

# **ISGC 2018: Half-Day Workshop Learning Analytics and Assessment Strategies (3/19 Morning)**

## **Workshop Organizers/Presenters:**

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**Dr. Tosh Yamamoto, CTL, Kansai University**  
**Dr. Stephen Young, Dept. of Computer Science and Information Engineering,  
National Central University, Taiwan**  
**Dr. Yuri Kite, Kansai University**  
**Dr. Minoru Nakazawa, Kanazawa Institute of Technology**  
**Prof. Maki Okunuki, CTL, Kansai University & Kwansai Gakuin University**  
**Prof. Masaki Watanabe, CTL, Kansai University (iGroup Japan)**  
**Prof. Ti-Chuang (Timothy) Chiang, Medical Informatics Division, College of Medicine  
National Taiwan University**

# Abstract:

- ❖ This workshop is about discussing various **methodologies** for learning analytics in the social constructive paradigm in ICT-enhanced education. **E-Portfolio** can archive data such as records in the process of learning, records of learning activities in the course of learning, reports from course work, artifacts for the proof of achieving the learning objectives in courses, **comprehensive reflective writings in the meta cognitive manner**. As demonstrated in the last year's workshop, students' reflective writings are exactly what is reflected in **the mirror of the actively learning mind** of the student.
- ❖ The goal of this workshop is to share with the participants, of course, active participants, to think together about the method of how to transfer the accumulated raw data to **information or content for assessment**. There arise questions such as: how we know the data **are reliable and valid**, how raw data are **sampled** and archived, how such raw data are stored, what **properties** and attributes are associated to such raw data, what methodology is optimal for transforming the raw data to **assessable information**, what such information looks like, by whom such information is viewed and evaluated, on what foundation the evaluation results are based, what values such information gives to the learner himself/herself as well as to other stakeholders, how this approach can be **a human scientific approach**, and so on. These questions will be dealt with in the workshop.

# PROGRAM

- ❖ **Defining the Realm of Learning (Active Learning)  
in Life**

**(Tosh Yamamoto/Maki Okunuki/Ti-Chuang Chiang)**



# Where do the data for L.A. come from?

- ❖ From activity logs in LMS?
- ❖ From Evaluation (results from quizzes and tests)?

# Where do the data for L.A. come from?

- ❖ From activity logs in LMS?
- ❖ From Evaluation (results from quizzes and tests)?



- ❖ Let's critically think about the data for true L.A.!

# Four Years of Univ. Education

- ❖ How much time are our students dedicating themselves for learning?

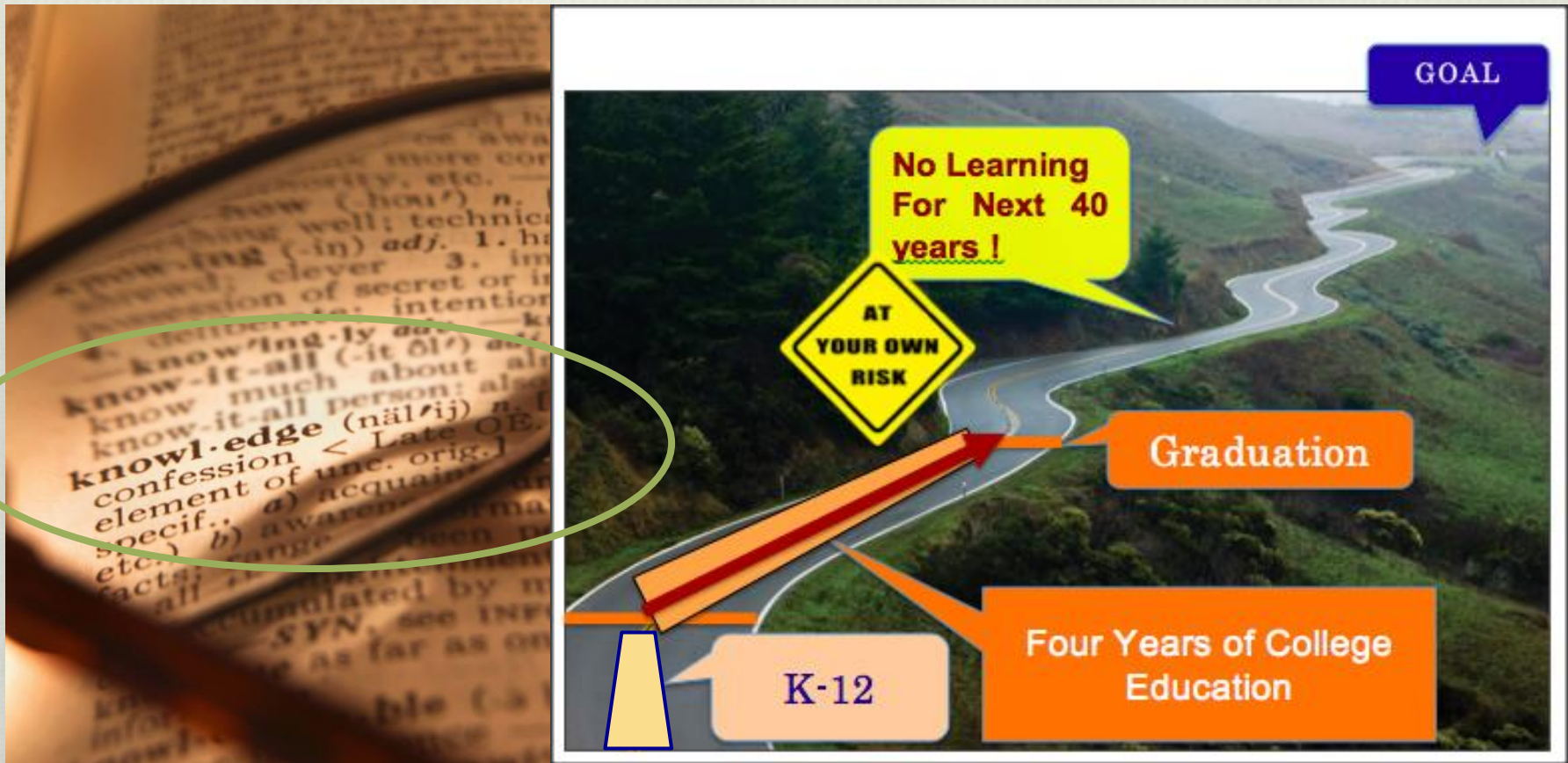
## 【4 Years of University Life】

- ❖ What is the university for your students?
  - The four years of college education from the students' viewpoint –
- ❖ University Degree → Promise to rich career experience & success in life ?



# The Role of University: Gas Station for life?

Filling the knowledge tank in the students' brain for the life-long career?



