



THE UNIVERSITY OF
BUCKINGHAM

Bryanston School

AI will change your world

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Monday 3rd June, 2019

Today we will consider three questions.

- What is education?
- What is intelligence?
- What does it mean to be human?

What 4.0 entails

- Artificial intelligence
- Machine learning
- Virtual reality
- Augmented reality
- Mixed reality
- Trans-humanism

What 4.0 entails

- Robotics
- Voice and face recognition
- Quantum computing
- Collaborative learning
- Internet of Things
- Big data
- Blockchain

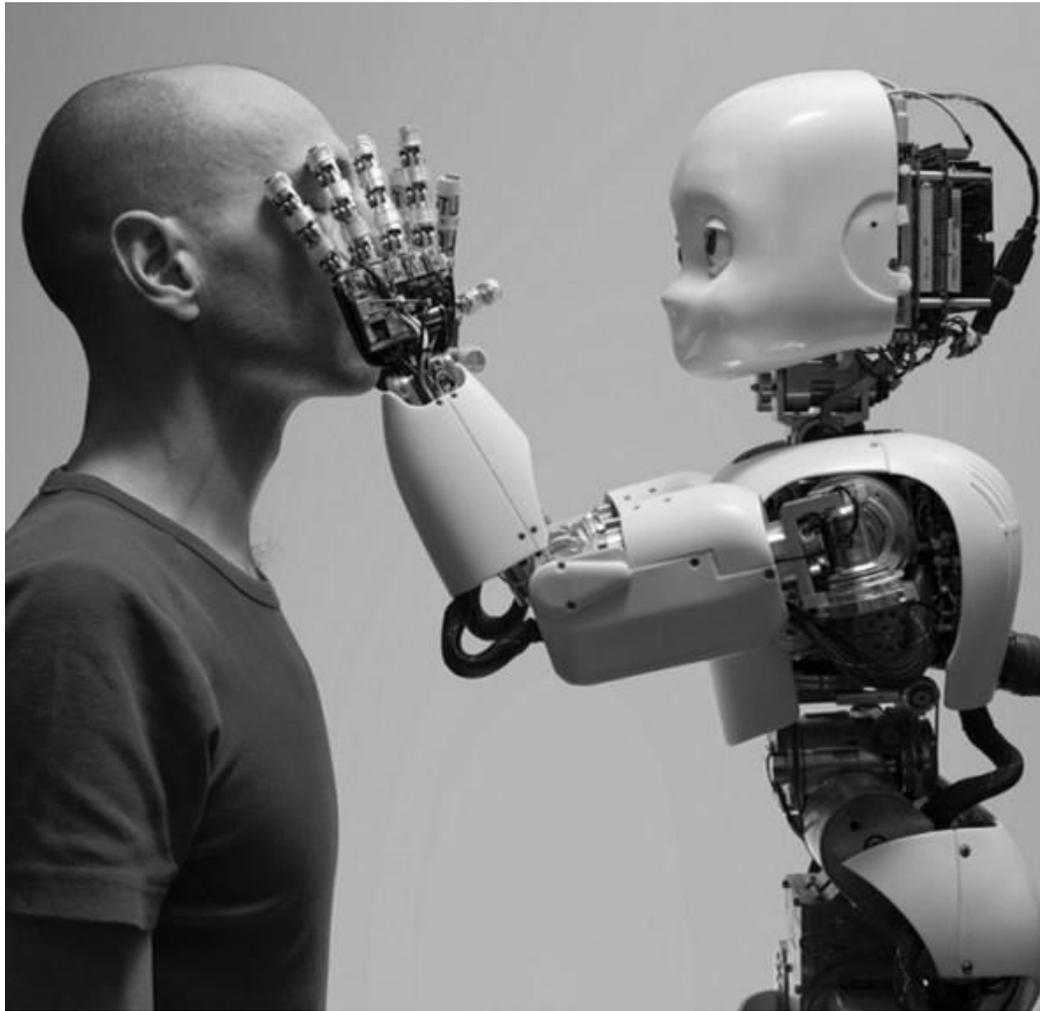
Our schools in June 2019 are preparing our young people brilliantly.....

For the 20th Century

Metal & coach workers pose in front of the Benz & Co factory in Mannheim.



“AI is coming. To understand the stage we are with its arrival, we can draw an analogy from the car industry in 1886. Karl Benz had just invented the internal combustion engine. People had no idea how the invention would take off, or that it would transform human life across the planet. The comparison is wrong though in one respect. AI is far more wide-ranging than the car, and will carry humans much further.”



