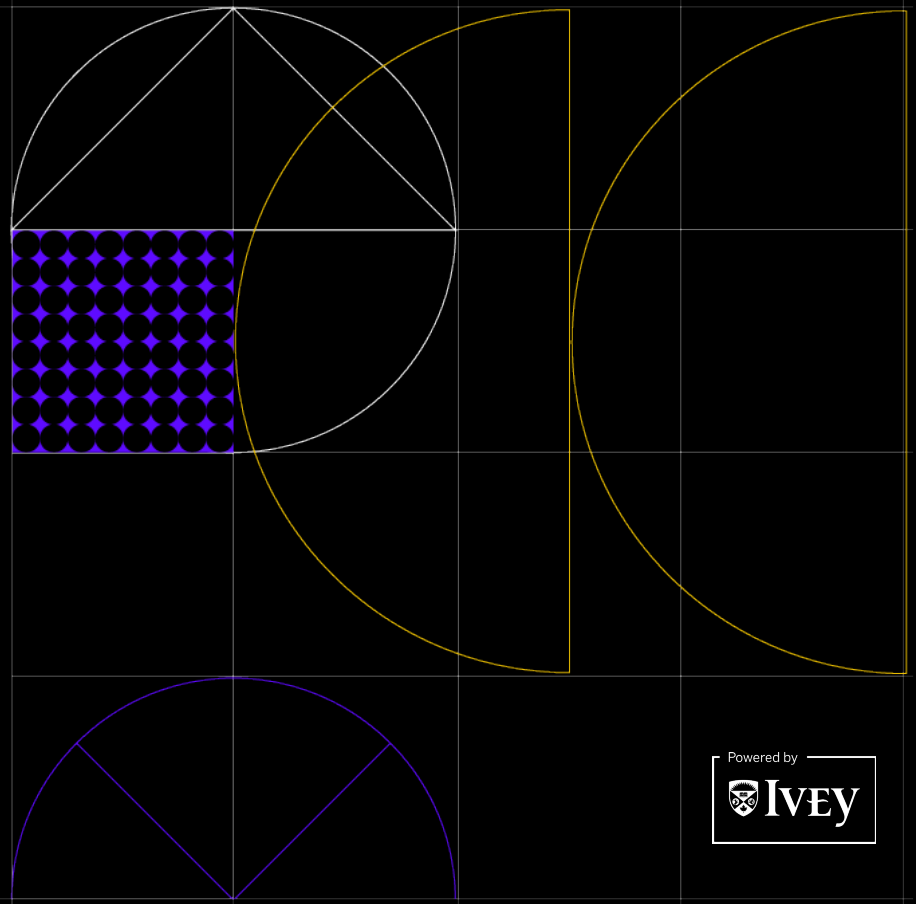


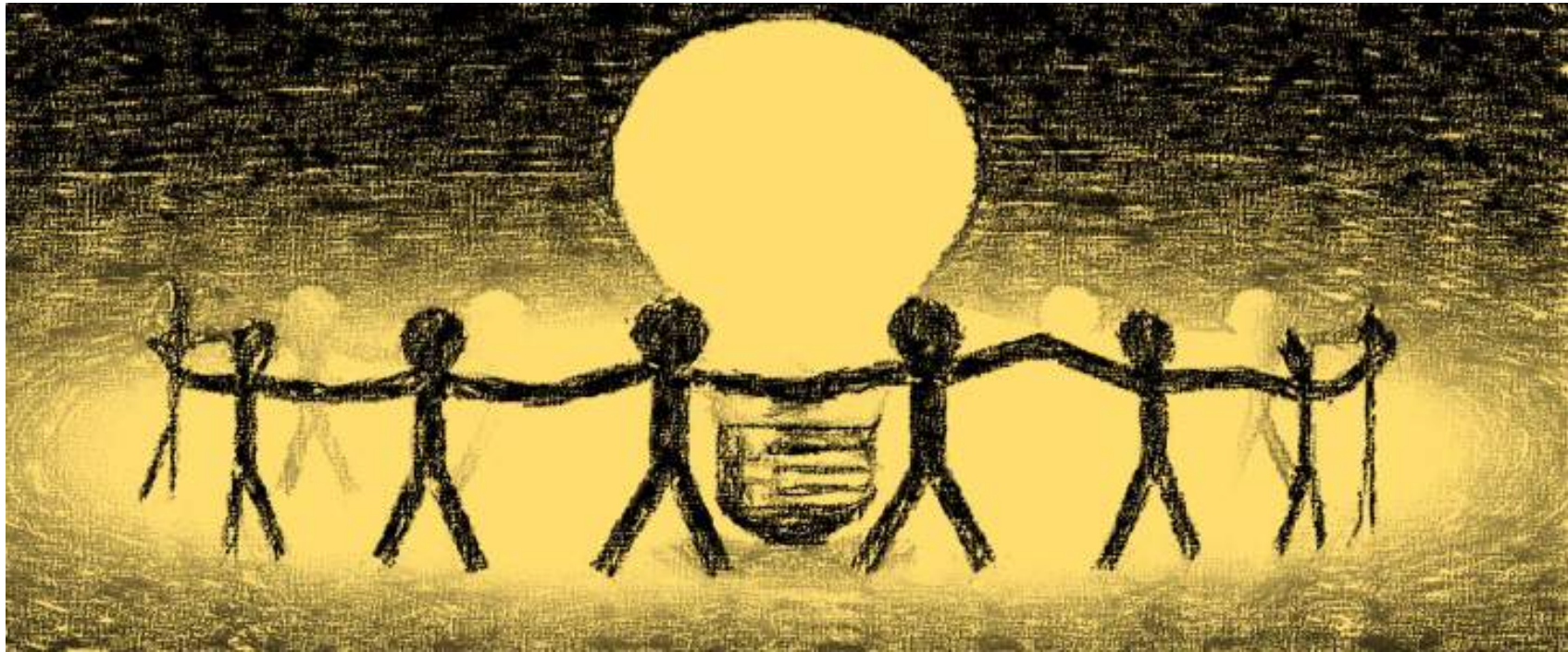
**INNOVATION
NORTH**

SESSION 8 SLIDES

CREATING A CULTURE OF CREATIVITY



CREATING A CULTURE OF CREATIVITY



Prof. Colin M. Fisher
Innovation North, Session 8
22 July 2021

AGENDA AND GOALS

- What is creativity and why is it important?
- Experience: Constructing problems
- Experience: Generating ideas

Break

- Where does creativity come from?
- Experience: Importing, adapting, and developing ideas
- How can we promote creativity at work?