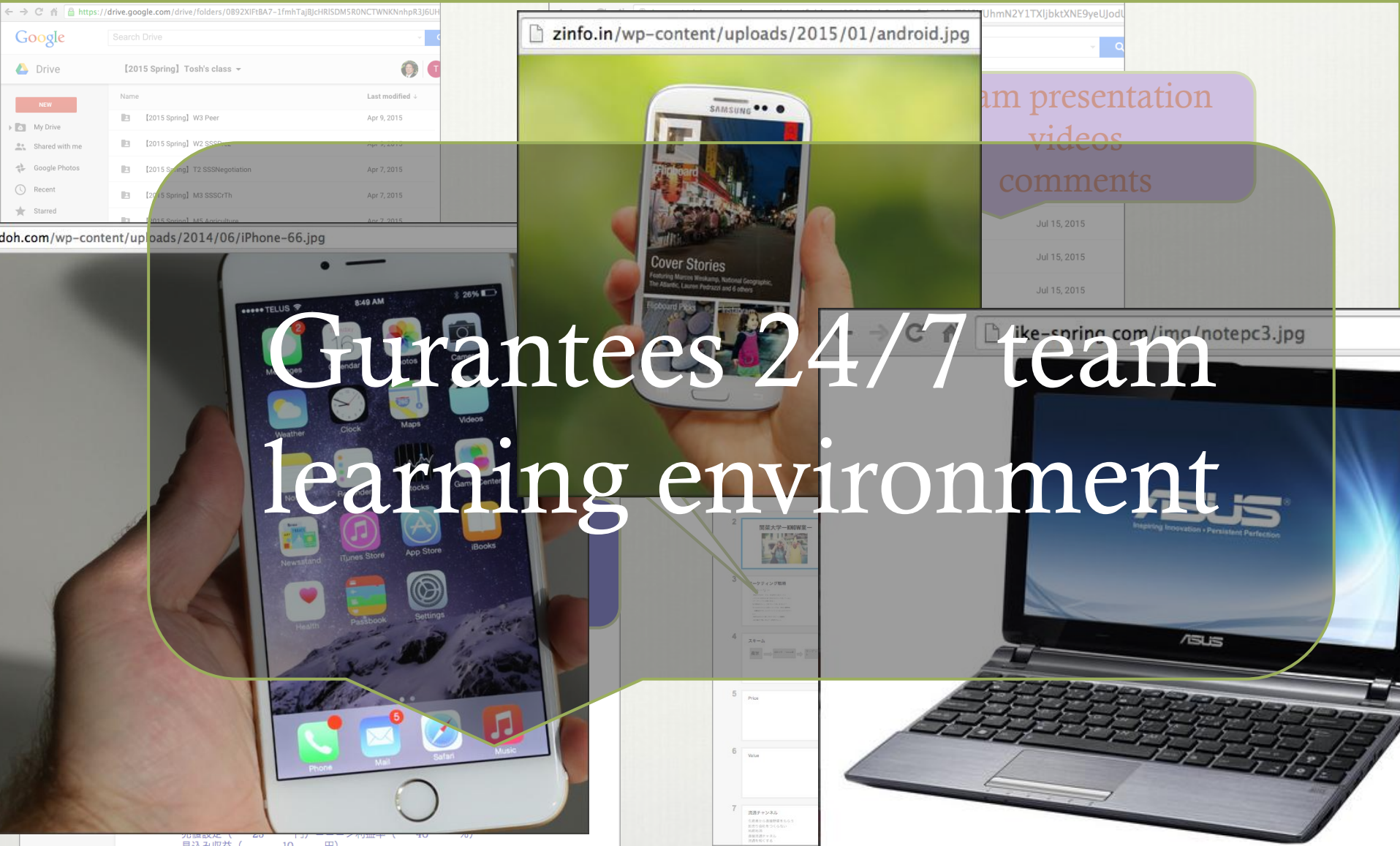


# History of Education

- ❖ Educational Paradigm Today
  - ❖ The Prussian (German) Educational System
    - ❖ 1806
    - ❖ <https://feltd.wordpress.com/2010/09/16/the-prussian-german-educational-system/>



# Google Drive Share/Edit/PBL with Team Members!





# This is happening now!

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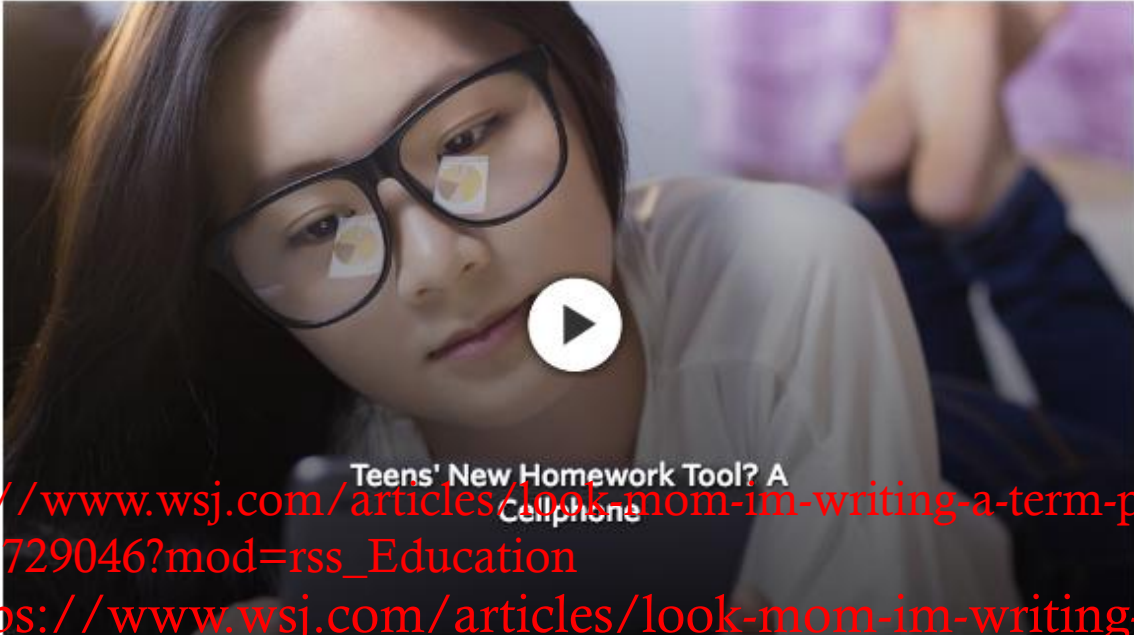
Home World U.S. Politics Economy Business Tech Markets Opinion Arts **Life** Real Estate Search Q

**WHAT'S YOUR WORKOUT?** **OFF DUTY TRAVEL** **WSJ. MAGAZINE**  
A CEO's Straight Line... My Summer Vacation Is Better Than Yours: ... The Cinematic Life of Sofia Coppola

**Life | LIFE & STYLE**

## Look, Mom, I'm Writing a Term Paper on My Smartphone

After years of cellphone bans, many teachers now invite teens to use smartphones for homework and during class



