

FUTURE SKILLS

HOW TO FOSTER IT CREATIVITY

May 24 2023





Who am I



Pirate queen

General secretary in Coding Pirates



Next Generation initiator

Lab Agent in Innovation Lab



Innovator

Smart Cities, libraries, cultural institutions, business development





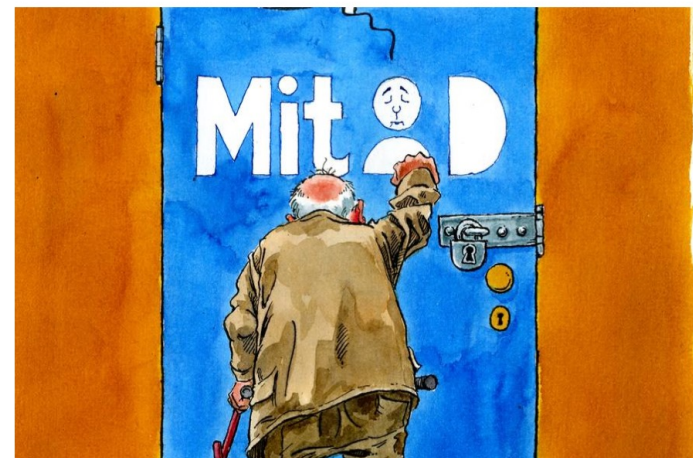






UNDERKLASSE

mit.dk



eBoks virk

The speed

at which we need to learn, adapt,
and adapt is incredibly high



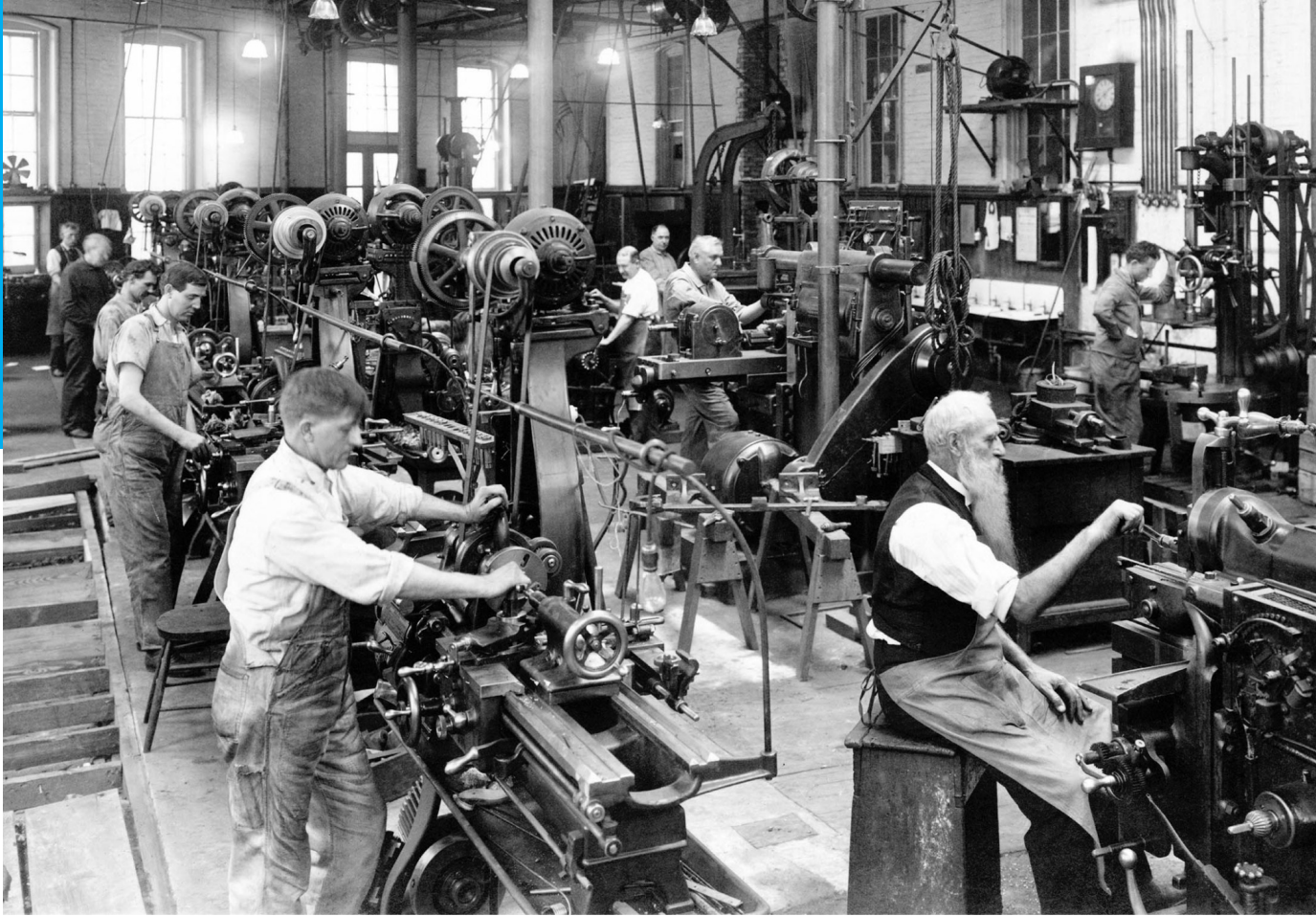


**WHERE DOES
THAT LEAVE US?**

Before the industrialisation

- Dependence
- Taught up in the community
- Specific part of the ecosystem
- The world = what you see
- Same assignments





The industrialisation

- Separation of lives
- Fragmentation of ecosystem
- New skills but slowly
- Taught for lifelong function
- Individualisation



Digitalization:

- **No borders**
- **From silos to holistic thinking**
- **Private life and work life are not separated**
- **Need for quick adaptation**
- **Huge need for innovation**
- **Unpredictability**

Dansk programmeringssprog lavet i 1970'erne, version "COMAL80" udkom i 1980. Blev brugt i flere lande. Kunne køre på mange forskellige computere fx. RC702. Senere kom der versioner der kunne håndtere grafik. Nyere versioner af RC700 serien havde også harddisk, vistnok ca 10 MB.



We don't know the
specific skill sets
needed and the job
situation in 20 years





McKinsey & Company:

Defining the skills citizens will need in the future world of work

"Some work will, of course, be specialized. But in a labor market that is more automated, digital, and dynamic, all citizens will benefit from having a set of foundational skills that help them fulfill the following three criteria, no matter the sector in which they work or their occupation:

- add value beyond what can be done by automated systems and intelligent machines*
- operate in a digital environment*
- continually adapt to new ways of working and new occupations"*

Cognitive

Critical thinking

- Structured problem solving
- Logical reasoning
- Understanding biases
- Seeking relevant information

Planning and ways of working

- Work-plan development
- Time management and prioritization
- Agile thinking

Communication

- Storytelling and public speaking
- Asking the right questions
- Synthesizing messages
- Active listening

