



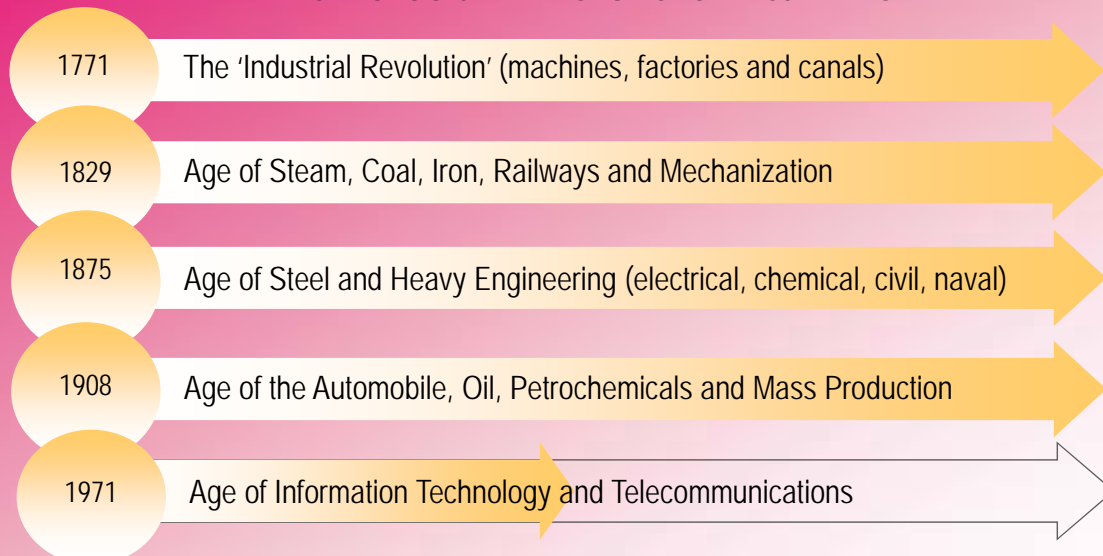
Preparing for the future by learning from history
A NEW EDUCATIONAL PARADIGM
FOR THE DIGITAL REVOLUTION

Carlota Perez

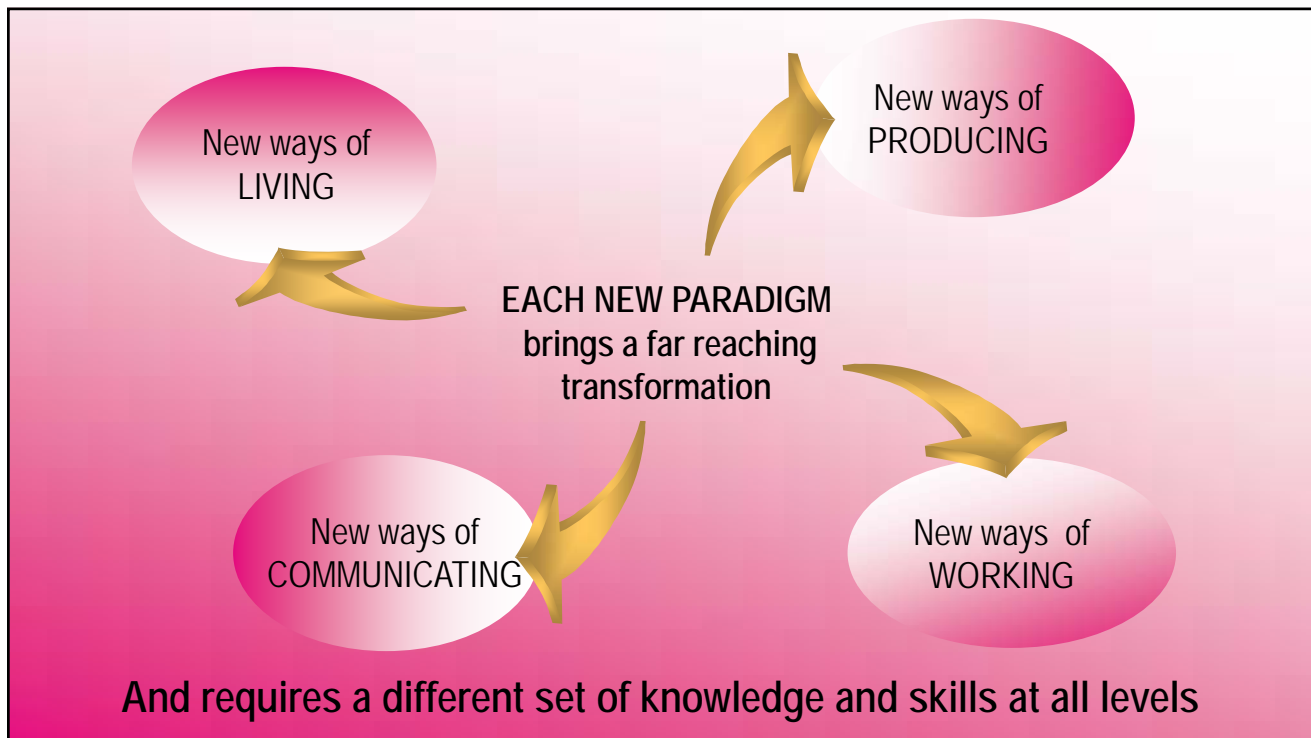
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FIVE TECHNOLOGICAL REVOLUTIONS IN 250 YEARS