**Teens' New Homework Tool? A Cellphone**

More high-school students are using mobile phones to complete homework and research projects, and some educators are embracing the technology. Heidi Weiss and her 16-year-old daughter Heidi Weiss and her 16-year-old daughter Heidi Weiss join Tanya Rivero. Photo: iStock

**20 YEARS**  
CONNECTIONS THAT MATTER

SHARE YOUR UNIQUE EXPERIENCE FOR A CHANCE TO BECOME A MILEAGE MILLIONAIRE\*

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**NATIONAL GEOGRAPHIC** **WSJ. CUSTOM STUDIOS**

[https://www.wsj.com/articles/look-mom-im-writing-a-term-paper-on-my-smartphone-1455729046?mod=rss\\_Education](https://www.wsj.com/articles/look-mom-im-writing-a-term-paper-on-my-smartphone-1455729046?mod=rss_Education)

❖ <https://www.wsj.com/articles/look-mom-im-writing-a-term-paper-on-my-smartphone-1455729046>



# Active Learning is essential!

← → ↻ 🏠 [www.tu-collaborative.org/wp-content/uploads/2014/10/Bio-Science-64.jpg](http://www.tu-collaborative.org/wp-content/uploads/2014/10/Bio-Science-64.jpg)

For the future education,  
Social Constructivism Model of Education  
will be everywhere!

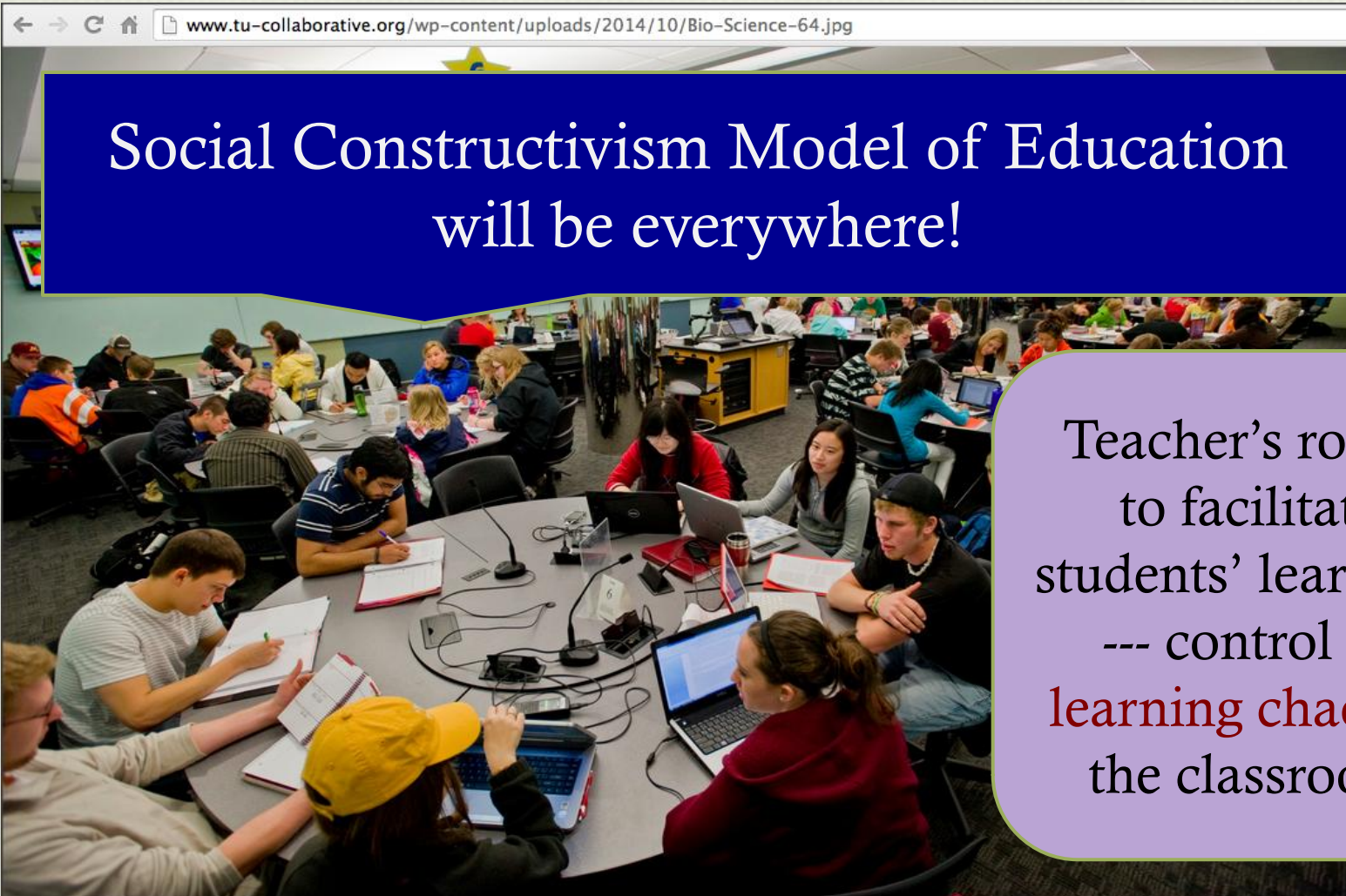


Face-to-Face  
In-Class Learning

# Active Learning is essential!

← → ↻ 🏠 [www.tu-collaborative.org/wp-content/uploads/2014/10/Bio-Science-64.jpg](http://www.tu-collaborative.org/wp-content/uploads/2014/10/Bio-Science-64.jpg)