Mental flexibility

- Creativity and imagination
- Translating knowledge to different contexts
- Adopting a different perspective
- Adaptability
- Ability to learn

Interpersonal

Mobilizing systems

- Role modeling
- Win-win negotiations
- Crafting an inspiring vision
- Organizational awareness

Developing relationships

- Empathy
- Inspiring trust
- Humility
- Sociability

Teamwork effectiveness

- Fostering inclusiveness
- Motivating different personalities
- Resolving conflicts
- Collaboration
- Coaching
- Empowering

Self-leadership

Self-awareness and self-management

- Understanding own emotions and triggers
- Self-control and regulation
- Understanding own strengths
- Integrity
- Self-motivation and wellness
- Self-confidence

Entrepreneurship

- Courage and risk-taking
- Driving change and innovation
- Energy, passion, and optimism
- Breaking orthodoxies

Goals achievement

- Ownership and decisiveness
- Achievement orientation
- Grit and persistence
- Coping with uncertainty
- Self-development

Digital

Digital fluency and citizenship

- Digital literacy
- Digital learning
- Digital collaboration
- Digital ethics

Software use and development

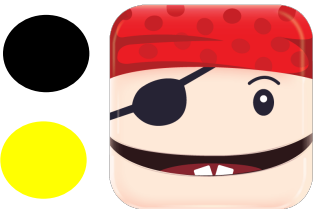
- Programming literacy
- Data analysis and statistics
- Computational and algorithmic thinking

Understanding digital systems

- Data literacy
- Smart systems
- Cybersecurity literacy
- Tech translation and enablement

21 Century Skills

Learning and Innovation "The 4 C's"	Digital Literacy	Career and Life
Critical thinking & problem solving	Information literacy	Flexibility & adaptability
Creativity and innovation	Media Literacy	Initiative & self-direction
Communication	ICT Literacy	Social & cross-cultural interaction
Collaboration		Productivity & Accountability
		Leadership & responsibility



OECD Education 2030

"Education is no longer just a matter of teaching children and young people; it is more important to help them develop a compass and a set of navigational tools so they can find their own way in a world that is becoming increasingly complex, changeable, and unpredictable. Our imaginations, attention, knowledge, skills, and most importantly, our shared values and intellectual and ethical maturity, must guide us in our efforts to make the world a better place for all."

