Reinvent!
Future of Education, P-TECH

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Communications & Citizenship,
IBM Korea

Global Trend

Global data is dramatically increasing,

80% of data is “Dark Data”

which cannot be accessed and analyzed

What happens for 1 minute on the internet [1)]

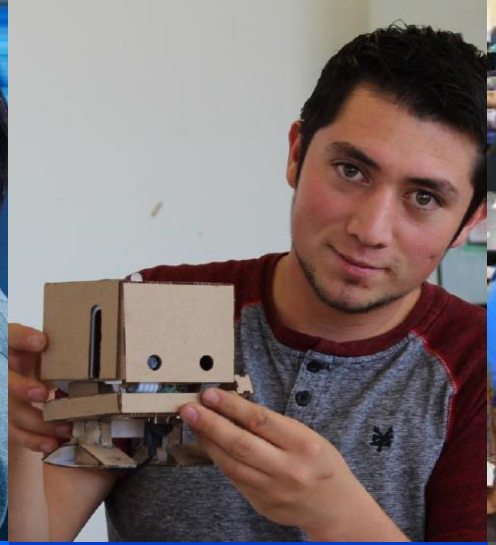
- 187 million E-mail transactions
- 481,000 Tweets
- 4.3 million Videos viewed in YouTube

Source : 1) TECH M [Cover Story1] What happens in an internet minute 2018.09.03
Image source : Today’s infographic is from Lori Lewis and Chadd Callahan of Cumulus Media

New Collar

Employers in many industries demand, but which remain largely unfilled

New Collar is about skills, not degrees.



Marketable skills in some of the technology industry's fastest growing fields

Need new kinds of collaboration – involving governments, public school systems, colleges and private business

New Collar Jobs & Skills

168 AI experts in Korea, and it is ranked in 14th among 15 countries based on a recent Canadian company's research 1)

Only 1% of software is produced in Korea and it is ranked 17th worldwide 1)

'Communication & Collaboration' and 'Professionality' are ranked in 1st and 2nd in importance as skills and talents according to the research of Korea Chamber of Commerce and Industry about 100 large enterprises in Korea 2)

국내 100대 기업이 선호하는 인재상의 덕목

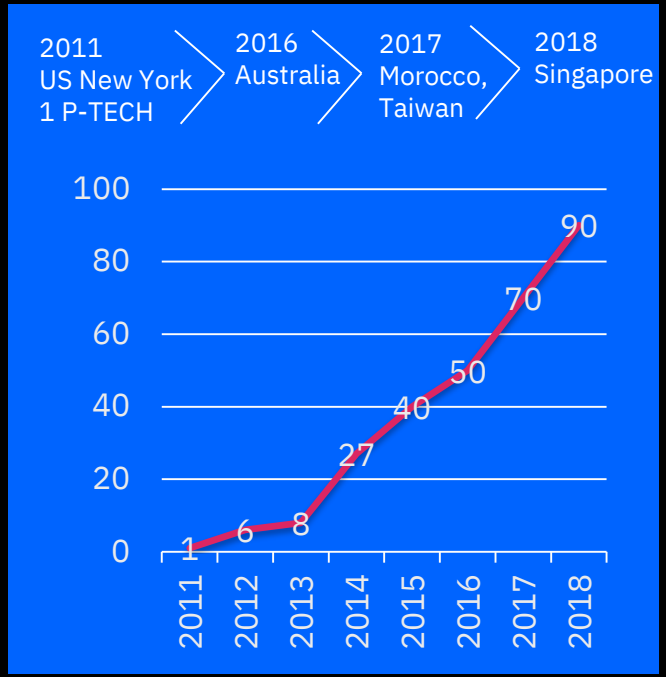
순위	2008	2013	2018
1	창의성	도전정신	소통·협력
2	전문성	주인의식	전문성
3	도전정신	전문성	원칙·신뢰
4	원칙·신뢰	창의성	도전정신
5	소통·협력	원칙·신뢰	주인의식
6	글로벌역량	열정	창의성
7	열정	소통·협력	열정
8	주인의식	글로벌역량	글로벌역량
9	실행력	실행력	실행력

*지난해 매출 기준으로 100대 기업 조사 자료:대한상공회의소

Source : 1) Asia Economy (2018.08.21) [IT Column] AI War is HR War - JinHyung Kim, honorary professor in KAIST.
2) Media Brief of Korea Chamber of Commerce and Industry (2018.08.27) 'Qualification of Top talents' from 100 Large Enterprises in Korea ... Spirit of challenge → Communication · Collaboration

