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The changing world of work and learning in the 21st century

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3 | Terminology...

Lifelong Learning

The provision or use of both formal and informal learning opportunities throughout people's lives in order to foster the continuous development and improvement of the knowledge and skills needed for employment and personal fulfilment.

(UNESCO, 2006)

Continuous Professional Education (CPE)

An umbrella term used to describe the continuum of formal, non-formal, and informal learning opportunities that enable practicing professionals to continue to learn and to maintain professional competence across their careers

(Coady, 2016)

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- By 2031, 50% of all trucks on the road will drive themselves, throwing a staggering 1.5 million truck drivers out of work, globally.
- By 2025, 50% the people who analyze medical records will have been replaced by AI
- By 2026, 95 % of air traffic control jobs will be done by robots
- In less than 25 years robots will perform more than half of all surgeries and do most management tasks at the majority of fortune 500 companies.
- By 2020, 50% of the workforce will be working freelance

(Policy Options Magazine, March 2017)

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Key drivers of change in the 21st Century

- Increasing pressures on organizations to be more competitive, agile, and customer focused—to be a "lean enterprise."
- Communication and information technology breakthroughs, especially mobile technologies and the Internet that enable work to be separated from time and space. (OECD, 2012)

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Nature of organizations in 21st century :

- leaner and more agile
- more focused on identifying value from the customer perspective
- more tuned to dynamic competitive requirements and strategy
- less hierarchical in structure and decision authority
- less likely to provide lifelong careers and job security
- continually reorganizing to maintain or gain competitive advantage. (OECD, 2012)

Nature of work in 21st century

- more cognitively complex
- more team-based and collaborative
- more dependent on social skills
- more dependent on technological competence
- more time pressured
- more mobile and less dependent on geography (OECD, 2012)