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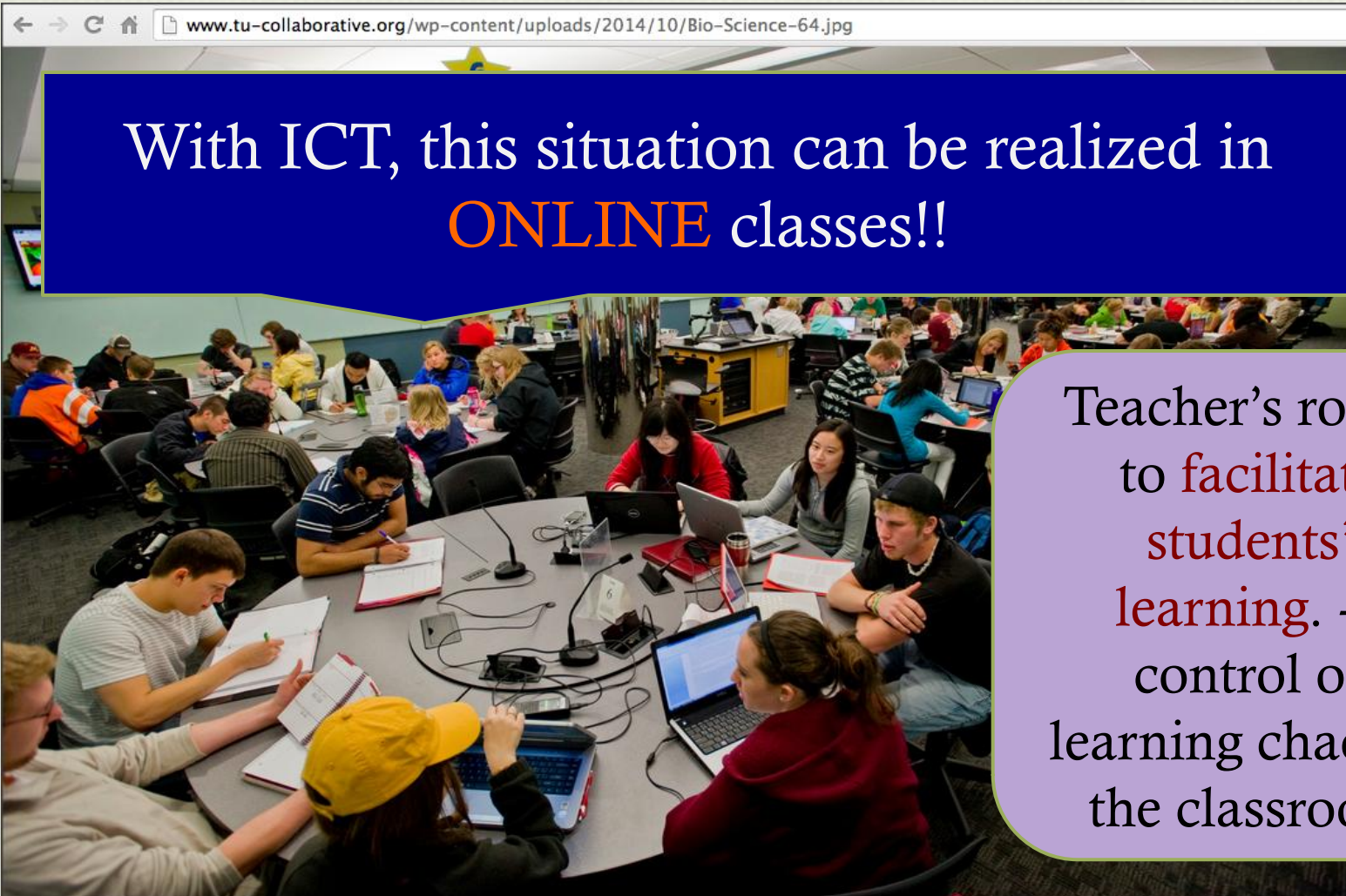
Teacher's role is to facilitate students' learning.  
--- control of learning chaos in the classroom



# Active Learning is essential!

← → ↻ 🏠 [www.tu-collaborative.org/wp-content/uploads/2014/10/Bio-Science-64.jpg](http://www.tu-collaborative.org/wp-content/uploads/2014/10/Bio-Science-64.jpg)

With ICT, this situation can be realized in  
**ONLINE** classes!!



Teacher's role is to facilitate students' learning. --- control of learning chaos in the classroom



# Sense Making: ICT and Communication

- ❖ **Communication Skills:**  
Needs for communication with students from other cultures and values.
  - ❖ Long-Lasting Trust Building
- ❖ **Problem Solving Skills:** Common issues in our society
- ❖ **Project Management Skills:**  
Working in Teams: International/Global Teams
- ❖ **Consensus** Building through TBL

# Learning Opportunities

## Global Learning

### COIL (Collaboration Online International Learning)

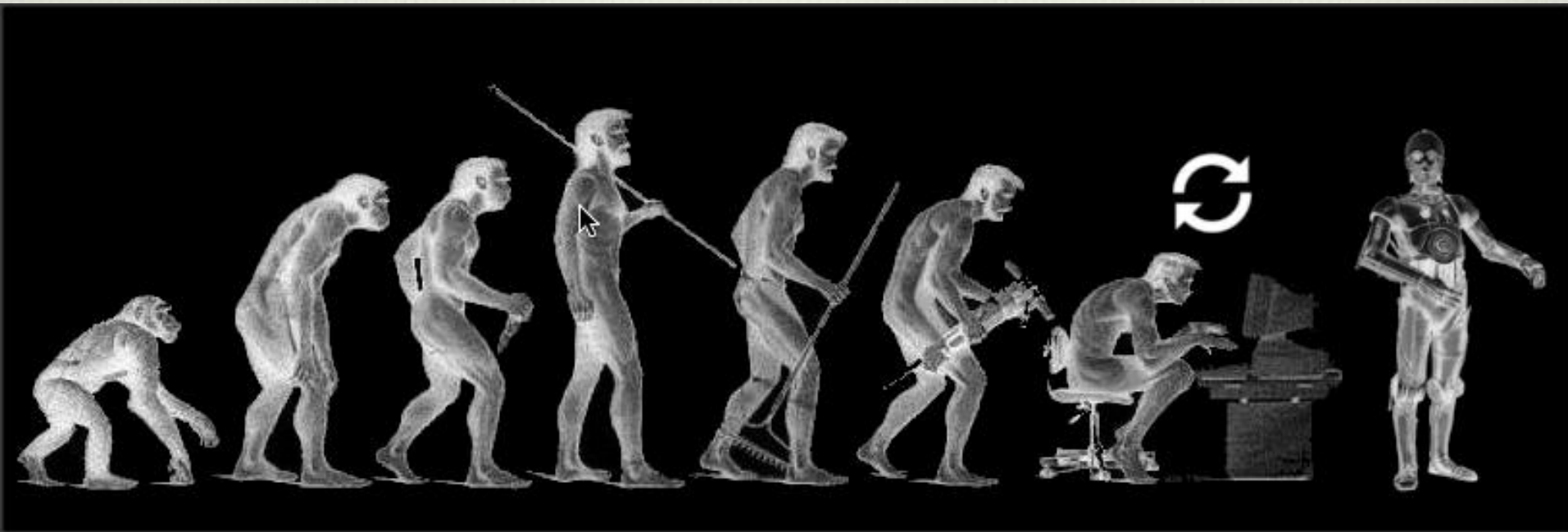
COIL is a method which two classes (or more) from different universities (and possibly from different countries) can work on a same project together, or simply create an opportunity to have intercultural/international communication with the ICT enhanced tools. Various tools available in Web 2.0 era are used in order to enable this kind of connection among them. Kansai University is interested in formally adopting this kind of activities as institutionally encouraged / promoted endeavor as a part of globalization/internationalization act for us. KU is going to have its 130th anniversary year very soon (2017), and it wants to include the development of Kansai COIL platform with overseas network by then.

COIL has begun in SUNY, USA. More information can be found in their homepage, and some relevant parts are cut and pasted below. With their collaboration, Kansai University is now planning to have our first MOOC and Flipped Classroom, international gathering event in upcoming December, 2014.



