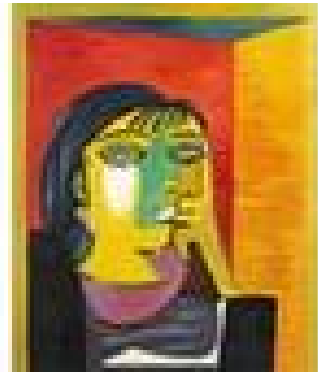
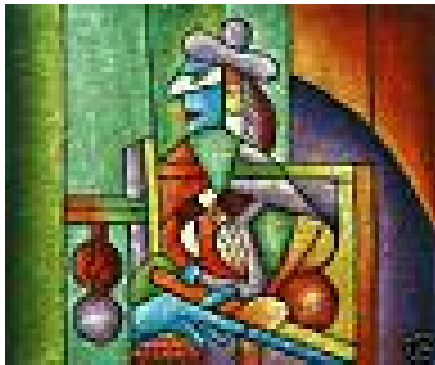


Pablo Picasso was not just another artist: Why was that?

Rob Reilly Ed.D.



Words of wisdom

“The scientist seeks to understand what is... the engineer seeks to create what never was...”

--Theodore von Karman

person who invented sliced bread...



Words of Wisdom

Thinking inside the box means accepting the status quo.

For example, Charles H. Duell, Director of the US Patent Office, said, *"Everything that can be invented has been invented."* That was in 1899: clearly he was in the box!



Thinking Outside the Box

- What is life like inside the Box?



Inside the Box Thinkers

In-the-box thinkers:

- difficult to recognize the quality of an idea.
 - rarely invest time to turn mediocre solution into great solution.
- skillful at killing ideas.
 - killer attitude such as "that'll never work" or "it's too risky."
 - drain the enthusiasm and passion of innovative thinkers
 - kill innovative ideas.



Inside the Box Thinkers

- believe that every problem needs only one solution
 - more than one possible solution is a waste of time.
 - Motto is: *"There is no time for creative solutions. We just need THE solution."*

Even great creative people can become in-the-box thinkers when they stop trying.

- Apathy and indifference can turn an innovator into an in-the-box thinker.