Andreas Schleicher, Director of the OECD Directorate for Education and Skills



**The speed and technology
influences
all of us!**





**Why is play
important?**



Richard Schechner, 2003

It's wrong to think of playing as the interruption of ordinary life. Consider instead playing as the underlying, always-there continuum of experience





Resilience

An ability to cope and face challenges in easier ways



Attitude

A way to meet the world



Creativity

Pushing limits and create roles



Roles

Play gives us the opportunity to try out new roles and tasks



Society

Through play we create our society – a togetherness



Flexibility

Through play you get to know how to take new ways





**We need spaces for play to
rehearse and remember!**

All of us!



NEXT GENERATION



Coding
Pirates



Coding Pirates

Play, Creativity, Technology





The association in numbers - Associations and departments

2022

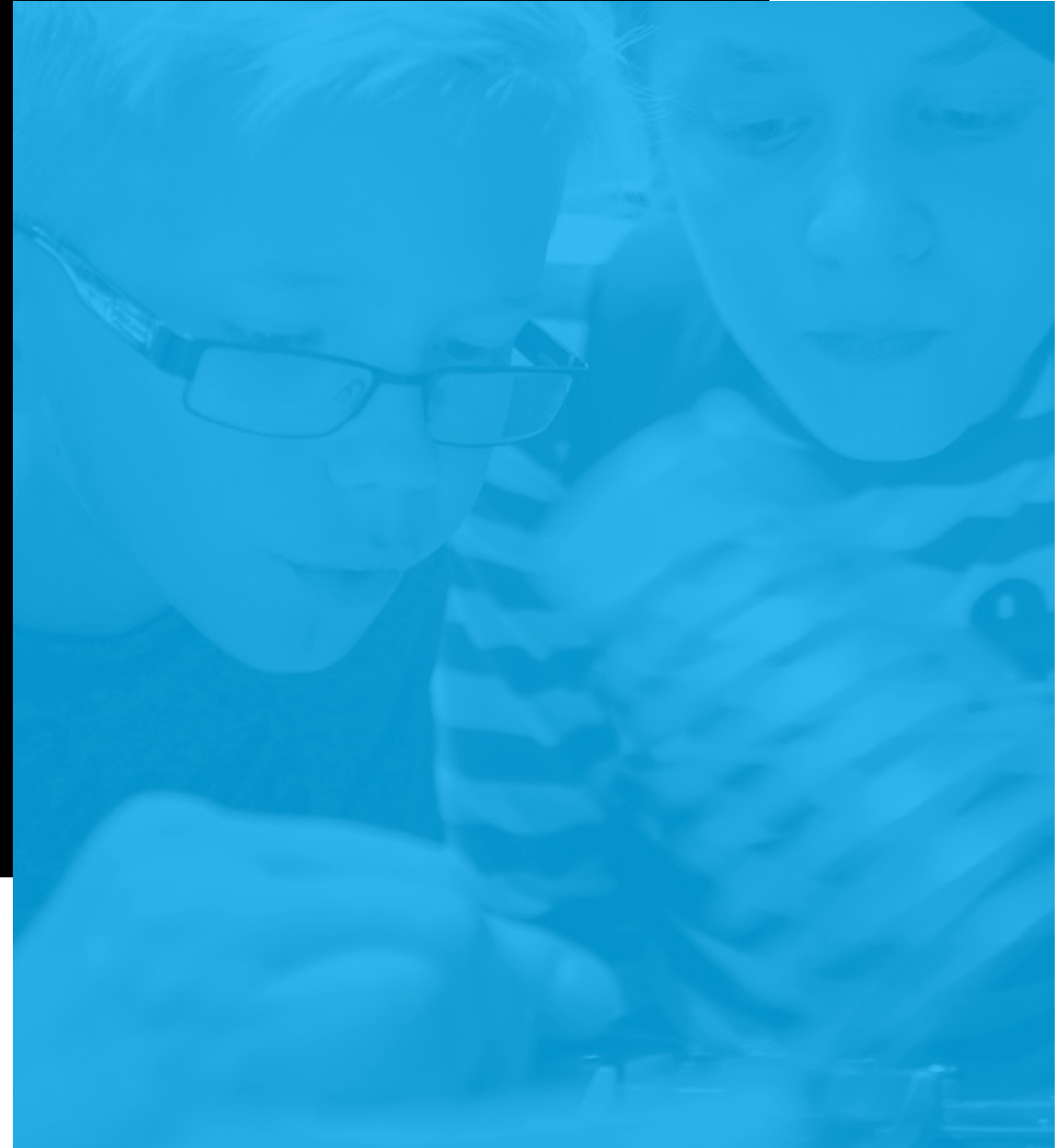
- 63 associations
- 62 departments