AI is infinitely seductive. It will know us better than our best friends, our parents, our partners. It probably already does. Under the guise of plausibility, is it opening our eyes, shielding our sight, or blinding us?

“AI will be 'either best or worst thing' for humanity”

“Every aspect of our lives will be transformed. In short, success in creating AI could be the biggest event in the history of our civilisation”

Stephen Hawking

“Artificial intelligence is the biggest risk we face as a civilisation and needs to be checked as soon as possible”

Elon Musk

The First Revolution - The *Dawn* of Learning some five million years ago



The Second Revolution – *Organised* Learning
i.e. 5000 years ago, cities sprung up on four rivers



The Second Revolution: The first schools and the first universities



The first University, Bologna, 1088



The Third Revolution – The Printing Press

Mass Learning: 500 years ago



and mass education at the time of the Industrial Revolution



We are still living in the third education revolution model

Our schools are fundamentally the same as in 1600 – teachers at the front, children in rows, teacher exposition, writing on board at the front of the class, homework, exams, marking, grades, rankings, reports, teachers complaining about workload, parents complaining about heads...

Until...

The Fourth Revolution – AI



Five enduring problems with the factory/third education revolution model



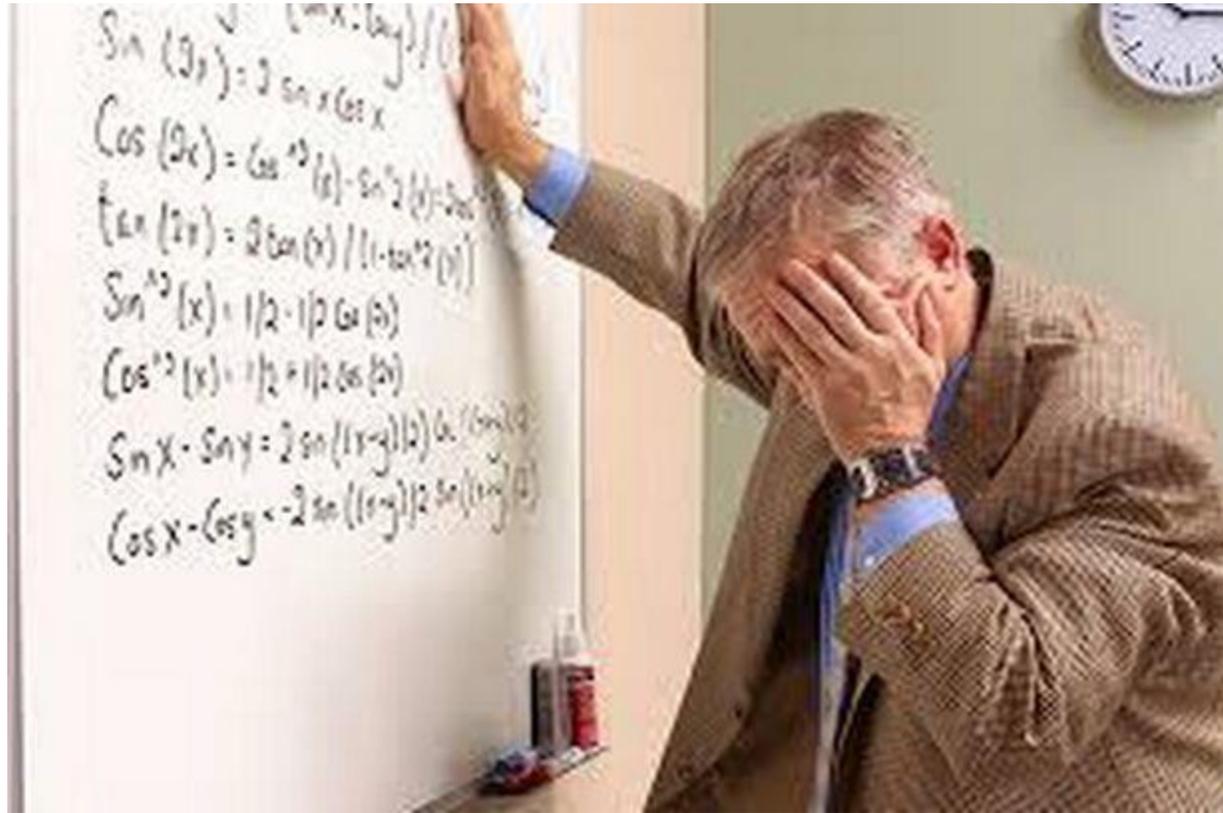
1. Failure to achieve social mobility



2. One size doesn't fit all – age not stage



3. Teaching drowned out by administration



4. Narrow focus on just cognitive ability



5. Homogenisation not individuation



AI will address all five problems

1. Social mobility by an “Eton education” for all
2. “Stage” not “age” by personalised learning/AI teachers
3. Admin burden by enhanced teacher time effectiveness
4. Narrowness by learning across all 8 aptitudes and multiple intelligences
5. Homogenisation by learning to individuate each student, which will help their mental strength and mental health

AI/digital is already transforming

- Healthcare
- Transport
- Shopping
- Law firms
- Accountancy
- Agriculture
- Banking

But in Britain, it is not seriously begun to transform teaching and learning in our schools

- Nor the jobs we are preparing young people for
- Nor the higher education
- Nor the society in which they will live

So what is education for?

- Getting good grades?
- Getting into university or college?
- Getting jobs?

OR

- Becoming a good human being?
- Happiness?
- Having families?
- Deep inner growth?

