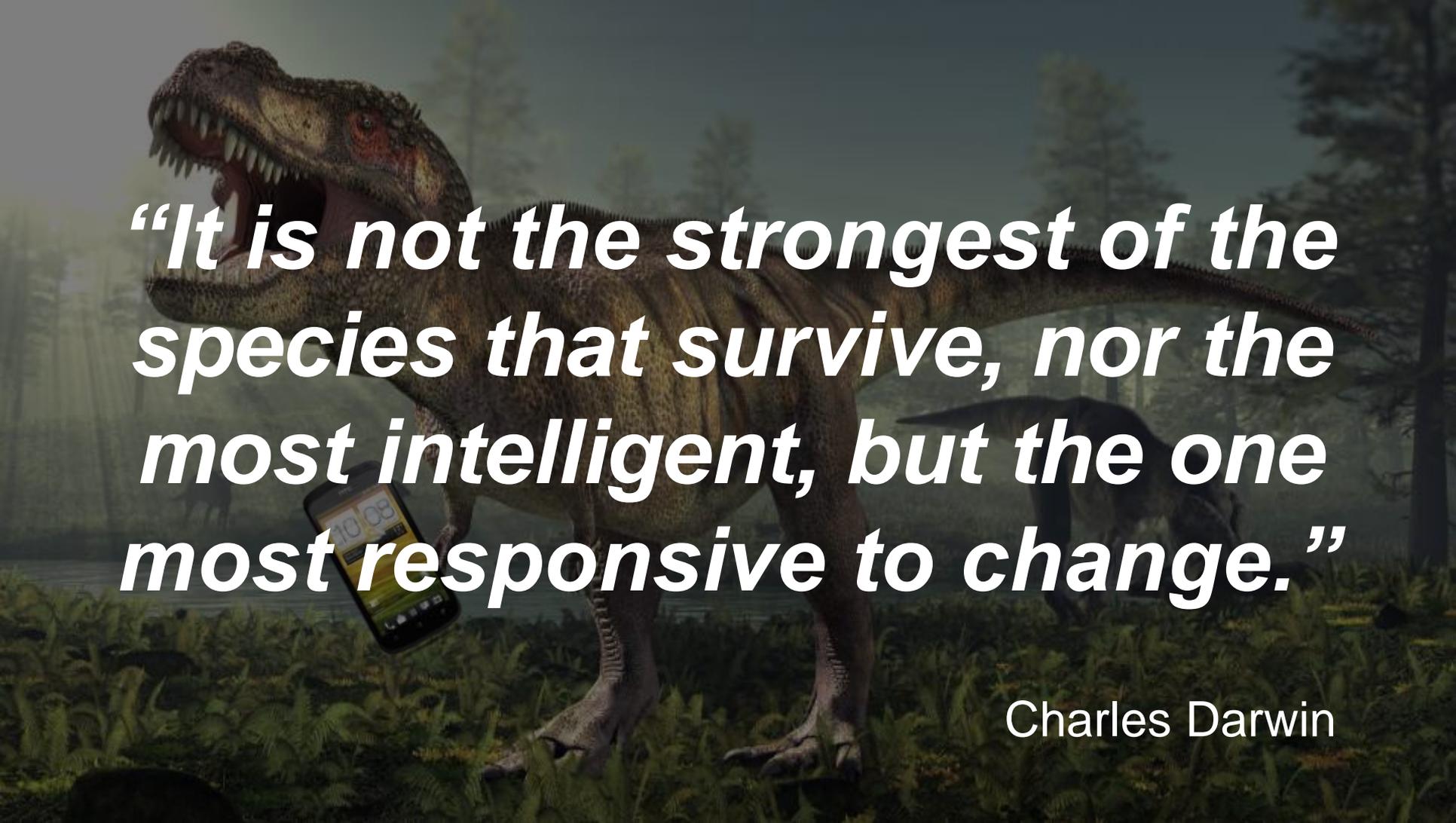
Safety Apps

QR Code Integration in SMS



 **Epiroc**

ST14
BATTERY
CONVERTED

A Tyrannosaurus Rex is shown in a prehistoric setting, holding a modern smartphone in its mouth. The dinosaur's mouth is open, and the phone is positioned as if it's about to be eaten or is being held. The background features a misty, forested landscape with tall trees and a body of water in the distance. The overall tone is humorous, contrasting ancient nature with modern technology.

“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”

Charles Darwin

Did you know?

World
Population



7.8

Billion

Urbanization:

55%

Unique Mobile
Phone Users



5.2

Billion

Penetration:

67%

Internet
Users



4.6

Billion

Penetration:

59%

Active Social
Media Users



3.8

Billion

Penetration:

49%

Did you know?

Global App Store
Revenue



\$110 Billion

Year: **2020**

Non-Game App
Downloads



< 50%

Year: **2020**

Global App Store
Revenue



\$270 Billion

Year: **2025**

Non-Game App
Downloads



> 58%

Year: **2025**

The Search function is the primary source of non-game app downloads.



Since 2018, global business app usage has seen the highest growth rate, with a 42% increase in average monthly active users. (Sensor Tower 2021)

Is it the new frontier?

06-08-2017 Thu 11:57:13 (S)



In the workplace we have more control...



**How many of you have rules, procedures,
or policies regarding cell phone use?**



Industrial Safety & Hygiene News

ISHN

About Mike Shaw

❑ Education:

UBC Okanagan, BBA Management

❑ Industry Experience:

Tolko Industries, Rapid Span Structures

❑ Freestyle Skiing Career:

Canadian Olympic Development Coach

❑ Joined SafeStart in 2014:

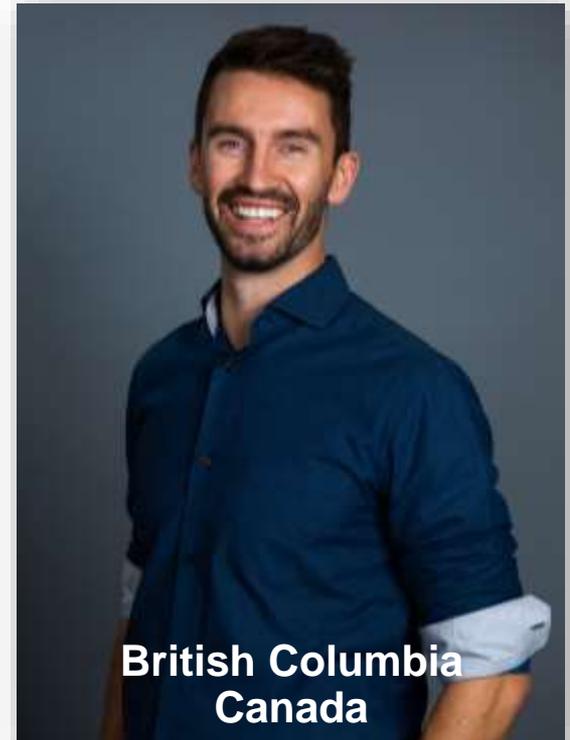
International Projects Manager

❑ Conference Speaker:

ASSP, NSC, HFC, TEDx

❑ Hobbies:

Traveling, Golf, Speaking & Writing





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These four states...

- ❑ Rushing
- ❑ Frustration
- ❑ Fatigue
- ❑ Complacency

can cause or contribute to these critical errors...

- ❑ Eyes not on Task
- ❑ Mind not on Task
- ❑ Line-of-Fire
- ❑ Balance/Traction/Grip

...which increase the risk of injury.

