

Cracking the Creativity Code

How to Discover AND Deliver Ideas

Part One. Discovering Ideas

Arie Ruttenberg & Shlomo Maital



Creativity is an acquired skill, one that improves with practice. The more you practice discovering ideas and implementing them, the better you become at it.

Creativity changes the world and enriches people's lives. To do so takes two different skills.

The first is “discovery” -- discovering new ideas, new products, new services, new and better ways to do everything.

The second is “delivery” – implementing new ideas, using the proven tools and methods of business and management.



Why We Are Passionate About Strengthening Your Creativity

In a world where everyone wants to live better now and tomorrow, than they did yesterday...

the effort to do so is damaging our environment and changing our climate...

...the only solution? Do more with less.

Enhanced creativity, everywhere, everyone, everything, all the time, is our only solution

Overview of the 2 Courses

PART ONE: Students will learn a proven structured method for generating and implementing world-changing ideas known as ‘Zoom in, Zoom out, Zoom in’ that makes creativity more accessible to everyone. They will practice the method with fellow students and use it to tackle challenging real-world needs.

PART TWO: Students will learn how to test their ideas; how to gain self-awareness about their strengths and passions; how to scale up an idea from zero to a global business; how to create a learning organization; how to shape a unique value proposition; how to identify, and build on, true demand-driven market-driven needs; how to start a business with very little money; how to engage in social entrepreneurship; how to be an intrapreneur (entrepreneur, within a large organization); and how to write a business plan.

This course, Part One, on “discovery”, will provide you with proven tools and frameworks that will help you discover an endless stream of creative ideas. In four weeks, you will become measurably better at the creative process. The aim is to empower individuals who believe they have lost their innate creativity -- because their employers or teachers prefer replication and rote to innovation -- and to re-ignite their creative powers.

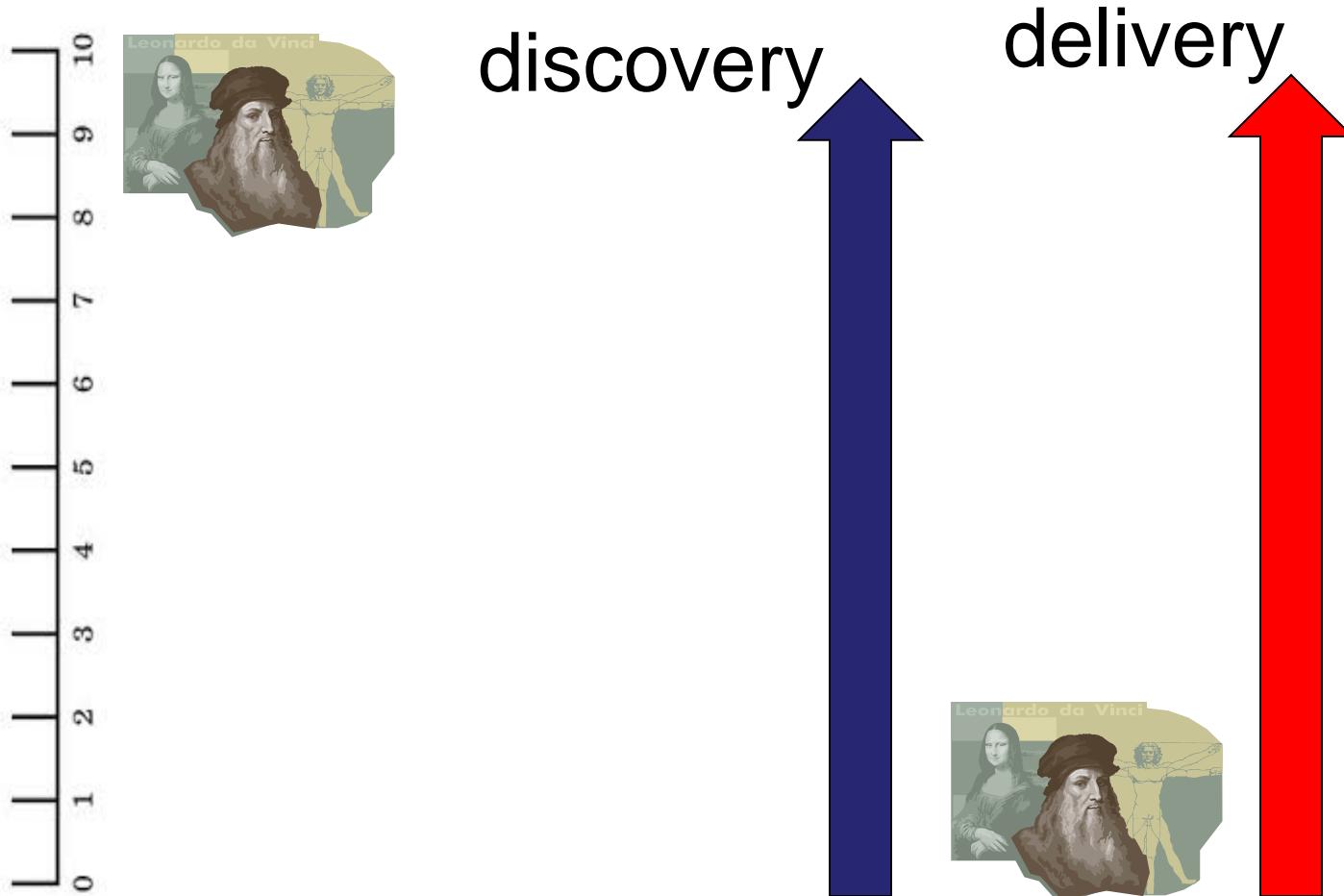
Students will learn a proven structured method for generating and implementing world-changing ideas known as ‘Zoom in, Zoom out, Zoom in’ that makes creativity more accessible to everyone. They will practice the method with fellow students and use it to tackle challenging real-world needs.

You will be given a choice of one of seven difficult challenges, each comprising an unmet need, and asked to find creative ways to satisfy that need. Your idea will be presented in the final project as a two-minute video, shared with other students and evaluated by your peers.

The second four-week course, Cracking the Creativity Code, Part Two: Delivery, will guide you through a series of tools and methods that help take an idea and make it happen, in a way that can sustain the business or organization that delivers it to humanity.

Should you choose to enroll in it, you may use this course to build a solid business or organization around the idea or ideas you developed in Part One: Discovery. *You can take either Part One or Part Two, or both, depending on your interests and needs.*

How Creative Are You ?



How to Discover AND Deliver Ideas

Discovery - generating novel and useful ideas that satisfy unmet needs

Delivery - implementing creative ideas in a sustained manner for the benefit of the largest number of people possible

COURSE OBJECTIVES

- 1. Understand the ‘Zoom in/Zoom out/Zoom in’ (ZiZoZi) method**
- 2. Learn ten exercises that strengthen creativity and practice some of them**
- 3. Study cases of people and ideas that used creativity to change the world**
- 4. Learn about the key findings of 50 years of research on creativity**
- 5. Practice applying ZiZoZi to meet a variety of pressing social needs**
- 6. Learn to apply the energy of creativity to every facet of your life and work**

Reading

- Arie Ruttenberg & Shlomo Maital. *Cracking the Creativity Code: Zoom Out/Zoom In/Zoom Out Framework for More Creativity, Fun and Success.* SAGE (India), 2014. 152 pages. Available as an e-book. Below; Referred to as CCC. Optional.
- Shlomo Maital & D.V.R. Seshadri. *Innovation Management: Strategies, Concepts and Tools for Profit and Growth.* SAGE (India), 2nd edition, 2012. 524 pages. Available as e-book. Optional.
- *Additional readings as required*

About Our Book

Arie Ruttenberg
Shlomo Maital

CRACKING the
Creativity CODE



Framework for
Creativity, Fun, and Success



About the Instructors



Arie



Shlomo

The Seven Unmet Needs Challenges

Each participant is asked to choose one of the following six unmet needs. At the onset of the course, participants will record and submit ideas for solving or meeting one or more of these unmet needs:

- **Create a new kind of restaurant.**
- **Find a way to bring the Internet to 4.5 billion people who currently lack it.** At present, 2.4 billion people are connected to the Internet; 44.8 percent of them are in Asia. That means that 4.6 billion people have NO Internet connection. How can this pressing need best be met?