Pathways in Technology Early College High School

- New 5-year public/private education model combines 3 years of high school and 2 years of college curricula
- Since its establishment in New York in 2011, P-TECH has been replicated in more than 110 schools globally
  11 P-TECH schools are directly affiliated with IBM
- More than 500 small and medium companies and large enterprises have participate as industry partners
- More than tens of thousands of students
  To date, about 180 students have been graduated, of which 1/4 have joined IBM for regular full time jobs



Partner's responsibility based on their expertise

Common

- Partnership for Five-year program, featuring:
  1) Integrated high school and college coursework
  2) Linked though detailed Skills Mapping to job skills
  3) Leading to an industry-recognized, postsecondary degree for all students

Ministry of Education

- Administrative support for P-TECH implementation and expansion

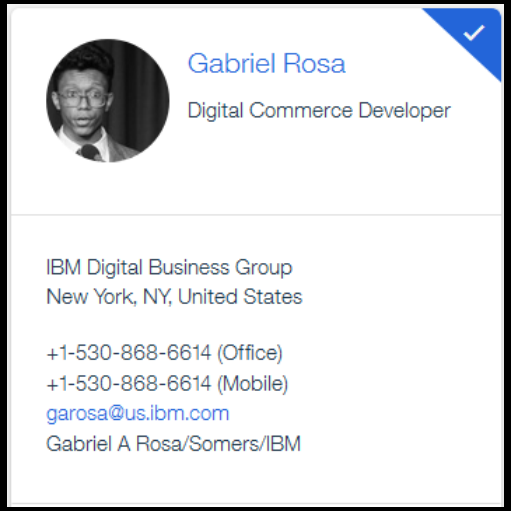
Education

- Teachers and Professors dedicated for P-TECH
- Classrooms and practical rooms for workplace learning

Industry

- Industry liaison, an employee at the school full-time to implement commitments
- Work experiences that include 1:1 mentoring, site visits, speakers, project days, paid internships
- Commitment to first in line for jobs

P-TECH graduates are in ‘New Collar’ roles at IBM



Alec Miller, 20
Department at IBM: Culture and Environment
Title: Community Coordinator

Chigozie Okorie, 19
Department at IBM: Corporate Citizenship
Title: Program Associate

David Calliste, 20
Department at IBM: IBM Global Financing - Business Support Operations (BSO)
Title: Customer Relationship Representative (CRR)

Elisabel Herrera, 20
Department at IBM: Culture and Environment
Title: Community Coordinator

Gabriel Rosa, 20
Department at IBM: Digital Business Group
Title: Front-end Engineer

Janiel Richards, 20
Department at IBM: CIO Design Team
Title: Visual Designer

Kayla Morant, 20
Department at IBM: Transformation and Operations
Title: Treasury System Support Analyst

Kiambu Gall, 20
Department at IBM: Market Development and Insights (MD&I)
Title: Associate Designer

Leslieanne John, 20
Department at IBM: MCO (Marketing and Communications Operations)
Title: Organizational Development Professional

Moses Graham, 20
Department at IBM: z Systems
Title: Technical Services Professional

Nkosi Bourne, 20
Department at IBM: Communications/Marketing
Title: Front-End Developer

Radcliffe Saddler, 21
Department at IBM: Market Development and Insights (MD&I)
Title: Associate Designer

Shavina Hooper, 19
Department at IBM: CIO (Chief Information Officer) Corporate Business Applications
Title: Service Delivery Specialist

Kevin Demosthene, 22
Department at IBM: IBM Global Financing
Title: Customer Relationship Representative (CRR)

P-TECH key tenets together drive success

1. **New Collar initiative and Education Innovation for Korea national competitiveness and new growth industry development based on deep and longterm partnership**

   Ecosystem between Government ↔ Education sector ↔ Industrial sector

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2. **Each partner provides its expertise especially Industry partner's long term commitment is required**