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#2-CARD-TECH
Printed in Canada

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Family First

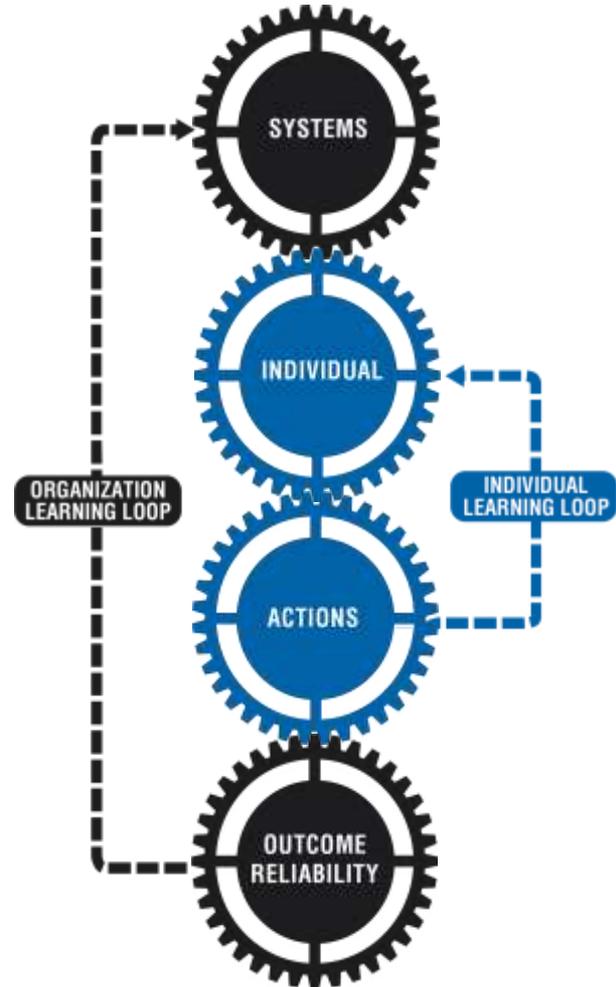




Today's Agenda

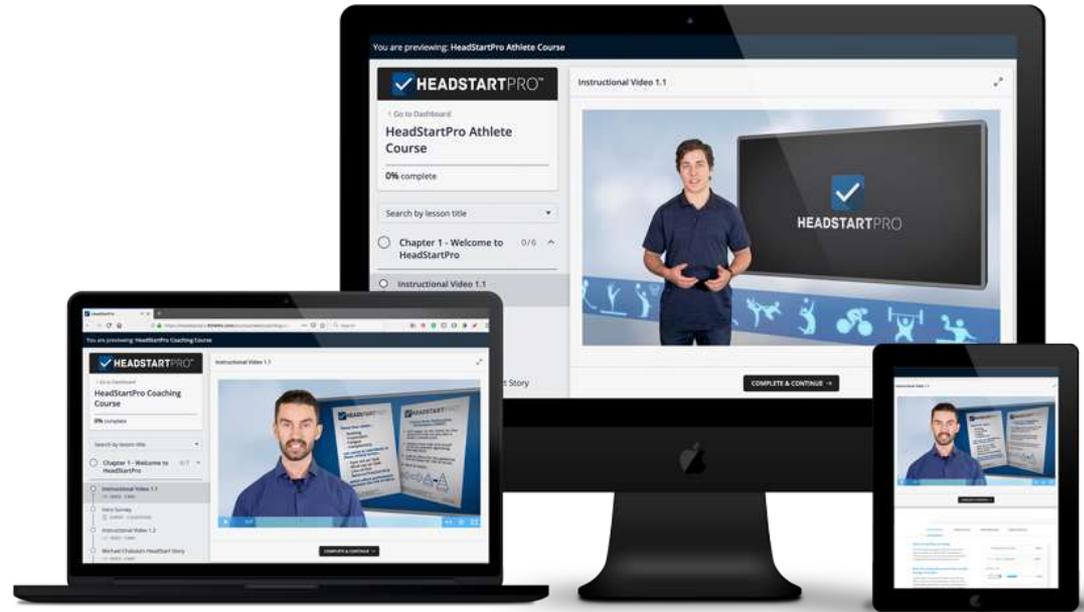
Why are companies moving to mobile tech for Human Factors?

- Self-regulation
- Personal near miss reporting
- Employee training
- Prompt a willing safety decision



SafeStart Education and HeadStartPro Performance Training

- I started out delivering SafeStart concepts to kids in schools and polytechnics
- Teaching in the classroom was effective but had its limitations when we started working with the sports teams.
- So, we put our training programs online in 2018.
- E-Learning platforms became an effective way of teaching skills and new behavior.

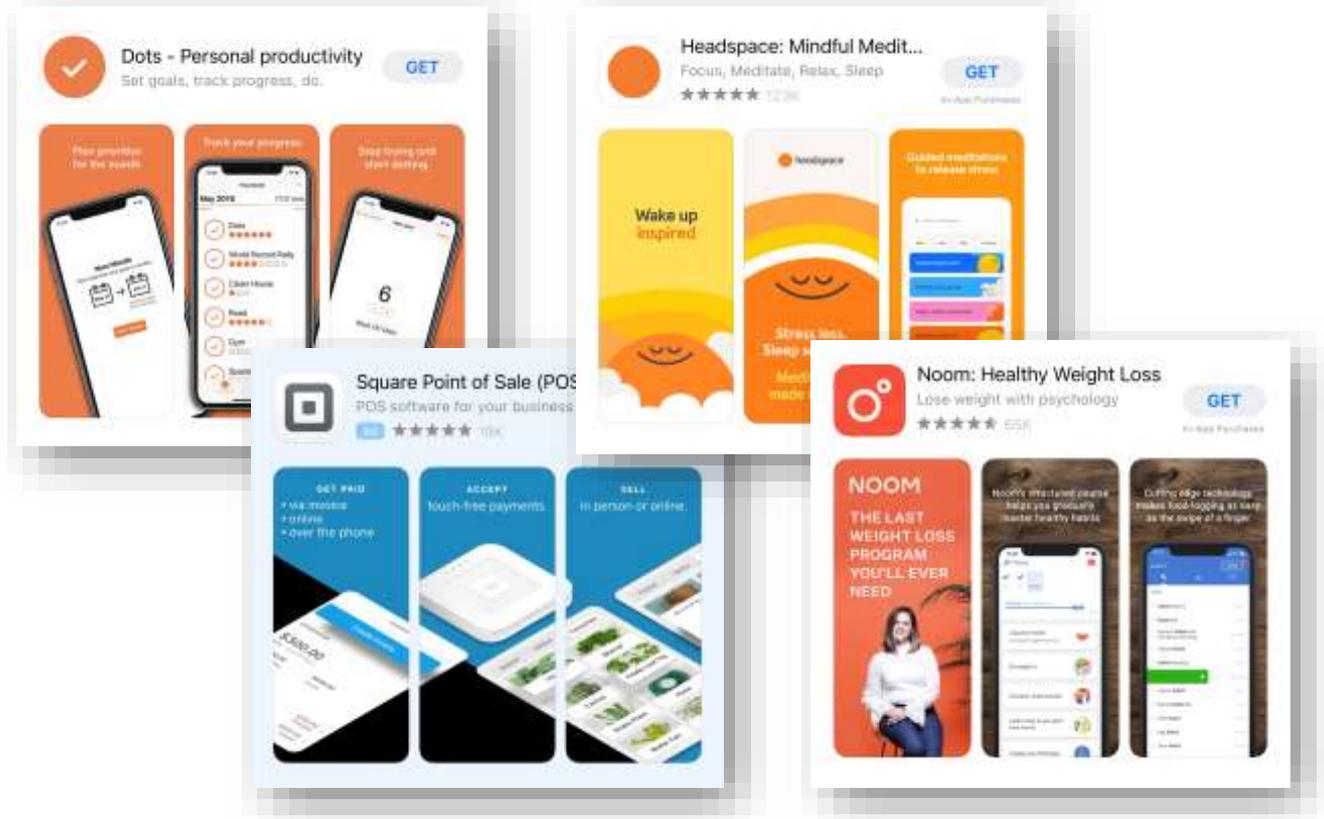


SafeStart Education and HeadStartPro Performance Training



Behavior change isn't just in the business of sports or safety...

- People are already using apps to achieve behavior change in their lives outside of work.
- 2021 Personal productivity and wellness apps were over **\$4.6B**
- About 5% of all app downloads



Drivers for EHS Software Use (Verdantix 2021)

1. COVID-19 has accelerated digitization of EHS processes worldwide.
2. Four-fifths (84%) of EHS executives seek to adopt EHS software for environmental compliance.
3. 60% of EHS executives plan to adopt software for reporting.
4. Half (51%) of respondents intend to adopt software for product stewardship.
5. Mobile technology can put an SOP in the palm of your hand
6. Risk Assessments made more convenient
7. Hazard ID's made easy and convenient



Data trends indicate nearly 65% of all BBS observations in 2022 will be captured on a mobile device.

(Statista 2021)



A worker in a factory setting, wearing a white uniform and a cap, working on a car. The background shows other workers and industrial equipment.

***As of 2017, 56 million
millennials (age 20-39) made
up 35% of the US labor force,
representing the largest
working demographic.***

(Pew Research 2018)







There's been a lot of effort put in making people think about safety behavior over the years...