- **Find a way to save millions of lives, lost through inhalation of smoke from indoor cooking fires.** At present, 2.8 billion people in the world cook over open fires; 4.3 million people die each year due to indoor air pollution, caused by open fires used for cooking. Most of the deaths are women and children.
- **Find a way to bring electricity to the 1.3 billion people in the world who have no access to it.** Half the world's children go to schools without electricity.
- **Find a way to prevent babies and small children from being forgotten in locked cars.** Between 1998 and 2010, 463 children have died of overheating or hyperthermia in cars in the United States, the majority of whom were accidentally left behind by caregivers.

- Find a new, healthy, tasty and popular beverage, in an eco-friendly package.

60 million plastic water bottles are used annually in the United States alone

- Find a way to foster creativity in elementary and secondary schools, while improving basic skills and knowledge in math, reading, and science.

According to a study by Land & Jarman, 98 percent of 5-year-olds score “genius” on a creativity test; at age 10, 32 per cent score “genius”, and at age 15, 10 per cent. By adulthood, only 2 per cent score “genius”. The precious resource, “creative thinking”, is being massively destroyed, in part by the schooling process. How can this be halted?

Creativity is an acquired skill, that *improves with practice*. This course aims to empower individuals who believe they have lost their innate creativity - because their employers or teachers prefer replication and rote to innovation – *to re-ignite their creative powers.*

Students will learn a proven structured method for generating and implementing world-changing ideas known as ‘Zoom in, Zoom out, Zoom in’ that makes creativity more accessible to everyone. They will practice the method with fellow students and use it to tackle challenging real-world needs.

The Last Session (is the first):

What you have learned in this course

- 1. Understand the ‘Zoom in/Zoom out/Zoom in’ (ZiZoZi) method (week 2 & 3)**
- 2. Learn ten exercises that strengthen creativity and practice some of them (week 4 & 5)**
- 3. Study cases of people and ideas that used creativity to change the world (week 1, 2, 3 &7)**
- 4. Learn about the key findings of 50 years of research on creativity (week 6)**
- 5. Practice applying ZiZoZi to meet a variety of pressing social needs (week 8)**
- 6. Learn to apply the energy of creativity to every facet of your life and work (life long...)**

Week One Your Creative Brain is a Muscle: Use It! (But...You Never Lost It)

1.1 Definition of creativity: “widening the range of choices”. Why creativity falls rapidly from age 5 to age 15; are schools to blame? Why creativity is not just about inventing gadgets. 1.2 A first encounter with the ZiZoZi method. Is creativity hereditary or learned? What is your deepest passion? (Start with ‘why’, not with what). 1.3 Self-test your creativity. 1.4 Self-test your ‘discovery’ and ‘delivery’ skills. 1.5 The imagination elevator. 1.6 The Zizozi Zoom in/Out/In framework. 1.7. Zizozi in action. 1.8 More Zizozi stories. 1.9 How to build your creativity ‘muscles’. 1.10 Summary, preview of next week’s sessions..

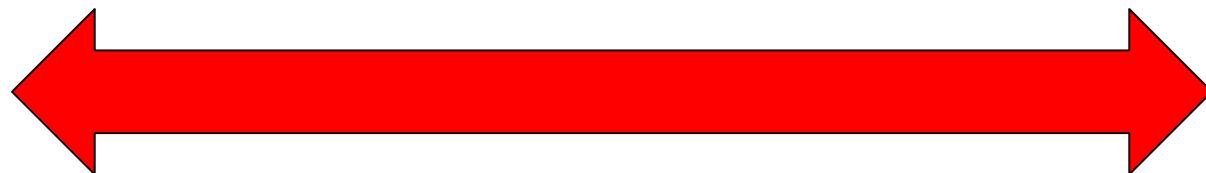
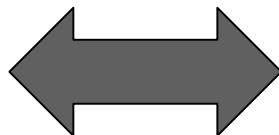
Week One

Session #1

1.1 Definition of creativity: “widening the range of choices”. Why creativity falls rapidly from age 5 to age 15; are schools to blame? Why creativity is not just about inventing gadgets.

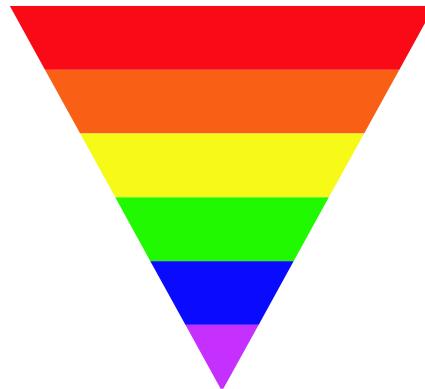
A Key Definition

Creativity is widening the range of choice.



What *is* Creativity?

Creativity is “widening the range of choices”



You can do the same thing...or you can try something new. It can only get better.

Head in the Clouds



Feet on the Ground

Sir Kenneth Robinson

Do schools kill creativity?

<http://youtu.be/iG9CE55wbtY>

Out of Our Minds: Learning to be Creative. Capstone: 2011

**I expect you all to be
independent, innovative, critical
thinkers.....**

....who will do exactly as I say!

Do we teach children in ways that foster creativity?

- Public school systems were shaped by the needs of the Industrial Revolution for factory workers (Henry Ford: “When I hire a pair of hands, why do they always come attached to a brain?”).

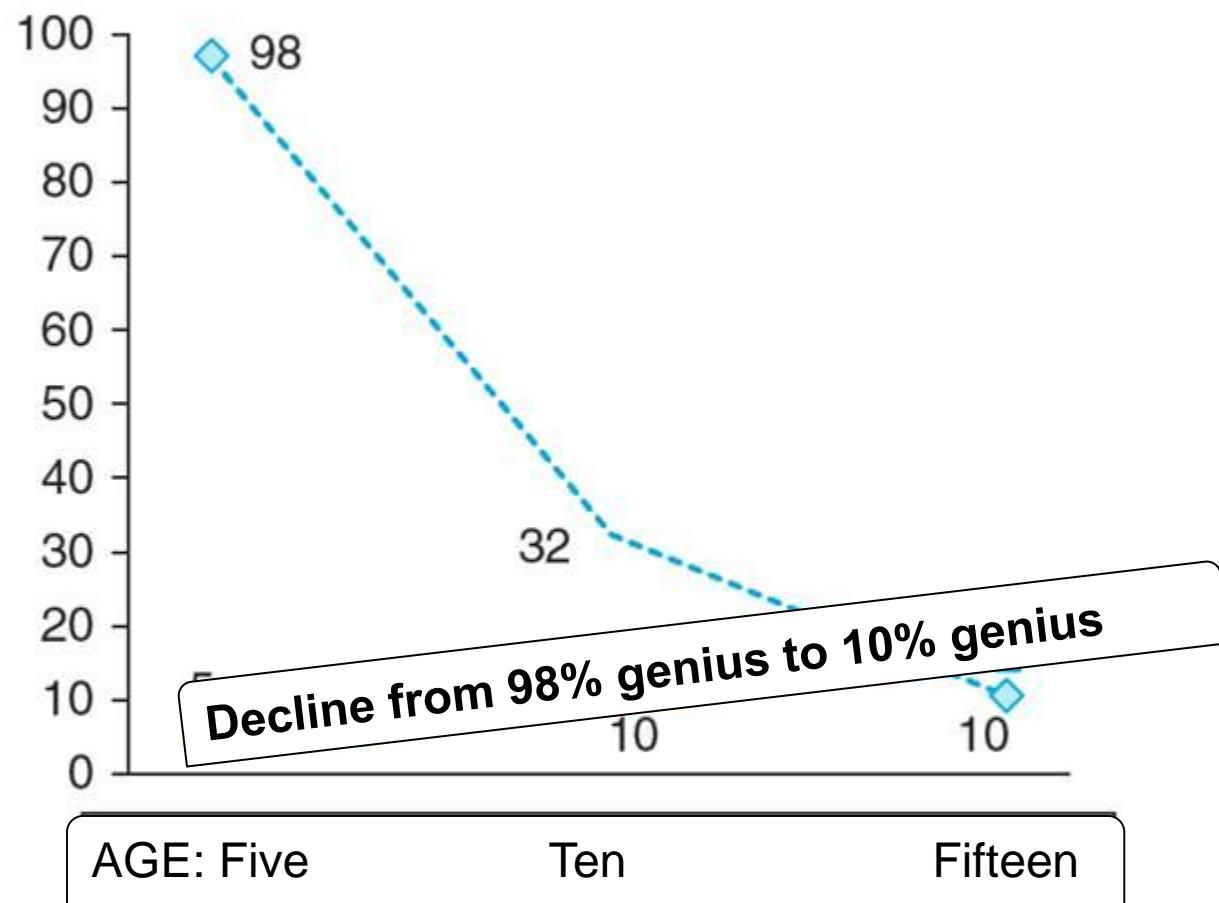
They tend to teach one right answer, which contradicts the very definition of creativity.

