

CUHK Jockey Club AI for the Future Project

Phase II Participating Schools Recruitment Online Briefing Session

Co-organized by:



The Chinese University of Hong Kong
Faculty of Engineering
Faculty of Education

Funded by:



The Hong Kong Jockey Club Charities Trust

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Agenda

- (1) Phase I Review
- (2) Phase II New Initiatives
- (3) Support to Schools in Phase II
- (4) Responsibilities of Schools in Phase II
- (5) Recruitment of Champion Schools
- (6) Key Dates
- (7) Q & A

(1) Phase I Review

Phase I: August 2019 – July 2022 (3 Years)



CUHK Faculty of
Education



CUHK Faculty of
Engineering

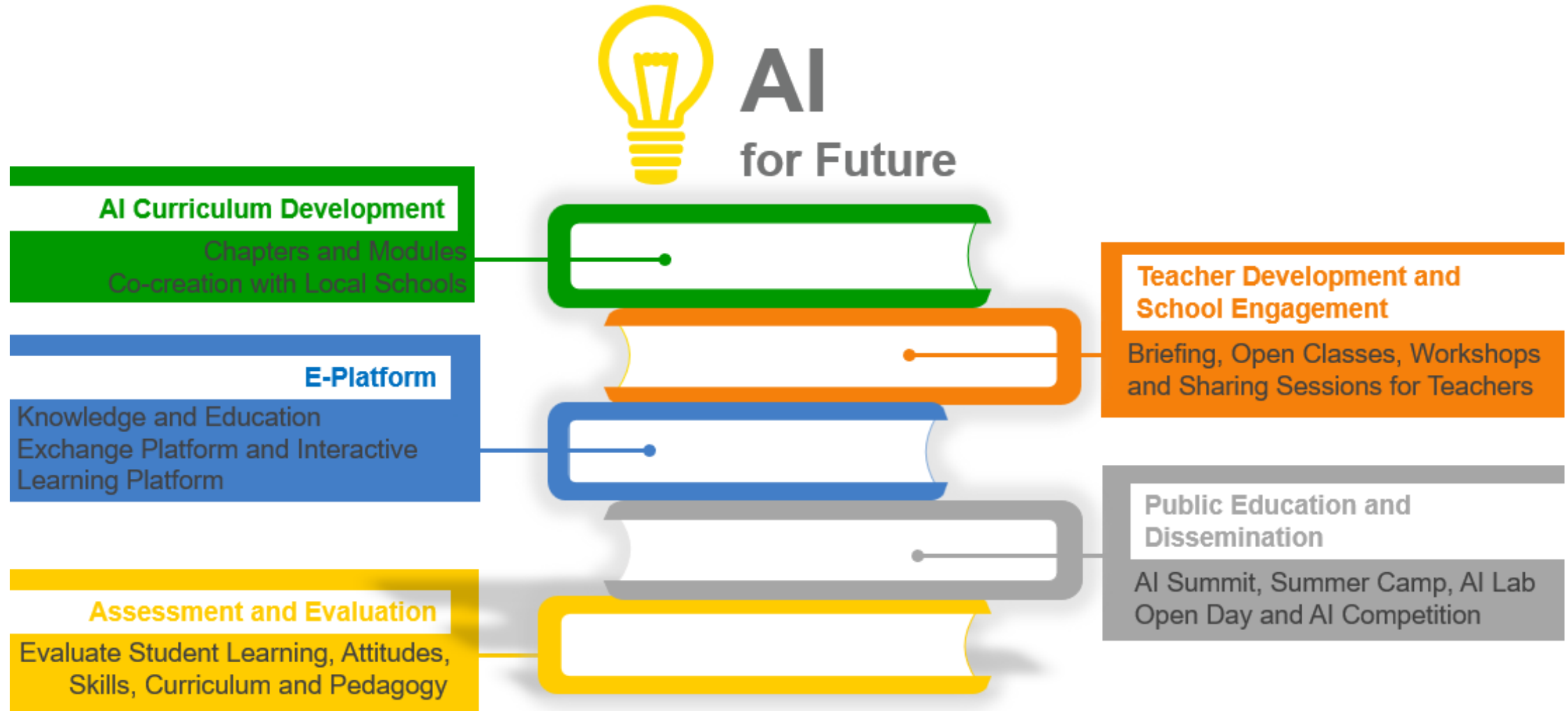
Vision

Create a novel AI
Curriculum for local
secondary schools

Create a sustainable AI