The 4 levels of learning

1. Data or information
2. Knowledge
3. Understanding
4. Wisdom

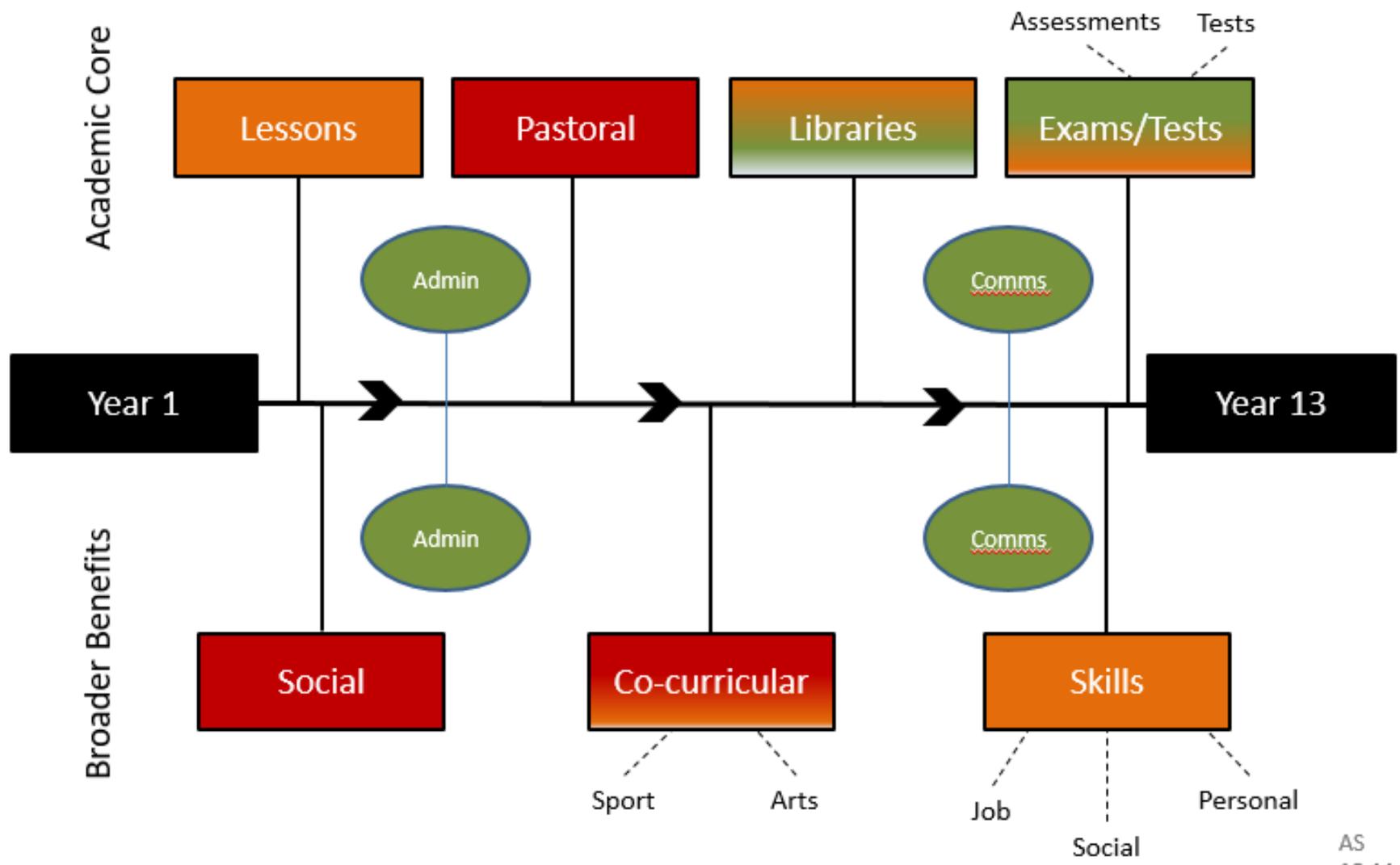
The 5 levels of teaching

1. Selecting the material
2. Organising the time and space
3. Conveying the material
4. Assessing the learning
5. Writing reports and preparing for next stage

The School Journey

Key – Impact on Digital

- Transformative
- Very significant
- Little/none



What is human intelligence?

Narrowly defined in 1912 as
intelligenzquotient, first used at the
University of Breslau



Social



Personal



Moral



Spiritual



Physical



Cultural



Harbingers of the future

AltSchools



Summit public schools



School of One



The School of One is a flexible high school educational program in the Cleveland Metropolitan School District, specifically designed to meet the needs of gifted, talented and undecided students whose circumstances dictate a more personalized and supportive academic environment.

Khan Lab School



Riverbend School, Chennai



What does it mean to be human?



Will the 4.0 revolution be able to outperform
human beings?

Is there anything that humans do or are which 4.0 machines
cannot replicate?

