PMFCFS

Prince Mohammad Bin Fahd
Center for Futuristic Studies

PMU
PRINCE MOHAMMAD BIN FAHD UNIVERSITY
2006

UNESCO
United Nations
Educational, Scientific and
Cultural Organization

MOST
Management of
Social Transformations
Programme

The Futures of Education in Saudi Arabia in 2040
A Virtual Futures Literacy Laboratory
November 16th & 17th, 2020

Schedule of the Lab
Day 1
17:00 Start and Intro Dr. Muamar and Dr. Miller
17:15: Check-in
17:25 Probable Futures of Education
18:00 Break
18:10 Preferred Futures of Education
19:00 End of Day 1

Day 2
17:00 Check-in with images of Preferred Futures
17:10 An Alternative Future of Education
18:00 Break
18:10 New Questions for the Present
18:45 Next steps
19:00 Lab closes

Welcome by

| Dr. Riel Miller | Dr. Muamar Slameh |

Main Facilitators

| Dr. Stefan Bergheim | Ms. Christine Kavazanjian |

Phase 3: Rethink. Compare, reflect, consolidate – easier

Phase 2: Reframe. Creative, inventive, experimental – difficult

Phase 1: Reveal. Tacit to explict – easy

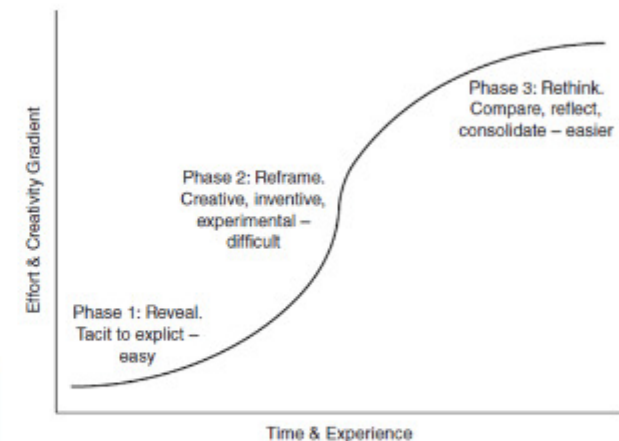Effort & Creativity Gradient

Time & Experience

Figure 4.2 Three phases of the learning cycle

Group A

Group Facilitator
Ms. Crystal Sylvester

Co-Facilitator
Ms. Shahad Alsharyan

Observer
Dr. Patricia Marybelle Davies

Participants

P1a: Probable Futures of Education in Saudi Arabia

learning wont be general it will rather focus on specific needs or topics

Full Virtual Experiance

robots and machines will teach

robots will be instead of teacher or instructors

no books there will be a device that answers all the students Q's and will have all the info. Led by robots.

Robots that answer any question it gets asked concerning education. like google that speaks and moves.

AI and Robot as an Instructor Assistant.

Multi Majors or Skill Education Base. Meaning no specific degree field. More about skill development across multiple areas.

