

Ways of Knowing



Human Capacity for Knowledge

All human accomplishment is made possible by our capacity to observe, study, record, reason, exchange and transmit knowledge from person to person, place to place, generation to generation

Knowledge is Power

- **As is the consciousness, so is the power**
- **Limited knowledge means limited power of accomplishment**

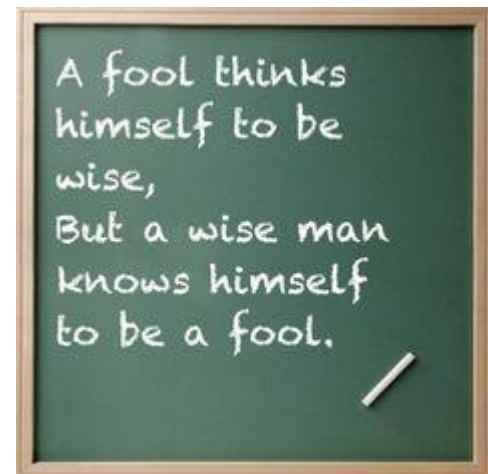
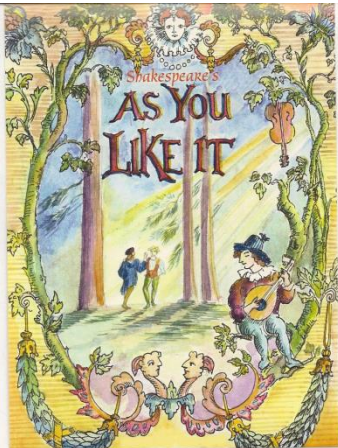


Human Ignorance

Achievements of our science
are all the more remarkable
when you consider how
ignorant we actually are

Our ignorance arises
from the fundamental
nature of mind

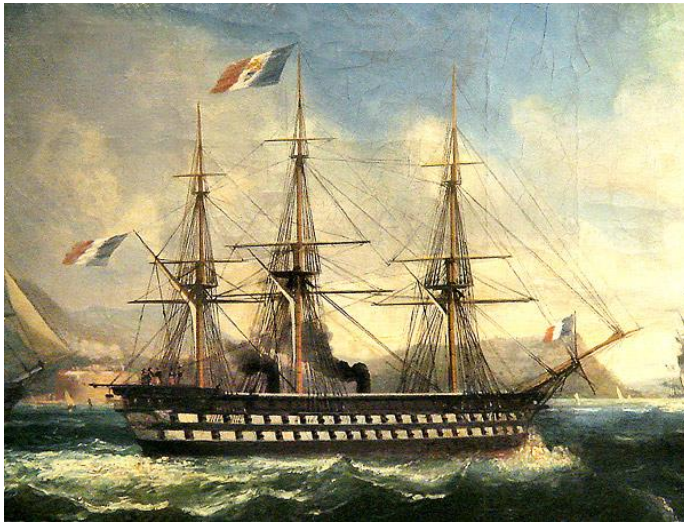
Act V, Scene I



Early estimation of the Steamship

“How, sir, would you make a ship sail against the wind and currents by lighting a bonfire under her deck? I pray you, excuse me, I have not the time to listen to such nonsense.”

– Napoleon



Future of the Railways

“Rail travel at high speed is not possible because passengers, unable to breathe, would die of asphyxia.”

— Dionysius Lardner
Science writer and Academic (1828)



Telephone



“This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us.”

– Western Union Internal Memo (1876)

“The Americans have need of the telephone, but we do not. We have plenty of messenger boys.”