Was it creative? Why?

- | | | |
|--|---|---|
| <ul style="list-style-type: none">• Building on what others had said• Using only 3 words• Change• Constraints• Solve• Out of the box thinking | <ul style="list-style-type: none">• New system gets different answers• Feeling safe• New environment bumps us out of our natural way of thinking/action | <ul style="list-style-type: none">• |
|--|---|---|

When have you needed creativity at work?

- Resolving conflict
- Everyday problem solving

- Challenging or unique
- Implementation of change

-

WHAT IS CREATIVITY?



CREATIVITY

= NOVELTY X USEFULNESS

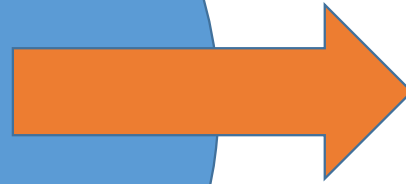
WE NEED CREATIVITY AT WORK!



“Creativity is the number one soft skill companies want in the new decade”

- LinkedIn Job Posting Study, 2019

CREATIVITY
CREATIVITY
CREATIVITY
CREATIVITY



INNOVATION

A photograph of a city skyline. In the foreground, there is a multi-story residential building with a light-colored facade and brown-tiled roof sections. The building has several windows and balconies. In the background, a tall, modern building is under construction, surrounded by several large cranes. The building has a distinctive, angular design. The sky is overcast.

CONSTRUCTING PROBLEMS

CONSTRUCTING PROBLEMS



“If I had only one hour to save the world, I would spend fifty-five minutes defining the problem, and only five minutes finding the solution.”

Albert Einstein





Design a new vacuum bag

VS.

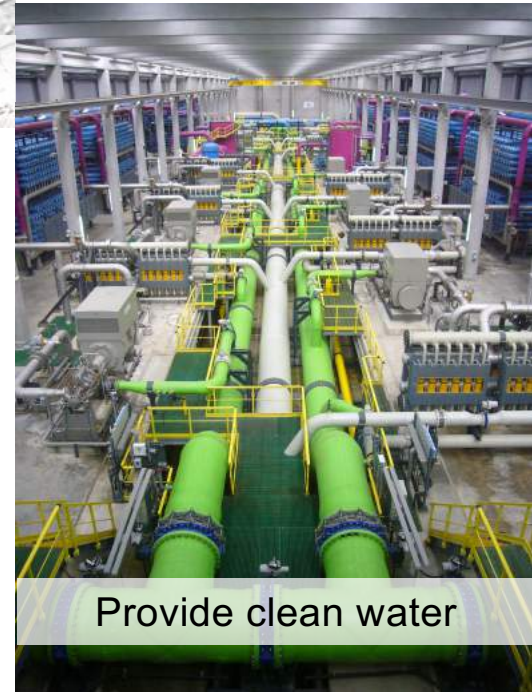


Separate dirt from air



Dig more wells

VS.



Provide clean water

CHECK YOUR PROBLEM STATEMENT

- Read your partners' problem statement. Provide feedback using CANS:
 - **CLARITY:** What is the goal you partner is trying to achieve? What, if anything, do you see as potentially unclear? Are the elements that can be removed or ways to make the message simpler?
 - **ASSUMPTIONS:** Are there hidden assumptions about particular classes of solutions baked into the statement?
 - **NEEDS:** What is the underlying need that you are trying to address?
 - **SCOPE:** Is it broad enough to invite new thinking, but not trying to save the world all at once?



GENERATING IDEAS

How do you come up with new ideas
in your organization?

•

•

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<https://www.youtube.com/watch?v=VvdJzeO9yN8>

Takeaways?

- Get outside normal "industry"
- Ridiculous
- No judgements
- Wild
- More more more

•

•

IDEO NORMS FOR BRAINSTORMING

Be visual.

Defer judgment.

Encourage wild ideas.

Build on the ideas of others.

Go for quantity.

One conversation at a time.

Stay focused on the topic.

Try it!

- Go to your area of the Miro board
- Pick 1 Problem Statement; Present the problem statement as a “How might we...” question IN WRITING
- Try to use the IDEO Norms for Brainstorming

Idea Generation Debrief

- | | | |
|--|--|---|
| <ul style="list-style-type: none">• How did you start? | <ul style="list-style-type: none">• What went well?<ul style="list-style-type: none">• How we decided what to generate ideas about• Challenged for ridiculous• Independent then group• Listened and built on others ideas• Iterate• Clarify the problem | <ul style="list-style-type: none">• What can we improve?<ul style="list-style-type: none">• Too quick to go to solving as a group• Avoid fixating• Less individual time• Got stuck on one idea• Didn't go to "left field" |
|--|--|---|

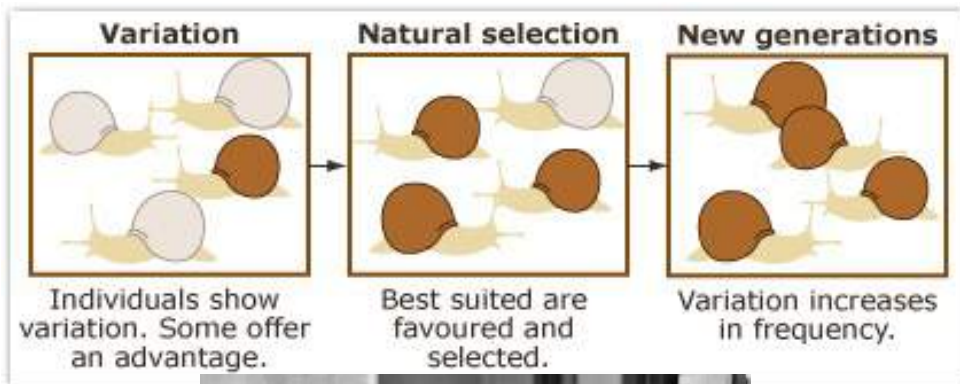


WHERE DOES CREATIVITY COME FROM?