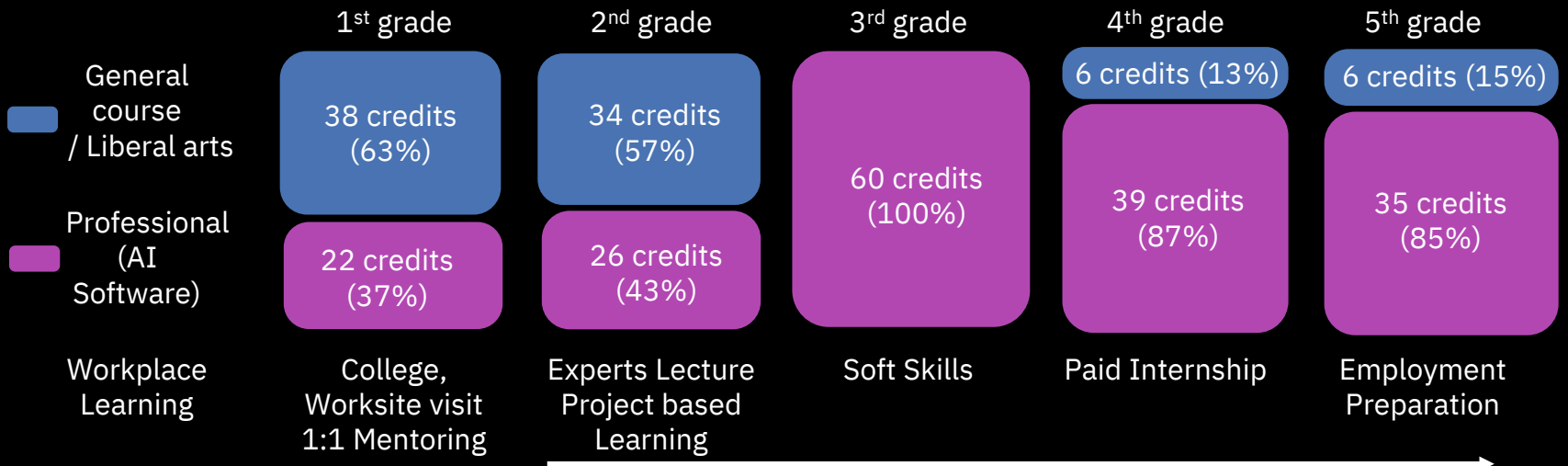
   1:1 mentoring, worksite visit, project based learning, paid internship
   Integrated and practical curriculum including Soft Skill education

Seoul New Collar School

- SeMyeong Computer High School + Gyeonggi College of Science and Technology + IBM Korea (1st Principal : DuKyu Yu)
- Application period in Nov 2018 → Interview → School starts in Mar 2019
- 5 year 'AI Software' department including 52 students in 2 classes
- Curriculum design :

  - Delete the duplicated course and include practical professional course
  - Strengthen the professional skills and workplace learning in the upper grade
  - Early graduation is possible based on 'Pre-credit policy' (but, when # of students meets the requirements to open a new class)

eg. Seoul New Collar School, AI Software 5 year curriculum

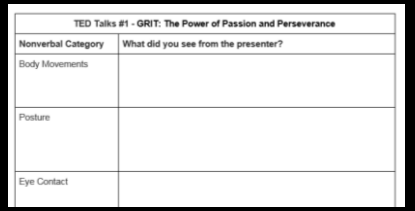


Workplace Learning Curriculum & Soft Skills

- **Professional skills + Soft skills Teacher workshop support**
- **Soft skills are essential professional skills including collaboration, communication etc**

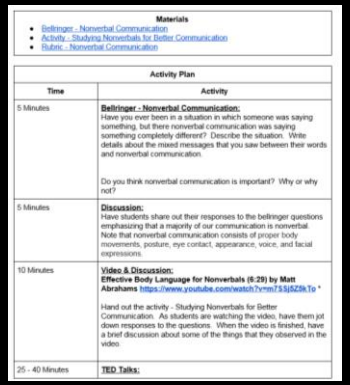
- Collaboration	- Motivation
- Communication	- Leadership
- Analytical Thinking	- Responsibility
- Self Management	- Curiosity

② Activity Kit



TED Talks #1 - GRIT: The Power of Passion and Perseverance	
Nonverbal Category	What did you see from the presenter?
Body Movements	
Posture	
Eye Contact	