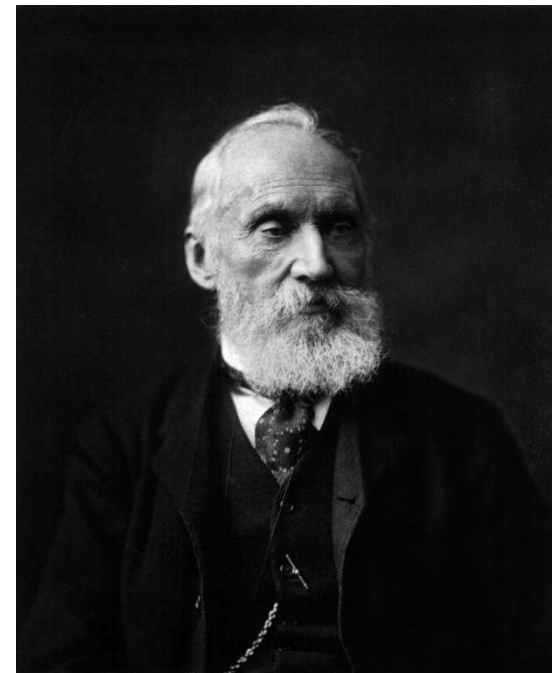
**– Sir William Preece
Chief Engineer of the British Post Office
(1878)**



Discovery of X-rays

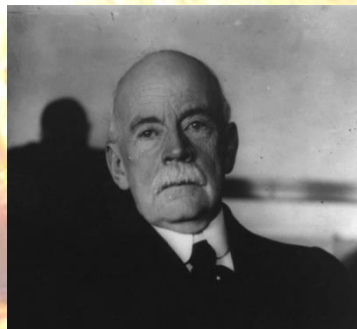
“X-rays will prove to be a hoax.”

– Lord Kelvin
President of the Royal Society (1883)



Inventions

**“Everything that can be
invented has been invented.”
Charles H. Duell, U.S. Patent
Office director, 1899**



Automobile



“The automobile has practically reached the limit of its development.”



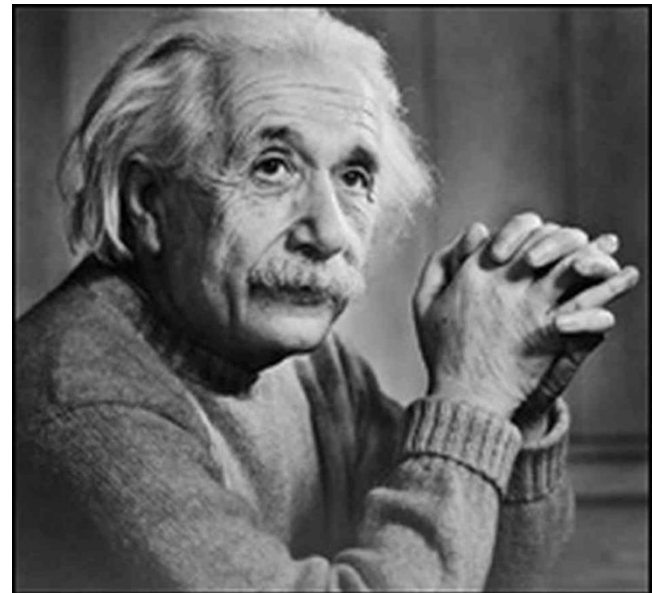
(1909)



Nuclear Energy

"There is not the slightest indication that nuclear energy will ever be obtainable. It would mean that the atom would have to be shattered at will."