education model with
supporting infrastructure

Establish a conducive
ecosystem in AI education for
local secondary schools

Main Components



School and Student Engagement



School Engagement

63 Project Schools

>12,000 Students Engaged



AI Curriculum

>7,000 Students and Teachers
Piloted the Curriculum

>2,600 Pilot-teaching Lessons



Teacher Support

>50 CPD hours

>400 Teachers Trained

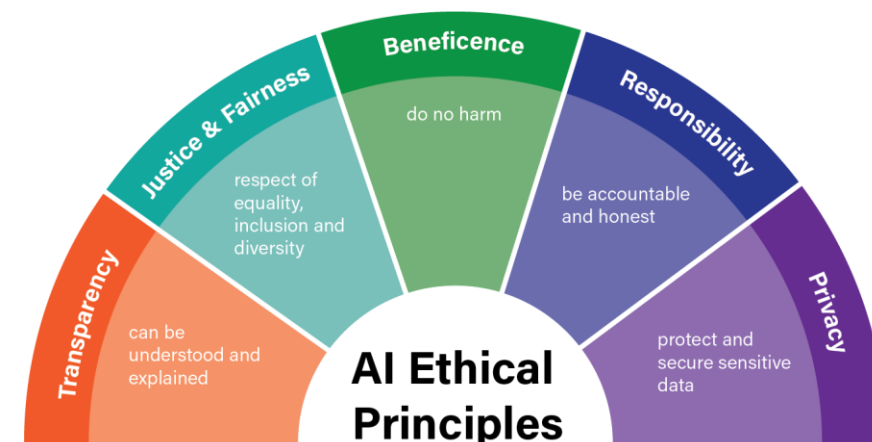
+ School Mentoring Scheme

AI Curriculum

Chapter	Topic	Chapter	Topic
1	Introduction to AI	7	AI Reasoning
2	Fundamentals of AI	8	Simulation
3	See	9	Think and Create
4	Hear	10	Social Good, Social Impacts and Challenges of AI
5	Speak	11	AI and Ethics
6	Read	12	AI and Future of Work



12 Chapters with 55+ Modules



E-Platform (Online Interactive Experiment)