① Plan & Materials



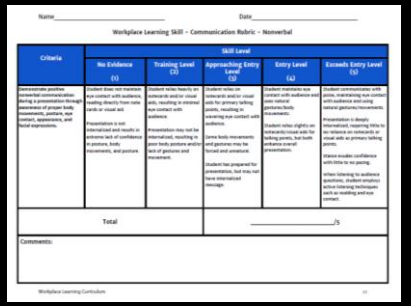
Materials

- Bellringer - Nonverbal Communication
- Activity - Studying Nonverbals for Better Communication
- Rubric - Nonverbal Communication

Activity Plan

Time	Activity
5 Minutes	**Bellringer - Nonverbal Communication:** Have you ever been in a situation in which someone was saying something, but there nonverbal communication was saying something completely different? Describe the situation. Write details about the mixed messages that you saw between their words and nonverbal communication. Do you think nonverbal communication is important? Why or why not?
5 Minutes	**Discussion:** Have students share out their responses to the bellringer questions emphasizing that a majority of our communication is nonverbal. Note that nonverbal communication consists of proper body movements, posture, eye contact, appearance, voice, and facial expressions.
10 Minutes	**Video & Discussion:** **Effective Body Language for Nonverbals (6:29) by Matt Abrahams** https://www.youtube.com/watch?v=m7S5jSZ9kTo * Hand out the activity - Studying Nonverbals for Better Communication. As students are watching the video, have them jot down responses to the questions. When the video is finished, have a brief discussion about some of the things that they observed in the video.
25 - 40 Minutes	**TED Talks:**

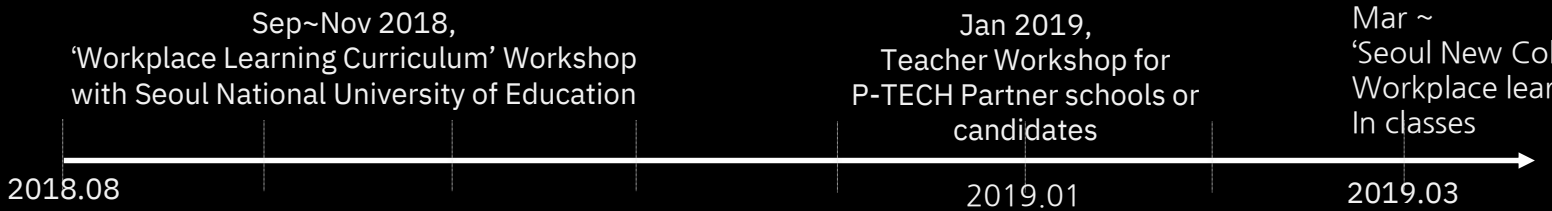
③ Communication Rubric



Workplace Learning Skill - Communication Rubric - Nonverbal

Criteria	Skill Level				
	No Evidence (1)	Training Level (2)	Approaching Entry Level (3)	Entry Level (4)	Exceeds Entry Level (5)
Demonstrates positive nonverbal communication during a presentation through awareness of proper body movements, posture, eye contact, appearance, and facial expressions.	Student does not maintain eye contact with audience, reading directly from note cards or visual aid. Presentation is not internalized and results in extreme lack of confidence in posture, body movements, and posture.	Student relies heavily on notecards and/or visual aids, resulting in minimal eye contact with audience. Presentation may not be internalized, resulting in poor body posture and/or lack of gestures and movement.	Student relies on notecards and/or visual aids for primary talking points, resulting in wavering eye contact with audience. Some body movements and gestures may be forced and unnatural. Student has prepared for presentation, but may not have internalized message.	Student maintains eye contact with audience and uses natural gestures/body movements. Student relies slightly on notecards/visual aids for talking points, but both enhance overall presentation.	Student communicates with poise, maintaining eye contact with audience and using natural gestures/movements. Presentation is deeply internalized, observing little to no reliance on notecards or visual aids as primary talking points. Stance exudes confidence with little to no pacing. When listening to audience questions, student employs active listening techniques such as nodding and eye contact.
Total					/5
Comments:					

- **Timeline for Teacher Workshop**



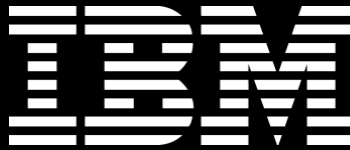
What’s next?

Radcliffe Saddler,
Associate Analyst in IBM US
His future which he could not imagine

Why IBM's CEO is hiring Brooklyn teens

IBM
@IBM

The inspiring career journey of Radcliffe Saddler - a clever, young #PTECH graduate: bit.ly/2bZqMWq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