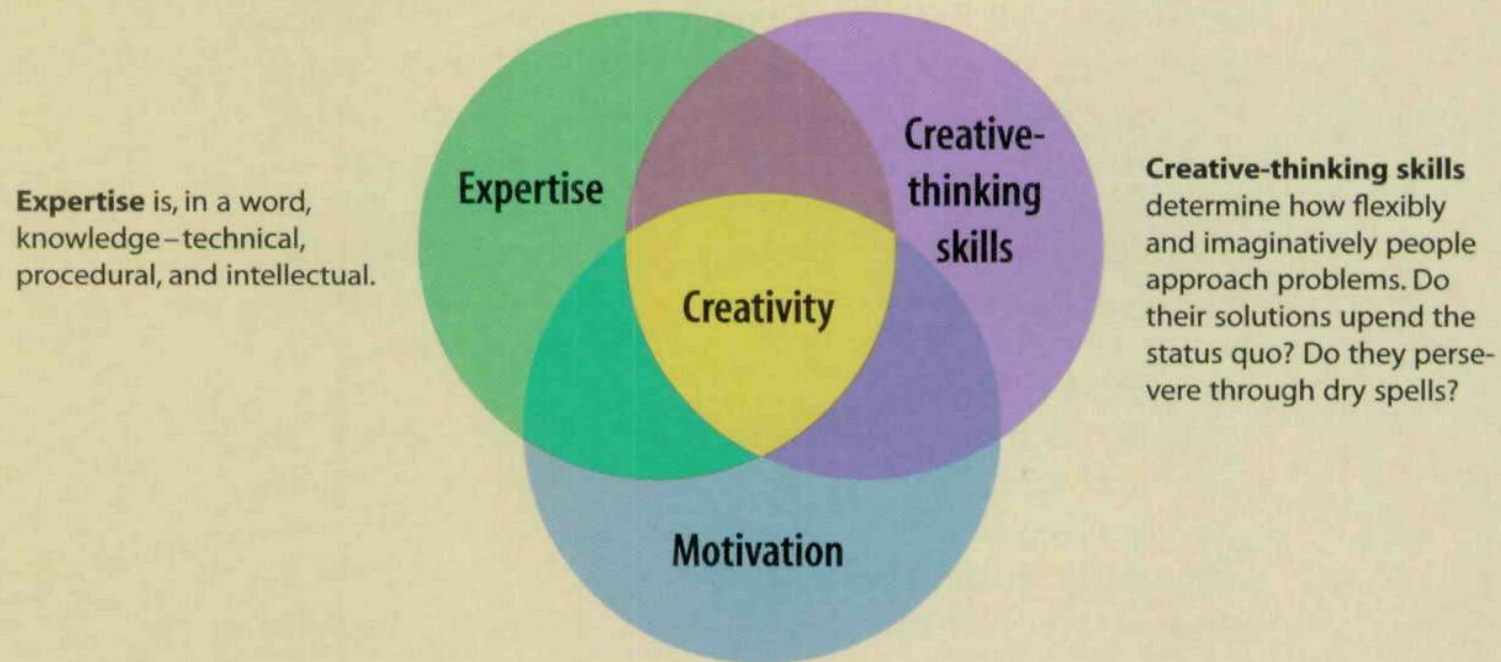
= NOVELTY X USEFULNESS

- Evolutionary Theory of Creativity
- Importation theory of creativity



THE THREE COMPONENTS OF CREATIVITY

Within every individual, creativity is a function of three components: expertise, creative-thinking skills, and motivation. Can managers influence these components? The answer is an emphatic yes – for better or for worse – through workplace practices and conditions.



Not all **motivation** is created equal. An inner passion to solve the problem at hand leads to solutions far more creative than do external rewards, such as money. This component – called *intrinsic motivation* – is the one that can be most immediately influenced by the work environment.

Amabile (1996). "How to Kill Creativity," *HBR*

IDEO NORMS FOR BRAINSTORMING

- Be visual.
- Defer judgment.
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- Build on the ideas of others.
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- One conversation at a time.
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ANALOGOUS INSPIRATION



ANALOGOUS INSPIRATION

- Generate ideas for analogous situations that deal with similar problems
 - Try to push for different contexts
 - Think about extreme users – whose work or well-being depends on meeting similar needs

IDEO NORMS FOR BRAINSTORMING

Be visual.

Defer judgment.

Encourage wild ideas.

Build on the ideas of others.

Go for quantity.

One conversation at a time.

Stay focused on the topic.

Analogous Inspiration Debrief

• What went well?

- Exceptions
- Everyone has voice
- Define the problem (time)
- Examples from anywhere