Chapter 6 - Read

Python

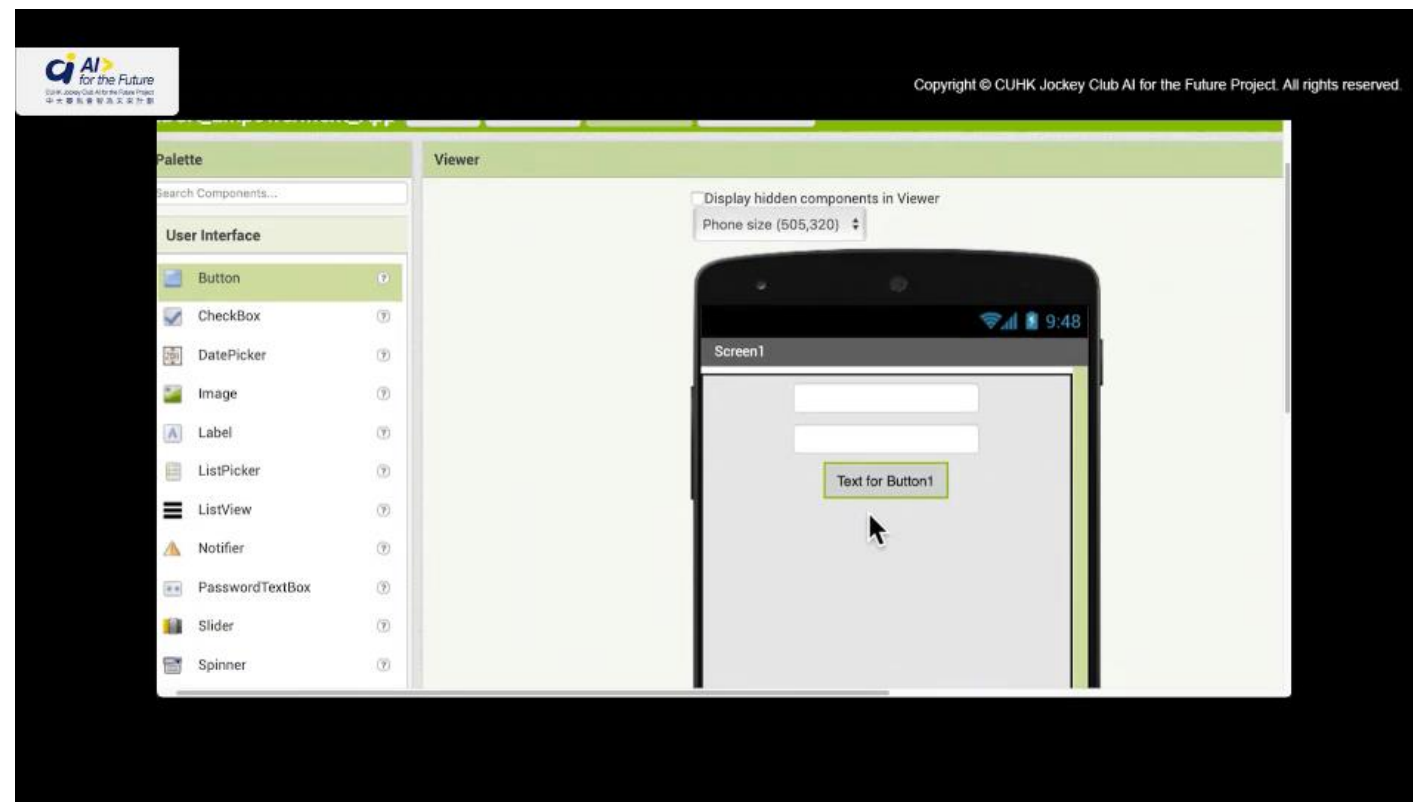
Blocky



ApplInventor

```
22 from django.conf.urls.static import static
23 admin.autodiscover()
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```

Example: Use the Web API developed by CUHK in the mobile app for Aspect-Based Sentiment Analysis



AI Robot Car - CUHK-JC iCar

Six Built-in AI Functions

Face Recognition



Object-following



Object Recognition



Line-following



Colour recognition



Tag Recognition



Three AI Experiments



Face-tracking



Line-following



Moral Dilemma

- Hardware learning toolkit
- Ideal learning tool for beginners to learn AI

Teaching and Learning Pack

Co-creation Process

Faculty of
Engineering

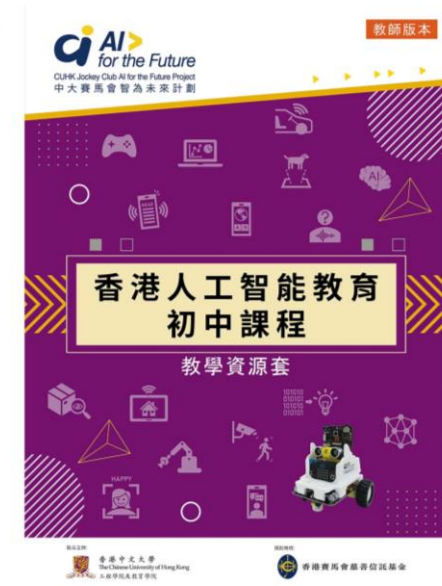
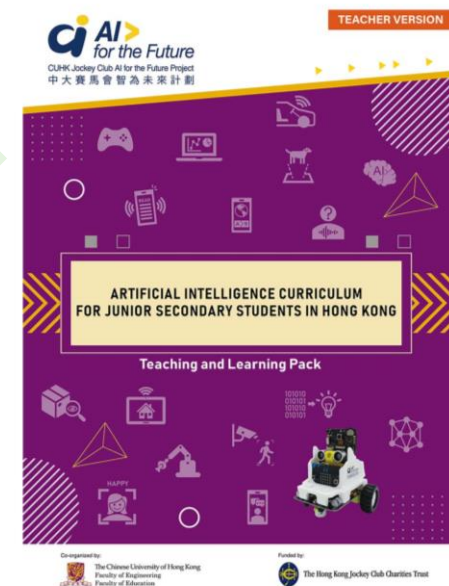
Faculty of
Education

Six Pioneering
Schools

Four Teacher
Advisors

writing, pilot-teaching, feedback and refinement

- Over **2,600 lessons** of pilot-teaching
- Engaging more than **70 school teachers** and over **7,000 students** in Hong Kong



Achievements

Awards

Gold Award winner of HKICT Awards 2021 Smart People Award (Smart Education and Learning)

Nominated by CUHK to Falling Walls Engage 2021 – Science Engagement

Academic Publication

Published an **academic paper** entitled “*Creation and Evaluation of a Pre-tertiary Artificial Intelligence (AI) Curriculum*” in IEEE Transactions on Education

IEEE Transactions
on Education



Media Coverage

Cooperated a one-year **bi-weekly column** with Wen Wei Po education page

Attracted **over 30 media coverage**



Others

