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#SecAwareSummit
We all want to create change
(for a positive, sustainable impact on the world)
Behavior Changes across levels of learners brings new opportunities.

The Product Diffusion Curve

- Innovators (2.5%)
- Early Adopters (13.5%)
- Early Majority (34.0%)
- Late Majority (34.0%)
- Laggards (16.0%)

% of people in market

Time

Everett Rogers’ Diffusion of Innovation.
Agenda

Brain games
Learning Architecture
Tips for Success
How our brains synthesize learning and behavior

Thinking, Deciding, Experiencing, Relating, Planning, Encoding, Making Meaning

And your brain processed these images as fast as 13 milliseconds. (Potter et al., 2013)
**Activity #1**

What is this phrase?

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Brain Activity #2
Get Set
Activity # 2

• With your left hand, draw a circle. Practice.

• With your right hand, draw a square. Practice.
Activity # 2

Draw a circle and draw at square at the same time.
Connection to learning and behavior

- Learning and behavior change are processes.
- We want to understand the expectations.
- We want to appear competent and confident in the presence of others.
- We want to be rewarded for our efforts.
- We want to know that others are engaged with us in the process.
Learning Architecture
What is a Learning Architecture

Flexible, interconnected structure that connects learning to behavioral outcomes and supports the behavioral pathway for learners.

It describes how learning is:

- Designed
- Delivered
- Evaluated
- Supported, while generating a learning culture.
The Origins

What happens when you test variables across many countries?

Creating the Architecture

<table>
<thead>
<tr>
<th>Behavioral Inputs</th>
<th>Behavioral Outputs</th>
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</thead>
<tbody>
<tr>
<td>Attitudes</td>
<td>Exposure/Awareness</td>
</tr>
<tr>
<td>Barriers</td>
<td>Knowledge</td>
</tr>
<tr>
<td>Benefits</td>
<td>Attitudes</td>
</tr>
<tr>
<td>Subjective Norms</td>
<td>Intentions for Behavior</td>
</tr>
<tr>
<td>Risk (Susceptibility)</td>
<td>Behaviors</td>
</tr>
<tr>
<td>Severity (Degree of Harm/Impact)</td>
<td>Fear Control Processes</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>Danger Control Processes</td>
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<tr>
<td>Response efficacy</td>
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<tr>
<td>Outcome Expectancies</td>
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</table>

Extended Parallel Process Model

External stimuli
- Message components
  - Self-efficacy response efficacy
  - Susceptibility severity

Message processing (1st and 2nd appeals)
- Perceived efficacy
  - (Self-efficacy, Response efficacy)
- Perceived threat
  - (Susceptibility, severity)
- No threat perceived
  - (No response)

Outcomes
- Protection motivation
- Message Acceptance
- Fear
- Feedback loop
- Defensive motivation
- Message rejection

Process
- Danger control process
- Fear control process

Individual differences

Tips for Success
Behavior change is best in BITES

- Creating **behavioral expectations**
- Drive learners with engaging **instruction** to specific knowledge, skills and assessments for behavioral performance
- Collaborative **team** to focus communication and manage the culture
- **Creating a** behavioral pathway, enablers and reinforcers, to move the audience in the desired behavioral direction.
Behavioral Expectation

Your Goal:

• Define what do you want and why it matters
• Identify what skills and knowledge are needed
• When do you want it done
• How is it to be accomplished and how often?
• Describe how performance is measured

“THE BUSINESS SCHOOLS REWARD DIFFICULT COMPLEX BEHAVIOR MORE THAN SIMPLE BEHAVIOR, BUT SIMPLE BEHAVIOR IS MORE EFFECTIVE.”

WARREN BUFFETT
Instruction

Your Goal:
• Define Outcomes of Behavior
• Learner’s ability to perform behavior, and control action
• Comparison of competing behaviors
• Triggers that are sparks, facilitators or signals
• Manage behavior detractors

If you want something in your life you've never had, you'll have to do something, you've never done.

~ JD Houston
Impacting encoding and retrieval

The Learner’s mental model
Cognitive theory of Multimedia Learning (Mayer)
How do you message it?

- Gain frame vs loss framing
- Persuasion strategies (64 compliance gaining)
- One sided, two-sided and two-sided refutational messages
- Visual reinforcement of the message
- Message placement and positioning
- Literacy and framing
## Blend Learning Activity, KM and PS

<table>
<thead>
<tr>
<th></th>
<th>Learning Activity</th>
<th>Knowledge Management</th>
<th>Performance Support</th>
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<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Instruct</td>
<td>Inform</td>
<td>Perform</td>
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<tr>
<td><strong>Workflow</strong></td>
<td>Integrate with work</td>
<td>Divert work</td>
<td>Do work</td>
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<tr>
<td><strong>Learning</strong></td>
<td>Structured learning (extrinsic)</td>
<td>Unstructured, self-directed (intrinsic)</td>
<td>Structured or unstructured (intrinsic)</td>
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<tr>
<td><strong>Goal</strong></td>
<td>Gain skill or knowledge</td>
<td>Find and share information</td>
<td>Accomplish task/perform</td>
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- **Purpose**: Instruct, Inform, Perform
- **Workflow**: Integrate with work, Divert work, Do work
- **Learning**: Structured learning (extrinsic), Unstructured, self-directed (intrinsic)
- **Goal**: Gain skill or knowledge, Find and share information, Accomplish task/perform
Bloom’s Taxonomy
Gagne’s Events of Instruction

- Relationship between learning/behavioral expectations and instruction design principles
Support Post-Training Performance

Graph showing the relationship between proficiency/competence and time during training and post-training.

Key points:
1. What we imagine happens
2. What actually happens
3. Without Support
4. With Support

Legend:
- Blue line: With Support
- Purple line: Without Support

Graph axes:
- X-axis: Time
- Y-axis: Proficiency/Competence
How else we use brain processes to help with behavior change?

- Immediacy
- First-person
- Show, not tell
- Interesting dilemmas
- Emotional Resonance
- Unexpected rewards
- Cognitive dissonance
- Scaffolding
- Branching
- Supply Cache
- Social proof
- Wayfinding
- Confidence
- Repetition
Using BITEs, particularly enabling and reinforcers, help us to avoid:

- Inattentinal blindness when performing a task
- Failure to see patterns of a task leading to performance
- Deleting, distorting, minimizing or generalizing
- Motivational loss
Learning Architecture
Thank you. Questions?