Say Goodbye to 20th Century **Jobs**

Top-down hierarchies

Competing for Market Share

Silo/Function-based work

Organization-centric

Command & Control

Hierarchy

Work-Life balance

30 Years in One Career



Welcome to 21st Century **WORK**

Nimble organization, transparent communication

Creating New Markets

Project-based work

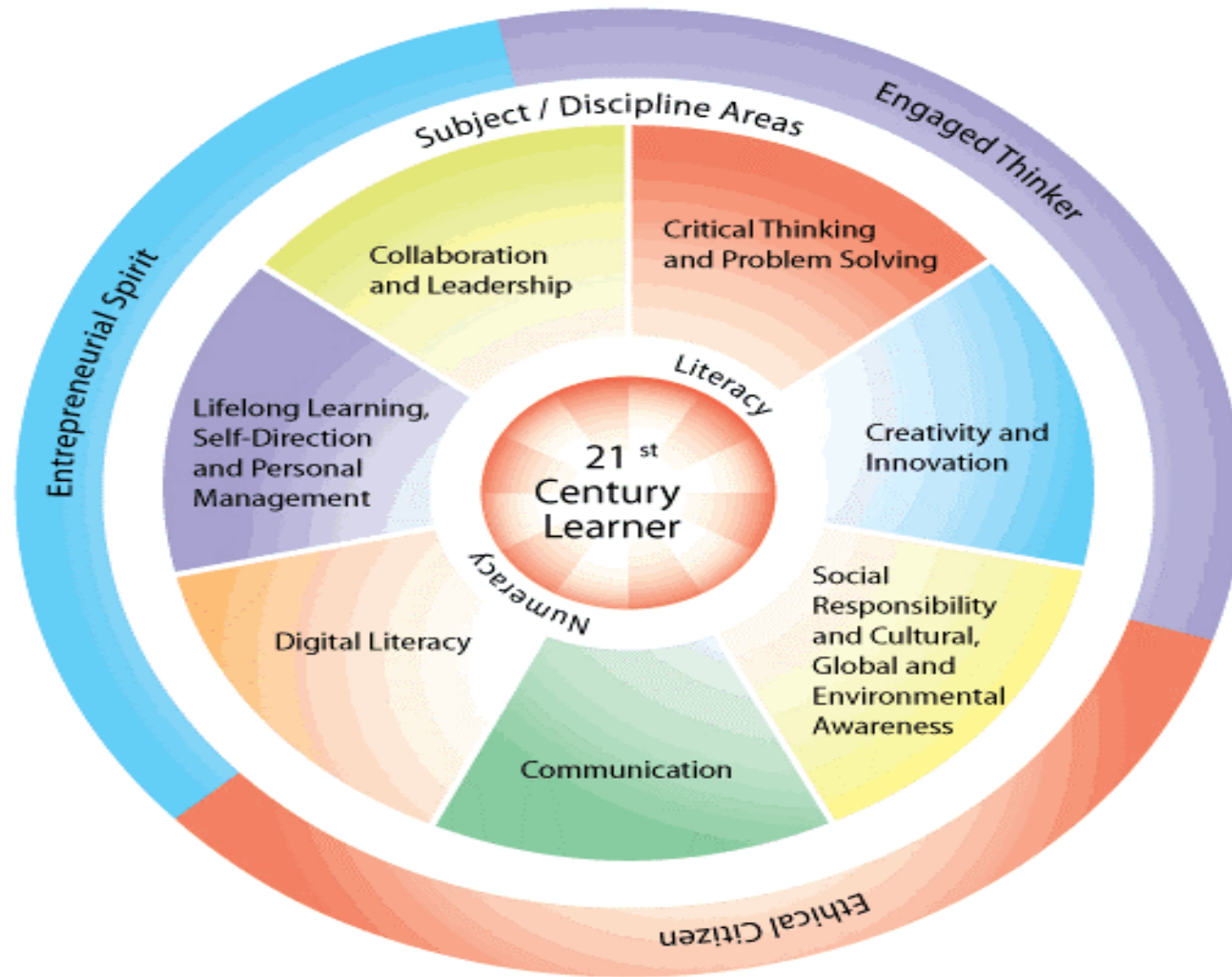
People-centric

Trust-based

Networks & Relationships

Life-work

10+ Careers by 40



“TOP 10” 21ST CENTURY SKILLS

1. **Adaptability**
2. **Analysis/Solution Mindset**
3. **Collaboration**
4. **Communication**
5. **Digital Fluency**
11. **Entrepreneurial Mindset**
12. **Empathy**
13. **Resilience**
14. **Self-Awareness**
19. **Social/Diversity Awareness**



The Seven Cs – 21st Century Lifelong Skills



Seven Cs	Component Skills
Critical Thinking-and-Doing	Problem-solving, Research, Analysis, Project Management, etc.
Creativity	New Knowledge Creation, "Best Fit" Design Solutions, Artful Storytelling, etc.
Collaboration	Cooperation, Compromise, Consensus, Community-building, etc.
Cross-cultural Understanding	Across Diverse Ethnic, Knowledge and Organizational Cultures
Communication	Crafting Messages and Using Media Effectively
Computing / ICT Literacy	Effective Use of Electronic Information and Knowledge Tools
Career & Learning Self-reliance	Managing Change, Lifelong Learning and Career Redefinition

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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

Table 1 - P21 Skills

- “Engaging Community: Adapting the Principles of the Antigonish Movement for Innovation in the 21st Century”
- “Theorizing from 21st century Classrooms: How Adult Learning Principles & Activities Can Facilitate Community Building in a Digital World
- “Digital Moments: A Phenomenological Exploration of Educators’ Informal Online Professional Learning”
- Education that Increasingly Finds Itself in Neoliberal Institutions: More About Metrics, & Less About In-depth Learning”
- (CASAE EAST, October 2017)

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Robotic automation will result in the net loss of more than 5m jobs across 15 developed nations by 2020, a conservative estimate.

International Labor Organization Study (ILO), (2015)

As many as 137m workers across Cambodia, Indonesia, the Philippines, Thailand and Vietnam – approximately 56% of the total workforce of those countries – are at risk of displacement by robots, particularly workers in the garment manufacturing industry.

What MIGHT THIS this mean for us?

- **The real survival skill is our ability adapt to change**—human skills of managing change and adapting to new work cultures.... these skills make us nimble enough to surviving the coming AI disruption
- **Creativity, collaboration, critical thinking and communicating** (skills that help us adapt) offer more promise in addressing climate change, food insecurity, poverty and growing social and economic inequality etc.)
- **Exercise creativity in** embedding these skills in learning and education, both within and beyond the academy
- Recognize personal and professional learning as intertwined and lifelong
- Read, research, reflect and be mindful

