GLOBAL EDUCATION FUTURES

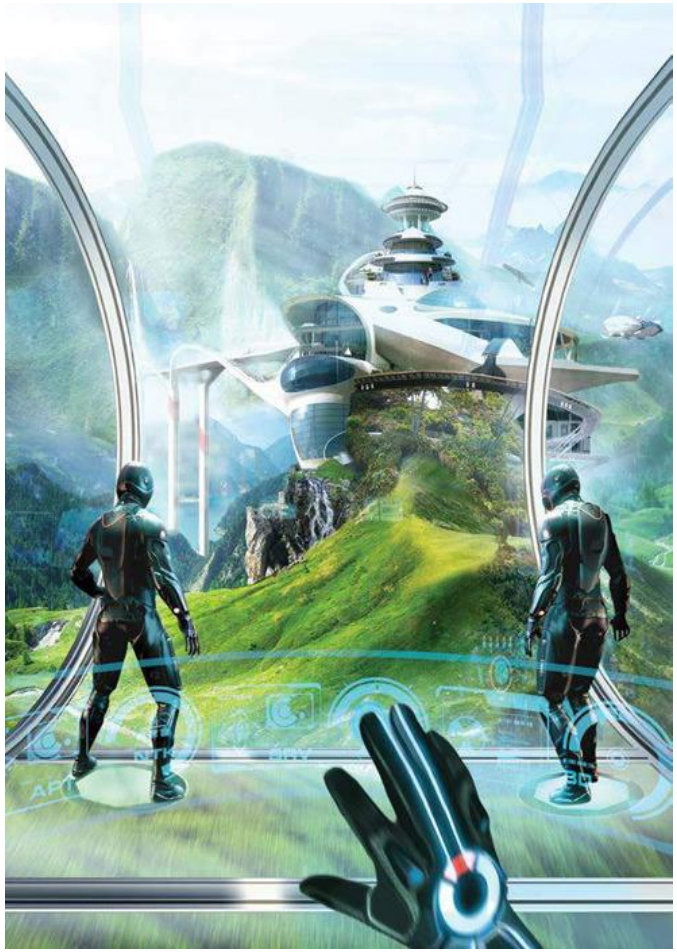
worldskills Russia

worldskills

Foresight project

Future Skills 2.0

transforming and emerging skills in 2020s



June 2020

Executive summary

- The COVID-19 crisis is expected to accelerate changes in the economy that will strongly affect skills required by several industries in the future.
- The purpose of the project : **"Future Skills 2.0: transforming and emerging skills in 2020s"** is to gain insight in the future and reduce uncertainty about this future. This is done by creating a "map of the future", in terms of upcoming technologies and business models, but moreover in terms of the skills that will be required in 10 years from now.
- The project is initiated by WorldSkills Russia with a support of WorldSkills International, and will be executed by partner organisation Global Education Futures.
- The Rapid Foresight methodology is used, gathering knowledge and expectations of many top level experts from across the world.
- The project will focus on 7 sectors: Manufacturing and Engineering Technology; Construction and Building Technology, Infrastructure; Transportation and Logistic; Social and Personal Services; Information and Communication Technology, Digital; Creative Arts, Design and Fashion; Agriculture and Ecology.
- For each sector, at least two online 2-hour sessions are organised:
  - A session with 20-30 top experts from the sector itself, to create a map of the future of the sector.
  - A session with 10-15 experts in the field of education for the sector, to translate the results of the previous session into required skills and educational needs.
- The sessions will run from 25/06/2020 until 12/08/2020.
- The results will be validated in a two-layer validation process.
- The results will be made available in a report, which is expected in September.
- We invite top level sector experts to join this project as a participant in the sessions.