– Albert Einstein, 1932



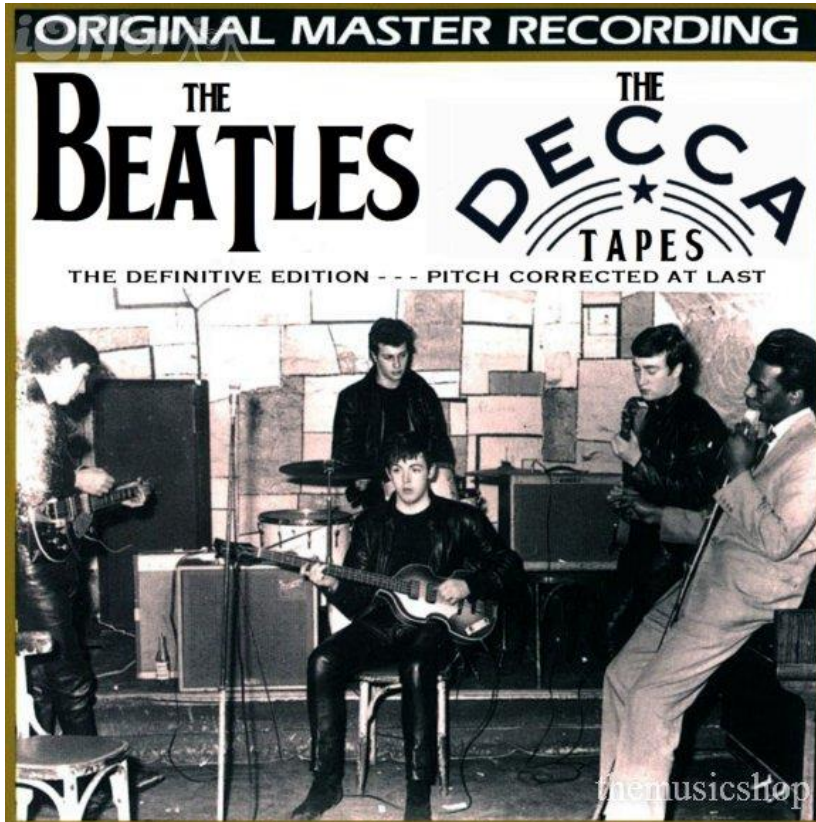
Television



"Television won't last because people will soon get tired of staring at a plywood box every night."

**– Darryl Zanuck,
Movie Producer, 20th Century Fox, 1946**

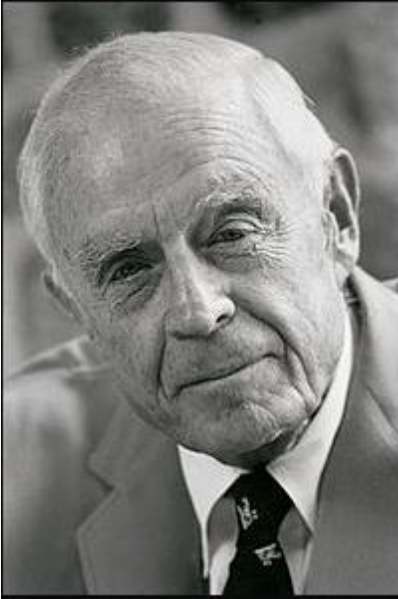
Beatles



"We don't like their sound, and guitar music is on the way out."

– Decca Recording Company on declining to sign the Beatles, 1962

Future of Computer



I think there is a world market for about five computers.

(Thomas J. Watson, Jr.)

President, IBM (1943)

IBM



Internet



“I predict the internet will soon go spectacularly supernova and in 1996 catastrophically collapse.”

**– Robert Metcalfe
Inventor of Ethernet (Dec 1995)**

Apple

“I’d shut it down and give the money back to the shareholders.”



MICHAEL DELL





“It is virtually certain that Google's stock will be highly disappointing to investors foolish enough to participate in its overhyped offering – you can hold me to that.”

– Whitney Tilson, American Investor (2004)

Google shares went public at \$85 and multiplied in value 12-fold in 10 years

iPhone



“There's no chance that the iPhone is going to get any significant market share. No chance.”