2021

- 44 associations
- 57 departments

2019

- 56 associations
- 82 departments





The association in numbers

- Club members

2022

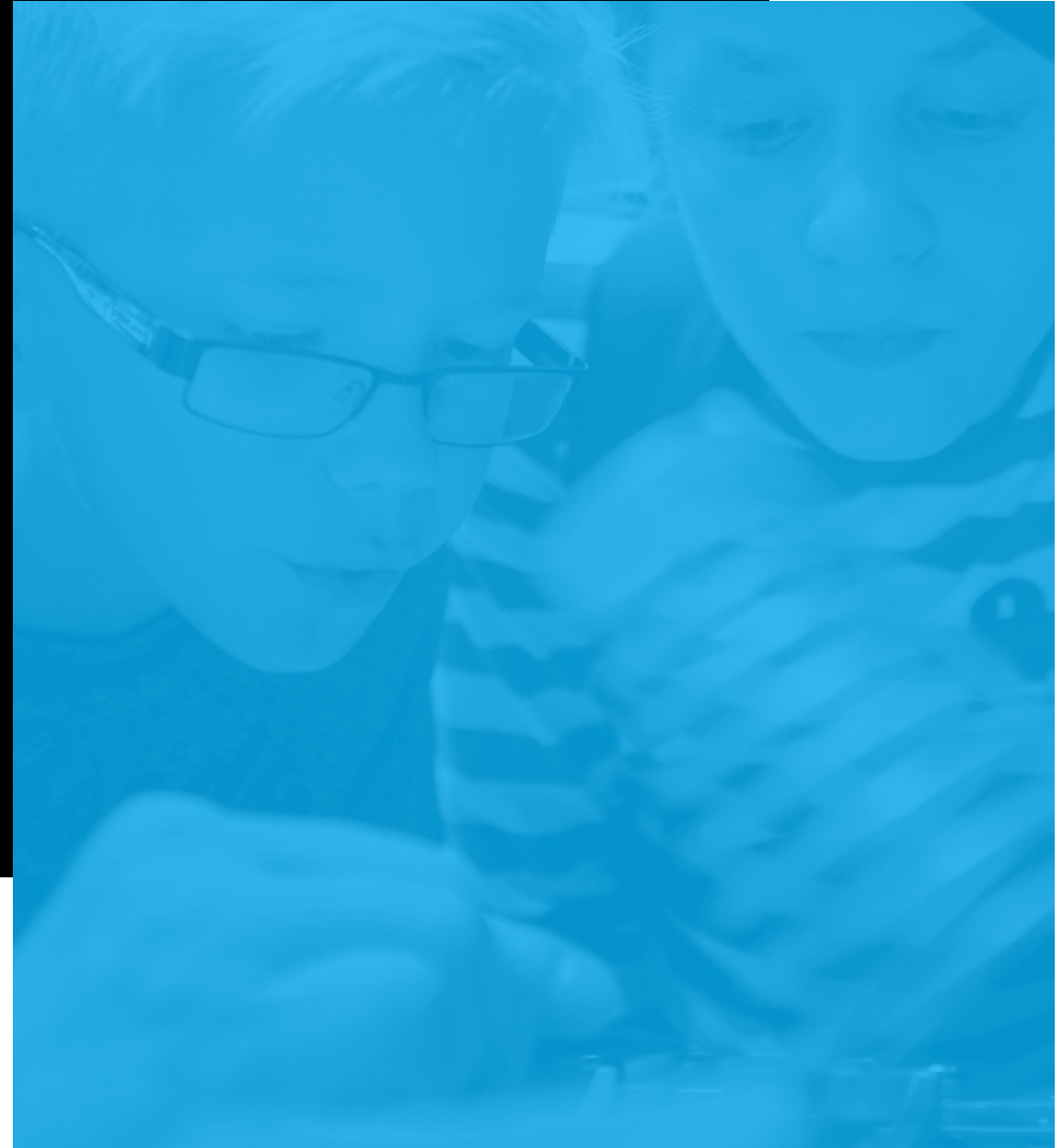
•1.449 club members

2021

•1.124 club members

2019

•2.273 club members





The association in numbers - Girls and women

2022

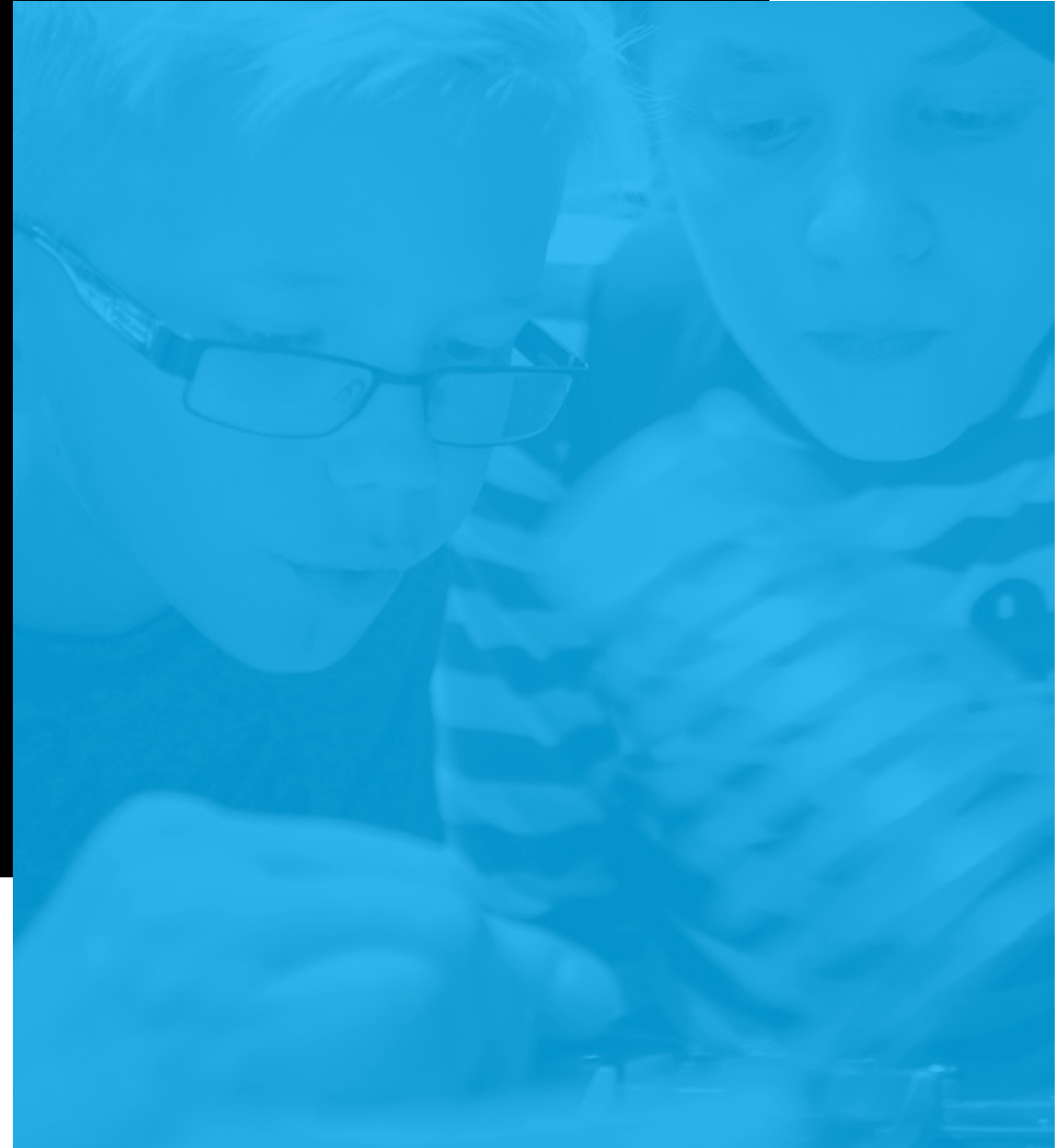
- 18% Girls

Average age of 10.5 years

2020

- 19.5% Girls

Average age of 10-14 years



Coding Pirates

FIRST LEGO League



[illegible]

