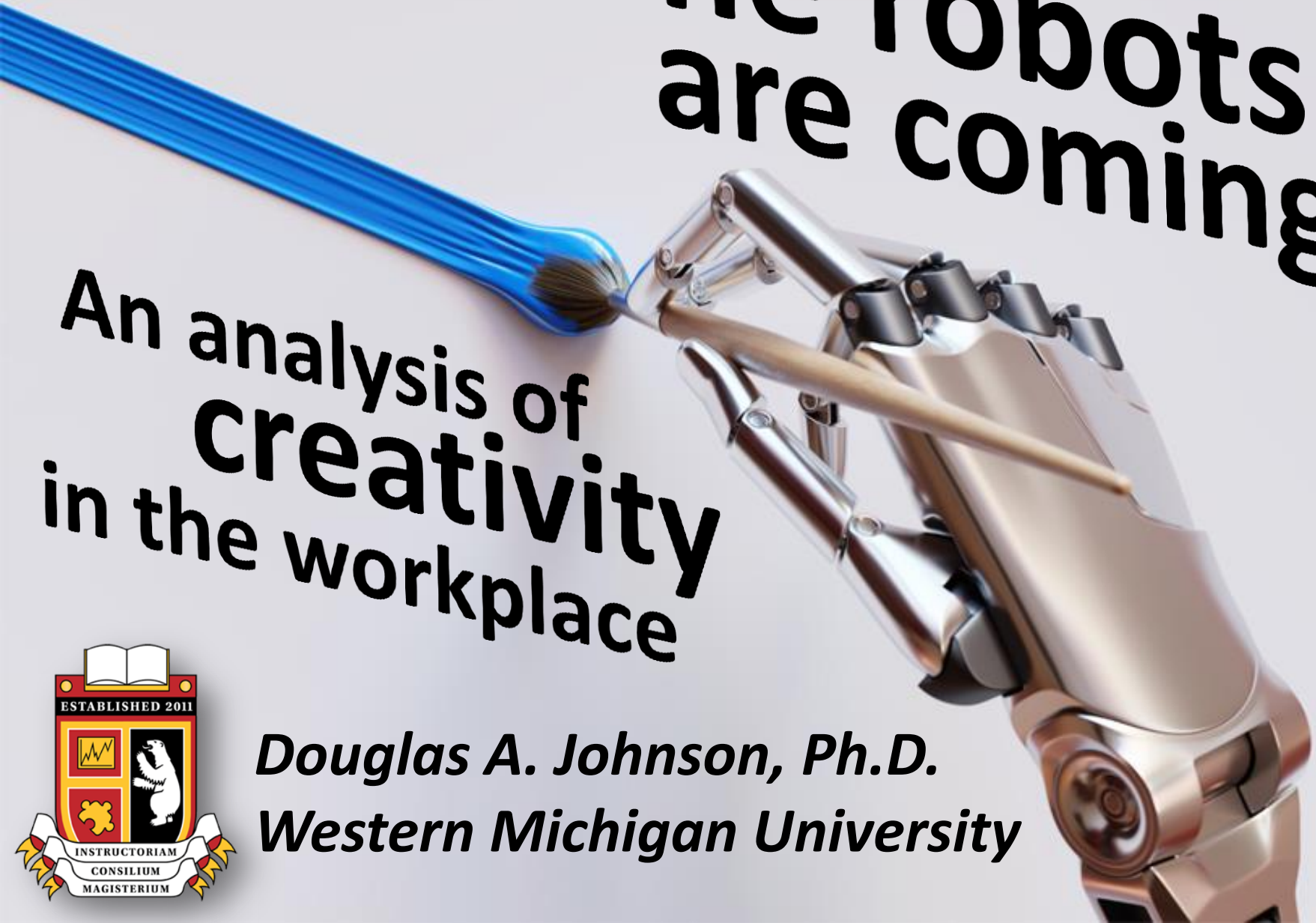


The robots are coming!