BACKGROUND AND PROJECT RATIONALE

Background

The ongoing COVID-19 crisis has created “strategic uncertainty” that is anticipated to challenge and disrupt many existing sectors of economy. The impact is forecasted to be multidimensional: some sectors such as tourism and passenger air transportation are expected to contract, while others such as digital services are rapidly expanding. Digital transformation & automation are expected to accelerate when the world starts to recover from pandemics effects. Companies will massively revise their business models and their risk management strategies to overcome the present crisis and build up resilience against future ones. The conclusion is that the global economy is changing at a strongly increased pace. This requires us all to revise standards and development strategies on skills in accordance with the emerging reality.

Project rationale

Methodologies of foresight can help overcome or reduce uncertainty by bringing knowledge and expectations of many experts into a consolidated “future map” that can help make decisions and hold strategic conversations. This map of the future shows upcoming technologies and business models, but moreover the skills that will be required in 10 years from now.

PURPOSE OF THE FORESIGHT PROJECT

Main goals of the project

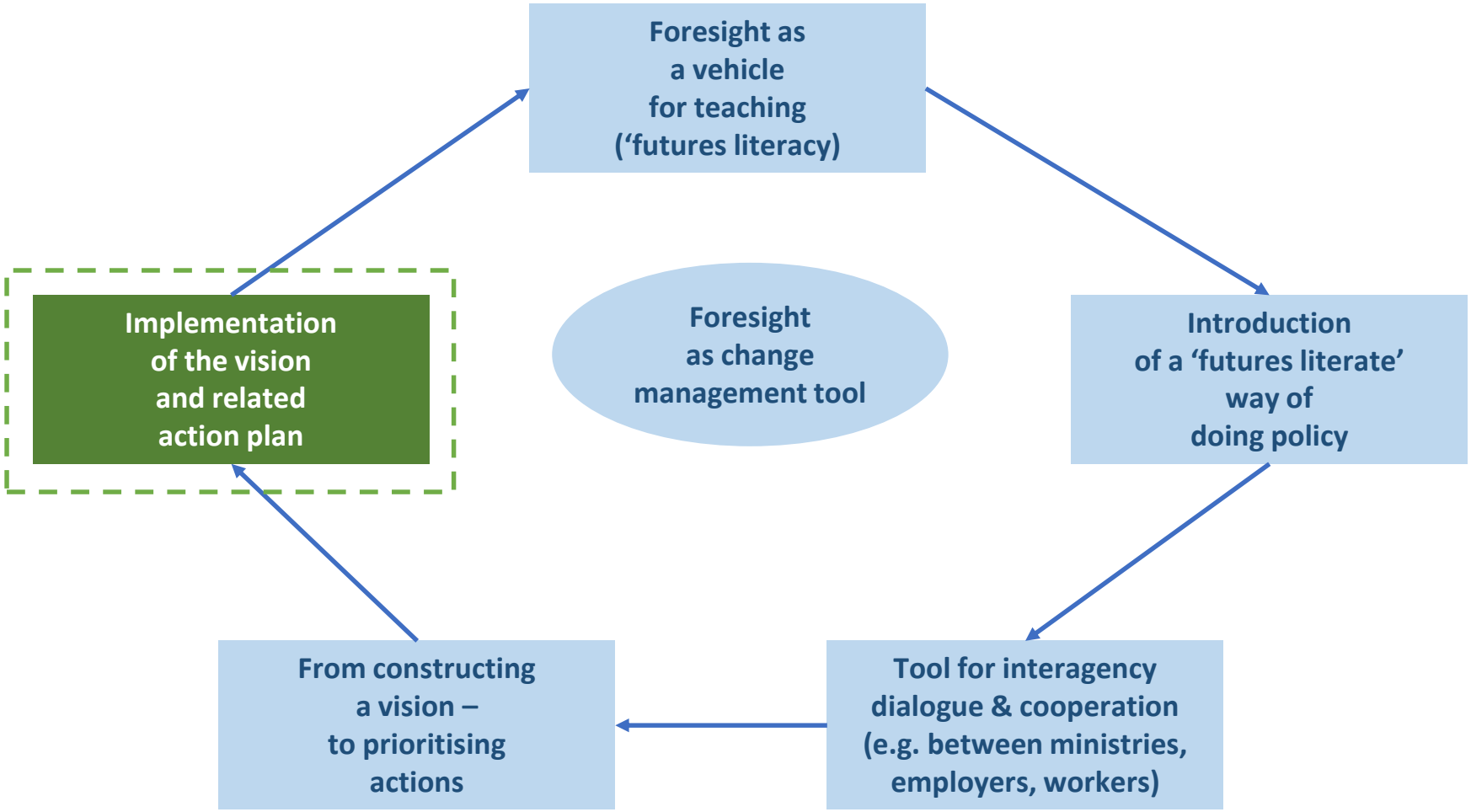
- Create future maps for sectors of interest to WorldSkills for the 2020-2030 timespan, impacted by COVID-related factors
  - Manufacturing and Engineering Technology
  - Construction and Building Technology, Infrastructure
  - Transportation and Logistic
  - Social and Personal Services
  - Information and Communication Technology, Digital
  - Creative Arts, Design and Fashion
  - Agriculture and Ecology*