Invited by HKSARG to comment on the equipment list of **IT labs of secondary schools**

Invited by ITB for **video promotion of Smart City 2.0**



Artificial Intelligence is included in **CUHK Strategic Plan 2021-2025**



(2) Phase II New Initiatives

Project Extension

August 2022 – July 2026 (4 Years)

Mission

Mainstream AI education throughout secondary curriculum

Build up a sustainable AI learning and teaching ecosystem

Empower students with 21st century skills by enrichment and enhancement

Broaden leadership in long-term sustainability and ecosystem change

Core Professors Team



Prof. Helen MENG

Co-Principal Investigator
Curriculum Development Team Head
Assessment and Evaluation Team Co-Head



Prof. YAM Yeung

Principal Investigator



Prof. CHAI Ching Sing

Co-Principal Investigator
Assessment and Evaluation Team Head



Prof. Savio WONG

Curriculum Development Team Co-Head
Teacher Development and
School Engagement Team Co-Head



Prof. Thomas CHIU

Teacher Development and
School Engagement Team Head



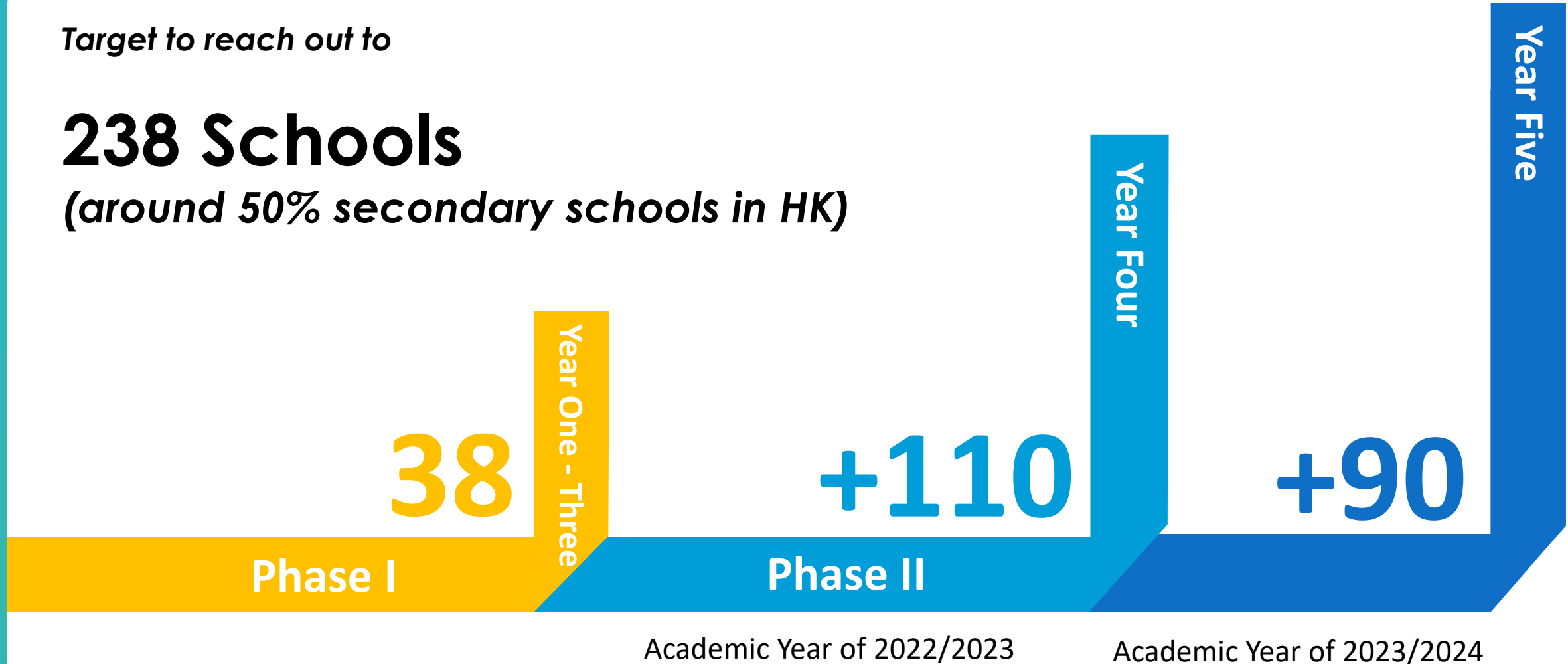
Prof. Irwin KING

E-Platform Team Head

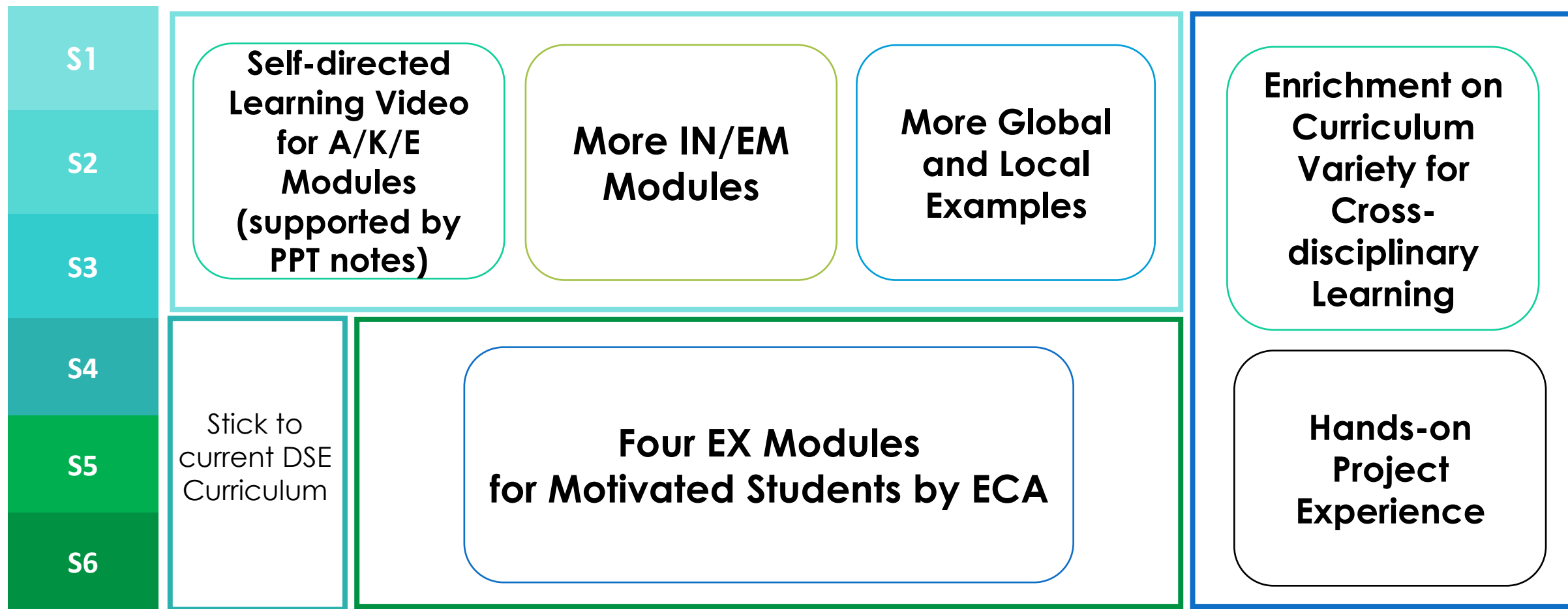
School Engagement

Target to reach out to

238 Schools
(around 50% secondary schools in HK)



New Curriculum Design



Extended (EX) Modules

- Specially designed for **senior secondary** or **motivated students**
- Support **ECA learning** and **blended learning** via **self-directed learning**
- **Inter-disciplinary** in nature aimed at covering AI application in traditionally non-engineering field
- Possible topics: Arts, Biomedical, Social Science, etc.

Teacher AI Knowledge Enrichment Scheme (TAKES)