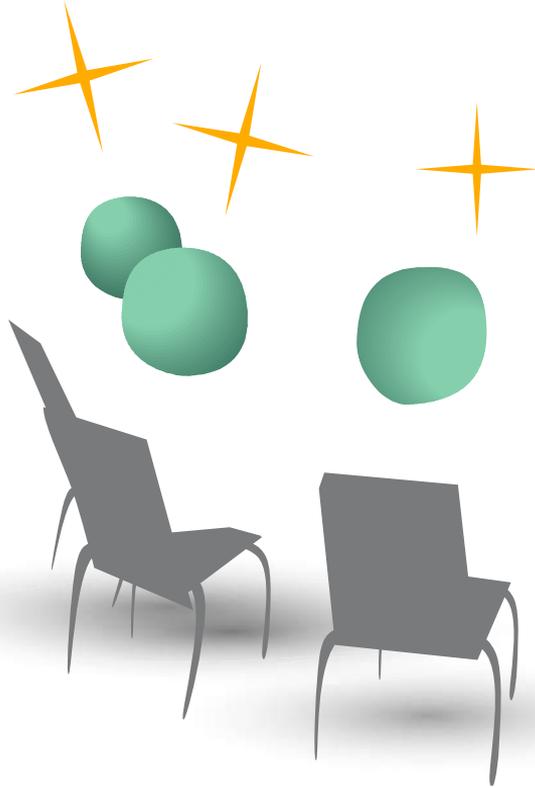
A large, modern industrial building with a grey, vertically-ribbed metal facade. The building is set against a dark, overcast sky. Several white exhaust pipes are visible along the roofline. In the foreground, there are green trees and bushes. The slogan 'STOP+THINK! THINK SAFETY' is painted in large, bold, black letters on the side of the building. The word 'STOP' is in a standard font, followed by a red plus sign, 'THINK!' with an exclamation point, and 'THINK SAFETY' in a slightly larger font.

STOP+THINK! THINK SAFETY

But what about Human Factors?