“Creativity gets killed much more often [by organizations] than it gets supported”. (Amabile, 1998).



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Figure 0.1 Decline of Creativity by Age



SOURCE: Land & Jarman, 1992.

CAN we teach children to think creatively?

- E. Paul Torrance: “I know it can be done. I have done it. I have seen my wife do it. I have seen excellent teachers do it. I have seen children “non-thinkers” learn to think creatively ..for years thereafter.”
- 142 studies show how. Many use the Osborn (1952) Creative Problem Solving Approach.
The most effective programs used “realistic practice exercises”
(Scott, Leritz & Mumford, ‘04)

Dr. Norman Doidge: *The Brain That Changes Itself: Stories of Personal Triumph from the Frontiers of Brain Science.* 2007.



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Creativity is NOT just about inventing “gadgets”

In a world of increasing resource scarcity, growing economic inequality of wealth and income, and pressing human needs – our main hope is to widen the range of choices, to prolong and enrich our lives, through enhanced creativity – everywhere, all the time

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Week One

End of Session #1

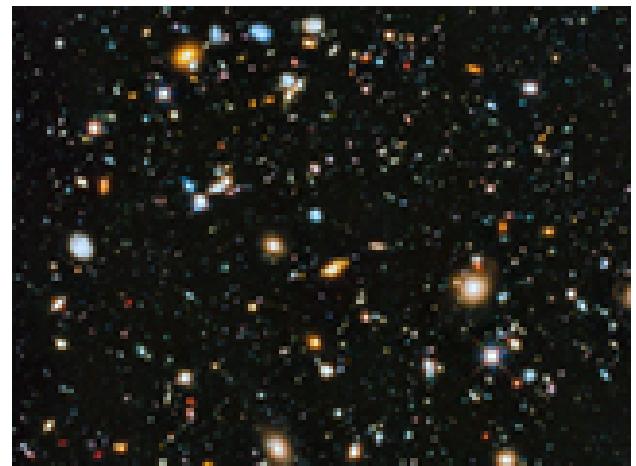


Week One

Session #2

A first encounter with the ZiZoZi method. Is creativity hereditary or learned? What is your deepest passion? (Start with ‘why’, not with what).

An Initial Quick Encounter with ZiZoZi: Our Creativity Method



Zoom In ...

Zoom Out ...



Creativity is NOT fixed by your genes



Source: NIH Image Bank

Creativity is N O T IQ !

- Torrance's (1957) TTCT creativity index predicts creative accomplishments as adults highly accurately. The correlation between lifetime creative accomplishment and childhood creativity is *more than three times higher* than the correlation between childhood IQ and lifetime accomplishment.

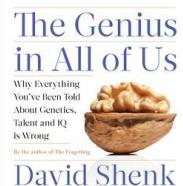


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Creativity: Made? Or Born?

- **Shenk (2010): “the problem isn’t our inadequate genetic assets, but our inability so far to tap into what we already have.”**

Shenk: Genetics x Environment.



- **William James: “human individuals live far within their limits”.**



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Motivation Holds the Key

John Hayes (1990): “the surprising fact is that *all of the variables* which discriminate between creative and non-creative people are *motivational*”.



What is your deepest passion?

da Vinci's 8 Power Questions

When am I most 'myself'?

**What is the ONE THING I could do, or stop doing,
that would most improve the quality of my life?**

What is my greatest talent?

How can I get paid for doing what I love best?

Who are my most inspiring role models?

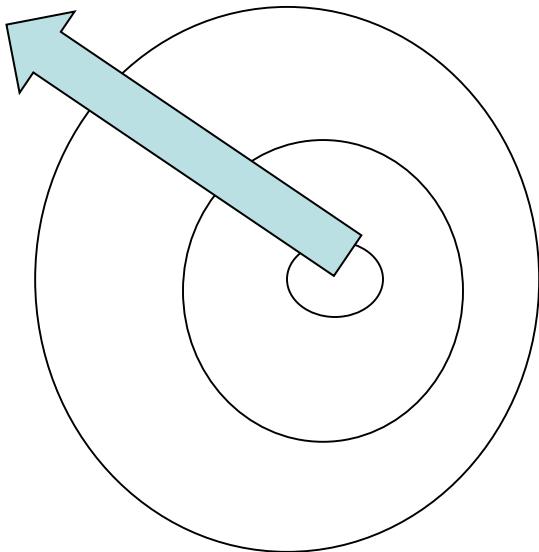
How can I change the world?

What is my deepest passion?

What will be my life's legacy?

Simon Sinek

Start with Why!



<http://youtu.be/lPYeCItXpxw>

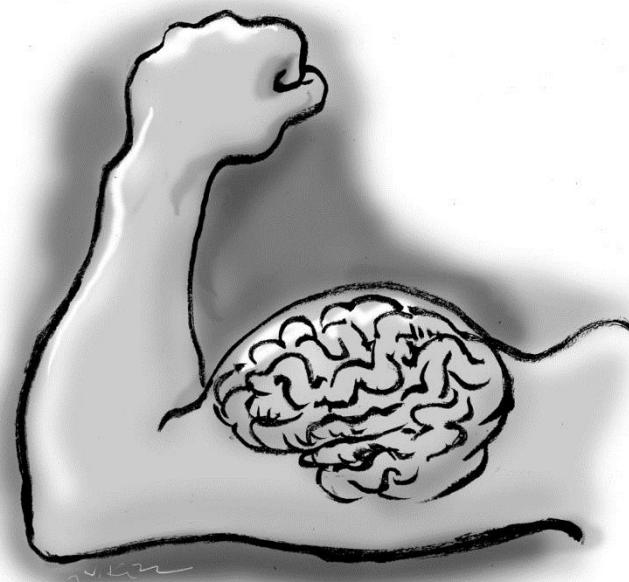
5 minutes

Week One

Session #3

**Test your creativity: Torrance Creativity Test
(demonstration version)**

Test Your Creativity



Torrance Test of Creative Thinking

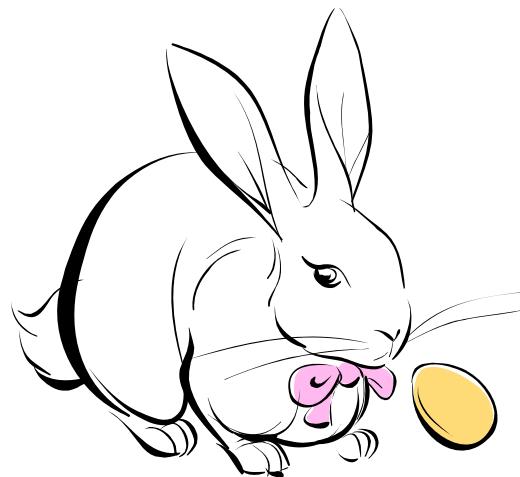
Torrance Tests of Creative Thinking—Figural and Verbal Demonstrator

Directions: Do not begin until you are told to do so.

- * Try to think of things that no one else will think of.
- * Try to think of as many ideas as possible.
- * Add details to your ideas to make them complete.
- * If you finish before time is up, you may continue to add details or sit quietly. Please do not go to the next activity until told to do so.