An analysis of **creativity** in the workplace

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Actually, the robots
have already arrived



An aerial photograph of a vast agricultural field with rows of young green plants in dark brown soil. A red tractor is visible in the middle ground, moving across the field. In the upper left corner, a tall metal lattice tower stands on a small patch of green grass. The text "The loss of jobs to machines and technology is not new" is overlaid in the lower half of the image.

The loss of jobs
to machines and
technology is not new



Growing loss of
service industry



This is **not** the
end of work

***Growing demand in
business and industry:***



Creativity!



Outdated psychology for
an outdated workplace?

**What does it
mean to be
creative?**



What does it
mean to be
creative?

Novelty + Value



**Some forms of valued novelty
are not particularly confusing**



A man in a grey suit, white shirt, and purple and black striped tie is shown from the chest down. He is gesturing with his hands, and the image has a strong horizontal motion blur effect, suggesting speed and dynamic action. The background is dark and indistinct.

*Importance of fluency
for creative action*

A close-up photograph of two interlocking puzzle pieces held by human hands. The piece on the left is inscribed with 'Connecting old skills' and the piece on the right with 'under new demands'. The background is a bright, hazy sky with a sun flare.

**Connecting
old skills**

**under new
demands**

Classic
approach to
creativity





— hello



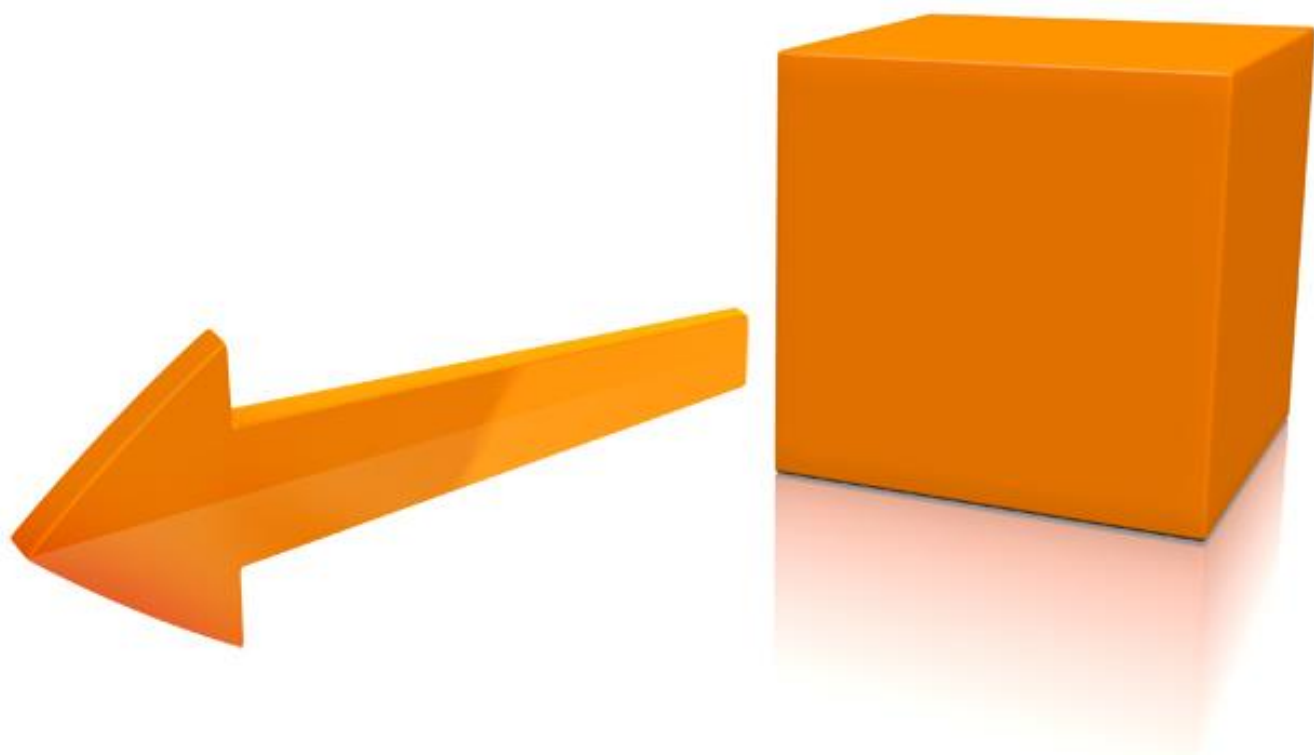
hello



I'm a box. I don't speak.