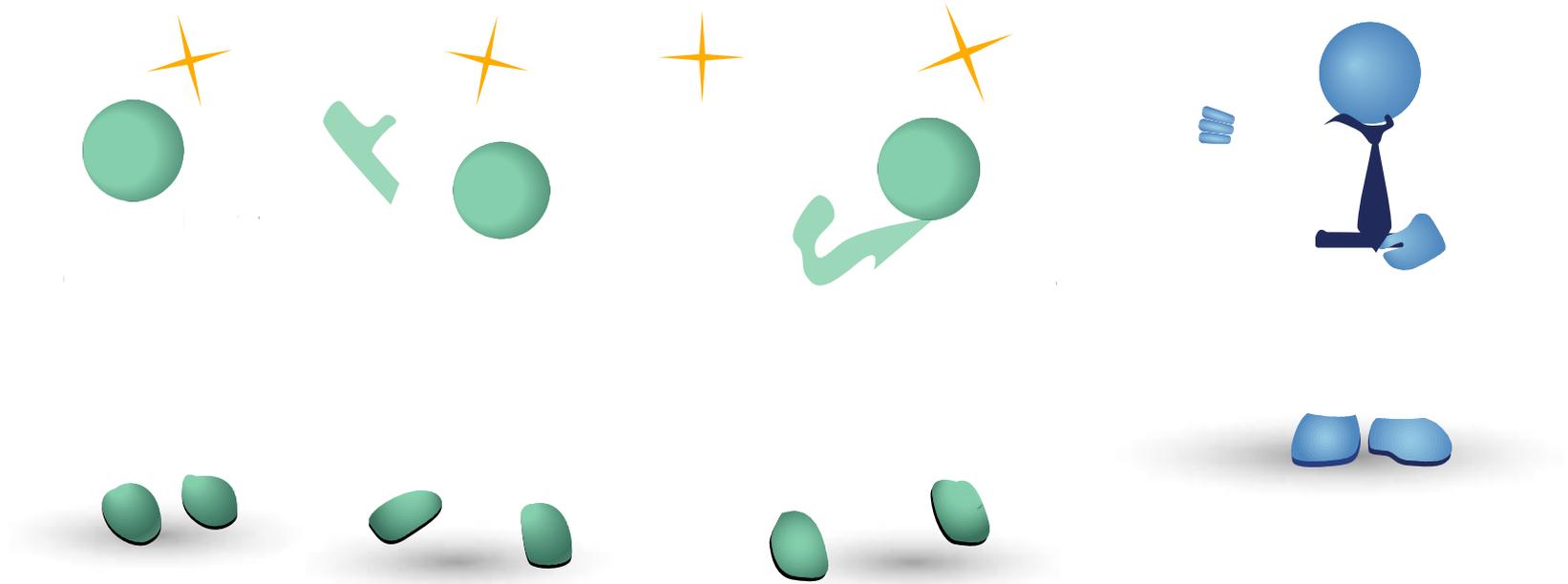


Human Factors Training in the Classroom

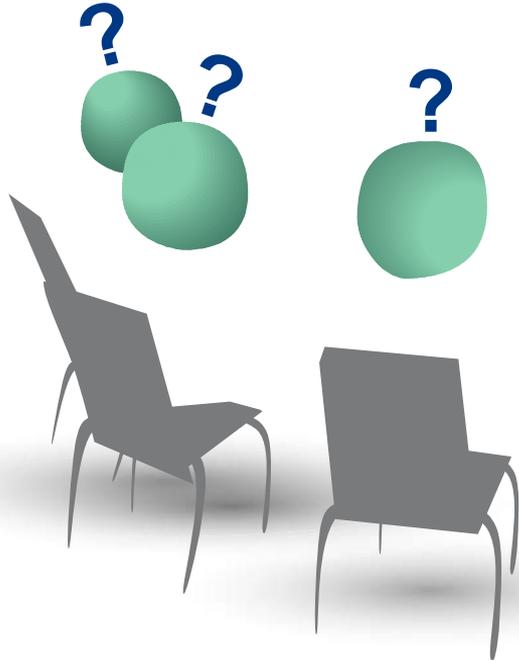




Training In Action

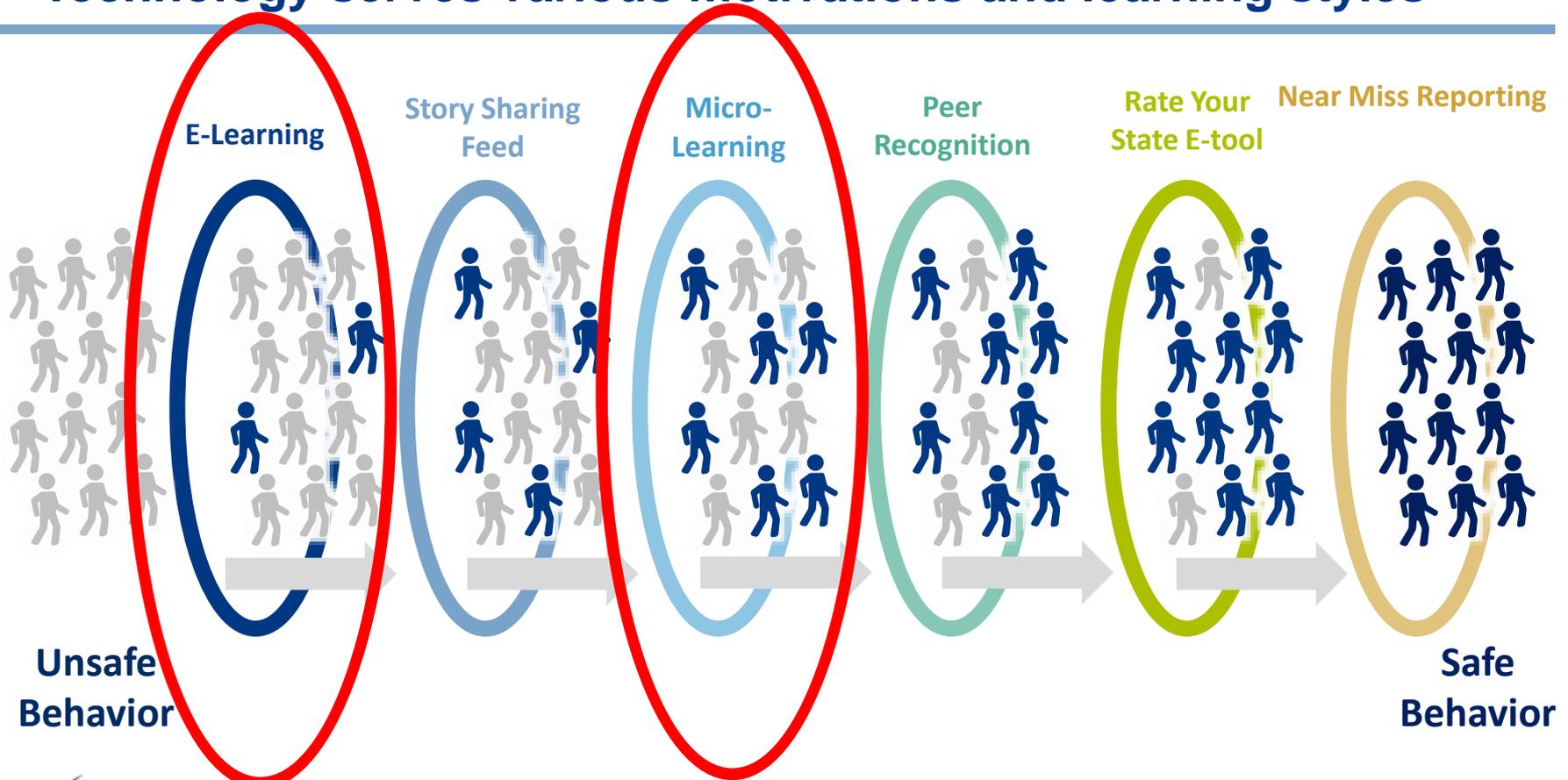


What happens when you take away the instructor, take workers out of the classroom, and start using technology instead?





Technology serves various motivations and learning styles



Benefits of App-based Micro-Learning

- Bite-sized content supports shortening attention spans (Adults 10-20 minutes).
- Valuable learning content is made more accessible in terms of no time or location limitations (Palm of the hand).
- Administrators keep track of all employee training records.



10-minute modules
with 2 -5 Questions

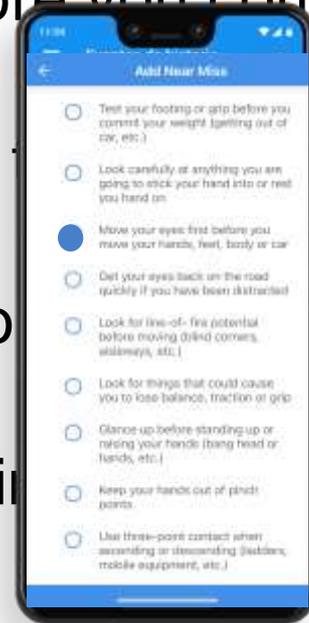


CERTS+

The logo features the word "CERTS" in a large, bold, blue, italicized font with a white outline and a drop shadow. To the left of "CERTS" is a square icon containing a blue checkmark. To the right is a large black plus sign with a white outline. The entire logo is set against a background of a globe showing land and oceans, with several blue checkmarks scattered around it.

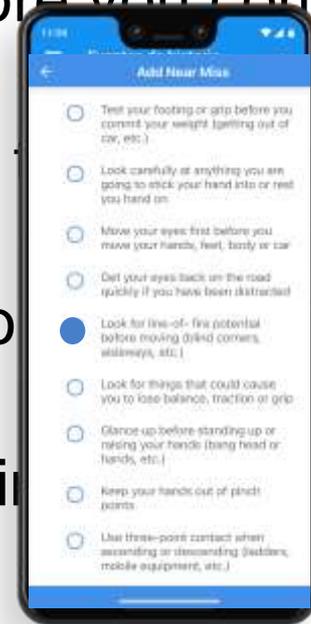
Re-order Your Safety-Related Habits

- ~~2~~ 1. Look at and test your footing or grip before you commit your weight
- ~~4~~ 2. Look carefully at anything you are going to put your hand into or rest your hand on
- ~~1~~ 3. Move your eyes first before you move your body or car
- ~~3~~ 4. Look for line-of-fire potential before moving (e.g., corners, etc.)
- ~~5~~ 5. Look for things that could cause you to lose your balance, traction or grip



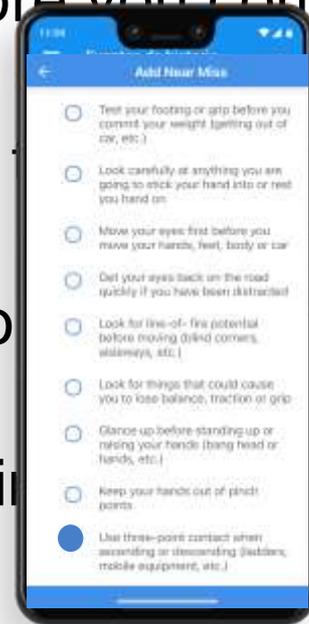
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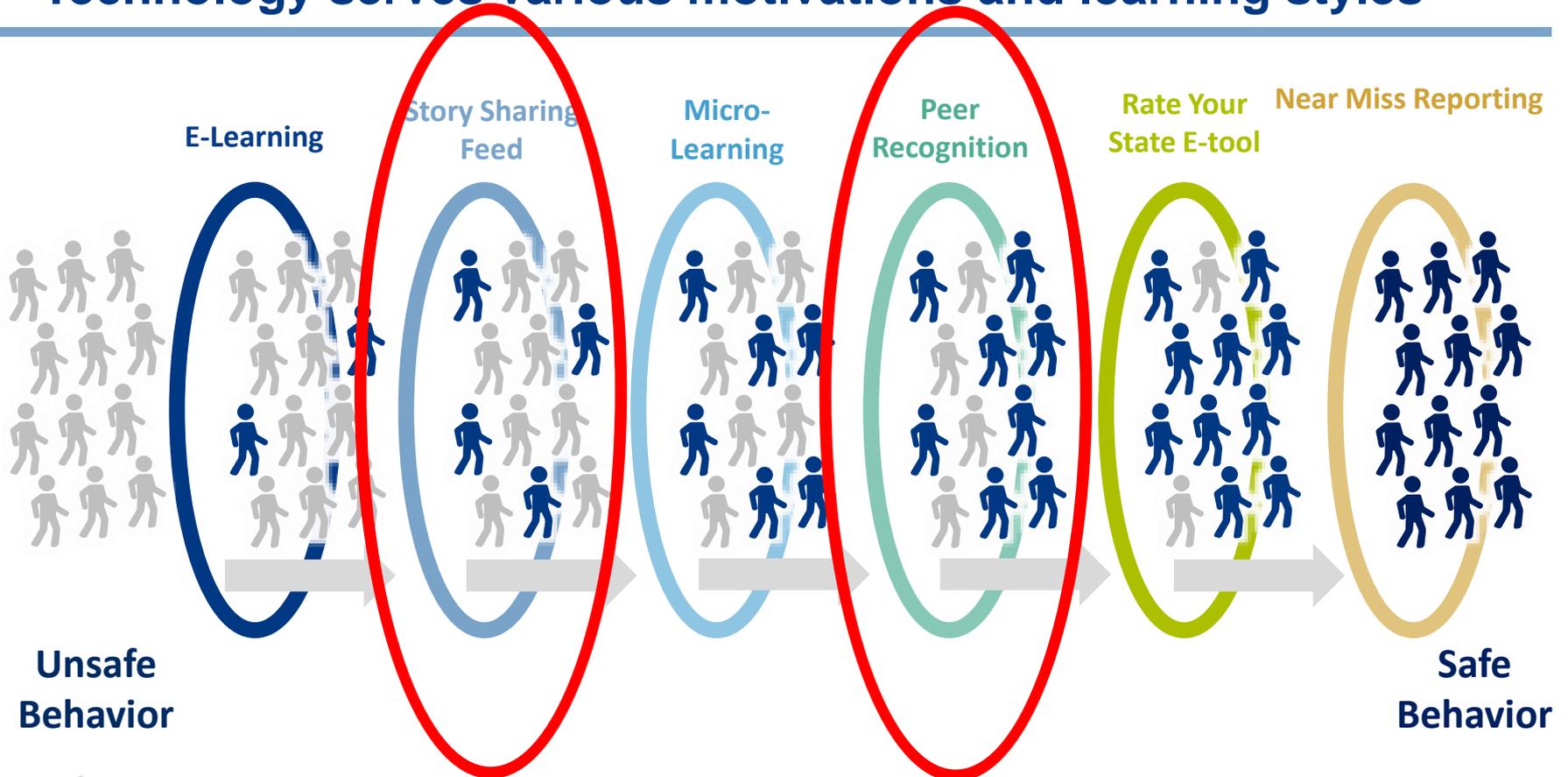