AI教學增值計劃

**Onsite Workshops
at CUHK**



**Outreach Workshops
at Designated Phase II
Participating Schools**



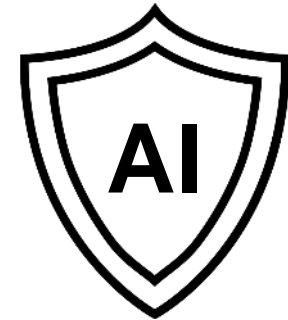
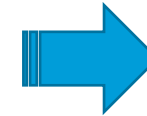
**Online Self-directed
Learning Modules**

Teaching Competence Evaluation and Certificate System (TCECS) AI教學認證計劃

**Completion of Teacher
AI Knowledge
Enrichment Scheme**



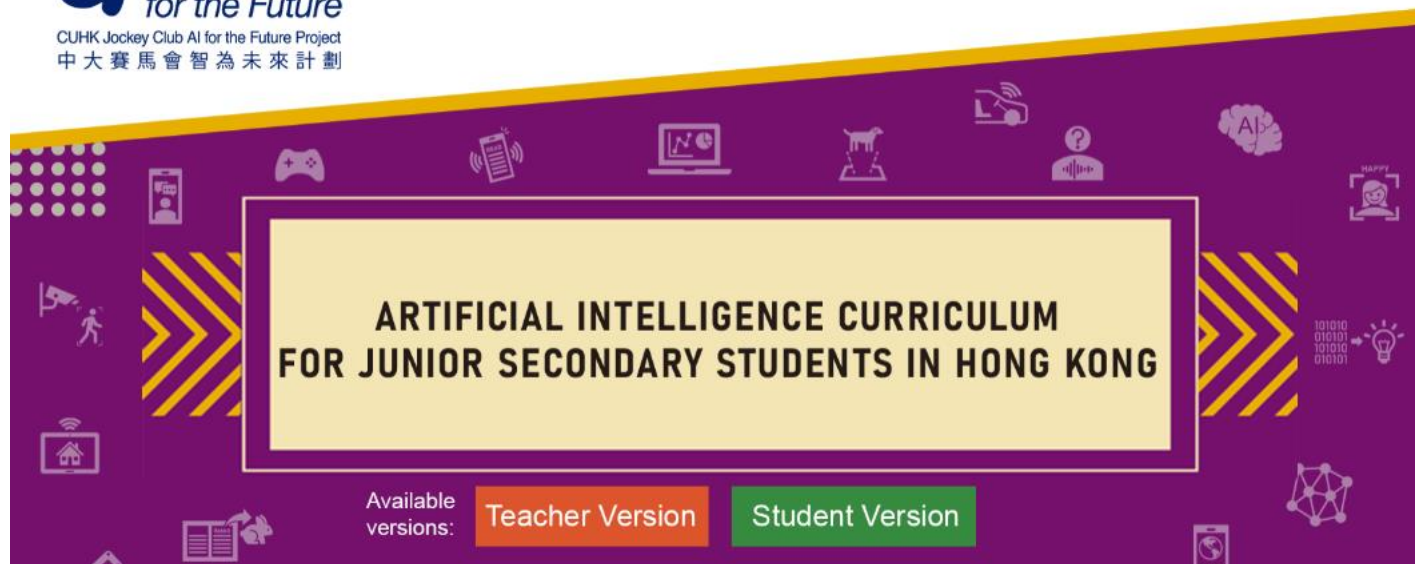
**Peer lesson observation/
Lesson plan(s)/
Worksheet(s)/
Reflective essay**



Certified AI Educator

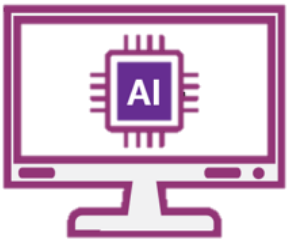
(3) Support to Schools in Phase II

Teaching Resources

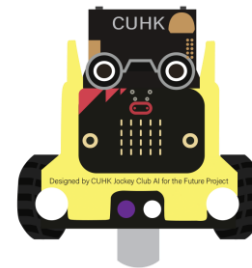


An enriched AI Curriculum suitable for junior secondary students and motivated students that are suitable for online teaching or self-directed learning

(e.g. a full set of *Teaching & Learning Pack*, teaching PowerPoint slides, experiment guidelines, tutorial videos, worksheets, etc.)



An E-platform with exclusive online interactive experiments and blended learning resources



15 sets of new version of "CUHK-JC iCar" (at the value of HK\$2,500 each)

School Support



Teacher AI Knowledge Enrichment Scheme (TAKES)

- Onsite workshops at CUHK
- Outreach workshops: "Teaching Ambassadors Outreach Programme"
- Online Self-directed Learning Modules
- Route to go for "Teaching Competence Evaluation and Certificate System"



Teaching Competence Evaluation and Certificate System (TCECS)

- Designed for eligible teachers to apply to be Certified AI Educators



School Mentoring Scheme

- Support from Champion Schools through sharing sessions and lesson observations