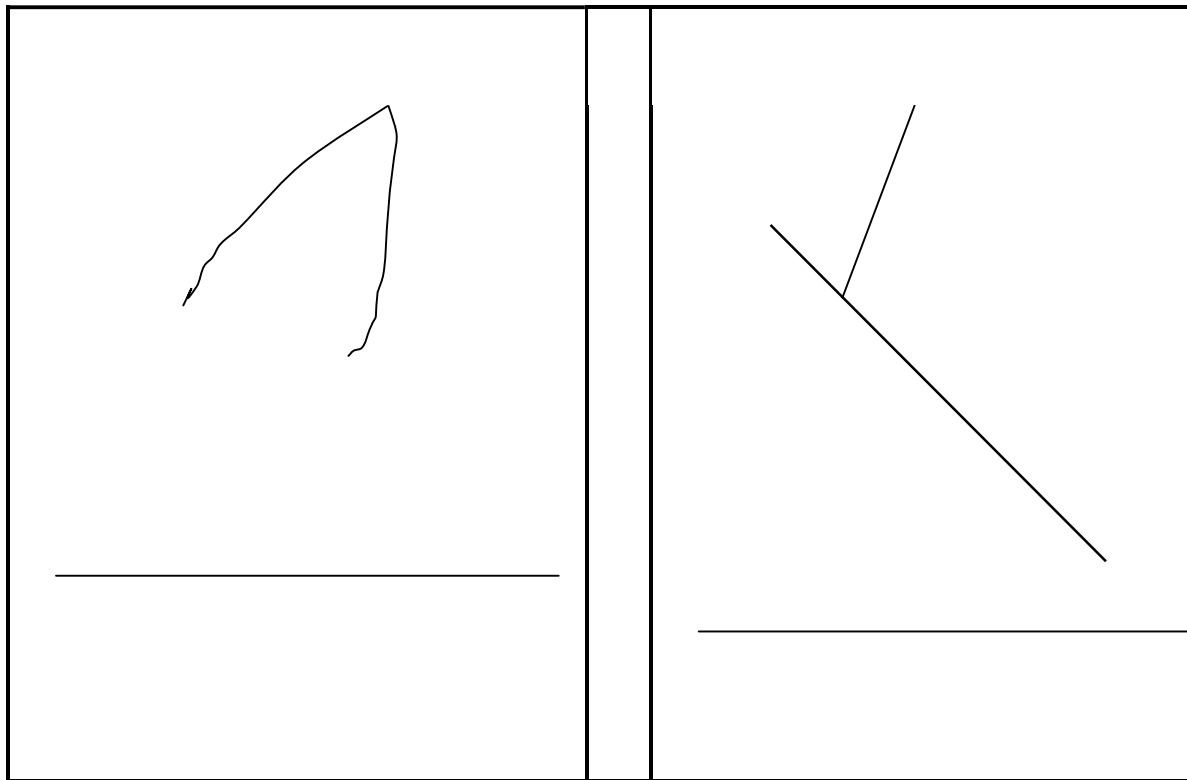


Activity 1: Try to improve this stuffed toy rabbit so that it will be more fun to play with. You have 3 minutes.

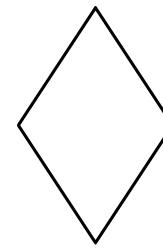
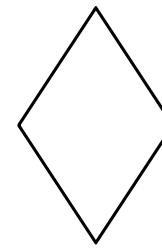
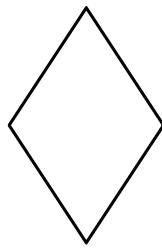
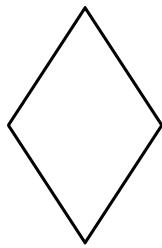
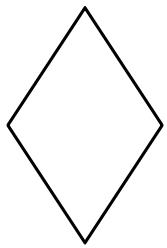


Activity 2: Just suppose that people could transport themselves from place to place with just a wink of the eye or a twitch of the nose. What might be some things that would happen as a result? You have 3 minutes.

Activity 3: Add lines to the incomplete figures below to make pictures out of them. Try to tell complete stories with your pictures. Give your pictures titles. You have 3 minutes.



Activity 4: Add details to the shapes below to make pictures out of them. Make the diamond a part of any picture you make. Try to think of pictures no one else will think of. Add details to tell complete stories with your pictures. Give your pictures titles. You have 3 minutes.



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Week One

End of Session #3



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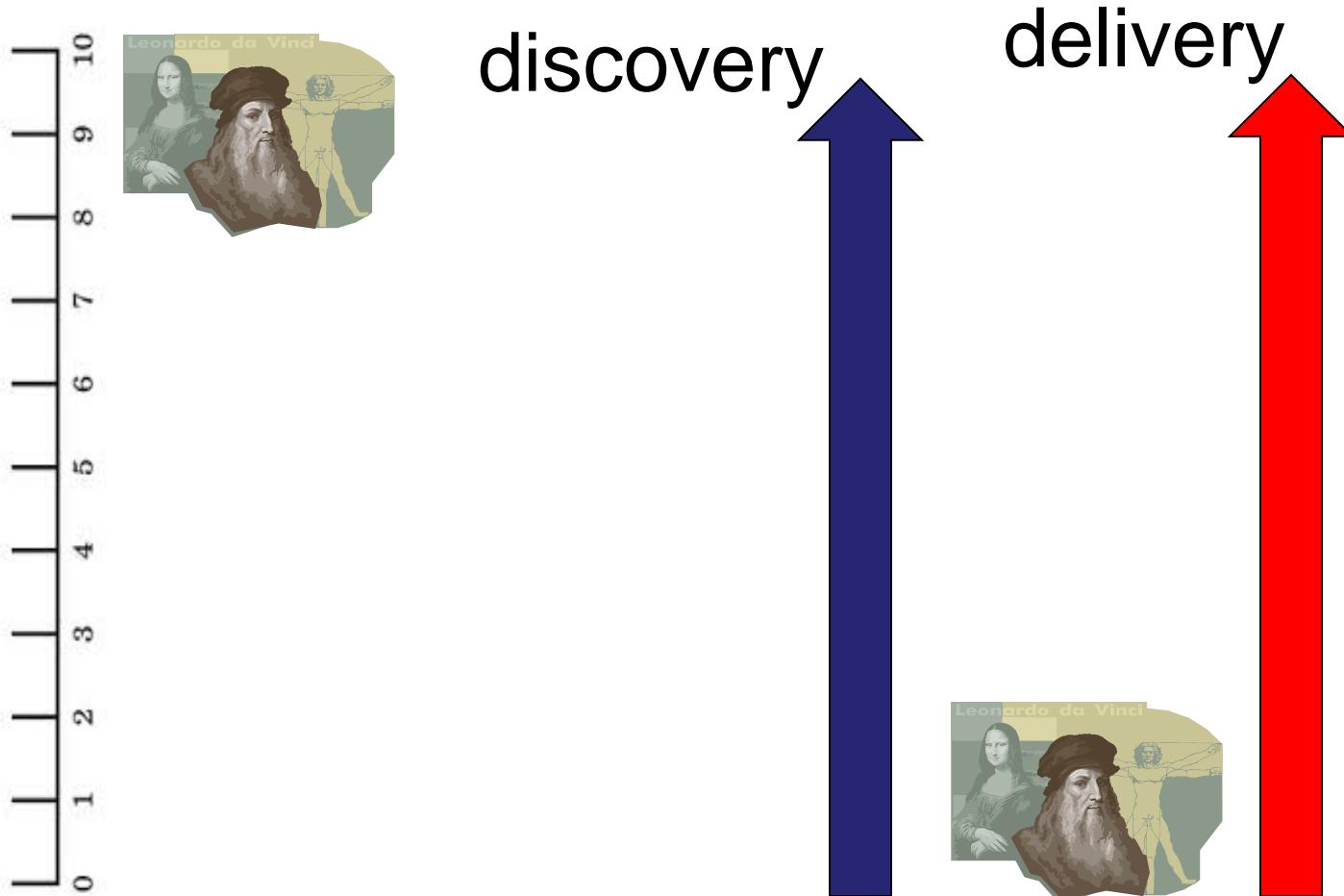
Week One

Session #4

**Self-test your ‘discovery’ and
‘delivery’ skills**



How Creative Are You ?