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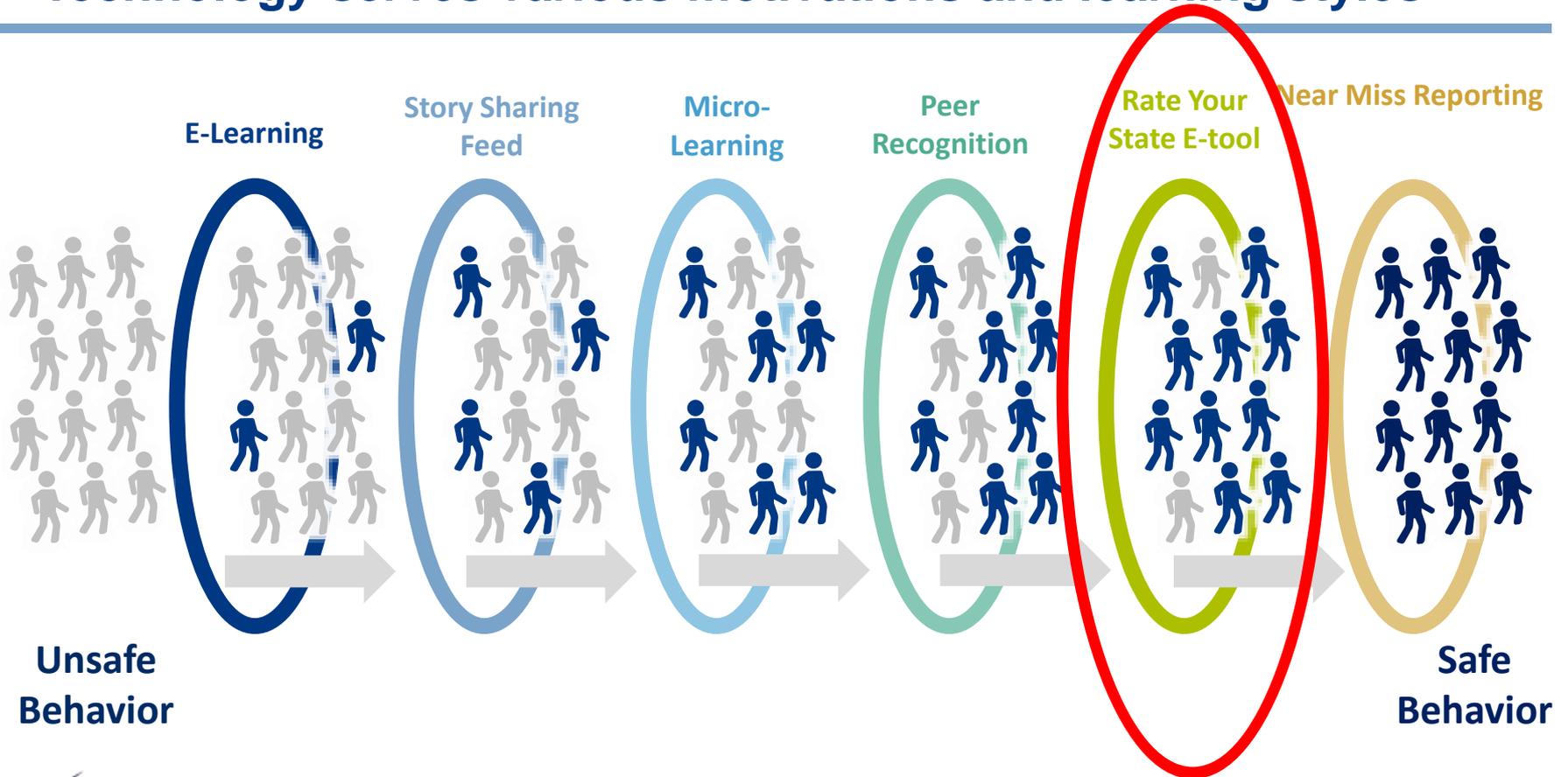


Integrated Social Media Platform

Have you ever wondered how to improve willing participation in a company's health and safety dialogue?



Technology serves various motivations and learning styles

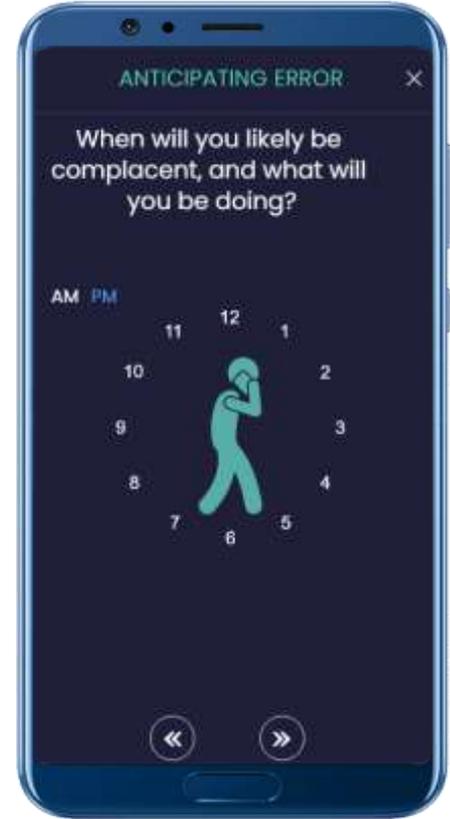
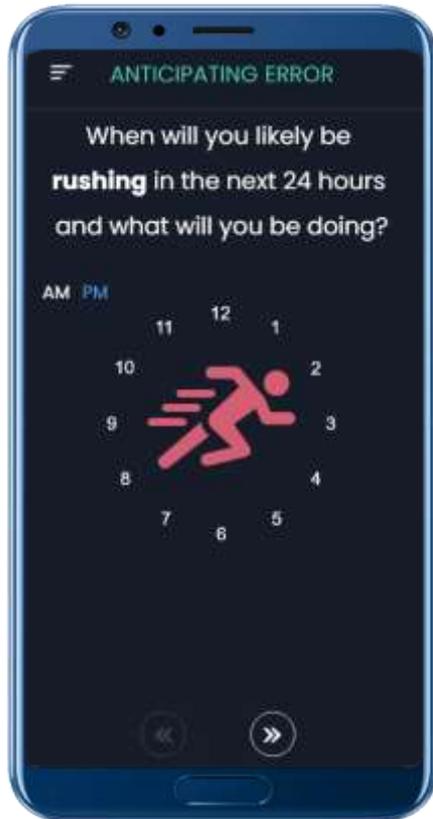


Real-Time Human Factors Measurement

- With a smart phone, you can prompt employee check-ins via app technology.
- Combining RYS with an Anticipating Error exercise prompts a willing safety choice.