A Wide Range of Educational Events and School Promotions

(4) Responsibilities of Schools in Phase II

Responsibilities of Phase II Participating Schools

- Implement **at least three Chapters** of the enriched AI Curriculum and engage **at least 84 new participating students** in every academic year throughout the whole Phase II
- Instruct all students engaged in the AI Curriculum to participate in the **Assessment Exercises** and **AI Literacy Tests** via the Project's E-platform
- Strive to deliver the **Extended (EX) Modules** of the AI Curriculum as **ECA**
- Actively participate in **evaluations** conducted by the Project Team throughout each Project Year (e.g. surveys and focus group interviews for teachers and students)

Responsibilities of Phase II Participating Schools

- Assign one or more teacher to attend teacher workshops under the **Teacher AI Knowledge Enrichment Scheme (TAKES)**
- Actively participate in the **School Mentoring Scheme**
- Furnish a **dedicated computer room** and basic infrastructure, tools, and equipment for delivering the AI Curriculum
- Actively participate in various **Project Events** and **publicity initiatives**

(5) Recruitment of Champion Schools

Roles and Responsibilities of Champion Schools

- Release **at least one experienced CL/ICT teacher** with AI knowledge and teaching experience to work with the Project Team
- **Actively implement** the enriched AI Curriculum and new Extended (EX) Modules in school