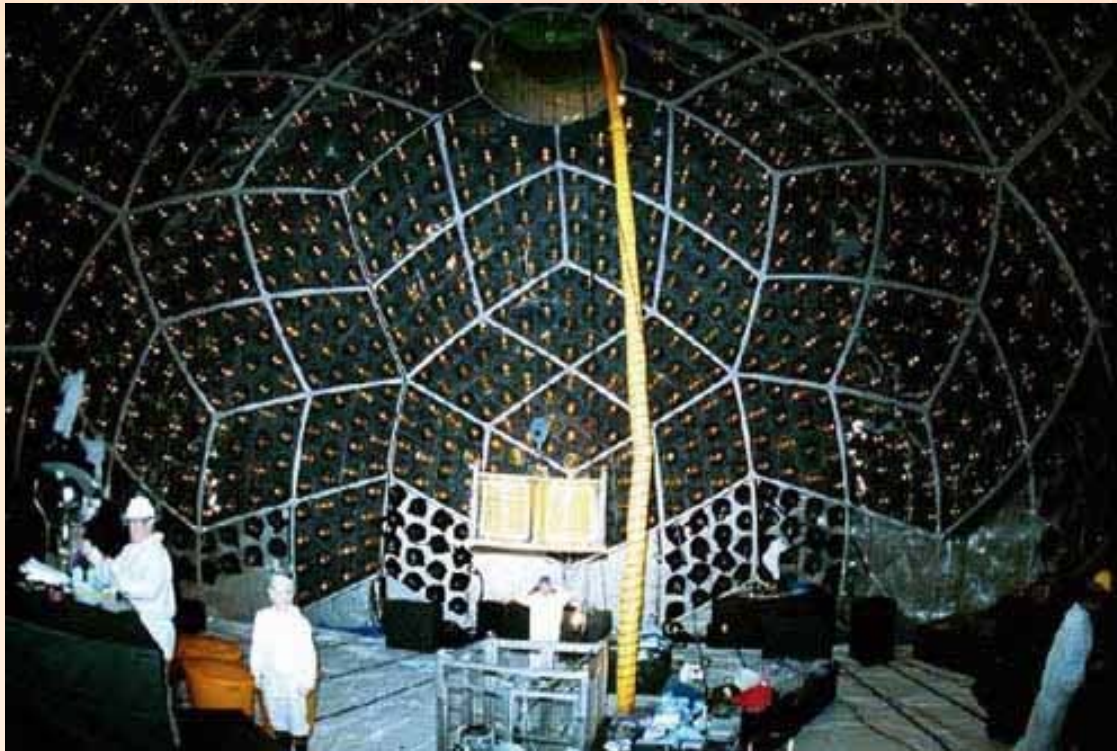
Never Think Outside the Box



Published in *The New Yorker*
November 30, 1998

Thinking Outside the Box

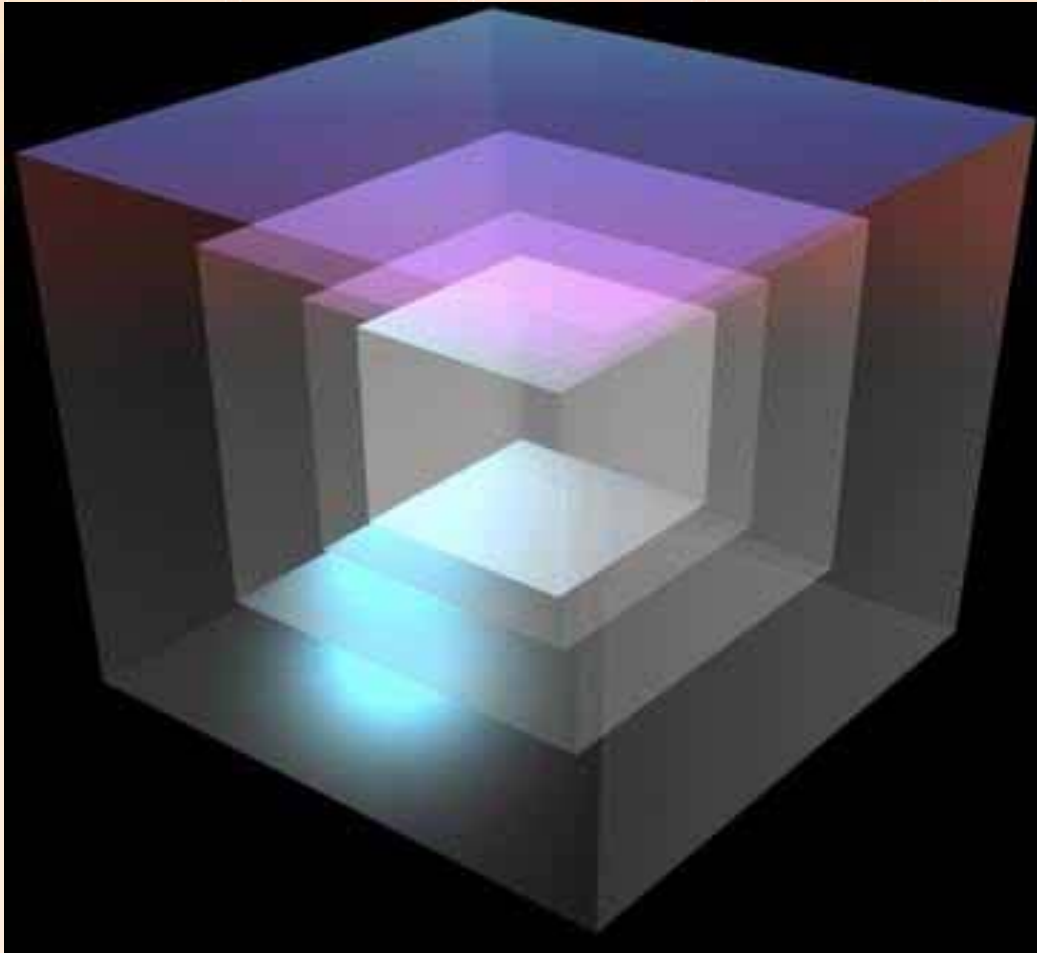
- But we can do great things inside the box
- We can evolve ourselves inside the box



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Thinking Outside the Box

- Boxes have many layers and dimensions!