- Identify impact of sectoral transformation on skills: what skills are expected to emerge, transform, or disappear
- Define implications of skills demand evolution on sectoral & general professional education

Benefits of the project for WorldSkills and partners

- Support preparation & conduct of competitions (remote and live) in 2020 and beyond
- Enable the WorldSkills community to lead a global conversation on skills transformation and professional education changes

HOW SKILLS FORESIGHT CAN INITIATE CHANGE



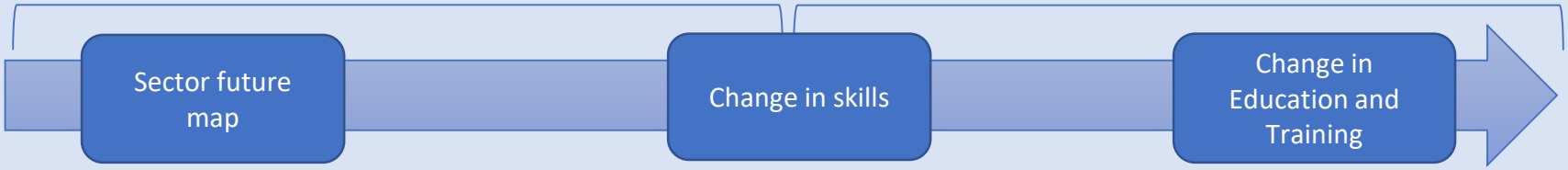
ONLINE FORESIGHT SESSION FLOW

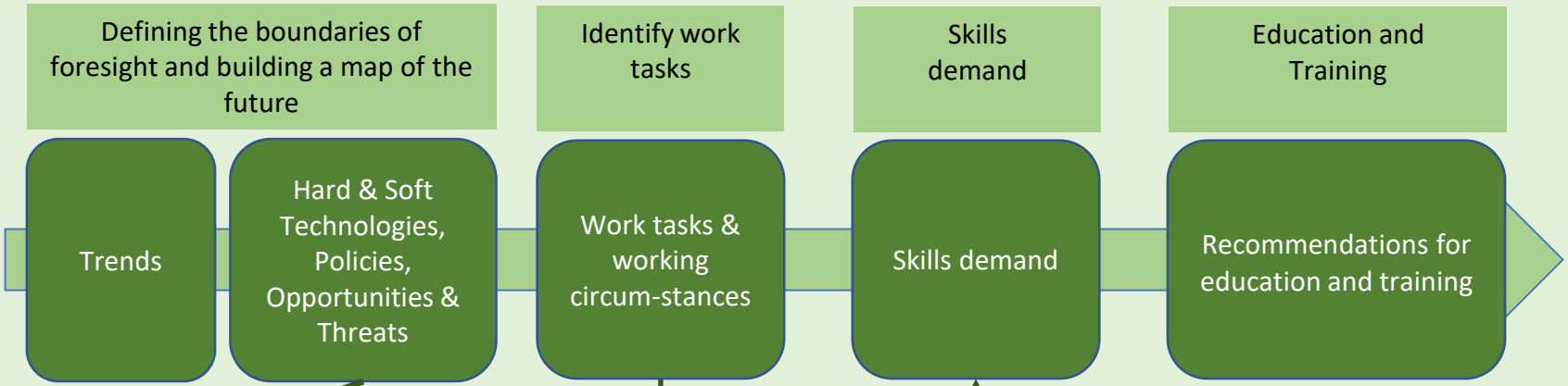
Session 1:
- Industry experts (R&D, strategy, supply chains etc.)
- Industrial policy makers
- WS experts
- GIP

