WHAT IS A CREATIVE GENIUS?
HISTORY OF THE TERM 
“GENIUS”

• Roman times

• Augustin Pyramus de Candolle (1778-1841)
  • Believed that environment, not heredity determined genius
• Sir Francis Galton (1822-1911)
  • Believed that genetics controlled genius

• Dean Keith Simonton (1948-Present)
  • Genius fluctuates over place and time
Definitions of “Genius”

- Common characteristics
- Extraordinary intellectual ability
- Unique qualities and talents that are valuable to society
- Eminent achievement
A person who is knowledgeable, educated, or proficient in a wide range of fields
Definitions of “Creative”

a. Going beyond traditional ideas to create meaningful new ideas

b. Finding unorthodox solutions to problems or situations

c. Thinking about new things or thinking in new ways; “thinking outside the box”
Definitions of “Creative Genius”

a. A “producer of knowledge”, rather than a “consumer of knowledge”

b. Someone with “the ability to come up with ideas that are new, surprising, and valuable.”

c. Someone who makes an intellectual or artistic leap

d. Someone whose genius lies not in their contributions to an existing discipline but in constructing of an entirely new one.

e. Someone who changes the world
CHARACTERISTICS OF CREATIVE GENIUSES
1.Had a mentor or other major influence

- Aristotle was taught by Plato, who was taught by Socrates
- Leonardo da Vinci developed his skills under the tutelage of Verrocchio
- Beethoven was mentored by both Haydn and Mozart
2. FACED A DIFFICULT PERSONAL LIFE

- Johann Sebastian Bach, Michelangelo, Charles Darwin, and Mark Twain all lost a parent at an early age.

- James Hutton and David Hume lost their fathers when they were infants; Adam Smith’s father died before he was born.
Others faced unhappy family relationships

• Franz Haydn and Shen Kuo were both unhappily married

• Wolfgang Amadeus Mozart had a strained relationship with his father

• Rabindranath Tagore had 14 older siblings and a father who didn’t spend much time with his family
Beethoven was deaf and Edison was partially deaf.

Aldous Huxley, an English writer, novelist, philosopher, was partially blind.

Alexander Graham Bell and Pablo Picasso were dyslexic.

PHYSICAL HANDICAPS
3. FACED/OVERCAME MAJOR OBSTACLES

• Socrates was rejected by Athens

• Shen Kuo and his contemporary, Su Tungpo were both sent into exile

• Jagadish Bose enrolled in medical school in London. While there, he faced a great deal of racism.

• Freud was repeatedly passed over for a full professorship because of his Jewishness
Beethoven’s music teacher once told him that as a composer he was hopeless.

Louisa May Alcott was told by an editor that she would never write anything that had popular appeal.

A newspaper editor fired Walt Disney because he had “no good ideas.”
4. DID NOT DO WELL IN SCHOOL OR LACKED A FORMAL EDUCATION

• Isaac Newton did poorly in grade school

• Benjamin Franklin failed arithmetic as a boy. His father took him out of school at age 10
• Louis Pasteur was rated as mediocre in chemistry

• When Thomas Edison was a boy, his teachers told him he was too stupid to learn anything; he dropped out of school at age 14
• Rabindranath Tagore, produced over 3000 paintings in spite of no formal training in art.

• Bill Gates, Steve Jobs, and Woody Allen all dropped out of college.
5. MADE CONNECTIONS AMONGST PHENOMENA WHICH APPEAR TO HAVE NOTHING IN COMMON

- Steve Jobs believed that the intersection of the arts and technology are where creativity happens.
- William Harvey postulated that the human heart also acts like a pump.
• James Hutton connected the principles of the circulatory system to understanding the earth's orbit

• Jagadish Bose connected findings from his experiments with plants to understand physics

• Henry Ford created the assembly line
6. WAS CURIOUS ABOUT MANY THINGS

- Socrates asked lots of questions

- James Hutton asked why one layer of rocks was darker than others in the same area and how fish fossils got to the summit of a mountain
7. HAD A HIGH TOLERANCE FOR AMBIGUITY (UNCERTAINTY)
(able to deal with uncertainty, unpredictability, conflicting directions, and multiple demands)

- Pablo Picasso’s cubist perspective
- Einstein was able to imagine an object in motion and at rest at the same time.
8. WAS NON-CONFORMING, INDIVIDUALISTIC

- Hippodamus was known for his long hair, expensive jewelry, and cheap clothing which he never changed, winter or summer.

- Albert Einstein didn’t care what his hair looked like.
9. WAS WILLING TO TAKE RISKS

- Mozart wrote the overture to an opera the night before its premiere.

- Although she was well aware of the risks, Marie Curie worked with dangerous levels of radiation up until her death.
10. WAS PERSISTENT IN SPITE OF FAILURE

- Leonardo da Vinci failed in his attempts to make the Arno River navigable and in his attempts to fly.

- David Hume’s first work, *Treatise of Human Nature*, was considered a failure at first.
11. WAS PROLIFIC, EVEN THOUGH MOST WORKS MAY NOT HAVE BEEN OF HIGH QUALITY

Su Tungpo (Hangzhou) wrote more than 2400 poems and produced countless paintings
Edison held 1093 patents, most for completely worthless inventions.

Mozart often completed six sheets of music in a single day, but left over 100 unfinished compositions.
12. TOLERATED CHAOS

- Mozart had a chaotic home.
- Beethoven had a notoriously messy desk and his apartment was littered with rough drafts.
• Every inch of space in Freud’s apartment was covered with archaeological artifacts

• Einstein had a messy love life; papers were strewn everywhere on his desk

Messy desks could be a sign of genius, say researchers | The ...
13. MOTIVATED BY SOMETHING OTHER THAN PERSONAL GAIN
14. DID BEST THINKING WHILE MOVING

- Beethoven walked around the Ringstasse every day at 2:00 p.m. because this provided him an opportunity to think.

- Charles Darwin had a quarter-mile long walking path called the Sandwalk that he walked along when working on a problem.
<table>
<thead>
<tr>
<th><strong>WOLFGANG AMADEUS MOZART</strong></th>
<th><strong>J.K. ROWLING</strong></th>
<th><strong>LEWIS CARROLL</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>J.K. Rowling did her best thinking while sitting on a train</td>
<td>Mozart always traveled with scraps of paper tucked into the side pocket of his carriage</td>
<td>Lewis Carroll created Alice and her magical underground world while floating on a rowboat</td>
</tr>
</tbody>
</table>
15. DEVELOPED A NEW FIELD/CATEGORY

Claude Monet

James Hutton

Sigmund Freud

Charles Darwin

Adam Ferguson
16. **WORK HAS HAD A LASTING EFFECT ON FUTURE GENERATIONS**

Pablo Picasso --- “There is no past or future in art. If a work of art cannot live always in the present, it must not be considered art at all.”