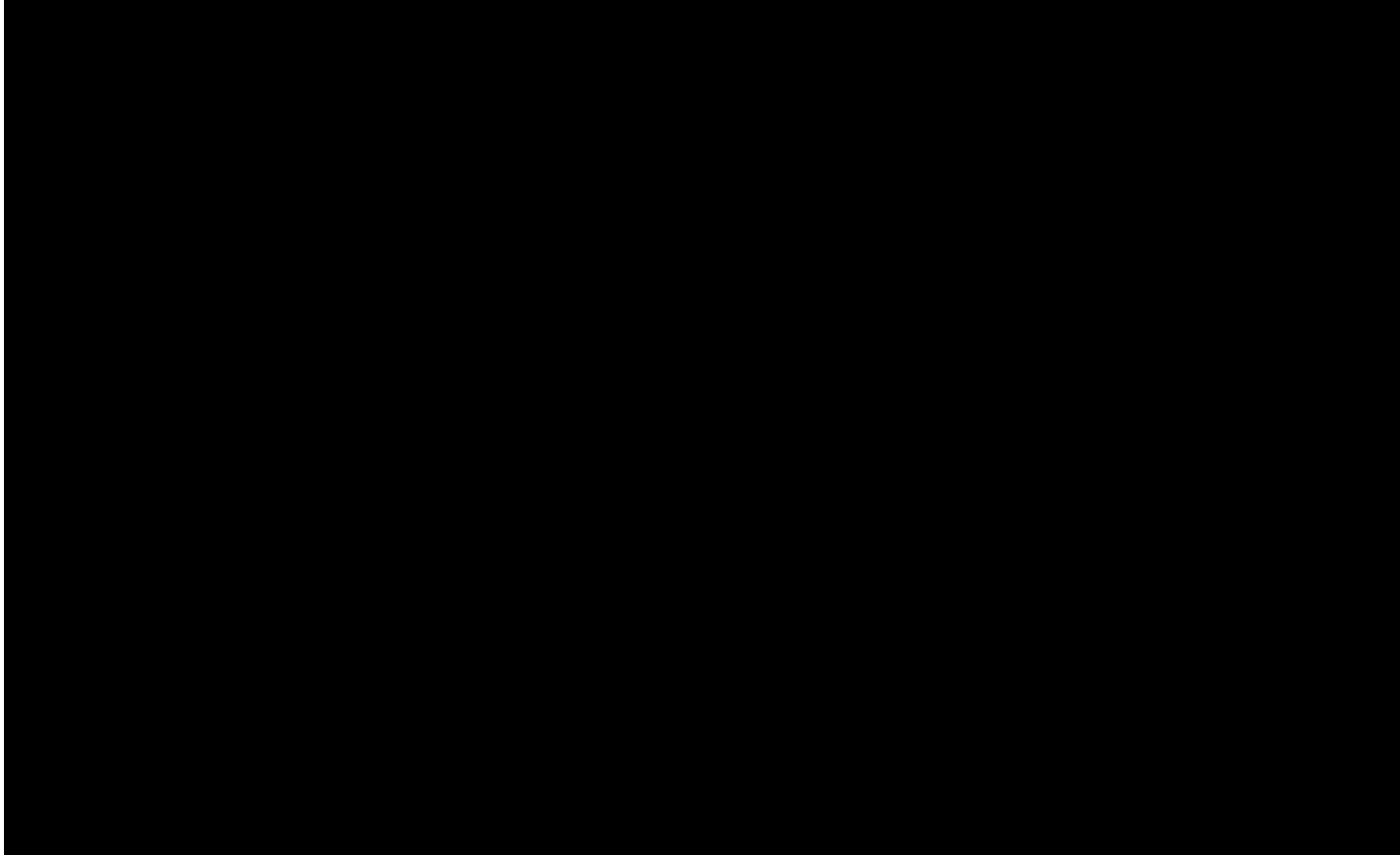
• What can we improve?

- Takes a while to get to analogous situations
- Making it safe
- More time!
- CANS before solutions
- Habits

IDEO: SHOPPING CART PROJECT



IDEO Shopping Cart Design



Diagnosis: How does IDEO organize around creativity?

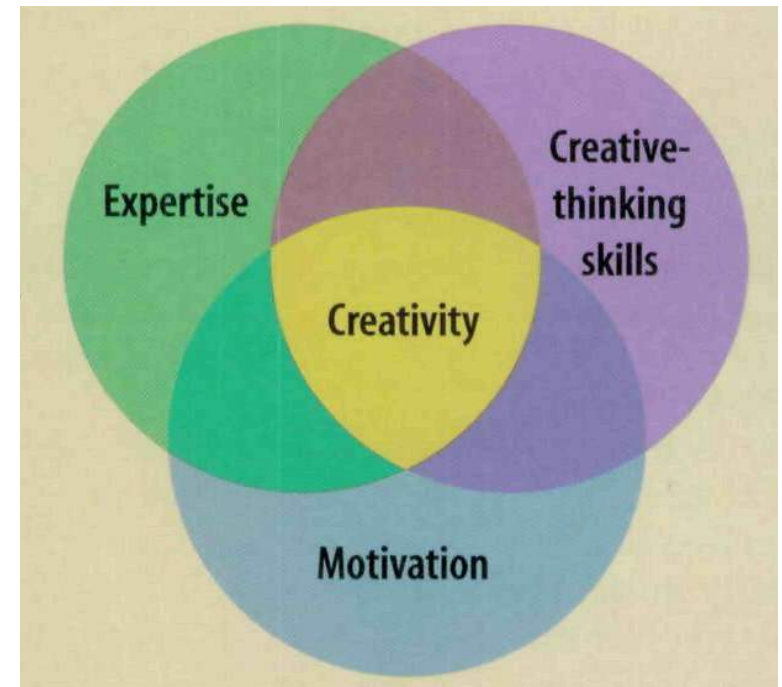
- Culture & Structure

- Processes

- People

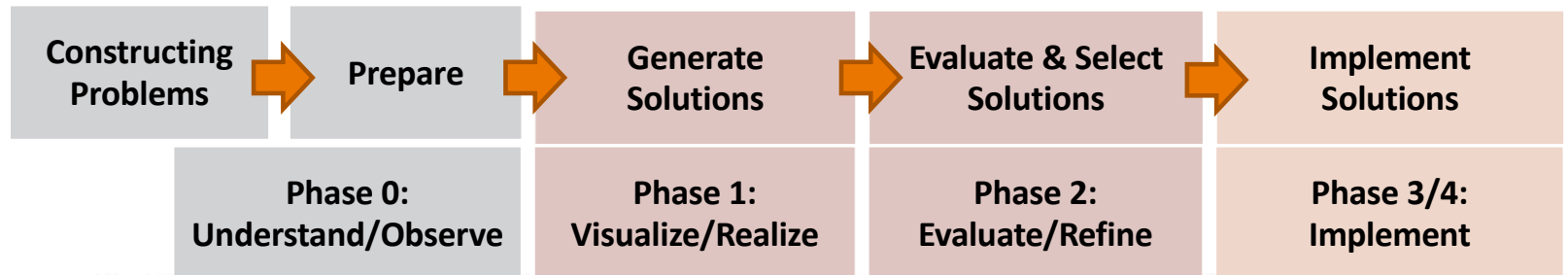
HOW TO ORGANIZE FOR CREATIVITY

- Design collaborative processes
- Foster intrinsic motivation
- Build a culture of psychological safety