Anticipating Error and Rate Your State





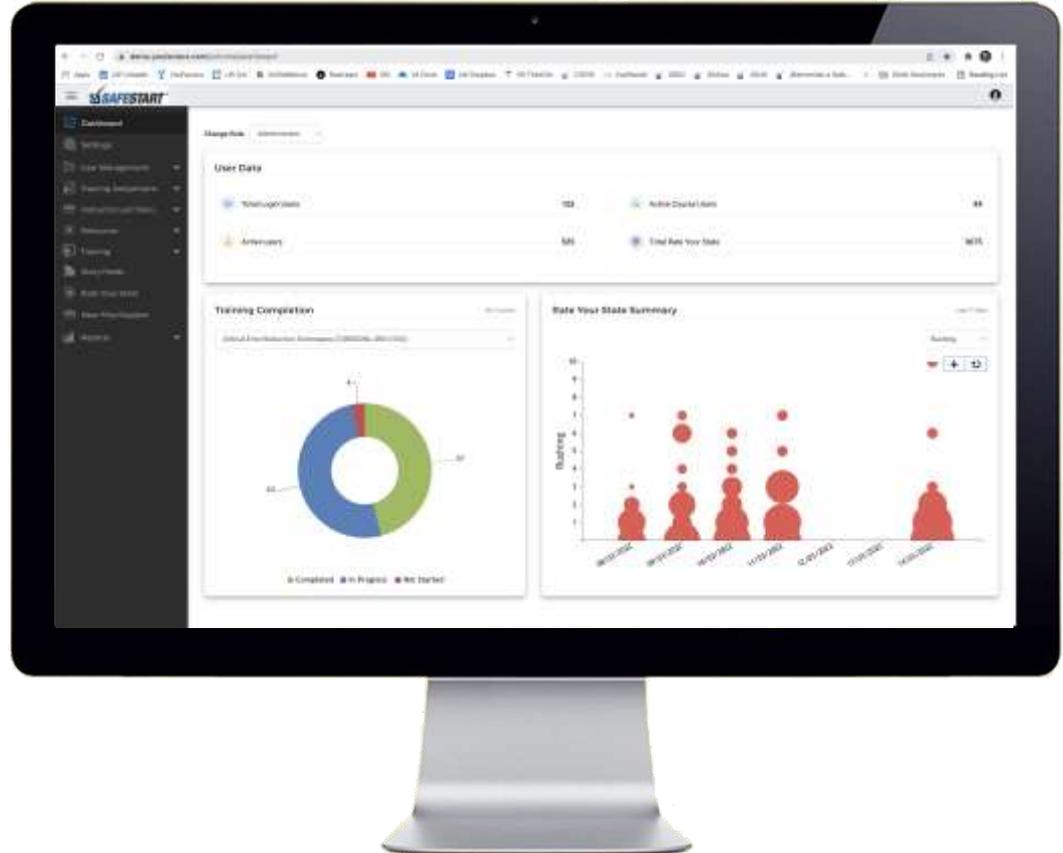
Real-Time Human Factors Measurement

- Collecting data in real-time on an organisation's dashboard gives EHS leaders the opportunity to identify threats or potential high-risk periods.



Real-Time Human Factors Measurement

- Informed insights give supervisors and safety leaders an opportunity to intervene.



Real-Time Human Factors Measurement

- Informed insights give supervisors and safety leaders an opportunity to intervene.
- "Barometer like predictability" – The storm is coming.

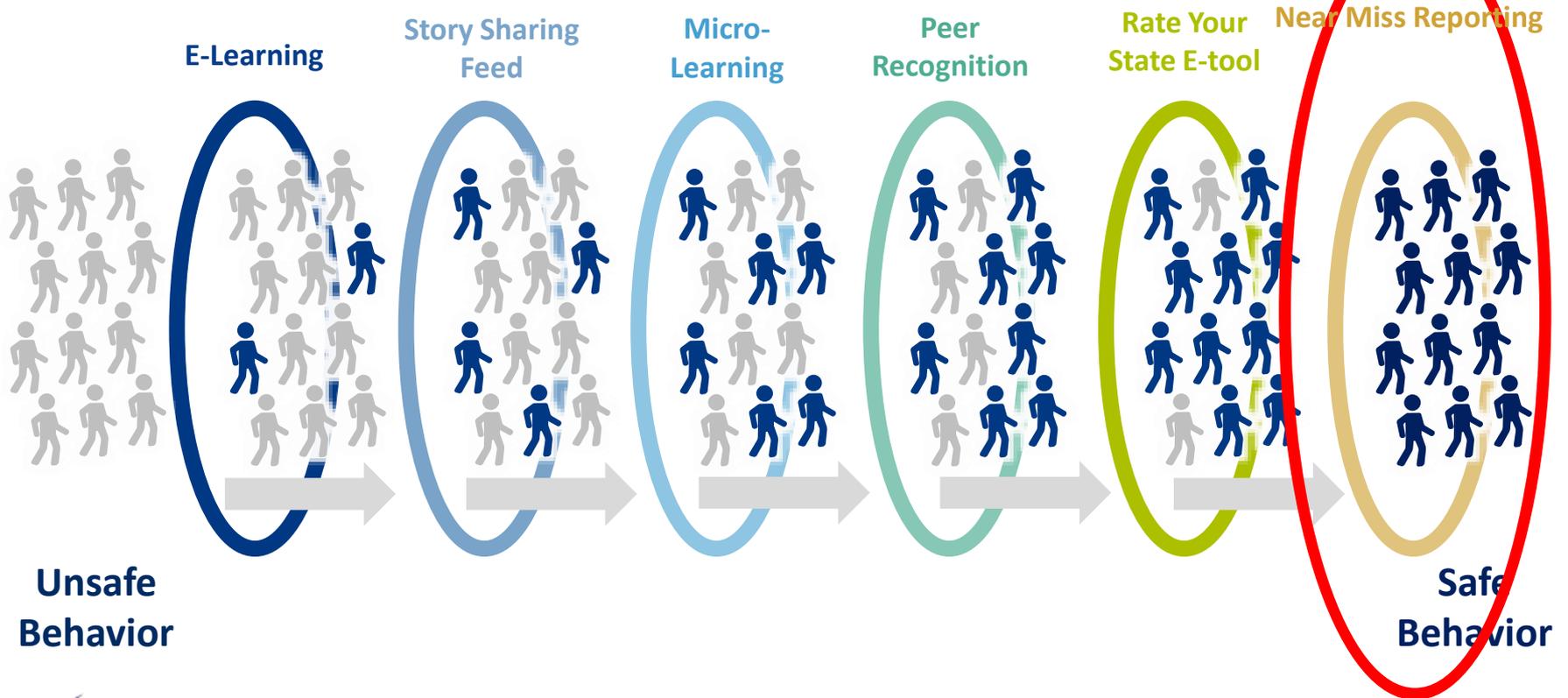


Real-Time Human Factors Measurement

- Informed insights give supervisors and safety leaders an opportunity to intervene.
- "Barometer like predictability" – The storm is coming.
- This is what all safety professionals are trying to achieve with leading indicators isn't it?



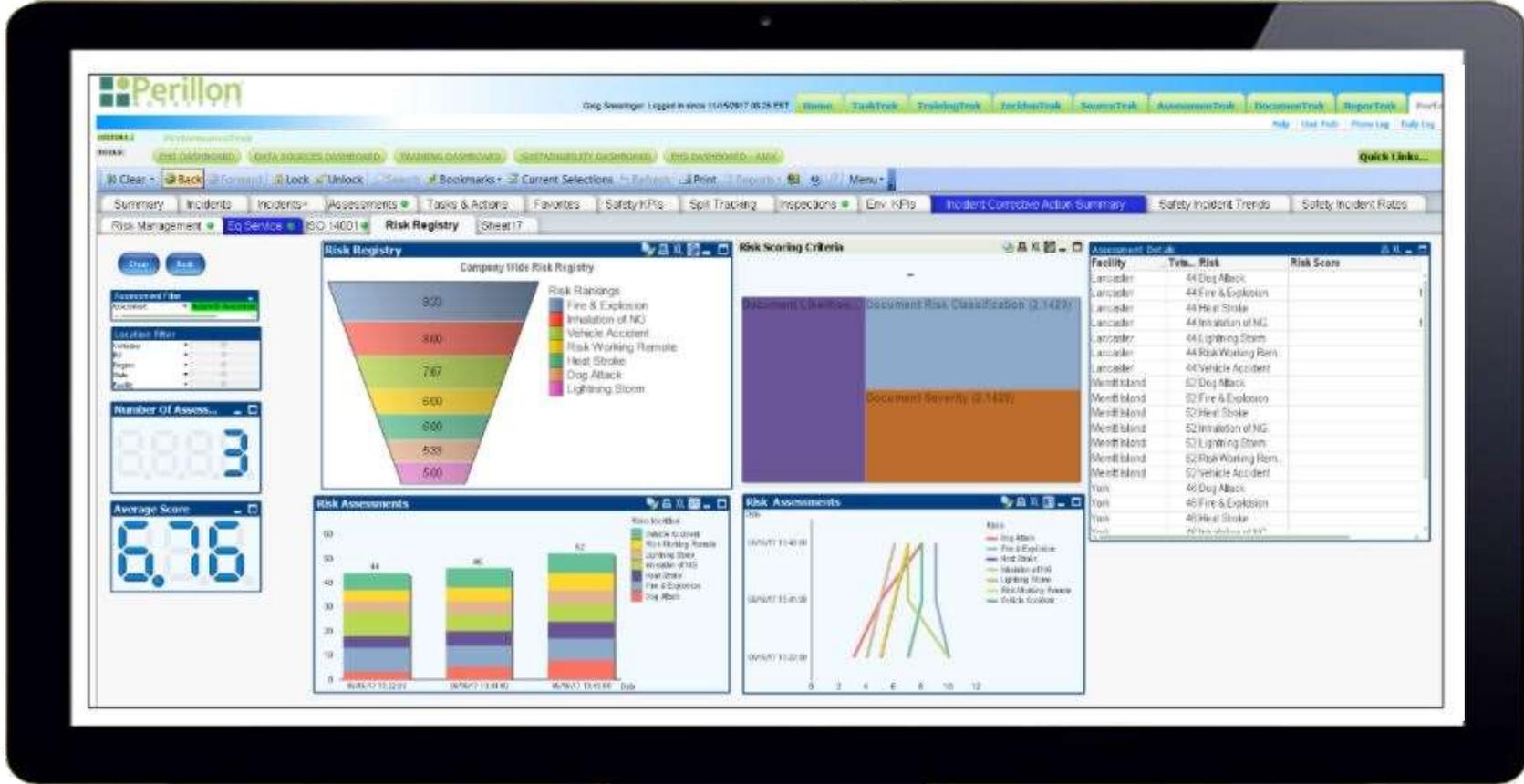
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Traditional Incident and Near Miss Reporting

- Can be a painstaking process...
It often doesn't get done.