Human beings have four aspects

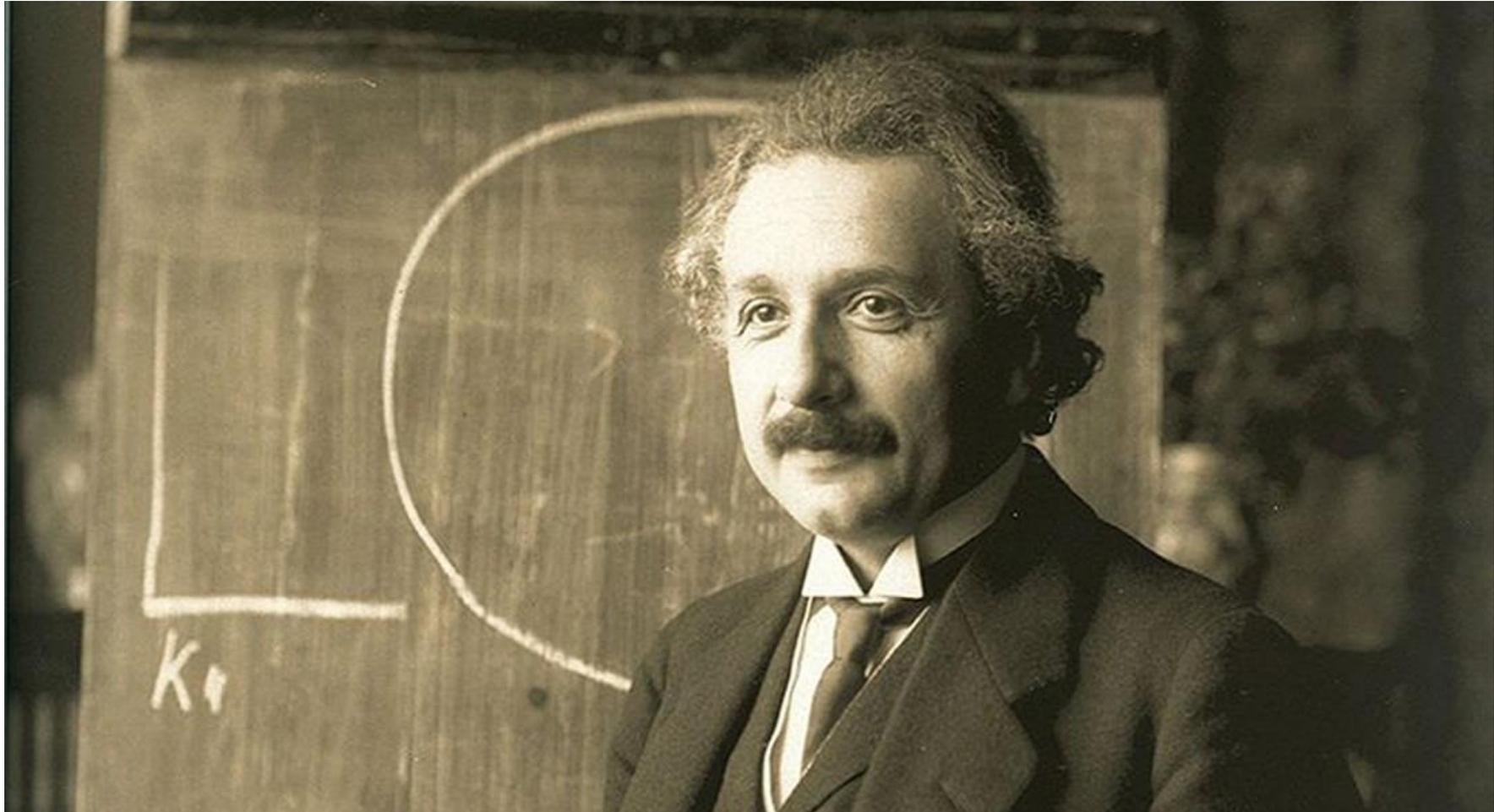
1. Mind

2. Body

3. Heart

4. Soul

Mind



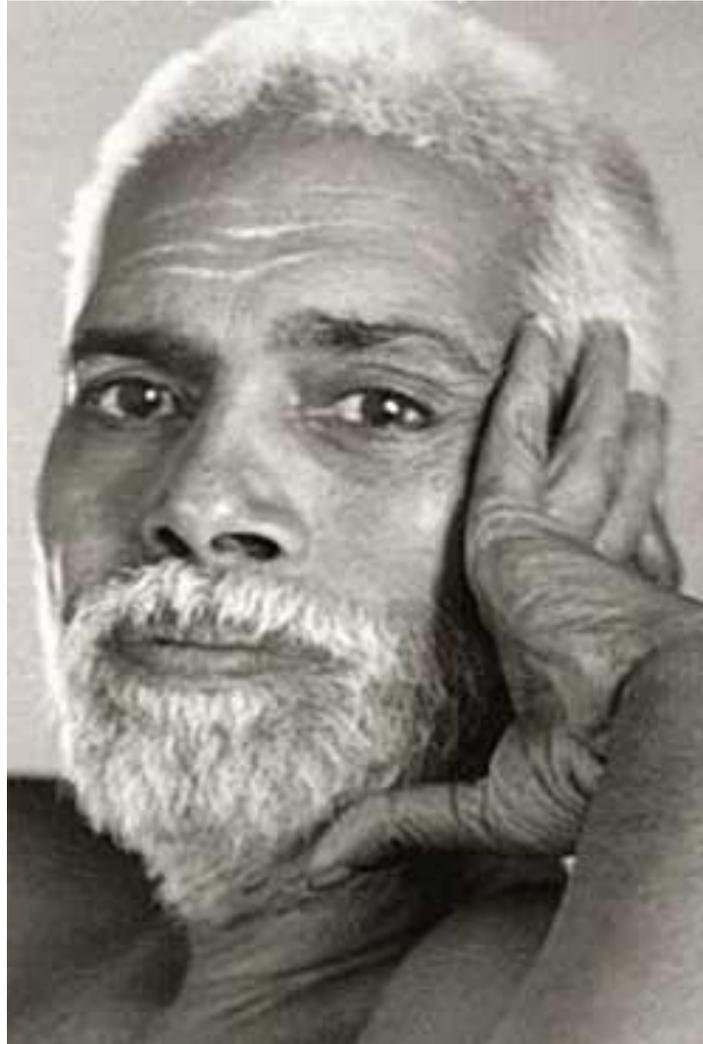
Body



Heart



Soul



Threats of the 4.0 technology

- Big tech companies will take over our lives
- The machines can impersonate human beings without us knowing
- The technology can render our life meaningless by taking all the interesting and difficult decisions
- It could significantly reduce the number of jobs and their satisfaction
- It could make children even more under threat than 3.0

Children used to be safe in their home and in their bedrooms



The 3.0 revolution made them much more vulnerable-
their bedroom now became a hut in a wasteland



The 4.0 revolution strips away the hut. Now the young person is totally exposed



Conclusion

The 4.0 technologies could make life better, more interesting, safer and more rewarding than ever in human history.

Or it could infantilise or kill off human beings.

Everybody needs to understand what is at stake and help ensure that the 4.0 revolution is in the interests of the many, not the few.

The End