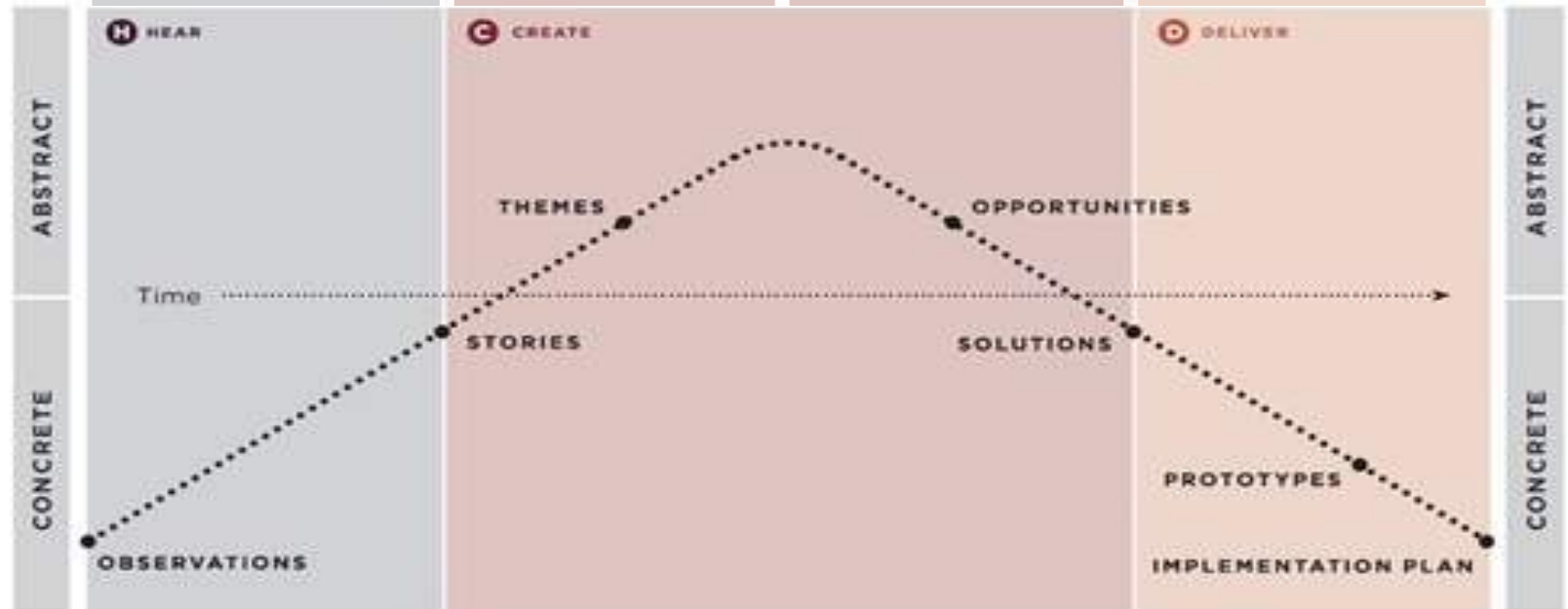


WHAT IS THE CREATIVE PROCESS?

Amabile (1996)



IDEO Project Phases



<http://www.ideo.com/work/human-centered-design-toolkit/>

CREATIVITY IS A TEAM SPORT





MYTH: CREATIVITY IS RESERVED FOR LONE GENIUSES



COLLABORATION DRIVES CREATIVITY

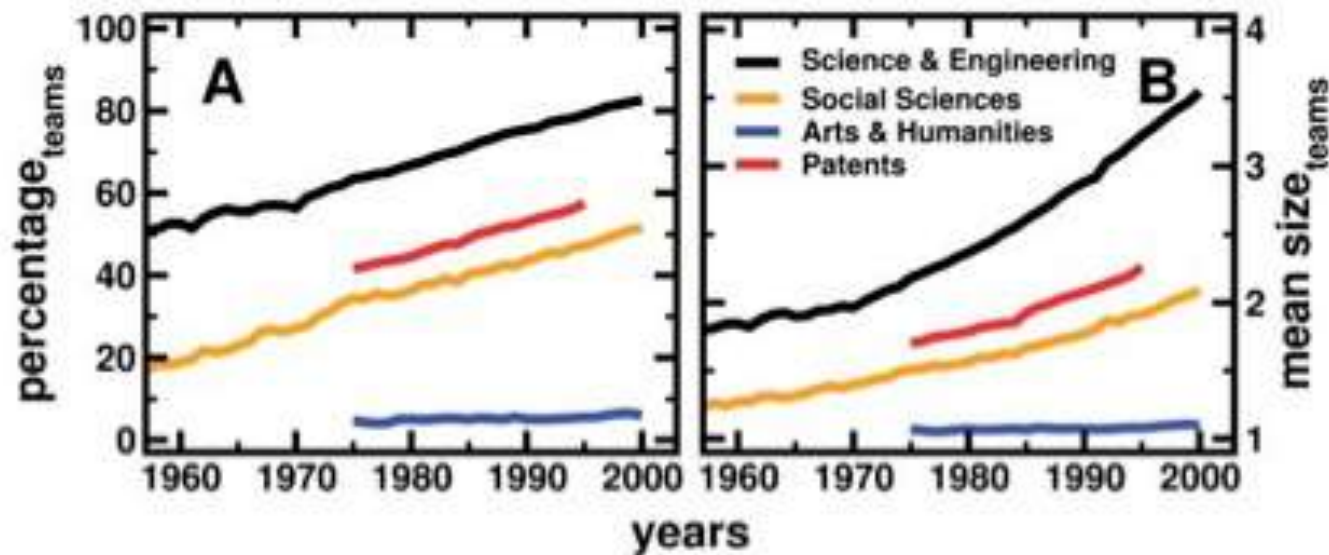
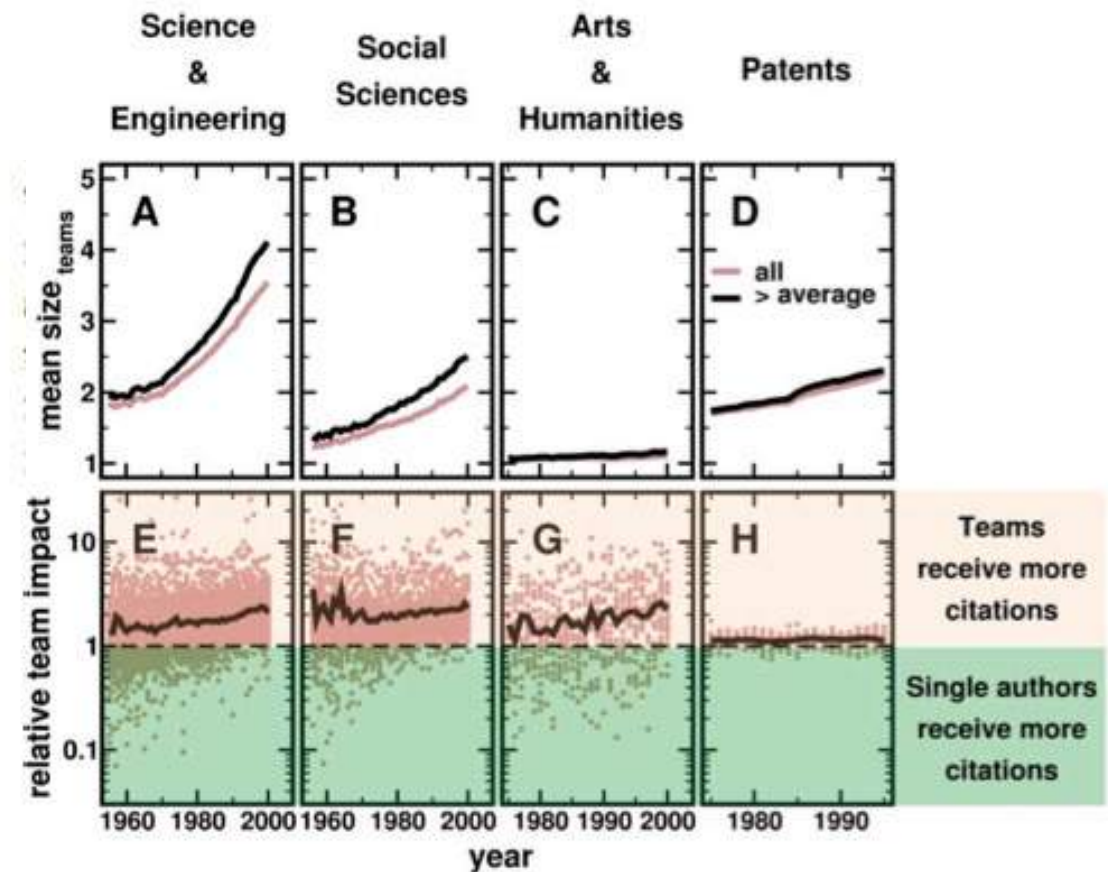