More Individualized learning

school buildings would change location and structor

Instructors Jobs will be Designing the materials instead of delivering it

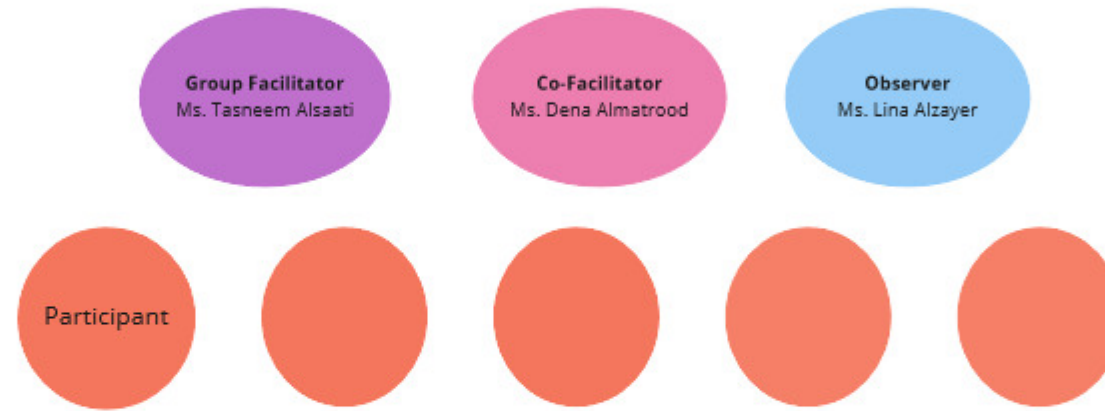It will be a continues learning system

Books will be replaced by electronics
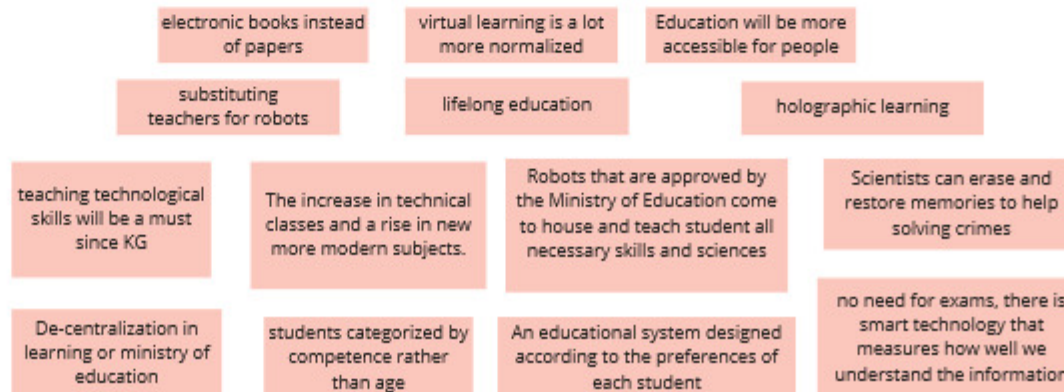
Open Global Collaboration Education and Learning

Gamification Academies

start with subjects concerning college major early in schools as what seems more interesting for students
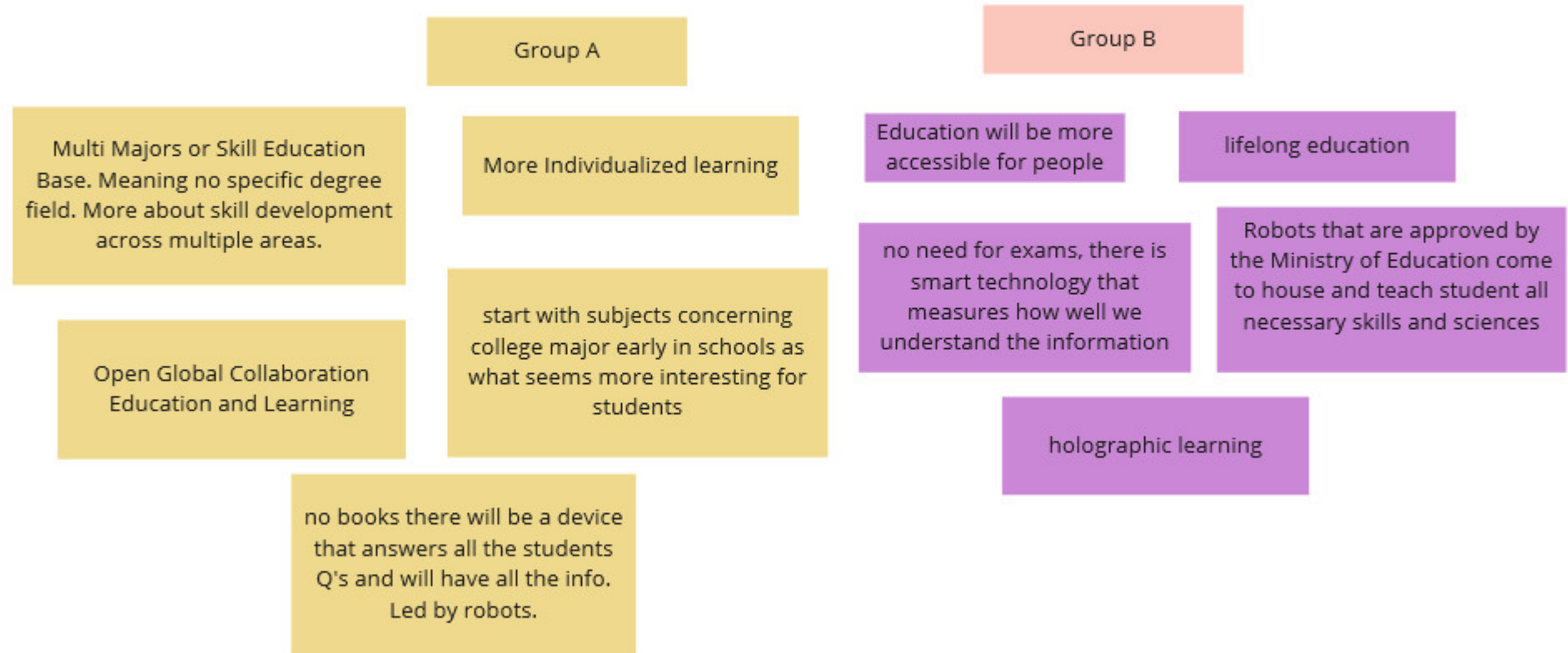
Group B