Discovery vs. Delivery

Score each item: 1 strongly disagree; 2 somewhat disagree; 3 neither agree nor disagree 4 somewhat agree; 5 strongly agree

- 1. Frequently my ideas or perspectives diverge radically from the perspectives of others.**
- 2. I am very careful to avoid making mistakes in my work.**
- 3. I regularly ask questions that challenge the status quo.**
- 4. I am extremely well organized at work.**
- 5. New ideas often come to me when I am directly observing how people interact with products and services.**

(source: Dyer, Gregersen, Christensen, *The Innovator's Dilemma*



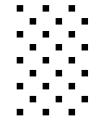
- 6. I must have everything finished “just right” when completing a work assignment.**
- 7. I often find solutions to problems by drawing on solutions or ideas developed in other industries, fields or disciplines.**
- 8. I never jump into new projects and ventures and never act quickly without carefully thinking through all the issues.**
- 9. I frequently experiment to create new ways of doing things.**
- 10. I always follow through to complete a task, no matter what the obstacles.**
- 11. I regularly talk with a diverse set of people (e.g. from different business functions, organizations, industries, geographies, etc.) to find and refine new ideas.**
- 12. I excel at breaking down a goal or plan into the micro tasks required to achieve it.**

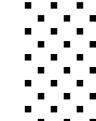


- 13. I attend conferences on my areas of expertise, as well as unrelated areas, to meet new people and understand what issues they face.**
- 14. I pay careful attention to details at work to ensure that nothing is overlooked.**
- 15. I actively seek to identify emerging trends by reading books, articles, magazines, blogs...**
- 16. I hold myself and others strictly accountable for getting results.**
- 17. I frequently ask “what if” questions that provoke exploration of new possibilities.**
- 18. I consistently follow through on all commitments and finish what I start.**
- 19. I regularly observe the actions of customers, suppliers, or other organizations, to get ideas.**
- 20. I consistently create detailed plans to get work done.**

DISCOVERY SCORE: _____

DELIVERY SCORE: _____

**Score on odd questions [1,3, etc.]
is your “Discovery” score** 

**Score on even questions [2,4,
etc.] is your “Delivery” score** 

The Story of Fermat's Last Theorem

“no three positive integers a , b , and c can satisfy the equation $a^n + b^n = c^n$ for any integer value of n greater than two” Pierre Fermat, 1637

After 358 years of effort by mathematicians, a successful proof was published by Prof. Andrew Wiles in 1994/95. He worked on it for 6 years in secrecy....



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Week One

End of Session #4



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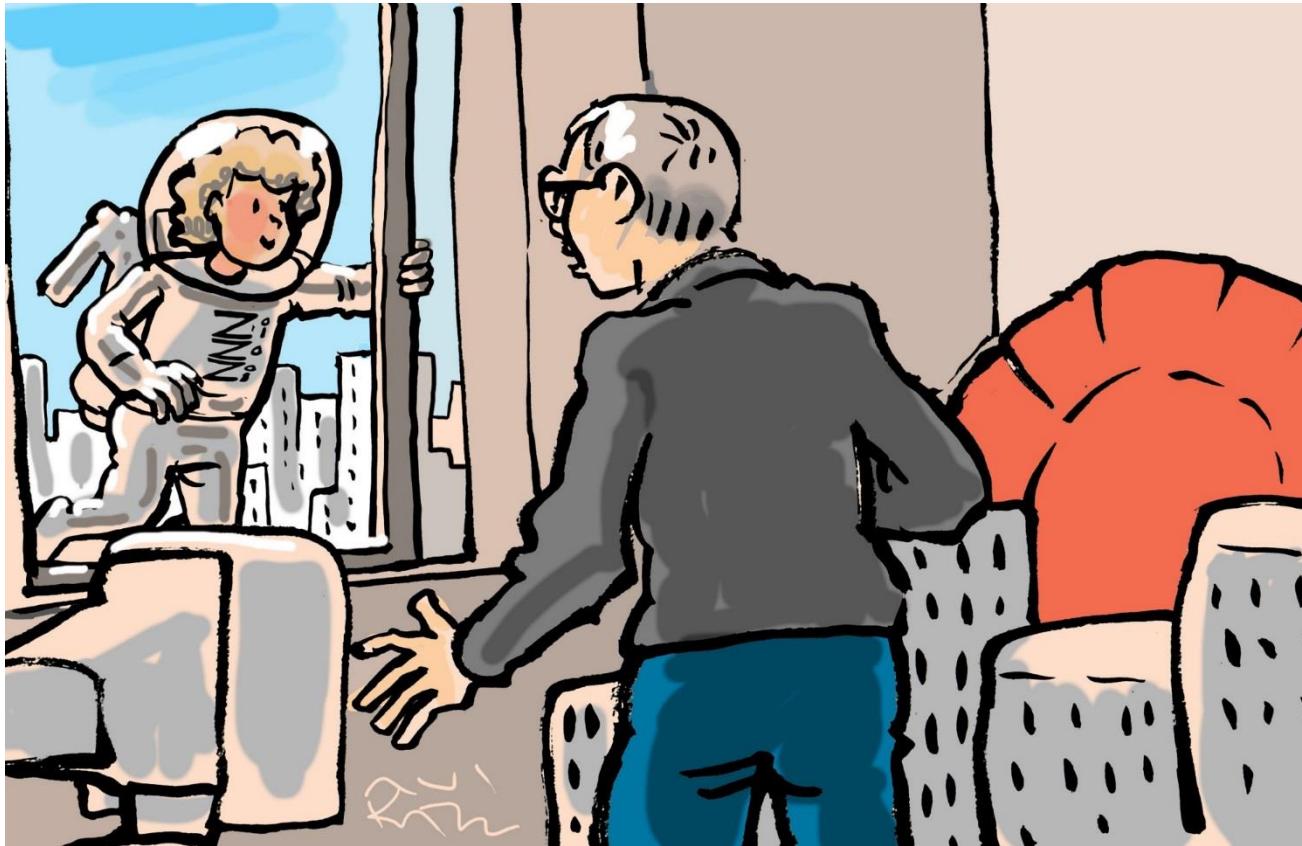
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Week One

Session #5

**The Imagination Elevator – a story
you won't believe**







***What did ZiZoZi
find
on the 989th floor
of the Imagination
Elevator?***

The Essence of Discovery

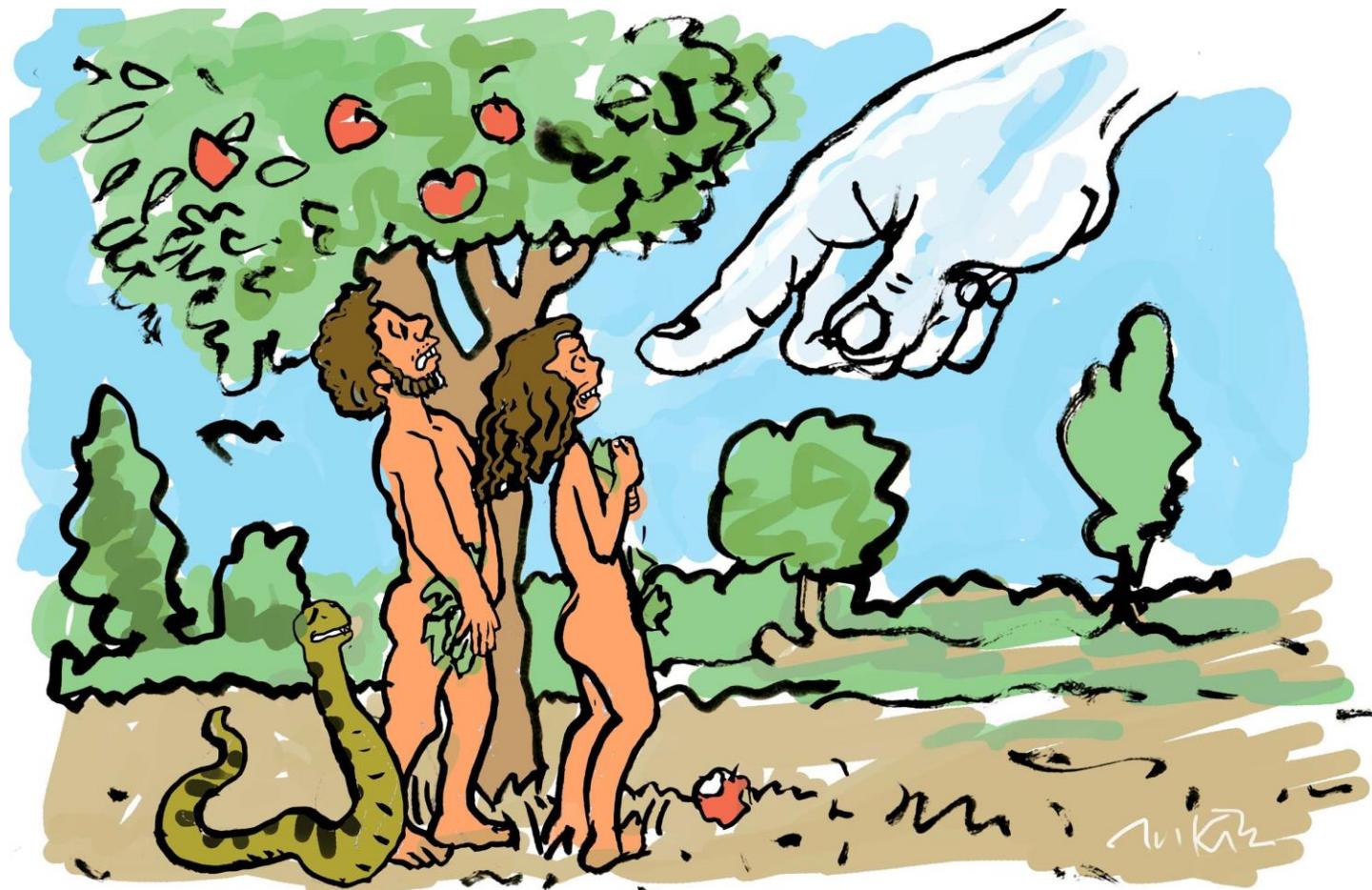
Two Possible Approaches:

Ideas for solving challenges do not exist – we have to invent them

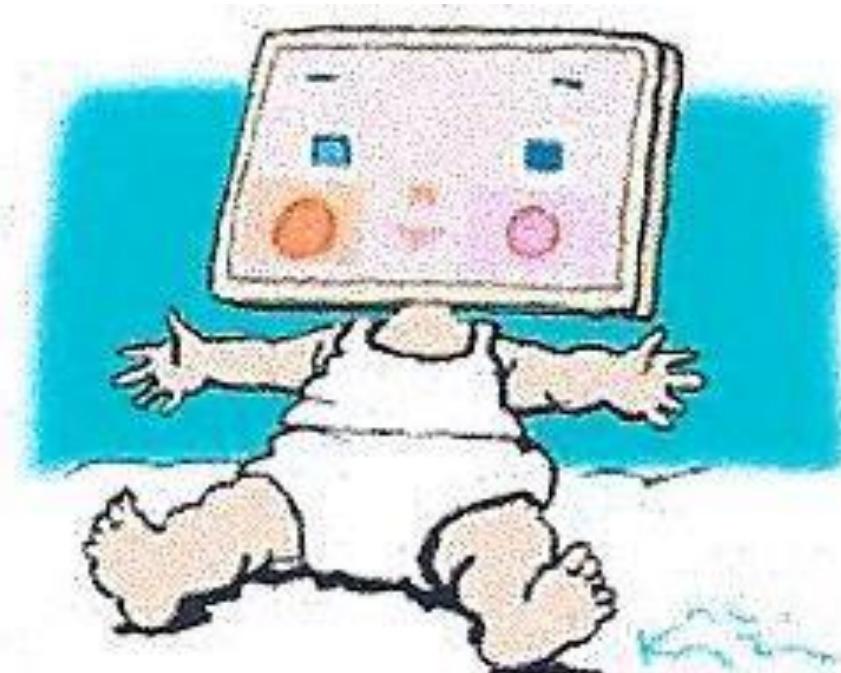
OR

Ideas for solving challenges ALL do exist – we have to discover and harvest them, with the Imagination Elevator

The Garden of Eden



Your Brain as a PC ?



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Week One

End of Session #5



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Week One

Session #6

**Widening the range of choices –
the Zoom in/Zoom out/Zoom in
framework**

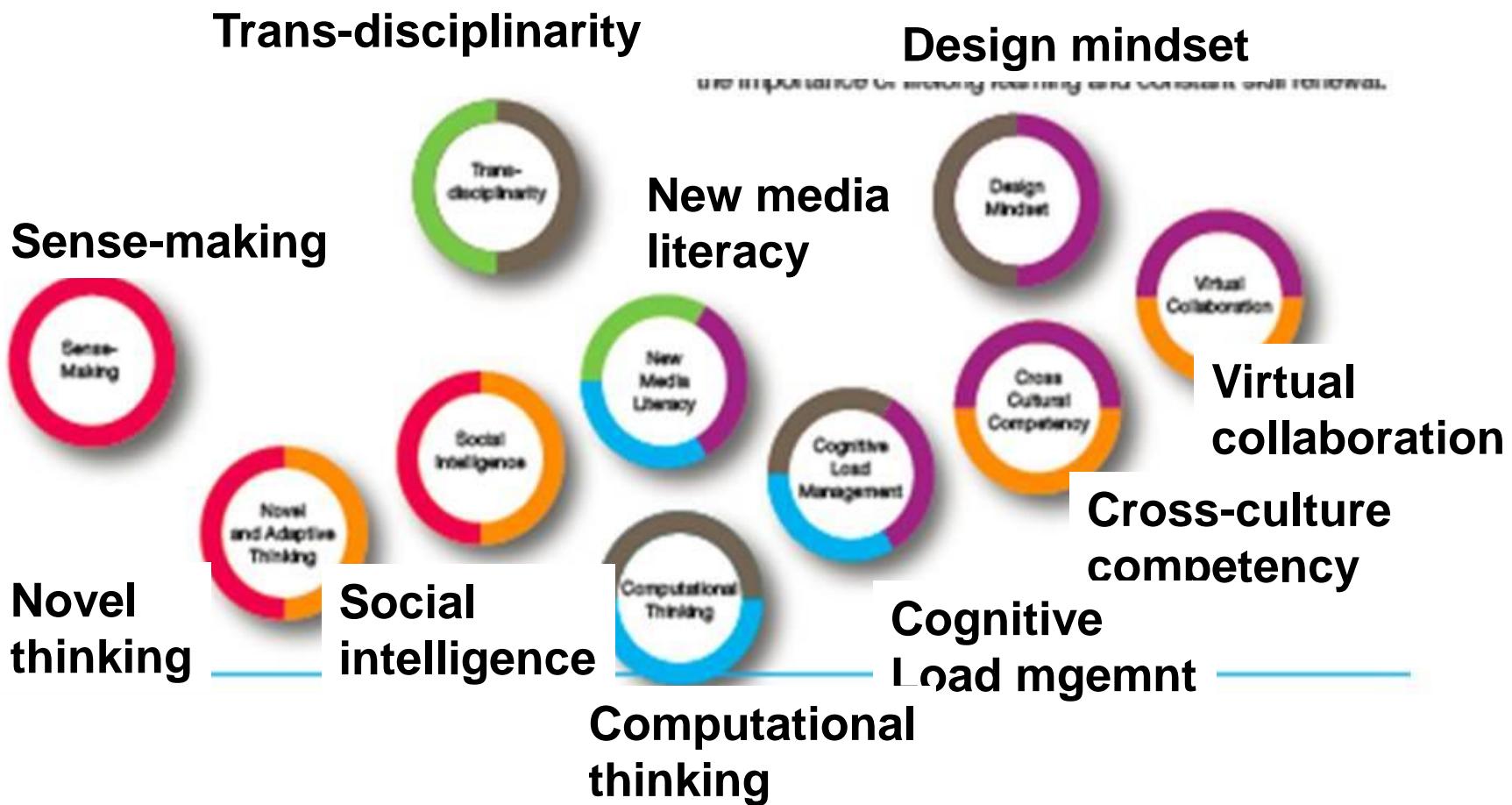


EUREKA !!!

EUREKA !!!

EUREKA !!!

EUREKA !!!



10 Skills You Need Now

The ZiZoZi method, in depth

Zoom in: Grasping every possible detail and fact related to the challenge at hand. Case study: Edison's light bulb.

Zoom out: Taking the Imagination Elevator to the 989th floor to collect wild ideas. Benchmarking as a key tool. Is it innovative to 'borrow' and 'adapt'? How to challenge basic assumptions (Peter Drucker).

Zoom in: Returning to ground floor with the basket of ideas and converging – selecting the best one. Managing the tradeoff between 'discovery' and 'delivery'. Creativity everywhere, all the time, everyone, everything. Case studies



**Meet the client
Understand the challenge**



**Go to Floor 989
Harvest Creative Ideas**



**Production:
Choose &
Implement**

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Week One

End of Session #6



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Week One

**Session #7
ZiZoZi in action:
Stories to inspire & aspire**



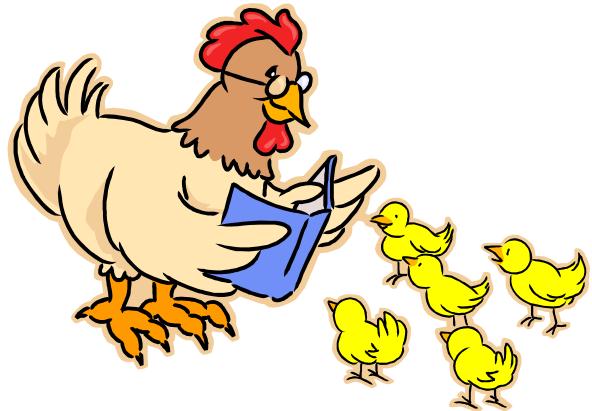
Creativity Can Be Risky!