Coding Pirates

Vision

Coding Pirates builds on participatory culture and aims for democratic participation across age, gender, culture and means. Coding Pirates is a place for playing, learning, working, making and living where everybody is welcomed and included. The Coding Pirates vision is to support and make space for technological imagination, initiative and enterprising through inviting for, supporting and promoting engagement, empowerment and emancipation.

- Coding Pirates is founded on Maker Philosophy and Design Thinking and invite children and youth to engage and take ownership of the technological development in society through technological ideation, design, changemaking and enterprising. Coding Pirates creates new dialogues and collaborations between people meeting around mutual technological projects. In Coding Pirates children, youth, adults and old construct together with other children, youth, adults and old through technological gumption, vigor and zest for life.
- Coding Pirates is founded on a culture of **democratic participatory culture**, where people through technological imagination, changemaking and futuremaking meet around exploration of and experiments with new technologies across generations, gender and capabilities. Coding Pirates seeks to proactively, through democratic participatory culture , create new possibilities and capabilities for all people, and to create collaboration, co-creation and citizenship between generations in the world.





Technological and creative processes in an open community. Coding Pirates supports and promotes **idea development, construction skills**, and **design thinking** through an open and **experimental approach** to technologies through democratic and dialogic processes.




Coding Pirates dreams of **creative inventiveness, a thirst for creation, community, participation, passion, and a zest for real-life experiences for, with, and by code pirates** through technology education, technology processes, and thoughtful technology thinking. Coding Pirates dreams of a society where children and young people feel engagement, empowerment, **and liberation through playful open processes**. And where children and young people are taken seriously on par with all other members of society.





Coding Pirates is for anyone who has a desire to explore and immerse themselves in technologies with a curious and open-minded IT creative approach. Coding Pirates creates space for people to cultivate their inner inventor, engage in **playful communities**, and feel a sense of belonging and making a difference through creative actions with technologies. Coding Pirates **are agents of change and creators of the future**, both internally and externally.



A child with dark hair, wearing a bright blue long-sleeved shirt, is seen from the back, looking at a silver laptop. The laptop screen is black with white text. The background is blurred, showing a desk with some papers and a keyboard.

**Creative thinking
grows out of creative
tinkering**

Lifelong kindergarten, Mitchel Resnick



IT creativity

IF IT IS
BROKEN .
FIX IT!

IF IT IS
NOT BROKEN
IMPROVE IT!

DIY
DIT

BE
CURIOUS!