Group Facilitator
Ms. Tasneem Alsaati

Co-Facilitator
Ms. Dena Almatrood

Observer
Ms. Lina Alzayer

Participant

P1a: Probable Futures of Education in Saudi Arabia

electronic books instead of papers

virtual learning is a lot more normalized

Education will be more accessible for people

substituting teachers for robots

lifelong education

holographic learning

teaching technological skills will be a must since KG

The increase in technical classes and a rise in new more modern subjects.

Robots that are approved by the Ministry of Education come to house and teach student all necessary skills and sciences

Scientists can erase and restore memories to help solving crimes

De-centralization in learning or ministry of education

students categorized by competence rather than age

An educational system designed according to the preferences of each student

no need for exams, there is smart technology that measures how well we understand the information

Plenary on Probable

Group A

Group B

Multi Majors or Skill Education Base. Meaning no specific degree field. More about skill development across multiple areas.

More Individualized learning

Education will be more accessible for people

lifelong education

Open Global Collaboration Education and Learning

start with subjects concerning college major early in schools as what seems more interesting for students

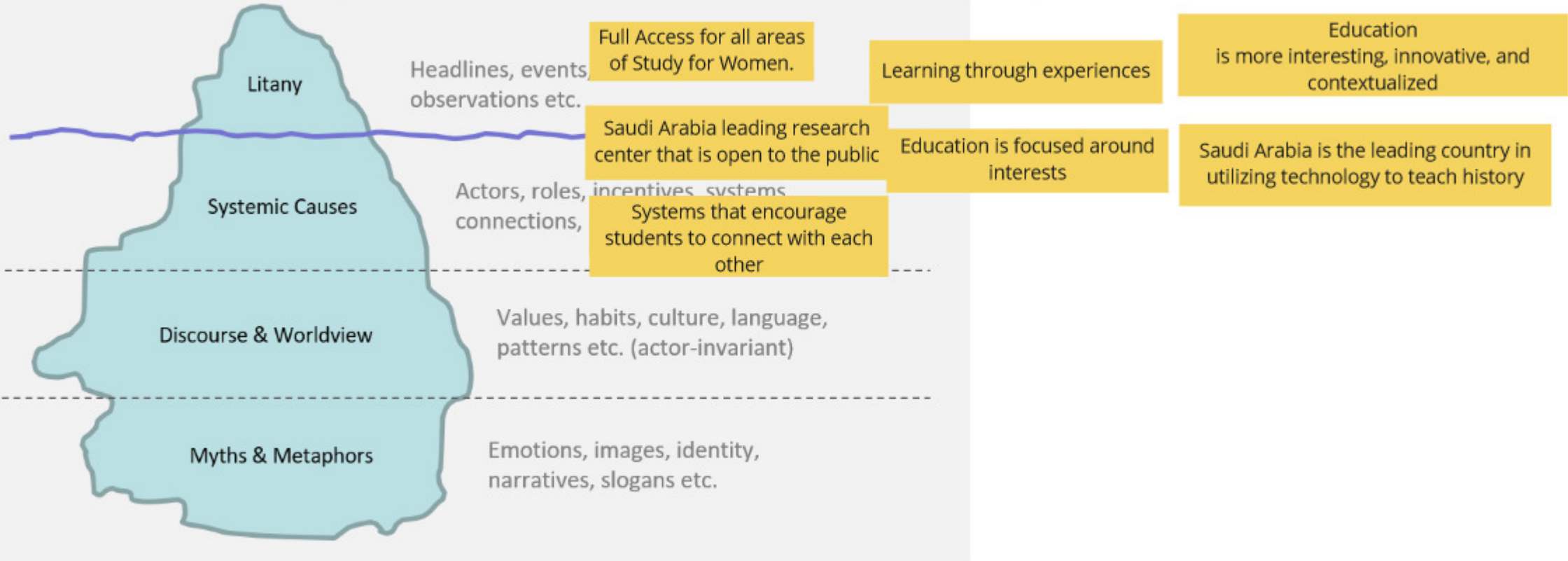no need for exams, there is smart technology that measures how well we understand the information

Robots that are approved by the Ministry of Education come to house and teach student all necessary skills and sciences

holographic learning

no books there will be a device that answers all the students Q's and will have all the info. Led by robots.