Fig. 1. The growth of teams. These plots present changes over time in the fraction of papers and patents written in teams (A) and in mean team size (B). Each line represents the arithmetic average taken over all subfields in each year.

IDEAS CREATED BY TEAMS HAVE MORE IMPACT

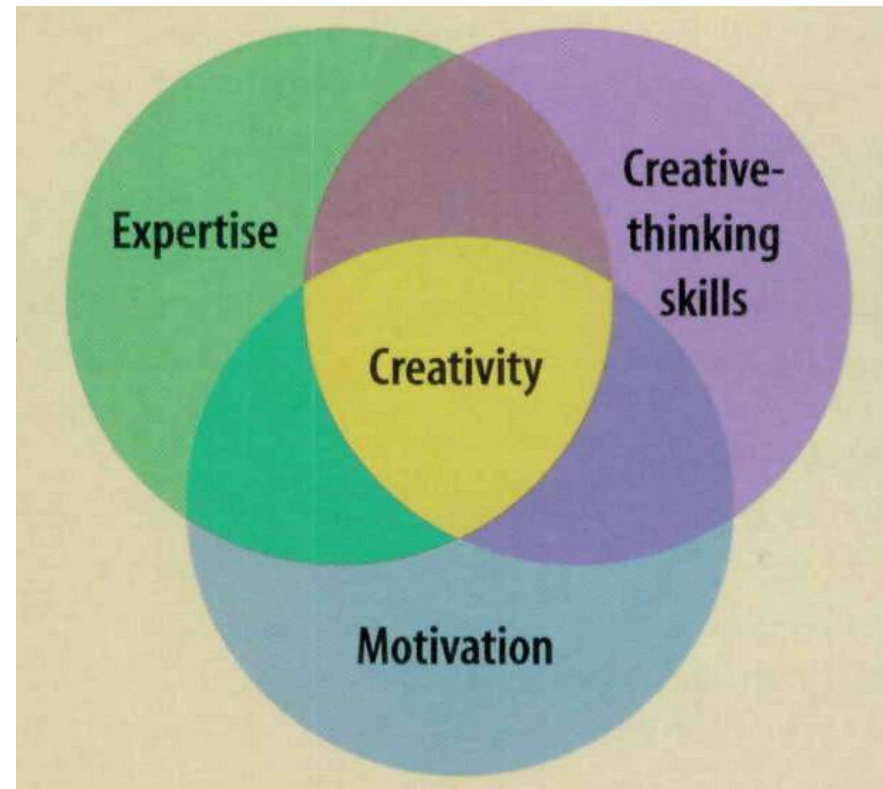
Fig. 2. The relative impact of teams. (A to D) Mean team size comparing all papers and patents with those that received more citations than average in the relevant subfield. (E to H) The RTI, which is the mean number of citations received by team-authored work divided by the mean number of citations received by solo-authored work. A ratio of 1 indicates that team- and solo-authored work have equivalent impact on average. Each point represents the RTI for a given subfield and year, whereas the black lines present the arithmetic average in a given year.

Source:
Wuchty, S., Jones, B.F. & Uzzi, B. (2007). The increasing dominance of teams in the production of knowledge. *Science*, 316, 1036-1038.



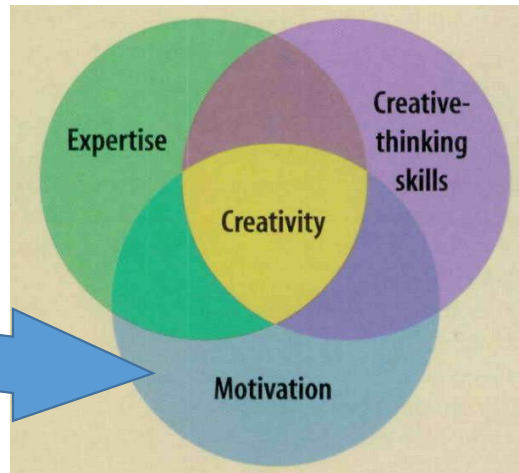
WHY CREATIVITY IN TEAMS?