PLAY

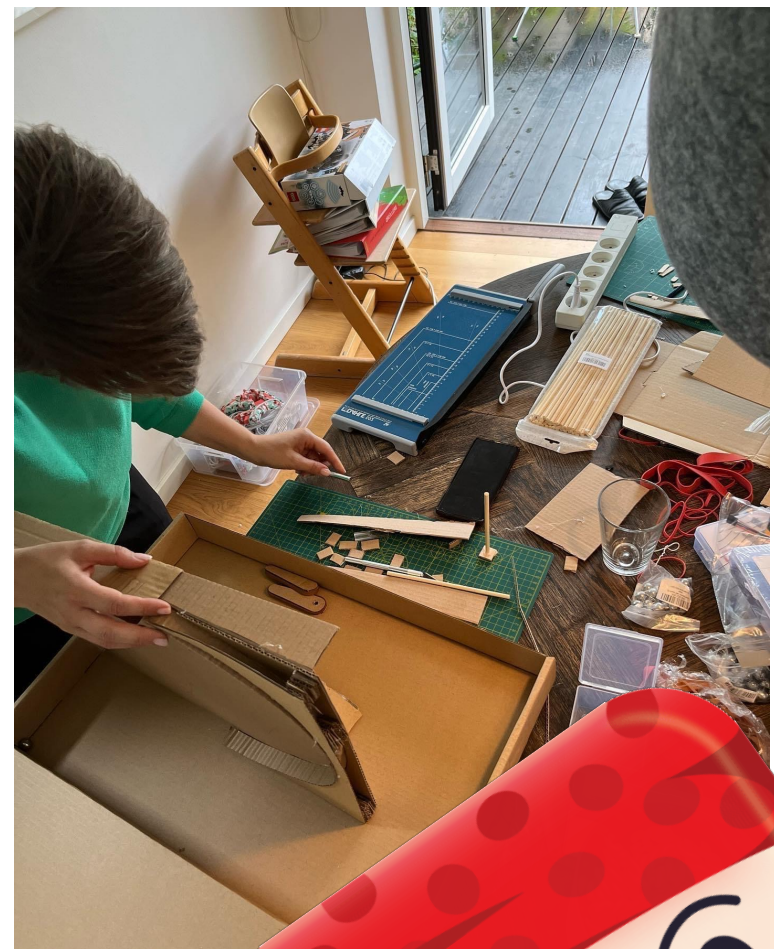


Robotics, graphics,
game development,
electronics, animation,
tinkering, apps, sound,
hacking, drones

The image shows a young child with blonde hair, seen from the back, looking at a tablet. The tablet screen is black with white text listing various fields: Robotics, graphics, game development, electronics, animation, tinkering, apps, sound, hacking, and drones. The child is wearing a dark grey sweater with a light-colored geometric pattern on the back. The background includes a wooden floor, a white radiator, and a small LEGO tree on a yellow mat.