P1b: Preferred Futures of Education in Saudi Arabia

Litany — Headlines, events, observations etc.

Systemic Causes — Actors, roles, incentives, systems, connections,

Discourse & Worldview — Values, habits, culture, language, patterns etc. (actor-invariant)

Myths & Metaphors — Emotions, images, identity, narratives, slogans etc.

Full Access for all areas of Study for Women.

Learning through experiences

Education is more interesting, innovative, and contextualized

Saudi Arabia leading research center that is open to the public

Education is focused around interests

Saudi Arabia is the leading country in utilizing technology to teach history

Systems that encourage students to connect with each other

Education inclusive of connection to environment & community impact in everyday education with hands on involvement.

Sustainability is not just something to learn,   it's something to live!
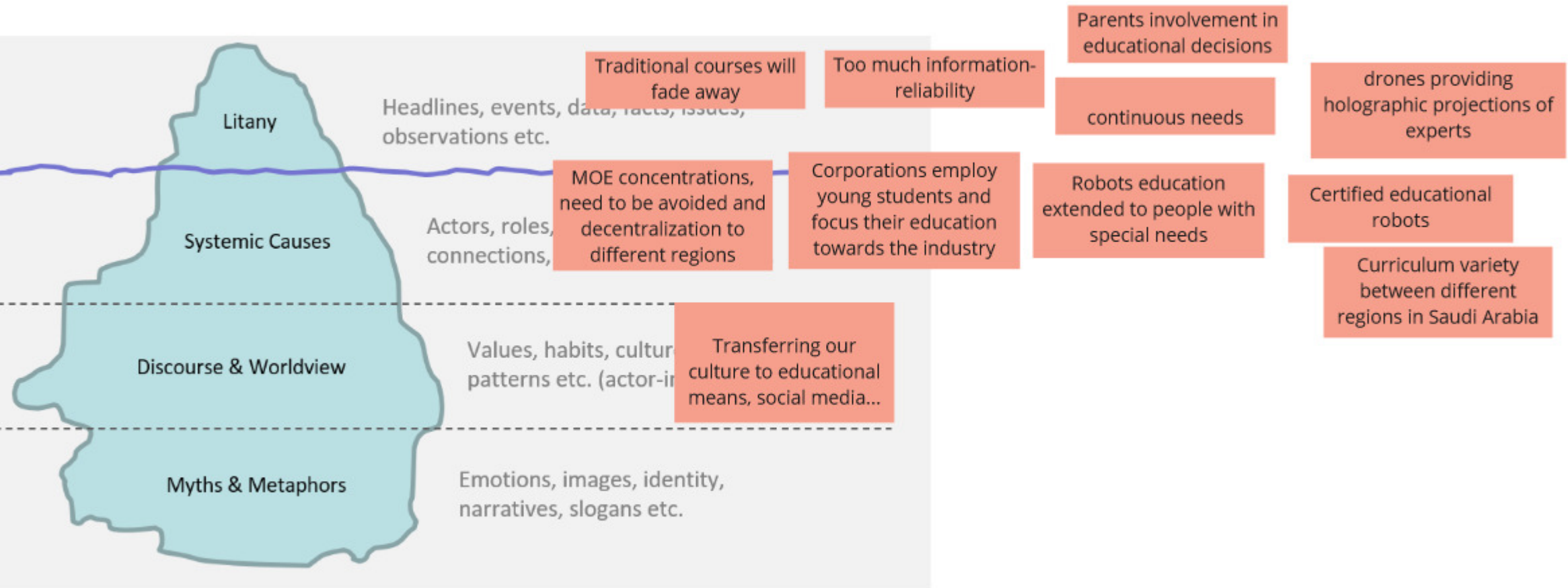