- Pooling of resources, skills, abilities
- Specialization of labour
- Decisions tend to be more easily accepted by others
- Complex problems require diverse skills to address
- Importing ideas from one domain to another
- Diverse perspectives create “friction” that reveals a need for problem solving



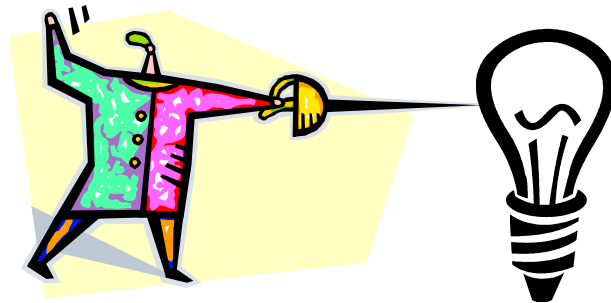
BUILDING A CREATIVE CULTURE

- Intrinsic motivation principle of creativity:
 - People are most creative when they are interested in and enjoy working on the task, i.e., intrinsically motivated.



How to Kill Motivation (and Creativity)

- Emphasize evaluation and deadlines
- Criticize early mistakes and half-baked ideas
- Constrain the work process



How do you foster intrinsic motivation?

- ***CHALLENGING*** work
- ***AUTONOMY*** over work processes
- Supervisory ***ENCOURAGEMENT***
- Match people to tasks based on ***INTERESTS and SKILLS***

The New York Times Magazine

<https://www.nytimes.com/2016/02/28/magazine/what-google-learned-from-its-quest-to-build-the-perfect-team.html>

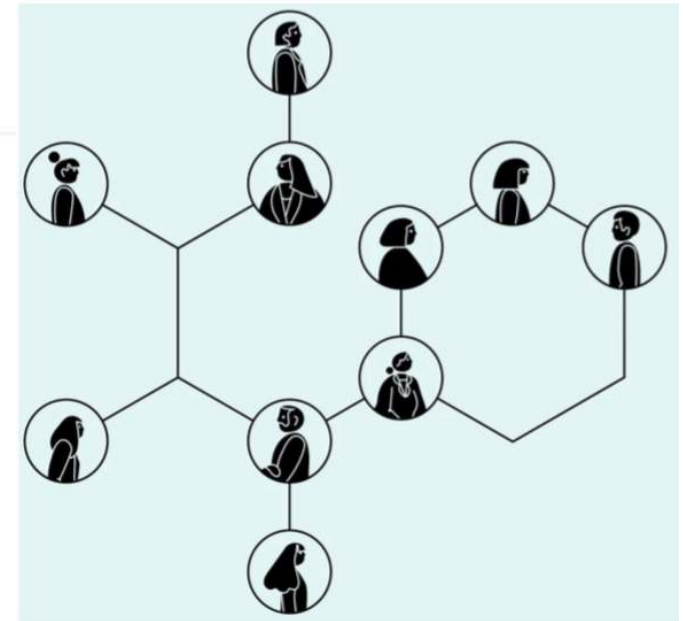
THE WORK ISSUE

What Google Learned From Its Quest to Build the Perfect Team

New research reveals surprising truths about why some work groups thrive and others falter.

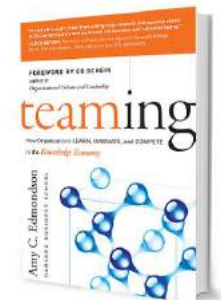
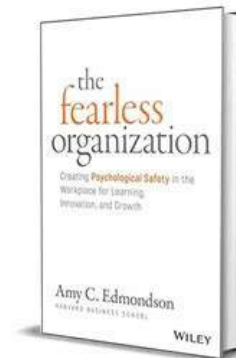
By Charles Duhigg

Feb. 25, 2016

The Google logo is displayed in its characteristic multi-colored font: blue 'G', red 'o', yellow 'o', blue 'g', green 'l', and red 'e'.

HOW TO BUILD A CREATIVE CULTURE

- Psychological safety: *“a shared belief that the team/organization is safe for interpersonal risk taking”*
 - Asking questions
 - Asking for help
 - Trying new things
 - Getting feedback
 - Speaking up
- Typically taken-for-granted assumptions about “how things are done”
- Interpersonal risks of asking for help, admitting errors, expressing different points of view include:
 - Looking ignorant
 - Looking incompetent
 - Being seen as intrusive
 - Being seen as negative
 - Affecting formal rewards and performance evaluations



Edmondson, A. (1999)

How leaders promote psych safety

1. BE ACCESSIBLE AND OFFER HELP

"He's in his office, always just two seconds away. He can always take five minutes to explain something, and he never makes you feel stupid."

IDEO's Culture of Helping

By making collaborative generosity the norm, the design firm has unleashed its creativity.

by Teresa Amabile, Colin M. Fisher, and Julianna Pillemer

<https://hbr.org/2014/01/ideos-culture-of-helping>

How leaders promote psych safety

2. ASK FOR INPUT

The surgeon... "told us to immediately let him know - let everyone know - if anything is out of place."