**Human creativity has no limits –
except those we ourselves place upon it.**

-- *adapted from Carl Jung*

Creativity in Action: 8 Zoom in/Zoom Out Stories







“Who Needs another Search Engine???”



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Week One

End of Session #7



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Week One

Session #8

More ZiZoZi stories



Stories: ZiZoZi In Action

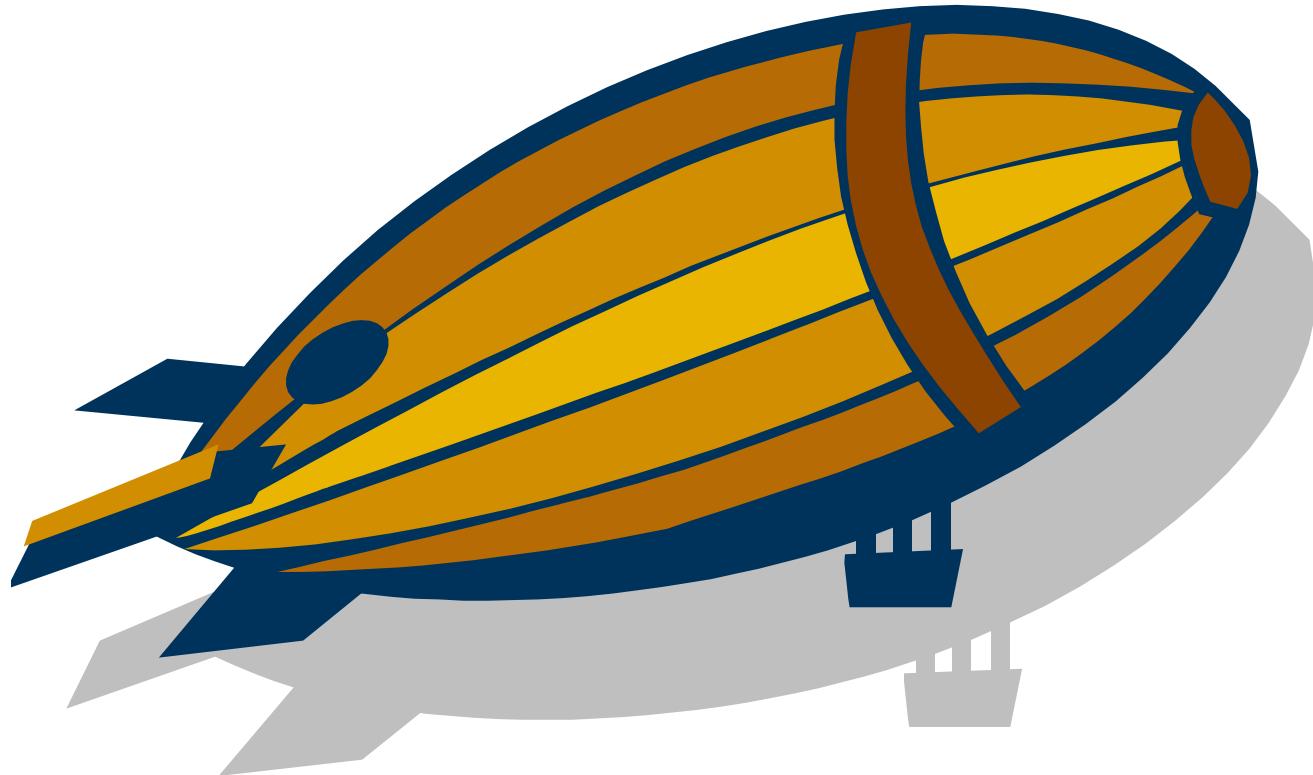
- * Blackout Restaurant
- * The Curious Case of Benjamin Button
- * Airlander: Airships Rise from the Dead
- * Daybreak Party
- * Rjukan, Norway: Here Comes the Sun
- * Panera Cares

Case Study: Blackout Restaurant



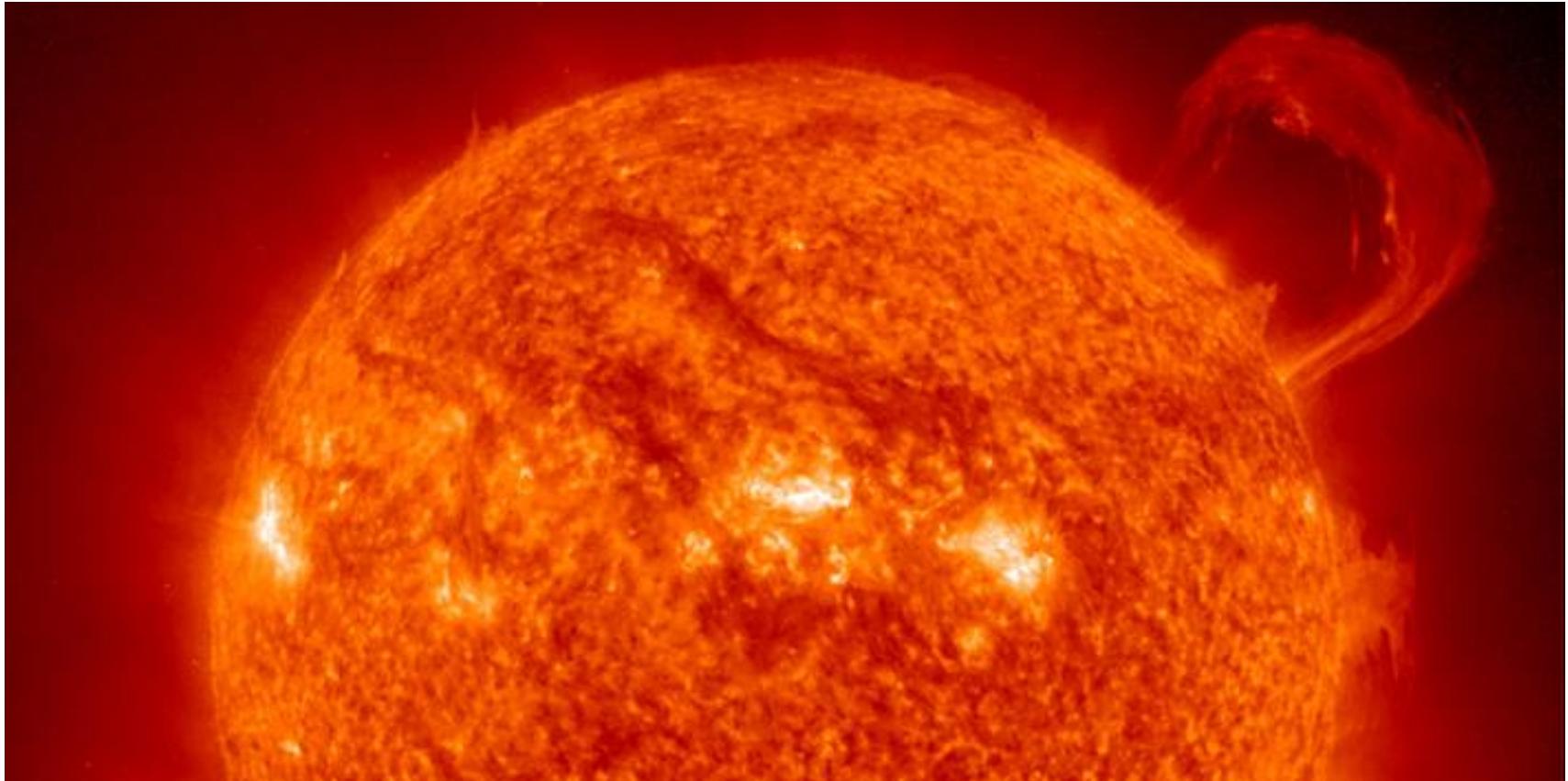
The Curious Case of Benjamin Button (1922)





Airlander: Airships Rise from the Dead





Source: NASA

Rjukan, Norway: Here Comes the Sun





The Day

Boring Ties

Disappeared...