# Job Market Dynamics

❖ Singularity (2045) → New Job Market



How old will you be in 2045?



# Disappearing Jobs

## 47% of Jobs Will Disappear in the next 25 Years <sup>5</sup>, According to Oxford University

🕒 December 27, 2016 by PHILIP PERRY



# Disappearing Jobs and Reasons



BUSINESS  
INSIDER

CAREERS

<http://www.businessinsider.com/15-jobs-that-are-quickly-disappearing-2015-10/#printing-worker-1>

## 15 jobs that are quickly disappearing



Rachel Gillett

Oct. 14, 2015, 4:52 PM 837,929



FACEBOOK



LINKEDIN



TWITTER



EMAIL



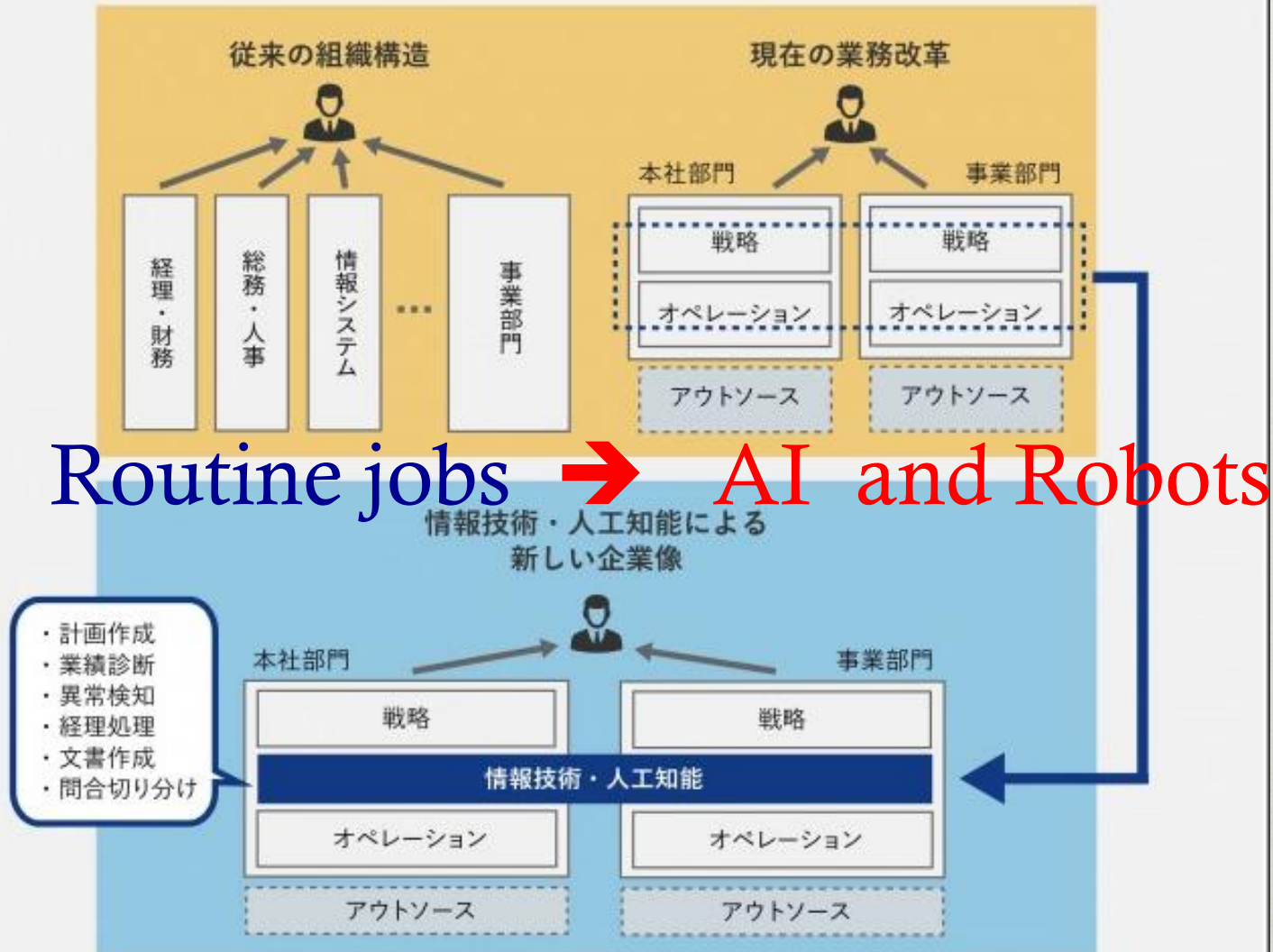
PRINT

## 2017 Big Data Trends

Free Whitepaper! What's New for Big Data in 2017? Download Now. [tableau.com](http://tableau.com)



# 人の役割の二極化



<https://mirai.doda.jp/series/interview/tomota-terada-part1/>

作成：野村総合研究所



# JOB MARKET IN THE FUTURE

bc.com/news/technology-30290540

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Business

Tech

Science

We are DXC Technology.  
A new leader in IT services.

Technology

## Stephen Hawking warns artificial intelligence could end mankind

By Rory Cellan-Jones  
Technology correspondent

2 December 2014 | Technology |   



In fact, the biggest threat facing mankind is one that has in some ways only just been discovered: artificial intelligence (AI). The physicist Stephen Hawking has said that AI could become 'a real danger' in the 'not-too-distant' future. Hawking added that 'the risk is that computers develop intelligence and take over. Humans, who are limited by slow biological evolution, couldn't compete, and would be superseded.'

<http://www.bbc.com/news/technology-30290540>

<http://www.spiked-online.com/newsite/article/the-robots-are-not-taking-over/16299#.WgJmDmKCzdc>

# Stephen Hawking

<http://www.newsweek.com/stephen-hawking-artificial-intelligence-warning-destroy-civilization-703630>



## STEPHEN HAWKING AI WARNING: ARTIFICIAL INTELLIGENCE COULD DESTROY CIVILIZATION

BY HANNAH OSBORNE ON 11/7/17 AT 4:43 AM



00:01 / 01:24

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Pizza, Nazis Say**



**The 1 Percenters Are Middle Class:  
House Republicans**



**Corey Feldman Names Actor Who  
Allegedly Molested Him**

# How do we educate the future generation?

- ❖ Traditional Education Paradigm has seen the handwriting on the wall!
- ❖ A Paradigm Shift in Education is a must.
  - ❖ New educational philosophy
  - ❖ New educational model: New learning environment

**We cannot continue teaching with the methods of the 19th century and hope to prepare our children for the 21st century.**





# A Quote: From Horizon 2020 Proposal

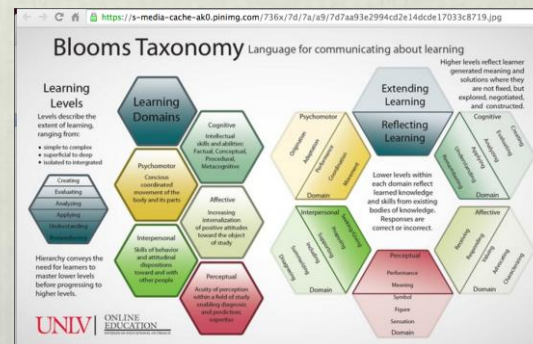
- ❖ We can not educate 21<sup>st</sup> century citizens using only 19<sup>th</sup> century methodologies.
- ❖ the vision of ... **Collaborative Education** is that without doubt the largest impact on our society will be obtained by addressing the needs of our children to get personalized education: (1) motivating teachers to motivate students, (2) addressing their creativity, and (3) getting them in contact with their equals and the rest of the society to share their needs and motivations, thus closing the circle.