STUDENTS SHOULD LEARN ABOUT SUSTAINABLE DEVELOPMENT AND GLOBAL CITIZENSHIP TO HELP THEM UNDERSTAND THE WORLD THEY LIVE IN

SCHOOL GARDEN PROGRAMMES CAN TEACH HEALTHY EATING AND HELP BUILD AN EMOTIONAL CONNECTION WITH THE NATURAL WORLD

EDUCATION IS THE BEST TOOL FOR CLIMATE CHANGE AWARENESS

SCHOOLS SHOULD BUILD RELATIONSHIPS AND ENGAGE WITH COMMUNITY ISSUES

SOLAR PANELS

ENERGY SAVING LIGHTBULBS

RENEWABLE MATERIALS

HUMAN RIGHTS DISCRIMINATION GENDER EQUALITY BULLYING

SCHOOL

SCHOOL HALL

STUDENTS, PARENTS, TEACHERS, PRINCIPALS, SCHOOL MANAGEMENT AND THE COMMUNITY SHOULD BE INVOLVED IN SCHOOL DECISIONS.

SCHOOL BUILDINGS SHOULD BE SAFE AND SUSTAINABLE, CONSERVING WATER AND ENERGY AND REDUCING WASTE

THE WHOLE SCHOOL APPROACH ADDRESSES THE NEEDS OF ALL LEARNERS

THE WHOLE SCHOOL APPROACH TO SUSTAINABILITY BRINGS TOGETHER WHAT IS TAUGHT, HOW IT'S TAUGHT, EXTRACURRICULAR ACTIVITIES, TEACHER TRAINING, DECISION MAKING PROCESSES, THE PHYSICAL BUILDINGS, THE ENVIRONMENT, AND THE WIDER COMMUNITY.

Assessment Methods Beyond Exams

"Tell me and I forget, teach me and I may remember, involve me and I learn." – Benjamin Franklin

Open doors to creativity, innovation and ultra-learning for a brighter tomorrow

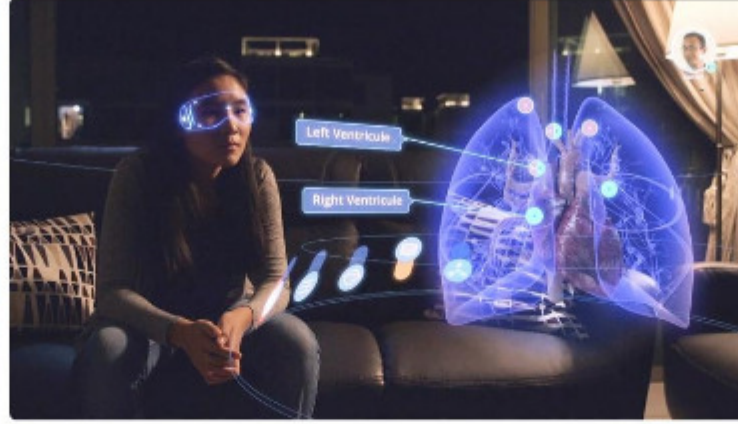less time, easier way, more experience using artificial intelligence.

No books more trees

P1b: Preferred Futures of Education in Saudi Arabia

Litany
Headlines, events, data, facts, issues, observations etc.

Systemic Causes
Actors, roles, connections,

Discourse & Worldview
Values, habits, culture, patterns etc. (actor-i...

Myths & Metaphors
Emotions, images, identity, narratives, slogans etc.

Traditional courses will fade away

Too much information- reliability

Parents involvement in educational decisions

continuous needs

drones providing holographic projections of experts

MOE concentrations, need to be avoided and decentralization to different regions

Corporations employ young students and focus their education towards the industry

Robots education extended to people with special needs

Certified educational robots

Curriculum variety between different regions in Saudi Arabia

Transferring our culture to educational means, social media...

No more books

Future Education

Students can learn using holograms in their homes in an interactive way

Left Ventricle

Right Ventricle

Taking knowledge from Experts in their place, Live into your place

Education on Demand, in house

Classrooms and grading assessment in the future

P2: An alternative future

In the year 2040, humans learn all the time and in line with their specific needs. Their advanced sensory capabilities allow them to absorb helpful knowledge without much effort – by themselves or together with others. This is why schools and formal education programs no longer exist.

Litany — Headlines, events, data, facts, issues, observations etc.

Systemic Causes — Actors, roles, incentives, systems, connections, decisions, policies etc.