Forever

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Week One

End of Session #8



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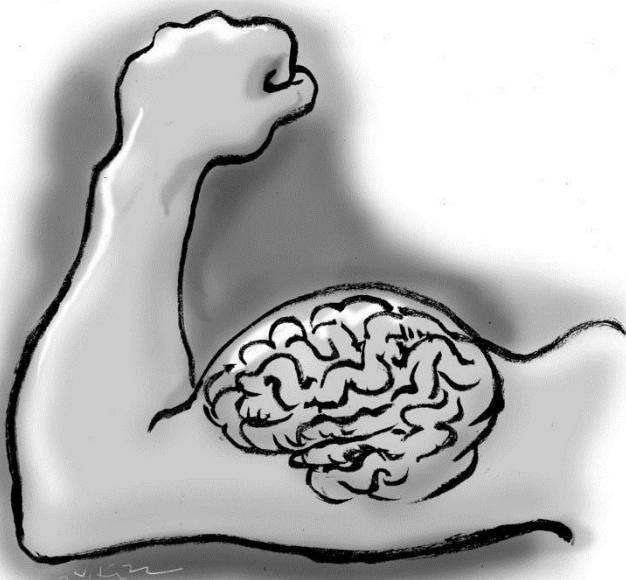
Week One

Session #9

**How to build your creativity
'muscles'**



Your Creative Brain is a Muscle – Exercise it!



Source: National Institutes of Health Image Bank

Creativity Exercises: 1 to 5

- 1. Act don't just gripe.**
- 2. Break the rules (intelligently).**
- 3. Change Your Habits.**
- 4. Develop Resilience: Embrace Failure.**
- 5. Explore Dark Corners, Experiment**

Everywhere.

Creativity Exercises: 6 to 10

- 6. Learn to focus.**
 - 7. Grow your persistence.**
 - 8. Hear, Listen, Teach.**
 - 9. Individualize: It's always Personal.**
 - 10. Become Who You Are (Join Yourself).**
- 10 + 1 Microscope Joined to Telescope: Zoom in, Zoom out, become expert at**

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Week One

End of Session #9



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Week One

Session #10

Summary of Week One; Preview of Week Two

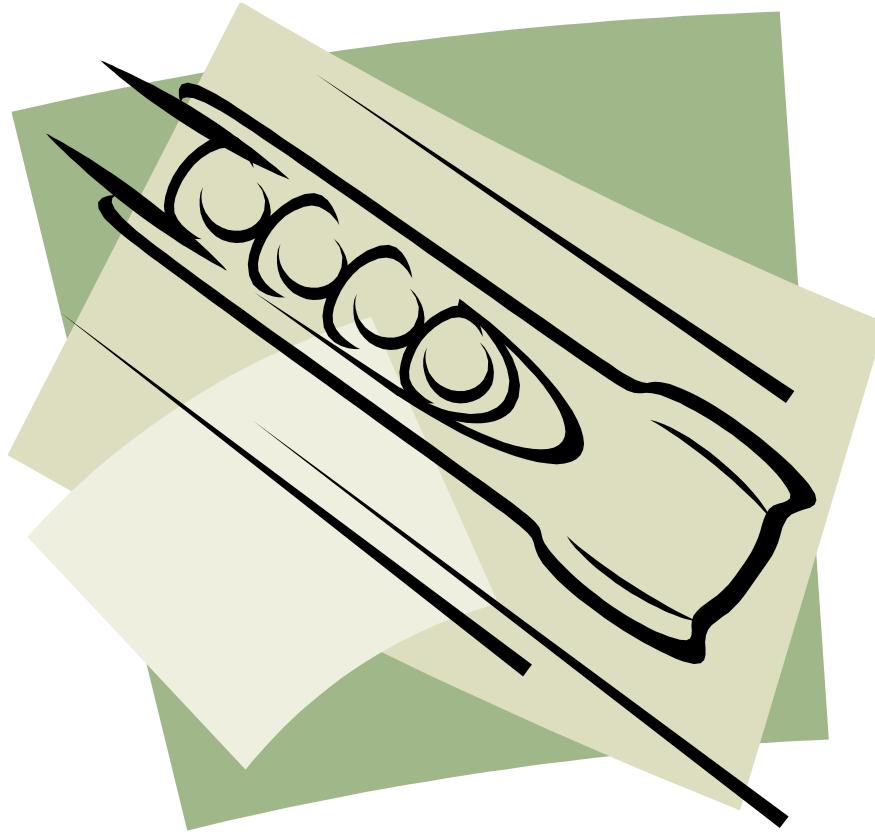




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By Salvador Dali

Source: <http://www.123rf.com/stock-photo/dali.html>



Jamaican Bobsled Team - to Sochi Olympics

Louis Mobley - IBM

Mobley's 6 principles for greater creativity (IBM) (1956)

- Traditional teaching methods are worse than useless.
- Becoming creative requires Unlearning
- You do not *learn* to be creative; you *become creative* by action, by transforming yourself
- Fastest way to become creative: Hang out with creative people
- Creativity is highly-correlated with self-knowledge, and self-awareness
- Creative people give themselves, and others, permission to be WRONG!

**Human creativity has no limits –
except those we ourselves place upon it.**
-- *adapted from Carl Jung*

**You cannot solve a problem with the
same level of thinking that created it.**
-- *Albert Einstein*



Head in the Clouds



Feet on the Ground

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A Preview of Week Two

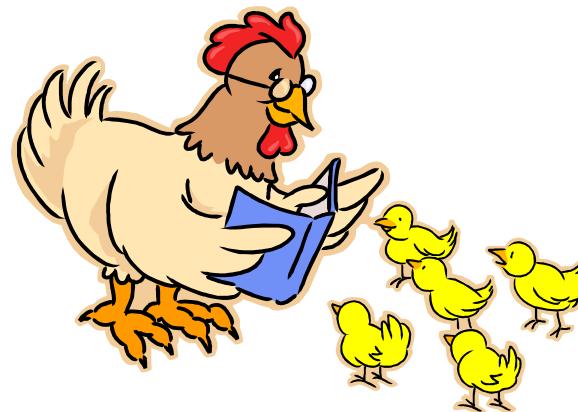


2.1 The ZiZoZi method, in depth. Zoom in: Grasping every possible detail and fact related to the challenge at hand. **2.2 Case study: Edison's light bulb.** **2.3 Zoom out: Taking the Imagination Elevator to the 989th floor to collect wild ideas.** **2.4 Benchmarking as a key tool.** **2.5 Is it innovative to 'borrow' and 'adapt'?** **2.6 How to challenge basic assumptions (Peter Drucker).** **2.7 Zoom in: Returning to ground floor with the basket of ideas and converging – selecting the best one.** **2.8 Managing the tradeoff between 'discovery' and 'delivery'.** **2.9 Creativity everywhere, all the time, everyone, everything.** **2.10 Case studies**

What is YOUR story?

**Write your personal narrative,
showing how you employed your
vast creativity to change the world,**

2014 to 2044





GRACIAS A LA VIDA

**THANKS TO THE LIFE THAT HAS GIVEN ME SO MUCH
IT HAS GIVEN STRENGTH TO MY TIRED FEET
WITH THEM I WALKED CITIES AND PUDDLES
BEACHES AND DESSERTS, MOUNTAINS AND PLANES
AND YOUR HOUSE, YOUR STREET AND YOUR
COURTYARD**

**THANKS TO THE LIFE THAT HAS GIVEN ME SO MUCH
I GAVE MY BEATING HEART**

WHEN I LOOK AT THE FRUIT OF THE HUMAN BRAIN

WHEN I LOOK AT THE GOOD SO FAR FROM THE BAD

WHEN I LOOK INSIDE YOUR CLEAR EYES

**THANKS TO THE LIFE THAT HAS GIVEN ME SO MUCH
IT GAVE THE LAUGHTER AND THE CRYING**

SO I CAN DISTINGUISH HAPPINESS FROM SADNESS

BOTH MATERIALS THAT FORM MY SONG

AND YOUR SONG THAT IS MINE TOO

AND THE SONG OF ALL WHICH IS MY OWN SONG

THANKS TO THE LIFE THAT HAS GIVEN ME SO MUCH

Mercedes Sosa

Song by
Chilean musician
Violeta Parra

Cracking the Creativity Code

Arie Ruttenberg & Shlomo Maital



Week One

End of Session #10



Quiz: Week One