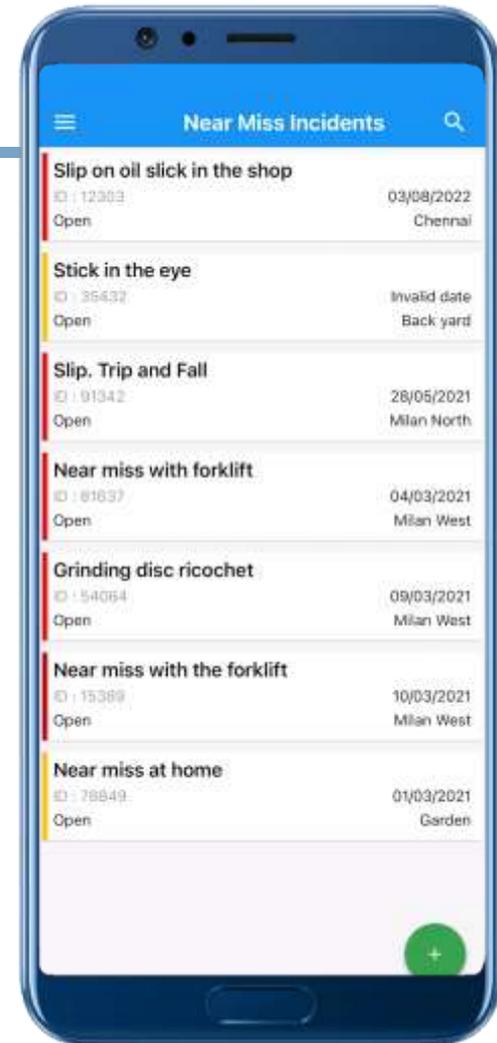




Complexity is the Enemy of Execution

Near Miss on an App

- Near miss reporting frequency increase when the near miss register is anonymous and at your fingertips.
- For leaders, the data has never been more accessible.
- Creating a culture where near miss reporting is widely accepted and encouraged is easier.



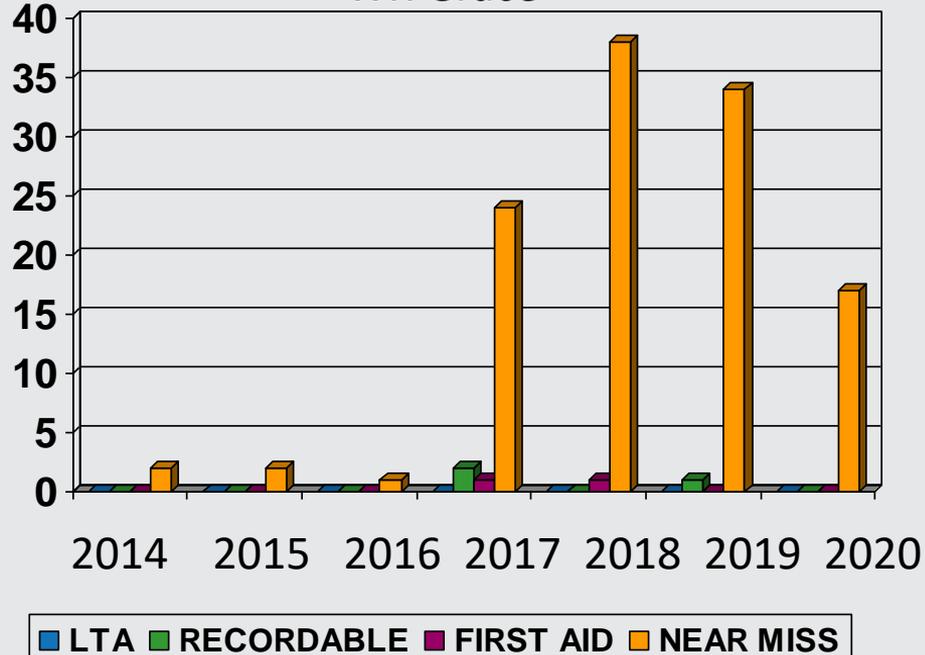
Personal close calls/near-miss reporting

GRACE

Talent | Technology | Trust™



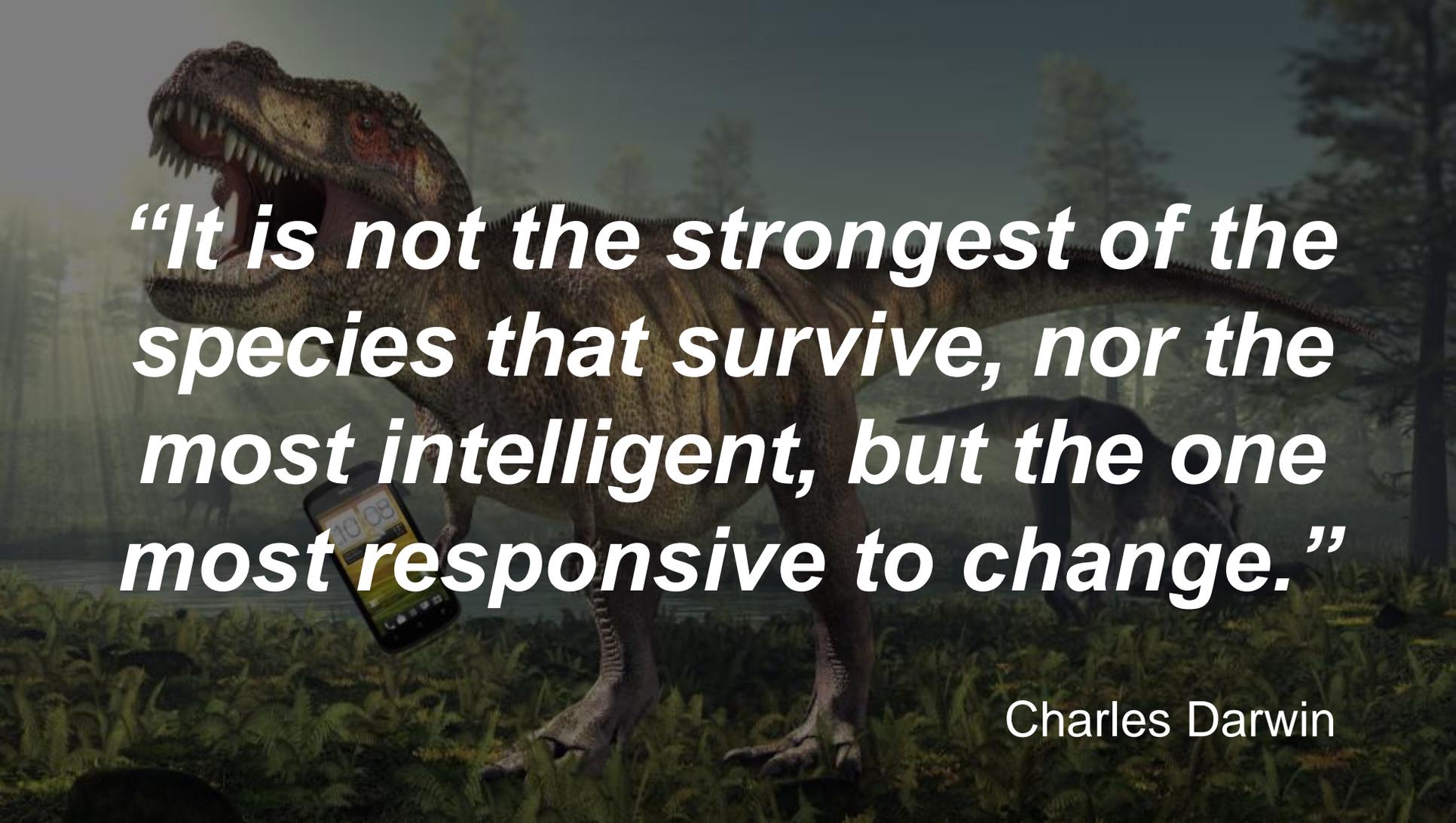
WR Grace



Normal Apprehension and Resistance

How many of you are apprehensive about letting people use their phones at work?