<https://s-media-cache-ak0.pinimg.com/734x/98/13/18/981318d99f55da3d3c7e7a7c22344.jpg>

### The 21st Century Classroom

21st Century Skills are a combination of cognitive processes and the techniques that enable individuals to leverage these processes for the greatest impact. The 21st Century classroom is one that is student-centered, project based and focused on creating the long learners.

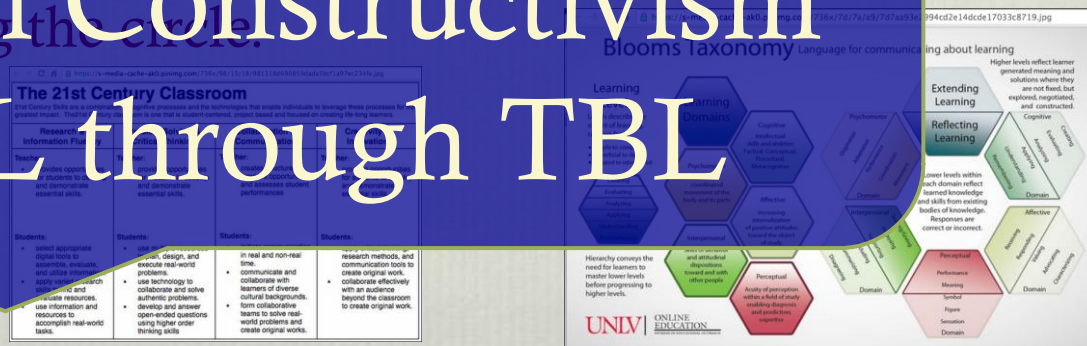
Research & Information Fluency	Problem Solving & Critical Thinking	Collaboration & Communication	Creativity & Innovation
<p><b>Teacher:</b></p> <ul style="list-style-type: none"> <li>provides opportunities for students to develop and demonstrate essential skills.</li> </ul> <p><b>Students:</b></p> <ul style="list-style-type: none"> <li>select appropriate digital tools to assemble, evaluate, and utilize information.</li> <li>apply research skills to find and evaluate resources.</li> <li>use information and resources to accomplish real-world tasks.</li> </ul>	<p><b>Teacher:</b></p> <ul style="list-style-type: none"> <li>provides opportunities for students to develop and demonstrate essential skills.</li> </ul> <p><b>Students:</b></p> <ul style="list-style-type: none"> <li>use multiple resources to plan, design, and execute real-world problems.</li> <li>use technology to collaborate and solve authentic problems.</li> <li>develop and answer open-ended questions using higher order thinking skills.</li> </ul>	<p><b>Teacher:</b></p> <ul style="list-style-type: none"> <li>creates structures, provides opportunities, and assesses student performance</li> </ul> <p><b>Students:</b></p> <ul style="list-style-type: none"> <li>initiate communication in real and non-real time.</li> <li>communicate and collaborate with learners of diverse cultural backgrounds.</li> <li>form collaborative teams to solve real-world problems and create original works.</li> </ul>	<p><b>Teacher:</b></p> <ul style="list-style-type: none"> <li>provides opportunities for students to develop and demonstrate essential skills.</li> </ul> <p><b>Students:</b></p> <ul style="list-style-type: none"> <li>apply critical thinking, research methods, and communication tools to create original work.</li> <li>collaborate effectively with an audience beyond the classroom to create original work.</li> </ul>



# A Quote: From Horizon 2020 Proposal

- ❖ We can not educate 21<sup>st</sup> century citizens using only 19<sup>th</sup> century methodologies.
- ❖ the vision of ... **Collaborative Education** is that without doubt the largest impact on our society will be obtained by addressing the needs of our children to get personalized education: (1) motivating teachers to motivate students, (2) addressing their creativity, and (3) getting them in contact with their equals and the rest of the society to share their needs and motivations, thus closing the circle.

Active Learning  
Social Constructivism  
PBL through TBL



# Learners' Mission is ...

- ❖ In order to GRAB **learning opportunities**,  
Learning is NOT to acquire **pre-fabricated values!**



# Four Years of Univ. Education

- ❖ How much time are our students dedicating themselves for learning?

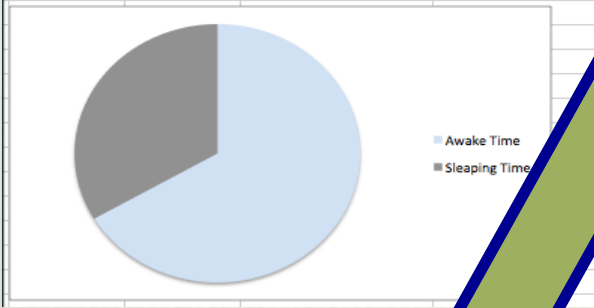
# 4 Years of Education means . . . Actually Speaking

- ❖ **4 Years** = 48 months { 365 days \* 24 hours (= 8,760 hours) \* 4 years} = **35,040 hours**
  - ❖ 2/3 ----- awake, 1/3 ----- sleeping
  - ❖ 23,360 hours ---- active , 11,680 hours ----- being idle (sleeping, i.e., not learning)
  - ❖ 130 ~ 220 credit hours for in-class learning for 4 years →  
15 weeks in a semester: **20 weeks in a semester**
    - 1950 hours (8.3%)                      2600 hours (11.1%)
  - ❖ --- less than 10% of the waking hours!
- ❖ Our students spend **10 times more of waking hours** outside the class!

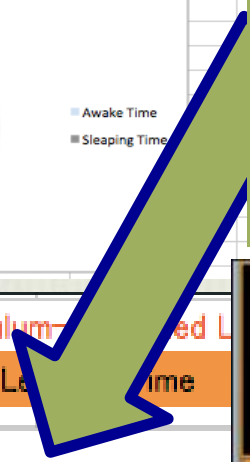
# Visually Speaking . . .