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Thinking Outside the Box

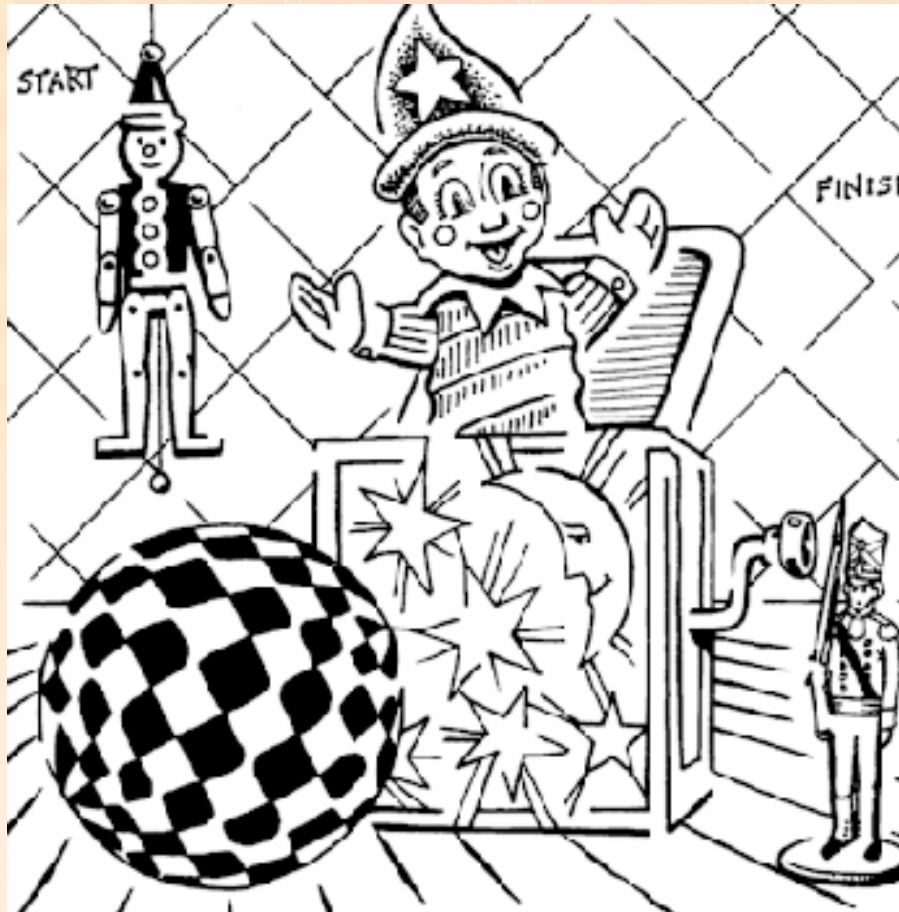
- When you think outside the box the box goes away
- So do other things!



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Thinking Outside the Box

- Once in a lifetime or always?



Thinking Outside the Box

- John Clark Maxwell and sliced bread



Maxwell Equations (today) govern all electro-magnetic phenomena; 4 differential equations:

- (1) the law of electro-magnetic induction (Faraday),
- (2) Ampere-Maxwell's law,
- (3) Gauss's law of electric field, and
- (4) Gauss's law of magnetic field.

Thinking Outside the Box

- Jerome Friedman and I



Thinking Outside the Box

- As close as I will come to a Nobel Prize?



Working Outside the Box

Thinking outside the box requires:

- Develop new perspectives to day-to-day work,
- Be open to doing things different and doing different things,
- Identify new ideas and act on them,
- Listen to others,
- Be respectful.



Thinking Outside the Box

- What's your Box?
 - Can you recognize an opportunity?
- Is your Box comfortable?
- Comfort level Outside the Box?
- How can you become comfortable Thinking Outside the Box?
- Can you recognize your Box?
- When is it bad to be Outside the Box?
- When do you stop TOB?



In closing

Out-of-the box thinking requires:

- openness to new ways of seeing the world,
- a willingness to explore.

Out-of-the box thinkers know:

- new ideas need nurturing and support,
- that having an idea is good but acting on it is more important.



Words of wisdom

“The scientist seeks to understand what is... the engineer seeks to create what never was...”

--Theodore von Karman



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not The End... the beginning for you!