Pecking
Climbing
Pushing



- 
- A white bird, possibly a cockatoo, is standing on a small, rectangular orange block. The bird is holding a yellow object, which appears to be a piece of wood or a stick, in its beak. The background is dark and out of focus.
1. Teach relevant skills until fluency
 2. Environment that demands new combination
 3. Rewards for creative solution

Creativity is just connecting things.

When you ask creative people how they did something, they feel a little guilty because they didn't really do it, they just saw something. It seemed obvious to them after a while.

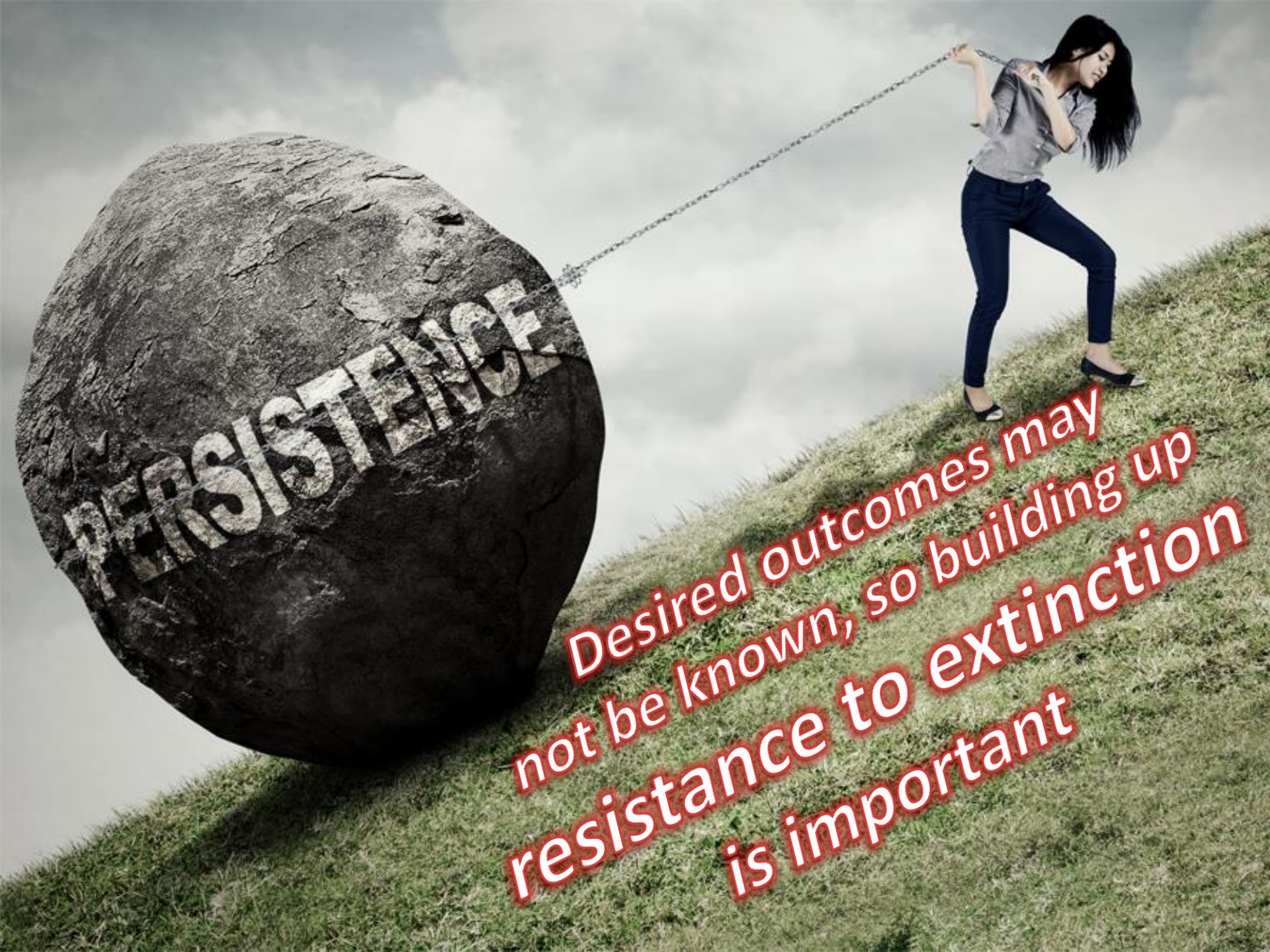
That's because they were able to connect experiences they've had and synthesize new things. And the reason they were able to do that was that they've had **more experiences or they have thought more about their experiences than other people.**

