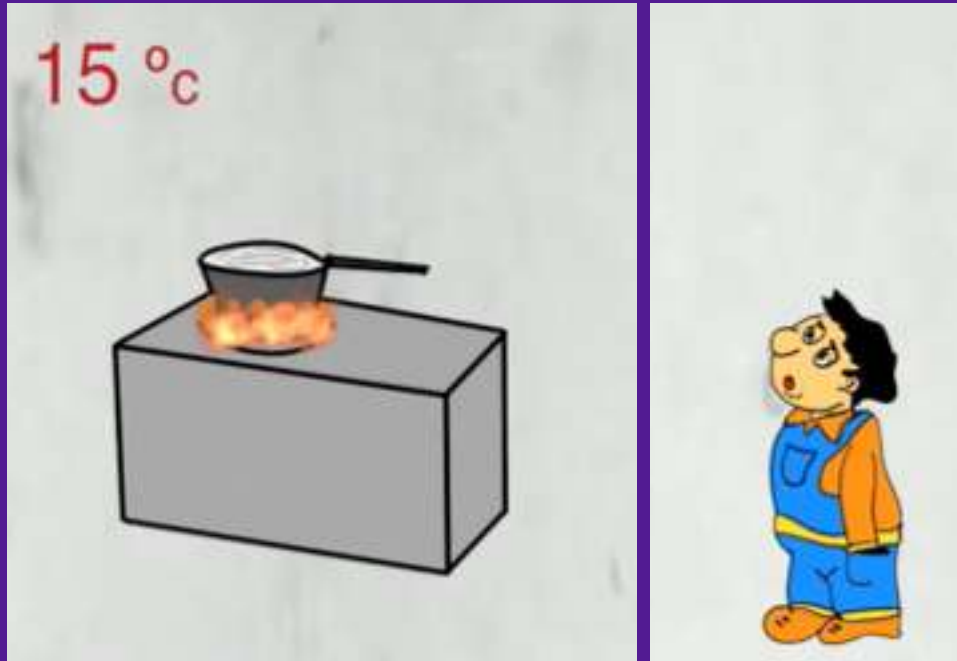




Imagine

a six year old who is observing water being heated for the first time. He sees the mercury in the thermometer rising: 15°C, 30°C, 40°C, 50°C, 60°C, 70°C, 80°C.

55 °C

IF YOU ASK A FIRST-TIME OBSERVER TO
PREDICT WHAT WILL HAPPEN TO WATER AS IT
IS HEATED...

THE OBSERVER WILL LIKELY PREDICT THAT
WATER WILL BECOME HOTTER AND HOTTER



If you were to ask him what will happen to water as it is heated further, he will most likely say that the temperature will keep rising.

100 °C

A FIRST-TIME OBSERVER CANNOT PREDICT
THAT WATER WILL TURN INTO STEAM AT
100°C

WATER TURNING INTO STEAM IS CALLED

PHASE CHANGE



A first time observer cannot predict that at 100°C water will turn into steam.

Water changing into steam is called **Phase Change** because state of matter has changed – from liquid to gas.

PHASE CHANGE



From 99°C to 1°C we cannot anticipate what will happen at 0°C



WHILE IN THE MIDST OF A PHASE CHANGE IT IS VERY DIFFICULT TO PREDICT WHAT THE FUTURE WILL HOLD...



From 1°C to 99°C we cannot anticipate what will happen at 100°C



Like Phase Change in states of matter there are **PHASE CHANGES IN HUMAN SOCIETY.**

Advent of Language that allowed humans to communicate abstract ideas and pass on their knowledge (think of stories about hunting told around a camp fire thousands of years back) was one such phase change.



Language

A B C D E F G
H I J K L M N
O P Q R S T
U V W X Y Z

Writing



Printing Press

**SOCIAL
PHASE
CHANGE**

Advent of Writing

that preserved human knowledge for a long period of time and assured more accuracy was another phase change.

Invention of the Printing Press

that allowed dissemination of knowledge at lower and lower costs was yet another.

A revolution!

*Nah!
just another*

**TOY
STORY**



As in the case of phase change in state of matter, **a first time observer cannot predict the consequences of a social phase change either.**

When Alexander Graham Bell first demonstrated a telephone in 1876 people said it was just a toy. No one imagined that it would totally disrupt the way we communicated, which till then was through letters and telegraph.