- Actively participate in various **Project events**, such as activities related to the “Teacher AI Knowledge Enrichment Scheme” (TAKES), School Mentoring Scheme, Teacher Workshops, Orientation Days, Ceremonies, and Sharing Sessions
- Attend **regular meetings** to co-develop learning and teaching materials with the Project Team, provide feedback and receive overall update on project implementation

Roles and Responsibilities of Champion Schools

- Act as **Mentors** to share teaching experience in various **Project Events** and open classrooms for lesson observations
- Evaluate the teaching competence of applied teachers to **certify AI Educators** under the **Teaching Competence Evaluation and Certificate System (TCECS)**
- Open **school venue(s)** to co-organize the **Teaching Ambassador Outreach Programme (TAOP)** with the Project Team
- Open school **AI teaching facilities** such as AI Lab, STEM Lab, etc. for Participating Schools' **visits**

Support to 10 Champion Schools

- Receive the same support as Phase II Participating Schools
- An **annual teaching relief of HKD180,000**
- School teachers will be **certified as AI Educators** under the Teaching Competence Evaluation and Certificate System (TCECS)
- Be involved in teaching materials development and project implementation
- Priority to publicity and media exposure opportunities

Support	Phase II Participating Schools	Champion Schools
A full set of enriched AI Curriculum	✓	✓
An E-platform	✓	✓
New version of “CUHK-JC iCar”	✓	✓
Teacher AI Knowledge Enrichment Scheme (TAKES) <ul style="list-style-type: none"> - Onsite Workshops - Outreach Workshops (Teaching Ambassadors Outreach Programme) - Optional Online Self-directed Learning Modules 	✓	✓