Question: which factors will affect demand for skills in your sector?

Session 2:
- E&T experts (colleges, learning methodologies etc.)
- Education policy makers
- WS experts
- GIP

Question: which skills will be most affected by these factors and how does E&T system need to change?





HOW: ONLINE FORESIGHT

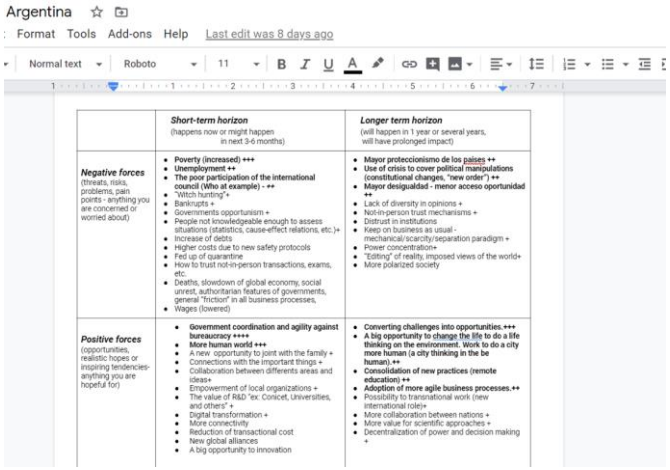
Working platforms

- Zoom (group sharing + work in breakouts)
- Google Doc (shared editing of a template)
- Miro board (for advanced sessions)

Example of group work session

Working process

- 1.5-2.5 hr facilitated session
- 10-30 participants, working in subgroups of 3-5
- People appointed to subgroups based on their sectoral expertise
- Results of group work are captured in Google Doc template in real time
- After the session, results are processed and visualized by the foresight analyst team