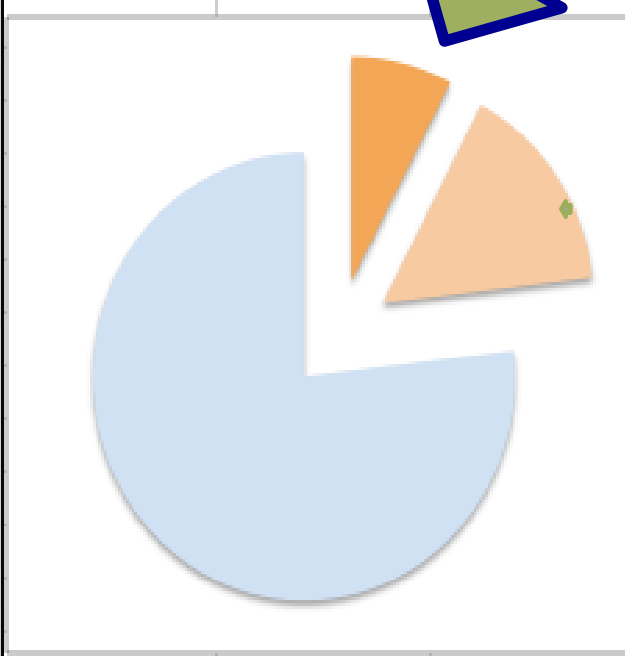
4 years of College Life (Awake Time vs. Sleeping Time)



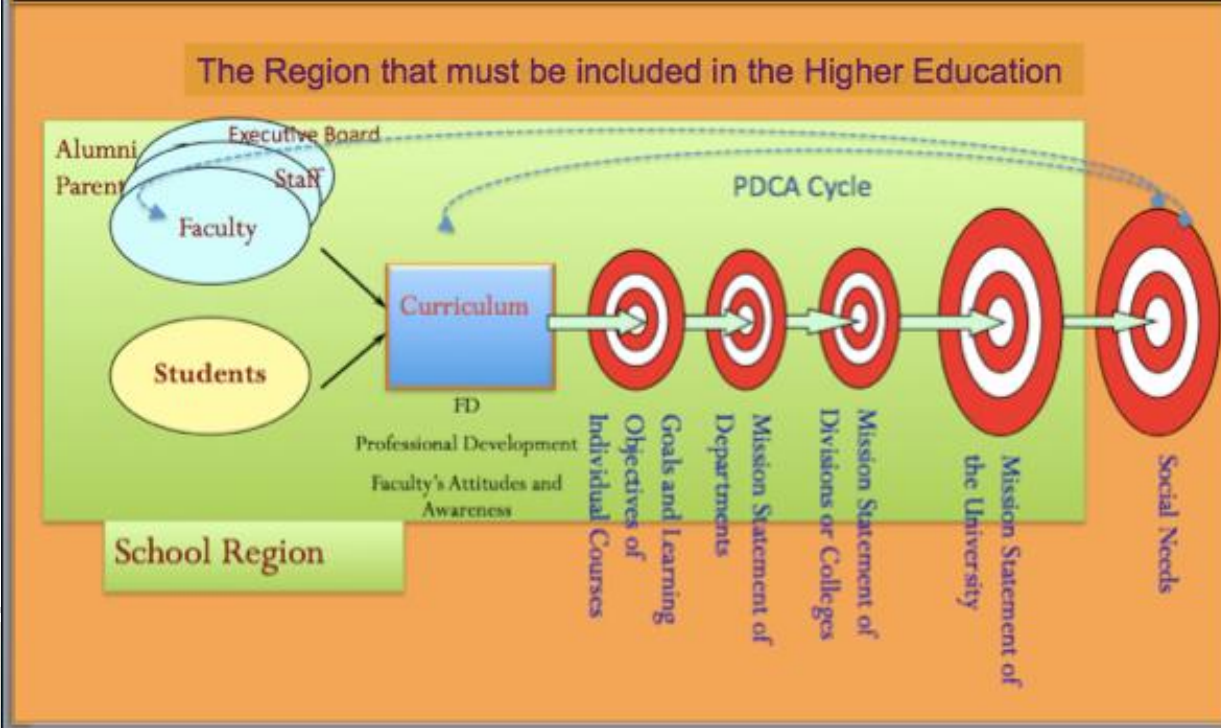
So , are we talking about the educational Model (In-Class Face-to-Face) for the small dark orange slice?



Out of Awake Time, Curriculum-Controlled Learning Time  
The Curriculum-Controlled Learning Time



## Education Model

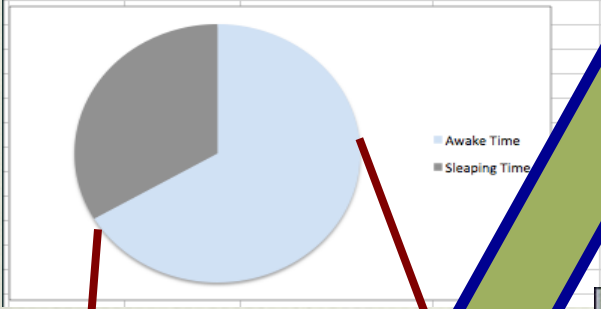




# Visually Speaking . . .

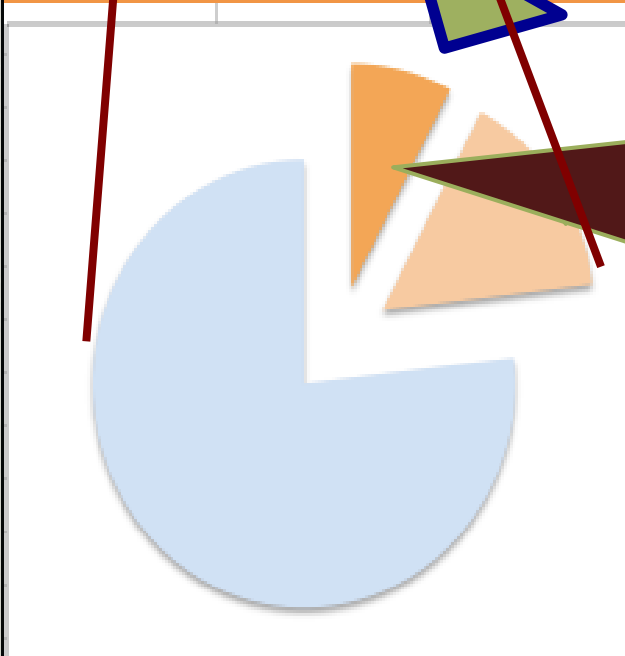


4 years of College Life (Awake Time vs. Sleeping Time)



So , are we talking about the educational Model (In-Class Face-to-Face) ?

Out of Awake Time, Curriculum-Controlled Learning Time  
The Curriculum-Controlled Learning Time



Are the data for L.A. all from this small slice of pie?