How leaders promote psych safety

3. SERVE AS A FALLIBILITY MODEL

*"He'll say 'I screwed up.
My judgment was bad
in that case.'"*



HBR: Edmondson, Bohmer, & Pisano, 2001; Edmondson, 2010

How leaders promote psych safety

4. FRAME THE WORK ACCURATELY

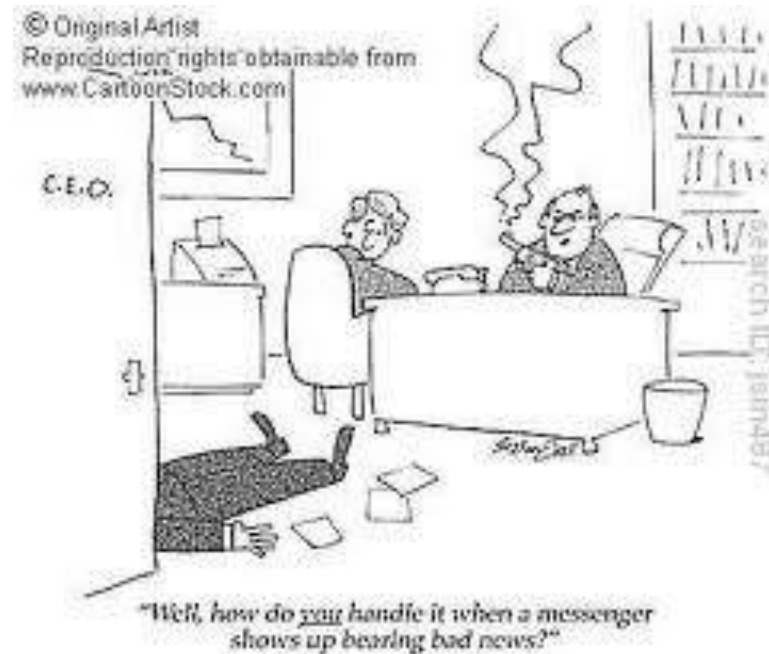
Let everyone know that this is a task where experimentation is encouraged and learning from failure is expected



How leaders promote psychological safety

5. EMBRACE THE MESSENGER

Those who come forward with bad news, questions, concerns, or mistakes should be rewarded rather than shot.



IMPROVISATIONAL CREATIVITY





(HBP. JMS)

SO WHAT 399.
-MILES DAVIS

(BASS LINE ONLY)

D-7 (FELIAN)

1. 2.

(DOR.)

D.S. al f

SOLOS ON ENTIRE FORM:

(D-7)

D-7 Eb-7 D-7

IMPROVISATION IS EVERYWHERE



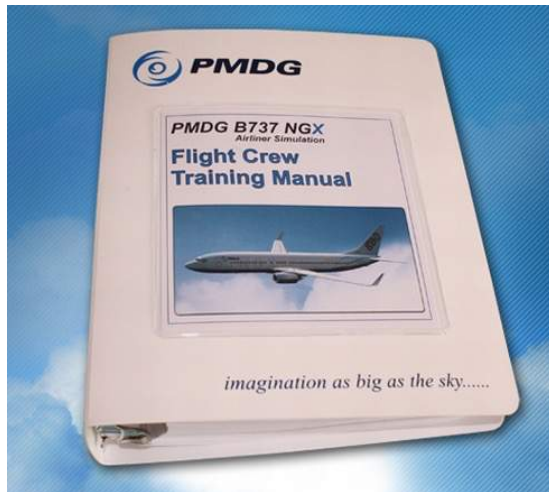
HIDING CREATIVITY



- Improvisation in the Emergency Room
 - Ostensive compliance
 - Improvisation pushed to the “underlife”
 - Increase pressure for standardization

EFFECTIVE IMPROVISATION

- **Simple rules**
 - Minimal structures that enable coordination and flexibility



Eisenhardt & Sull, 2011; Fisher & Barrett, 2019

LEADING FOR CREATIVITY

NOT SO MUCH

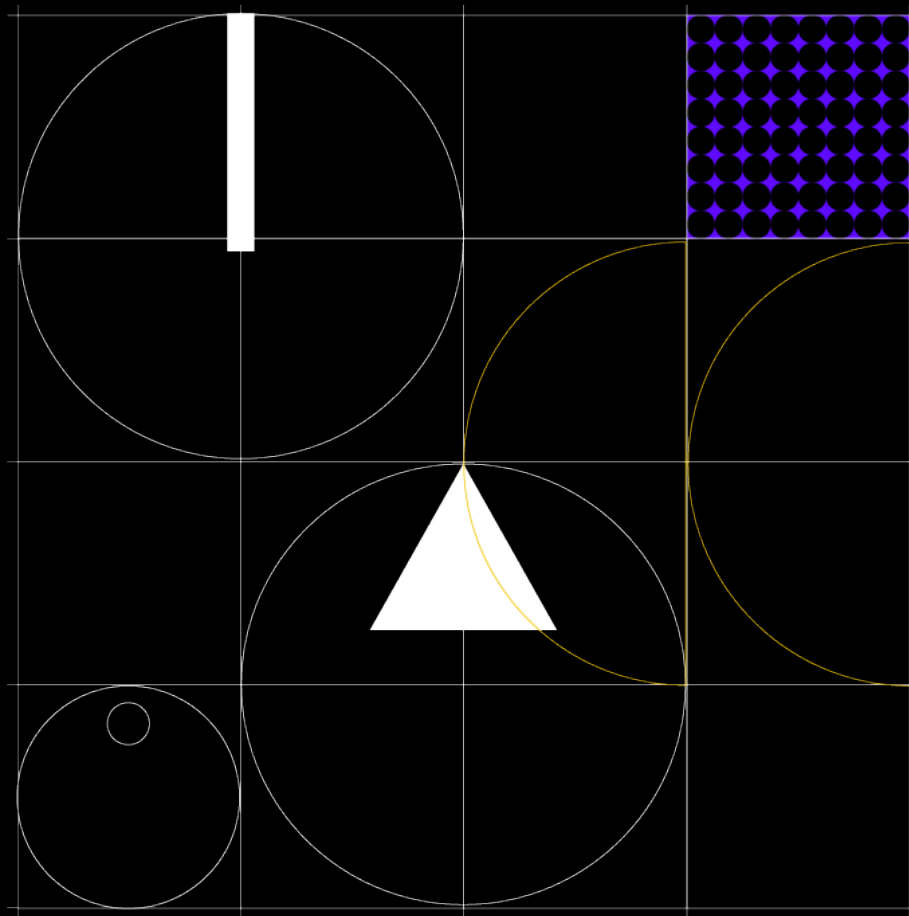


MORE LIKE THIS



SUMMARY

- Constructing problems and generating ideas is *WORK*
- Enhance all three components of creativity by:
 - Designing collaborative processes
 - Fostering intrinsic motivation
 - Building a culture of psychological safety
- Establish “simple rules” to promote (not hide) in the moment creativity
- Enable creativity by shaping the context, not directing the action



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