Teaching Competence Evaluation and Certificate System (TCECS)	✓	Certified as AI Educators
School Mentoring Scheme	Mentees	Mentors
Educational Events	✓	✓
Annual teaching relief of HKD180,000		✓
Be involved in teaching materials development and project implementation		✓
Priority to publicity and media exposure opportunities		✓

(6) Key Dates

Launching Schedule of Key Deliverables

Tentative Launching Schedule

Year	Period	Key Deliverables
2022	Sep	<ul style="list-style-type: none"> The full set of enriched AI Curriculum Access to the E-platform
	Oct	<ul style="list-style-type: none"> Teacher AI Knowledge Enrichment Scheme (TAKES): Outreach Workshops under the Teaching Ambassadors Outreach Programme (TAOP)
	Dec	<ul style="list-style-type: none"> Teacher AI Knowledge Enrichment Scheme (TAKES): Onsite Teacher Workshops & School Mentoring Scheme
2023	Jan	<ul style="list-style-type: none"> Teaching Competence Evaluation and Certificate System (TCECS)
	Jun	<ul style="list-style-type: none"> Teacher AI Knowledge Enrichment Scheme (TAKES): Online Self-directed Learning Modules
	Q4	<ul style="list-style-type: none"> New version of “CUHK-JC iCar” (subject to review under the latest development of the pandemic) New Extended (EX) Modules for senior secondary or motivated students

Key Dates

Date (2022)	Event
20 June, 5 p.m.	Application Deadline
Late-July	Result Announcement of Phase II Participating Schools
August to September	Recruitment and Selection of Champion Schools
September	Commencement of Year 4 Pilot Teaching
30 September, 3 p.m.	Phase II Announcement Ceremony cum Orientation Day

Q & A Session