– Steve Ballmer, President of Microsoft (2007)

2008 Financial Crisis



- **Alan Greenspan, Chairman of Federal Reserve 1988-2006 denied for years that a speculative bubble was forming in the US real estate market.**
- **By October 2008, he was admitting that he was in a state of “shocked disbelief” because “the whole intellectual edifice had collapsed.”**

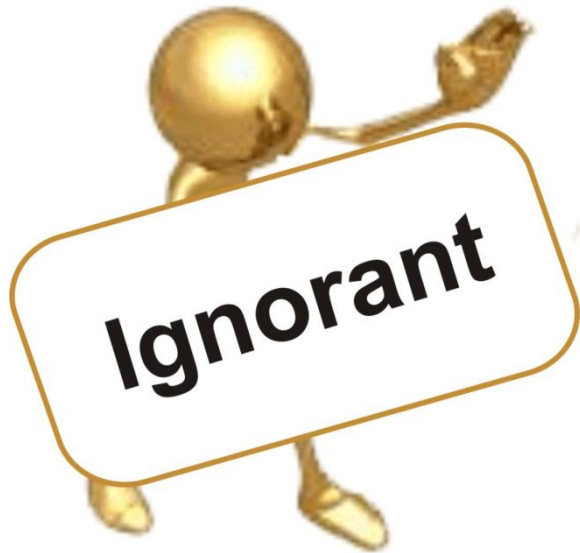
What is the source &
nature of our colossal
capacity for Ignorance?

The Double Wall of Ignorance

- We live in the surface consciousness between a double wall
- We are ignorant of the world around us
- We judge others by the same norms, standards and values as we judge ourselves
- We project our motives on others and fault them for our own weaknesses
- We are equally ignorant of our own deeper selves



Ignorance of ourselves



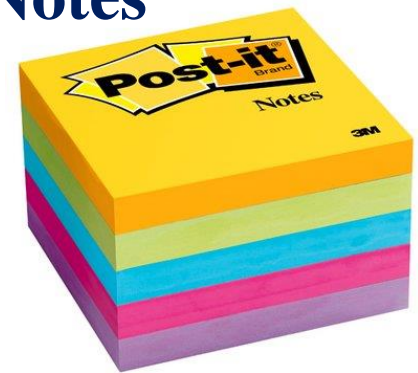
- Know thyself is not just a platitude. It is ultimate wisdom
- Ego blinds us to our own weaknesses and defects
- We are equally ignorant of our unexpressed capacities and unrealized potentials
 - Jobs thought his career was finished in 1985.

Ignorance in Space

- Senses provide information only about what is going on immediately around us
- Beyond that, we have to rely on instruments
- To judge the world from our immediate surroundings or specific locale is a form of blindness
- To be open to what is going on elsewhere and think how it can be done here is openness to knowledge

Ignorance in Time

- Once a moment passes, it is lost & irretrievable
- Memory is an indirect means of partial recall like a mirror, photo album, biography or history – usually distorted
- Lessons relearned in the past have to be repeated, as 2008 repeated 1929
- To learn a lesson after just one experience is very rare – extraordinary – 3M and Post It Notes
- To learn from the experience of others is even more rare
- Knowledge is to be conscious of the significance of our past experiences



Ignorance of the Future

“Here where one knows not even the step in front.”

– Sri Aurobindo

We depend on imagination to anticipate the future



Steve Jobs wanted to sell Pixar just before launching Toy Story

Appearances can be deceiving

**We know the
world only
indirectly and
externally
through the
physical senses**

**Empiricism
affirms indirect
sensory
experience as
the basis for
knowledge**

Higher Mental Processes

- Reason – coordinating intelligence – is our highest mental faculty
- Reason mistakes ambiguous concepts & symbols for reality itself
 - Money is a symbol, not a thing
- *“It (mind) knows only its own analysis.”
– Sri Aurobindo*



Divide and Conquer

- **Division – mind knows by division -- Reductionism -- leads to exclusive concentration**
- **Aggregation – mind reassembles parts to try to know the whole, but fails when applied to complex systems and living organisms e.g. health**

Physicalism

- Methodological naturalism gradually led to philosophical naturalism or physicalism
- Mind extends its logic of material things to all reality
- Physicalism considers only material things as fully real and regards mental phenomena & consciousness result from material interactions
 - Fortunately, Washington & FDR were not physicalists
- Logic of the physical breaks down when applied to mind and emotions.
 - Ideas and emotions are not lost when given away



Mechanism

- Mechanism is the natural counterpart of a worldview founded on reductionism and physicalism.
- Mechanism regards all organizations, including living organisms and social organizations, as if they were inanimate machines composed of parts and driven by external forces.