Discourse & Worldview — Values, habits, patterns etc.

Specialization and uniqueness

Less competition or highly competitive

Central place to access information from

Seeking knowledge from experts

Overly depending on technology

One leading company to provide information

Myths & Metaphors — Emotions, images, identity, narratives, slogans etc.

Discrimination against different fields of study

Too rich or too poor

Boring and routinic

In the year 2040, humans learn all the time and in line with their specific needs. Their advanced sensory capabilities allow them to absorb helpful knowledge without much effort – by themselves or together with others. This is why schools and formal education programs no longer exist.

Loneliness, falling in love with machines...
Emotions are wasted on emotionless devices and software

Litany — Headlines, events, data, f... observations etc.

ROBOTIC CRIMES BY HACKERS

INCREASE IN CYBER-HACKS

CONVIENIENCE CAUSES HEALTH PROBLOMS; MENTAL HEALTH; LONLINESS

Systemic Causes — Actors, roles, incentiv... connections, decisions, policies etc.

Discourse & Worldview — Values, habits, culture, language, patterns etc.

Myths & Metaphors — Emotions, ima... narratives, slo...
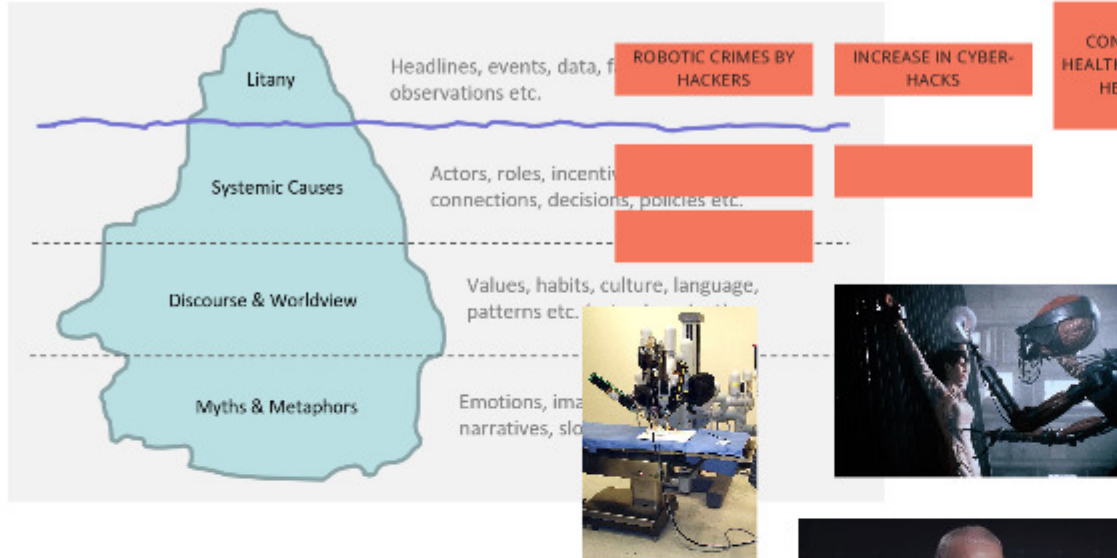
- SARA in yr 2040,
- glass room, hospital, interactive medical machines activate by clap,
- trying to remember why shes in the hospital, shes a medical student, shes
- living an entire day in the hospital, machines are doctors too, their
- living the experience of patient and doc, reading results from machines,
- she supervising, cafeteria, her friend is not really human, she blinks
- twice, a holographic image, contact lenses made her see hologram, she
- misses her mom, the hologram is her mom, she cries, we don't substitute
- doctors just nurses with robots; simple tasks, shes walking down the hallway, shes
- seeing simple tasks substituted with robots, hologram doctor in many
- places, giving instructions and supervising, robots do surgeries, shes a
- student in more than one field, main law, another-doc, health
- professional, how machines can create crime, special law about that,
- preventing robotic crimes (two ministries), screens infront of her,
- surgeries through computers to control robots (who do the surgery), she
- focuses on law side while controlling at home, supervise two jobs, robot
- consultant, her cat jumps on her laptop, it's a robotic cat.
-
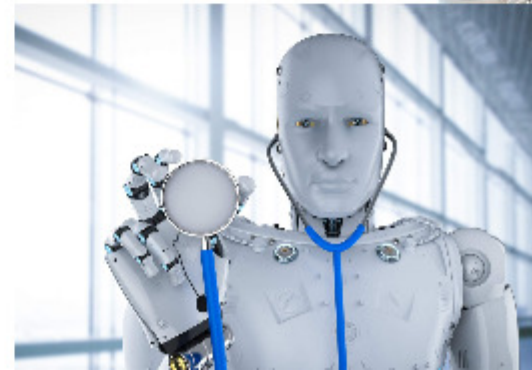
Plenary on Reframe: How did it feel to be in this alternative future?