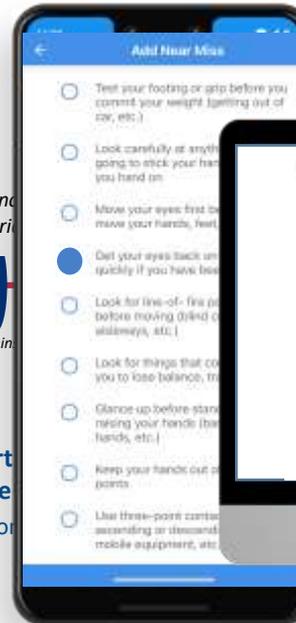
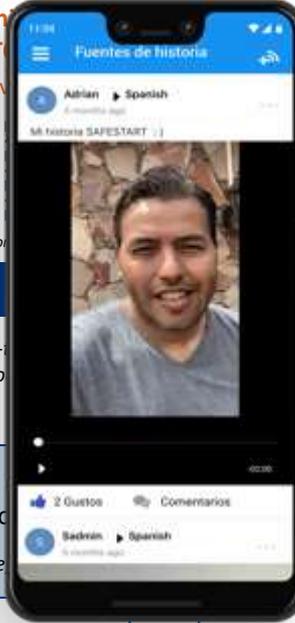
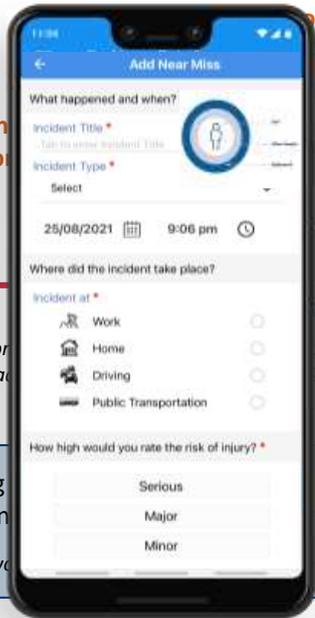
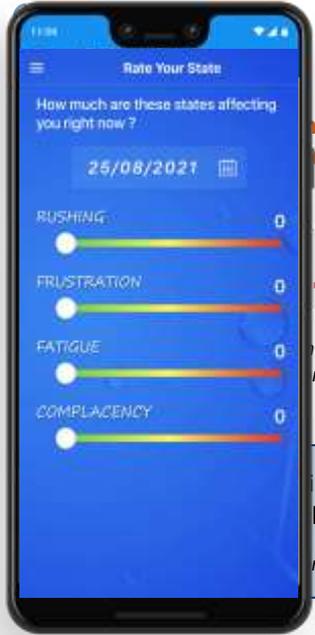


A Tyrannosaurus Rex is shown in a prehistoric setting, holding a modern smartphone in its mouth. The dinosaur's mouth is open, showing its sharp teeth and tongue. The background is a misty, forested landscape with tall trees and a body of water in the distance. The overall tone is dark and atmospheric.

“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”

Charles Darwin

Many Benefits from Mobile Technology



SAFESTART

These four states...

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can cause or contribute to these critical errors ...

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- Line-of-Fire
- Balance/Traction/Grip

...which increase the risk of injury.

SAFESTART

Critical Error Reduction Techniques (CERT)

- Get trigger on the state (or avoid of Attention) as you don't make a critical error
- Analyze close calls and small errors (to prevent appearing over big ones)
- Look at others for the patterns that increase the risk of injury
- Work on habits

1-800-951-7462 www.safestart.co

How do you choose EHS Software Solutions?



✓ YouFactors



✓ Benchmark Risk + Compliance



✓ AlertMedia



✓ Intellect



✓ Alcumus E-Compliance



✓ HIS Donesafe



✓ Pronto Forms



✓ Prosapien EHS Software Microsoft 365



✓ Cority



✓ Forms on Fire



✓ Site Docs



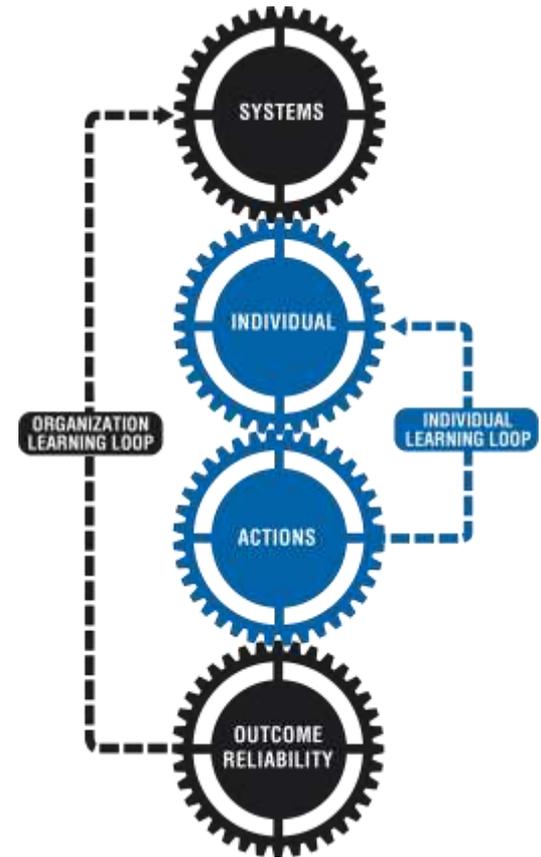
✓ Lighthouse HSE

(GetApp Top Web-based EHS Management Software, 2022)

How do you choose EHS Software Solutions?

These are the top criteria according to EHS Today...

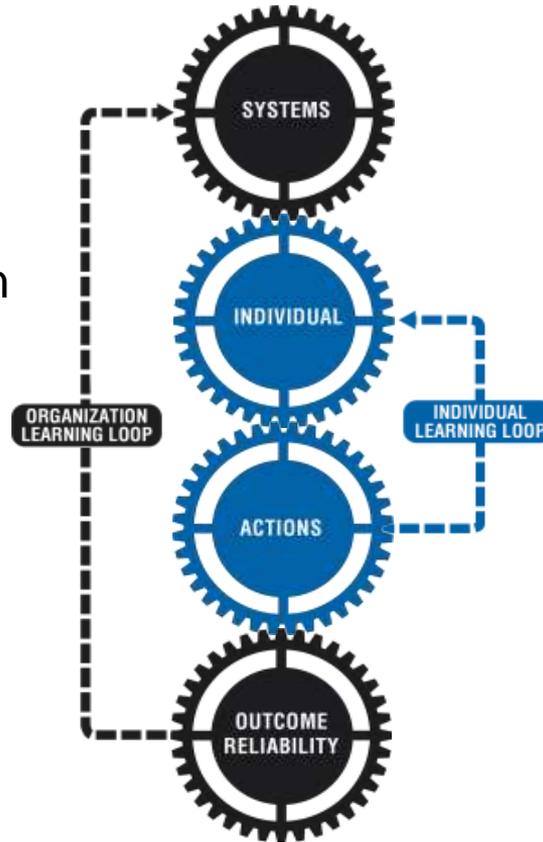
- Increased Accessibility to Resources
- Real-time Data Capture and Delivery
- Improved Information Processes
- Cloud-Based Change Management
- Increased Engagement in EHS
- Stronger Culture and Accountability



Why are companies moving to mobile tech for Human Factors?

Organizational Learning Loop:

- Optimizing EHS systems, data collection and analysis, leading/lagging indicators, employee tracking, etc.
- Dashboards measuring safety performance, quality, culture, data collection, etc.



Individual Learning Loop:

- Self-regulation
- Personal near miss reporting
- Employee training
- Prompt a willing safety decision

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THANK YOU FOR ATTENDING!

Please contact me at: mike.s@safestart.com