– Steve Jobs



Changing current
environments to
evoke successful
novel performance





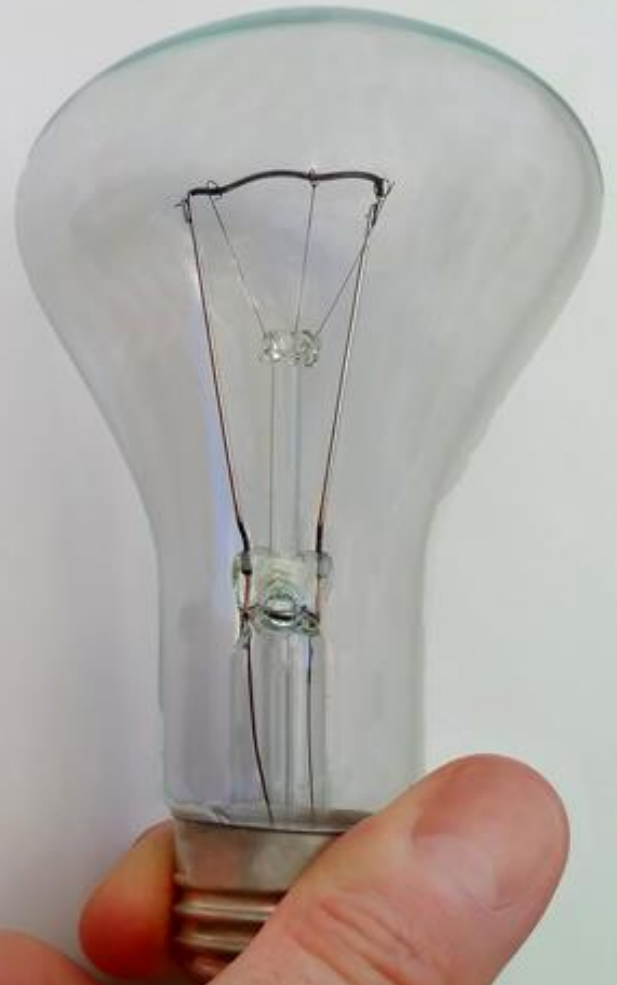
Desired outcomes may
not be known, so building up
resistance to extinction
is important

Taking advantage of resurgence



**Like any other
dimension of
behavior**


**we can
reinforce
novelty**





GUIDELINES

*Select for employees
with skills suspected
to be relevant to
innovations*





GUIDELINES

*Rearrange
environment for
novel sources of
stimulus control*




GUIDELINES

***Intrinsic motivation
is unlikely to be
sufficient***



GUIDELINES

***Failures will be
common, so
minimize aversive
outcomes***





GUIDELINES

*Explicitly target
novelty or
creativity for
reinforcement*



GUIDELINES

*Pair creative action
with reinforcing
stimuli*

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THANK YOU

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INSTRUCTIONAL DESIGN
AND MANAGEMENT LAB