Argentina

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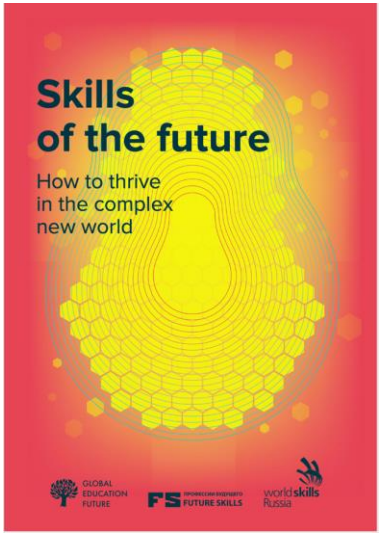
	Short-term horizon (happens now or might happen in next 3-6 months)	Longer term horizon (will happen in 1 year or several years, will have prolonged impact)
Negative forces (threats, risks, problems, pain points - anything you are concerned or worried about)	• Poverty (increased) +++ • Unemployment ++ • The poor participation of the international council (Who at example) - ++ • "Witch hunting"+ • Bankrupts + • Governments opportunism + • People not knowledgeable enough to assess situations (statistics, cause-effect relations, etc.)+ • Increase of debts • Higher costs due to new safety protocols • Fed up of quarantine • How to trust not-in-person transactions, exams, etc. • Deaths, slowdown of global economy, social unrest, authoritarian features of governments, general "friction" in all business processes, • Wages (lowered)	• Mayor proteccionismo de los paises ++ • Use of crisis to cover political manipulations (constitutional changes, "new order") ++ • Mayor desigualdad - menor acceso oportunidad ++ • Lack of diversity in opinions + • Not-in-person trust mechanisms + • Distrust in institutions • Keep on business as usual - mechanical/scarcity/separation paradigm + • Power concentration+ • "Editing" of reality, imposed views of the world+ • More polarized society
Positive forces (opportunities, realistic hopes or inspiring tendencies- anything you are hopeful for)	• Government coordination and agility against bureaucracy ++++ • More human world +++ • A new opportunity to joint with the family + • Connections with the important things + • Collaboration between differents areas and ideas+ • Empowerment of local organizations + • The value of R&D "ex: Conicet, Universities, and others" + • Digital transformation + • More connectivity • Reduction of transactional cost • New global alliances • A big opportunity to innovation	• Converting challenges into opportunities.+++ • A big opportunity to change the life to do a life thinking on the environment. Work to do a city more human (a city thinking in the be human).++ • Consolidation of new practices (remote education) ++ • Adoption of more agile business processes.++ • Possibility to transnational work (new international role)+ • More collaboration between nations + • More value for scientific approaches + • Decentralization of power and decision making +

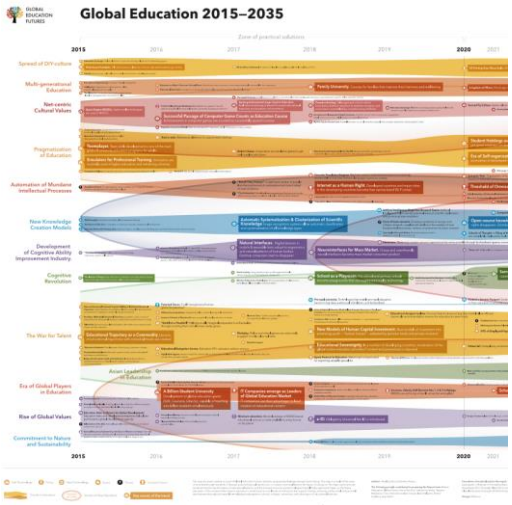
Example of co-edited future mapping document

PROJECT RESULTS



Report
on post-COVID
future of skills

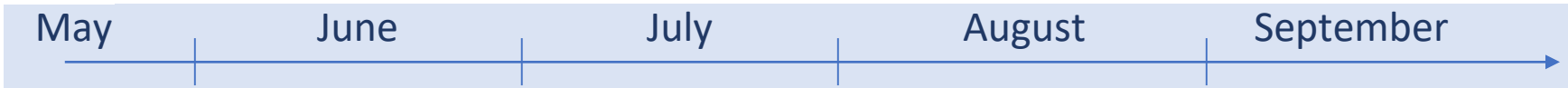
List of promising skills
for post-COVID
future careers



Maps of the future
and other visual
representations of
research findings

Note:
The pictures above show examples from previous projects.
Differences in layout and outcome will occur.

PROJECT APPROACH & TIMELINE



Update research methodology for this project (online facilitation & validation)

Conduct collective visioning sessions:
- 7 sectors, 2 sessions (expert panels) per sector, 10-30 experts in each session (2 Sector Expert sessions – Group A and B according to the time zone, 1 Educational expert session)
- First sectoral session: map of factors that influence the future of sector + expected impact on demand of skills
- Second sectoral session: forecast of future skills + impact on future education models
- Each session prepared & facilitated by sectoral expert / facilitator & project analyst

Verification:
- **Online verification** (Delphi method) by extended expert pool of WorldSkills and related communities

Summarize results of foresight sessions
- Presentation
- Report
- Visual solutions