In a totally different world

Loneliness

Sad and not excited

disappointed

thought-provoking

curious

I was bored yesterday, then I felt excited because it was strange and new!

interested

I felt like I am there, and it felt amazing

Fearful but optimistic

Intersted

interesting

Rethinking about the Now moment

Excited

Plenary on New Questions and Next Steps

There will always be a need for creators of the necessary technologies.
What percentage of the general public would be creators rather than simply consumers of technologies?

Will being creators be a right rather than privilege?

scientists should rethink what their inventions might change in life, and know both the benefits and dis-advantage before inventing something new.

Are inventions going to ruin the world? So should we slow them down

what about us (as human)?

Are robots as good as we think?

How will we even reach there when we do not have a field that studies the robotic world?

government prepares to use robotics in education in the next years

What are the outcomes of relying on robots? mentally?

Is it possible to give robots emotions, can they actually replace human beings?

How can we keep the human aspect into the future?

Are robots actually needed? will they have more advantages than dis-advantages.

Is memorization and studying even necessary since robots already have all that information?

What are the outcomes of relying on robots ?

Collaboration of pioneering and developing countries to create the envisioned future of education for 2040

How can humans and robots work together for a more sustainable future while maintaining humanity?

Will traditional educational still be used and relevant ?

are we going to be a part of the change ?

will all the world be a part of this ?

Are some countries going to reach that kind of future before Saudi Arabia; example : Asia, How is technology going to evolve in Saudi by 2040 to the reframed future ?

Are we going to have more problems because of robots?

Are we prepared for the future?

How to make societies take this transformation seriously?

The turning point (How to make societies take this shift seriously)

How will the transition happen?

Create more experience based connection education for youth to self, humans, and other living beings as well as the planet to encourage the development in technology geared to support this connection.

What other assessment methods could be available ?

How can we punish robots?

Qualifying cadres capable of dealing with artificial intelligence and robotics

How can we prevent future crime related to robots?

Has COVID-19 affected the way we envisioned the future?

What will happen to the people who learned through the old education system ?

Are we going to provide poor people with internet connection and free devices to get their education?

Establish new laws on cybersecurity

Help our children understand the importance of maintaining human relations
Less interaction with machines in 2020

We can make the impact of COVID-19 on education as a turning point for the future we want

The older people who decided to complete their higher education , can they do it in free government learning system or is it limited to fresh high school graduate ?

Shortening the basic educational years to graduate the largest possible number of qualified cadres

Double major in robotics and law

New laws on human rights and the replacement of humans with machines (job security)

Do we need to shorten the school years?

During this pandemic we're trying one of the future ways of teaching

changing the schooling system

Practicing thinking big not limiting ourself to today but to truly see the future and innovation in all aspects of our day and being open to new ideas

How to change perspectives to positive thoughts of the future?

Why did the age matter all of these years when it has nothing to do with education?

We can make the impact of COVID-19 on education as a turning point for the future we want

Promoting for a healthier lifestyle in term of mental wellness and physically

The current materials are they going to be developed based on what is coming ?

Will we suffer from more mental problems?

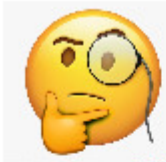adding a major in uni & schools about robots and how to interact with them

Awareness of how robots are environment friendly.

Creating more creative learning materials.
Develop more innovative delivery and assessment methods.
Providing more opportunities for older people and all people who wants to continue their education.

Getting 3rd or 4th Bachelor degree.
Get educated and keep learning from other sources outside of the official education system.

Implement strong internet connection in poor and small villages.

reducing theoretical materials and live the experience to learn it

Check-out

TELL ME MORE

CURIOSITY

Inspired

BRIGHT FUTURE AHEAD

OPTION 1
OPTION 2
OPTION 3
OPTION 4

GOOD CHOICES   BAD CHOICES

WHERE   WHAT   WHEN
WHY   HOW   WHO