EACH ONE HAS LED TO A TECHNO-ECONOMIC PARADIGM SHIFT
Changing the direction for innovation and organization across the economy and society



SOCIETY SHAPES ITS OWN FUTURE
by preparing people with the required skills
to define the way each technological revolution will be deployed

The bar for the minimum educational level
has been lifted with each revolution

The special training required of high-skill workers
has changed with each set of new technologies

The knowledge and behavioral skills of the leaders
have also changed, while increasing the numbers and areas required

IT IS OUR TURN TO SHAPE THE INFORMATION REVOLUTION

Universities have always had the role of preparing the leadership in society

Successive revolutions	Who to educate in universities?	In what skills?
The Industrial Revolution	The political leaders, the church, the teachers and the military	General education
The Age of Steam, Railways Iron and Mechanization	Plus the financial and business leaders	General education
The Age of Steel and Heavy Engineering	Plus the scientists and engineers	Plus the sciences and engineering by specialized areas
The Age of Oil and Mass production	Plus the managers	Plus business and management
The Age of Information and Telecommunications	Plus the innovators, entrepreneurs, team leaders and creative members	Plus ICT, research, teamwork and self-management

This time, not just knowledge but self-directed behavioral skills

THE UNIVERSITY AS PREPARATION FOR A VERY DIFFERENT WORLD OF CREATIVE WORK AND LIVING

Acquiring a solid basis for lifelong learning
 Recognizing that innovation and creativity are the norm
 Learning to ask questions; not mainly to answer them
 Doing teamwork
 Setting goals and working by projects
 Becoming autonomous, self-managed and self-taught
 Getting used to continuous improvement and evaluating alternatives

All that, on top of computer and software skills and specific knowledge in the chosen area

WE MUST PREPARE PEOPLE FOR CHANGE AS THE NEW ROUTINE

THE BEST OF POSSIBLE FUTURES REQUIRES A BOLD UNIVERSITY

THE UNIVERSITY ITSELF
MUST CHANGE

- Open for lifelong learning
- Offering flexibility for interdisciplinarity
- With a strong connection to society and the world of work and innovation

AND TEACHING METHODS
MUST CHANGE

- Perhaps 'flip the classroom': video class at home and discussion in class
- Promote participation and team exercises
- Encourage research and project work
- Engage in continuous improvement

THAT IS THE CHALLENGE FACING THIS GENERATION OF EDUCATORS

Estonia is already at the forefront
in the use of information technology
across all activities

IT IS NOW TIME FOR THE NEXT LEAP FORWARD

Societies that understand and apply
an adequate direction of change in education
will be the best to live and work in

LET'S MAKE SURE TALTECH KEEPS THE LEAD

**TAL
TECH**

THANK YOU!

For more about technological revolutions:

www.carlotaperez.org and www.beyondthetechrevolution.com

TALLINNA TEHNIKAÜLIKOO

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