Great Divorce: Mind & Matter

- Thinking mind knows by separation from the object of knowledge as impartial observer

Cartesian Dualism

- Origin of the Cartesian dualism between Mind & Matter



- Exclusive concentration on a part of reality creates ignorance
- Severs the connection between objective external world and subjective psychological reality

“The Whole is Greater than the Sum of its Parts”

- **Systems Theory, holistic or ecological thinking view reality comprehensively as a whole consisting of interconnected and interdependent parts**
- **Focus on relationships rather than separate individual elements**
- **Permits systematic analysis of complex interactions between objects, points, activities and events**
- **Systems theory replaced the metaphor of the machine as a closed system operating independently of the world around with the concept of physical organization as an open system in relation with its environment.**
- **Tendency persists to view living organisms as complex mechanical systems**

Contradictions are Complements

Dualism – mind sees things as mutually exclusive opposites

Greater truth is all oppositions are complementarities

All great scientific discoveries have involved reconciling apparently independent or contrary phenomena

- **Newton unified motion and rest by demonstrating that the same laws govern celestial motions & phenomena on Earth.**
- **Maxwell unified electricity & magnetism as electromagnetism.**
- **Einstein unified acceleration and gravity, space & time.**

“Everything needs its opposite for its existence. The indivisible, whole being that the Individual is, is made complete when he accepts and integrates all aspects of his personality, realizing in the process that contradictions are complements.” – *Carl Jung*

Knowledge is to know that the Opposite of every truth is true

“All human thought, all mental man’s experience moves between a constant affirmation and negation; there is for his mind no truth of idea , no result of experience that cannot be affirmed, none that cannot be negated.”

– Sri Aurobindo

Insight and Intuition

Mind knows others by objective external contact.

Emotion knows by subjective inner contact.

Intuition knows by identification.

“It is by logic that we prove, but by intuition that we discover.”

— Henri Poincaré

“All human knowledge begins with intuitions, proceeds from thence to concepts, and ends with ideas.”

— Immanuel Kant

“I began to realize that intuitive understanding and consciousness was more significant than abstract thinking and intellectual logical analysis...Intuition is more powerful than intellect.”

— Steve Jobs

Einstein on Intuition

“The intellect has little to do on the road to discovery. There comes a leap in consciousness, call it intuition or what you will, and the solution comes to you and you don’t know why or how.”

“The intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift.”

“There is no logical path leading to [the highly universal laws of science]. They can only be reached by intuition, based upon something like an intellectual love of the objects of experience.”

Mental & Intuitive Knowledge

- The intellect perceives differences and understands reality in terms of mutually exclusive opposites. Intuition focuses on interconnections and relationship and the underlying unity that connects everything together.
- Mind discovers finite laws and limits. Intuition uncovers the realm of Infinite potential where nothing is impossible. Future science will one day discover that Infinity is a practical concept
- Mind discovers patterns of similarity and repetition in human history. Intuition perceives the underlying evolution of consciousness that is gradually emerging.
- Ideas are the highest truth accessible to mind and it discovers that all mental truths are relative. Intuition affirms the truth of universal and eternal Values.

Knowledge for Accomplishment

- Do not place faith in the mind's externalized way of seeing
- Consider other points of view, rather than judging solely by one's own standard
- Always remember that we do not know
- Consider the whole, not merely the parts
- Do not judge the future from the past
- Give greater importance to intangible than material factors

**“You can become whatever you believe you can become”
– Bhagavad Gita**