Sector	Date Sector Expert Session	Meeting number	Time Group A* (CET)	Time Group B* (CET)	Date Educational Expert Session	Meeting number	Time (CET)
Manufacturing and Engineering Technology	Thu, 25/06	1.1	17:00	9:00	Mon, 06/07	1.2	15:00
Information and Communication Technology, Digital	Wed, 01/07	2.1	17:00		Wed, 08/07	2.2	15:00
Creative Arts, Design and Fashion	Thu, 09/07	3.1	17:00		Wed, 15/07	3.2	15:00
Social and Personal Services	Thu, 16/07	4.1	17:00	9:00	Wed, 22/07	4.2	15:00
Agriculture and Ecology	Thu, 23/07	5.1	17:00	9:00	Wed, 29/07	5.2	17:00
Transportation and Logistics	Thu, 30/07	6.1	9:00		Wed, 05/08	6.2	15:00
Construction and Building Technology, Infrastructure	Thu, 06/08	7.1	14:00		Wed, 12/08	7.2	15:00

* GROUP A - Western Hemisphere Sessions, GROUP B - Eastern Hemisphere Sessions

REGISTRATION FOR MEETINGS

1. **Manufacturing and Engineering Technology**
   Meeting 1.1. Sector Expert Session (25.06.2020) – Group A, Group B,
   Meeting 1.2. Educational Expert Session (06.07.2020),
2. **Information and Communication Technology, Digital**
   Meeting 2.1. Sector Expert Session (01.07.2020) – Group A&B
   Meeting 2.2. Educational Expert Session (08.07.2020)
3. **Creative Arts, Design and Fashion**
   Meeting 3.1. Sector Expert Session (09.07.2020) – Group A&B
   Meeting 3.2. Educational Expert Session (15.07.2020)
4. **Social and Personal Services**
   Meeting 4.1. Sector Expert Session (16.07.2020) – Group A, Group B
   Meeting 4.2. Educational Expert Session (22.07.2020)
5. **Agriculture and Ecology**
   Meeting 5.1. Sector Expert Session (23.07.2020) – Group A, Group B
   Meeting 5.2. Educational Expert Session (29.07.2020)
6. **Transportation and Logistic**
   Meeting 6.1. Sector Expert Session (30.07.2020) – Group A&B
   Meeting 6.2. Educational Expert Session (05.08.2020)
7. **Construction and Building Technology, Infrastructure**
   Meeting 7.1. Sector Expert Session (06.08.2020) – Group A&B
   Meeting 7.2. Educational Expert Session (12.08.2020)

GROUP A - Western Hemisphere Sessions
GROUP B - Eastern Hemisphere Sessions

PROJECT ORGANISATION

The project has been initiated by WorldSkills Russia with a support of WorldSkills International. The execution of the project is to be realized by Global Education Futures.

Global Education Futures has formed a global consortium with its partner organisations:

- Learning Planet
- Weaving Lab
- University for the Planet
- Center for Interdisciplinary Research (Paris)
- OpenSource Pharma Foundation
- World Academy of Art & Science

This consortium has started a platform that offers foresight tools and designs “future maps” for “life after COVID pandemics” in different sectors and regions.

PROJECT TEAM

Project Initiator
Ekaterina Loshkareva (Russia)
WSI Board Member - Strategic Development
R&D Director WSR

Project leader
Pavel Luksha (Russia)
Founder, Global Education Futures
Author of Atlas of Emerging Jobs, Future Skills, and Skills Technology Foresight methodology

Project analyst
Nick Graham (Netherlands)
Founder, Weaving Lab
Management consultant advising global Fortune 50 companies, governments, UN agencies etc.

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Dean, Social Innovation Institute

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Facilitator & Project Work Director, SKOLKOVO School of Management

Facilitator
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Co-founder, Weaving Lab
Experience in education & digital services etc.

Facilitator
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