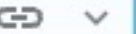




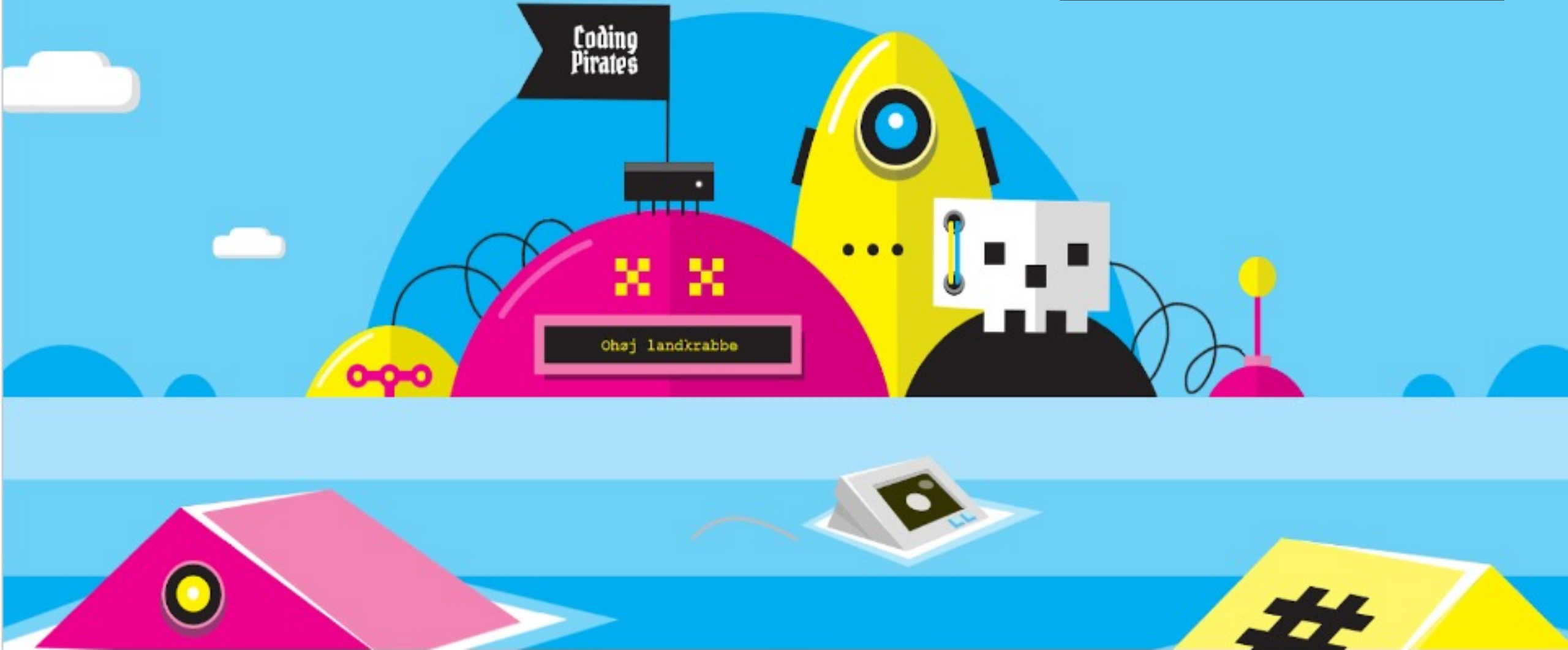
Coding Pirates

Cyber Security

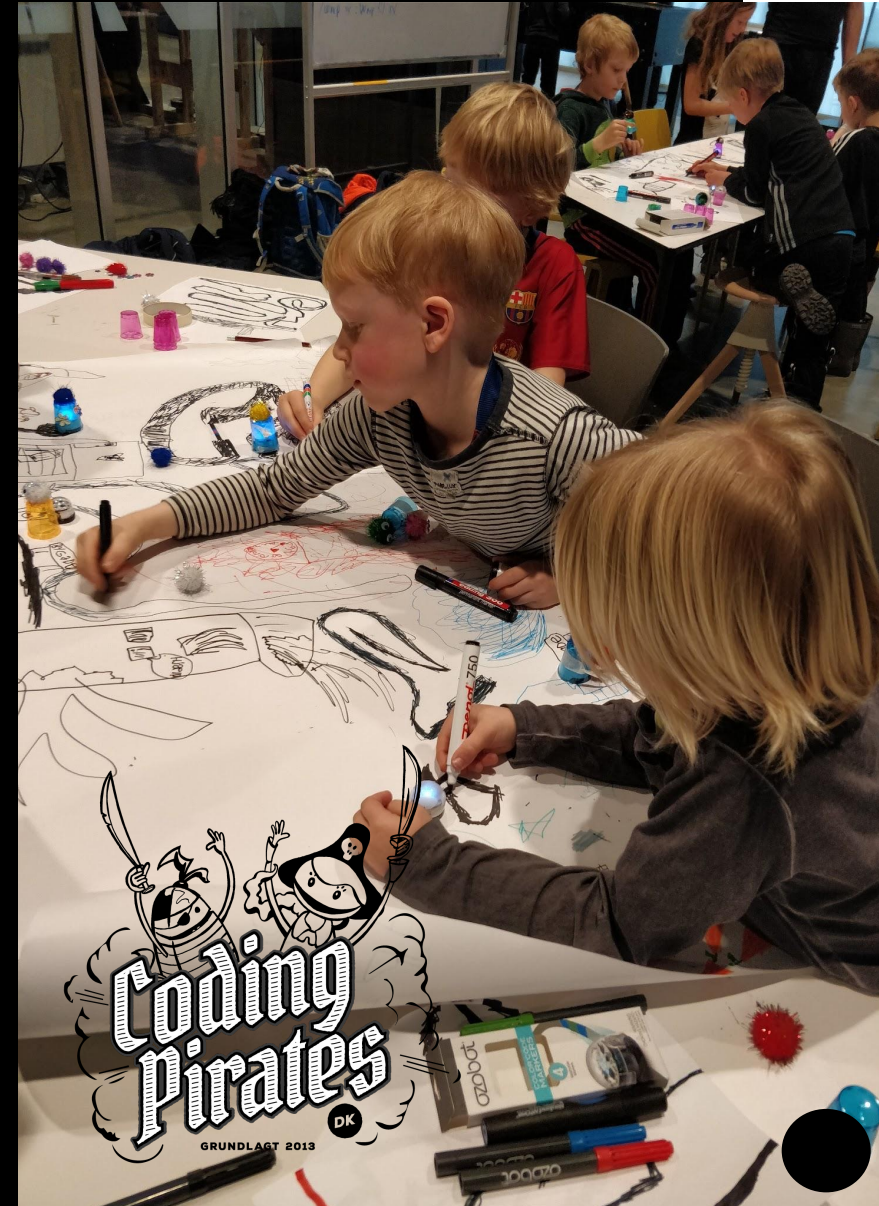


[PIRATSNAK](#)[SHOWCASES](#)[KODEHAVET](#)[CODING PIRATES TV](#)[OM PIRATSKIBET](#)[TILMELD](#)[LOG IND](#)

Piratskibet.dk



How and where do you play?





**Let play turn into learning,
but also let play remain play
(with technology)**





Thank you!



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Coding Pirates

[Codingpirates.dk](https://codingpirates.dk)



Innovation Lab

[Innovationlab.dk](https://innovationlab.dk)