Today, human society is undergoing another Phase Change



INTERNET

Computers

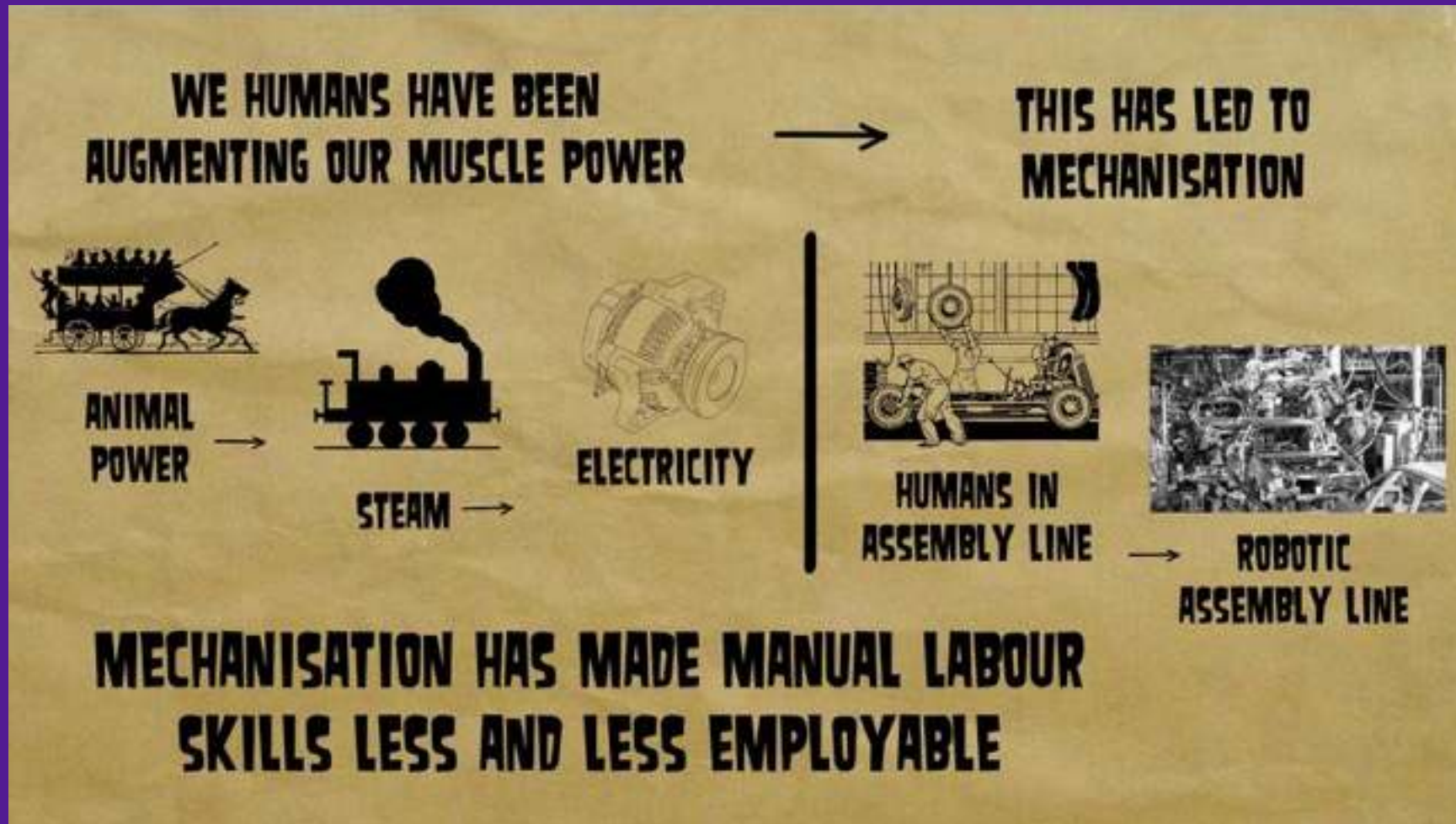
Automation

ROBOTS

HYPER
CONNECTIVITY

and, we do not know what the future will hold.

First We Augmented our Brawn



And Now We Are Augmenting Our Brain!

...AND NOW COMPUTERS ARE AUGMENTING THE HUMAN MIND





Take **IBM's Deep Blue** for example, a chess playing computer that beat world chess champion, Garry Kasparov, in 1997



Or take **IBM's latest Artificial Intelligence (AI) computer, Watson**, that won the game show Jeopardy beating two past champions and it is now being deployed as a DoctorBot (a robot doctor).



Google's self-driving cars are another great example of computers doing real-time, complex decision-making.



Mechanisation and automation made a great number of jobs disappear - bank teller > ATM. Computerisation is doing the same. So...

What skills and dispositions will definitely hold you in good stead in the 21st century, and beyond?

Ponder on this...



=



Learning to **Learn**

Curiosity, Intrinsic Motivation,
Self-directed Learning



Learning to **Collaborate**

Empathy, Thriving in Diversity
and Change



Learning to **Think**

Critical Thinking, Creativity,
Innovation, Decision Making



Learning to **Listen & Tell**

Active Listening, Multi-sensory
Communication, Persuasion



Learning to **Be**

Happiness and Long-term
Well-being, a Life Well Lived



Learning to **Earn & Give**

Financial Literacy,
Philanthropy

**For Learning more about skills essential for
success and well-being in the 21st century**

Follow us on Facebook

<http://www.facebook.com/lifeskills>