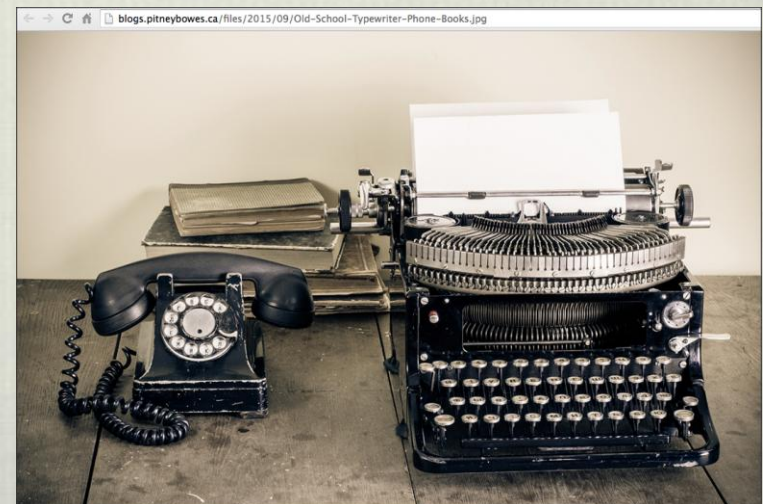
# Four Years of Univ. Education

❖ How can we include most of waking hours as the corpus of L.A.?

# How do you become ready for the future?

- ❖ Traditional Education Paradigm has seen the handwriting on the wall!
- ❖ A Paradigm Shift in Education is a must.
  - ❖ New educational philosophy
  - ❖ New educational model: New learning environment

**We cannot continue teaching with the methods of the 19th century and hope to prepare our children for the 21st century.**





# PROGRAM

## 2. Analytics and Assessment Strategies: (Showcases)

- ❖ a. **Concepts surrounding Learning Analytics**  
(Dr. Stephen Young)
- ❖ Learning Analytics: Beyond test results or by Big Data in LMS to the process of learning in Adaptive Learning

# PROGRAM

## 2. Analytics and Assessment Strategies: (Showcases)

### b. Showcase: **Application of Learning Analytics to Career Advising**

(Dr. Minoru Nakazawa & Tosh Yamamoto)

Visualization for deep learning (Learning Analytics) to future career path

Using LMS as well as career advising data to career counseling and advising

Collaboration with IBM (Watson API)

# Kanazawa Institute of Technology

## ❖ Wikipedia - named entity extraction 固有表現抽出

❖ 278 named entities

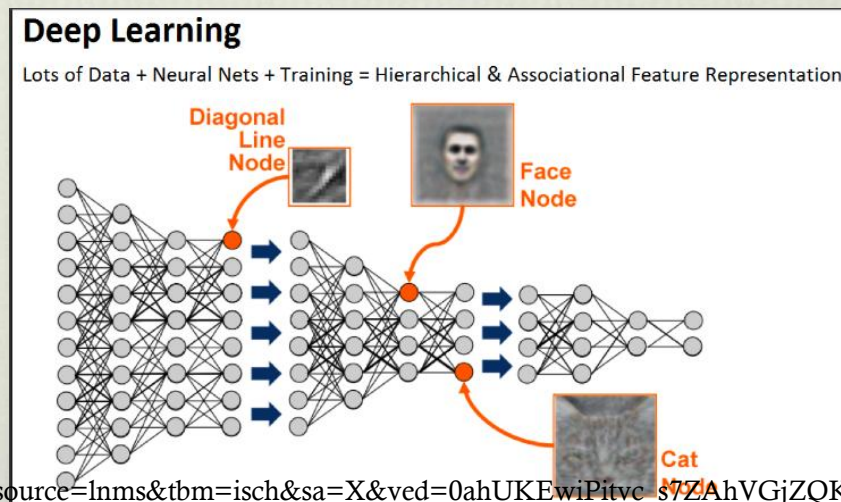
<https://qiita.com/Hironsan/items/326b66711eb4196aa9d4>

❖ Word2vec/Doc2vec

❖ GloVe, Word2vec

<https://qiita.com/yukut/items/483b56be83a3a5423b09>

## ❖ Deep Learning



[https://www.google.co.jp/search?q=Google+cat+node&source=lnms&tbn=isch&sa=X&ved=0ahUKEwiPitvc\\_s7ZAhVGjZQKHUX6BWwQ\\_AUICigB&biw=1267&bih=876#imgrc=AW3os4MdYnMJsM:](https://www.google.co.jp/search?q=Google+cat+node&source=lnms&tbn=isch&sa=X&ved=0ahUKEwiPitvc_s7ZAhVGjZQKHUX6BWwQ_AUICigB&biw=1267&bih=876#imgrc=AW3os4MdYnMJsM:)



# Kanazawa Institute of Technology

- ❖ Big Data (Career ePortfolio) → Watson API → Career Advising/Professional Development
- ❖ <https://m.youtube.com/watch?v=Ia5C6NL581M>
- ❖ <https://m.youtube.com/watch?v=-A4o4PgRyZY>
- ❖ <http://www.kanazawa-it.ac.jp/cdio2018/home.html>



ホーム 開催地 プログラム 著者 イベント 参加登録 CDIO Academy アクセス 宿泊 CDIO お問い合わせ



CDIO™イニシアチブ

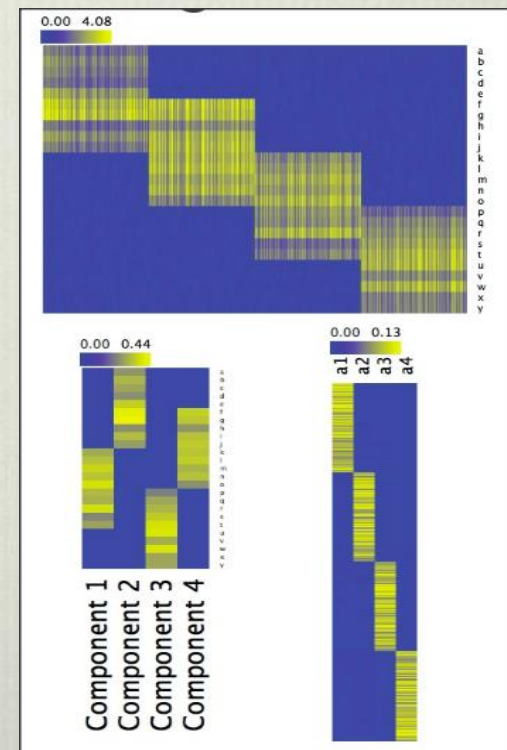
# Kanazawa Institute of Technology

- ❖ Limitation of Machine Learning/Deep Learning
  - ❖ Explanatory variables? → Explained variables?
  - ❖ Analytics: One variable at a time. ---- time consuming
  - ❖ Accuracy 30% or so ---- not enough for

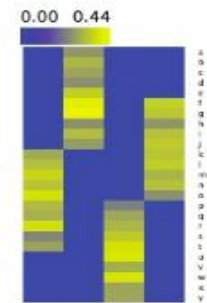
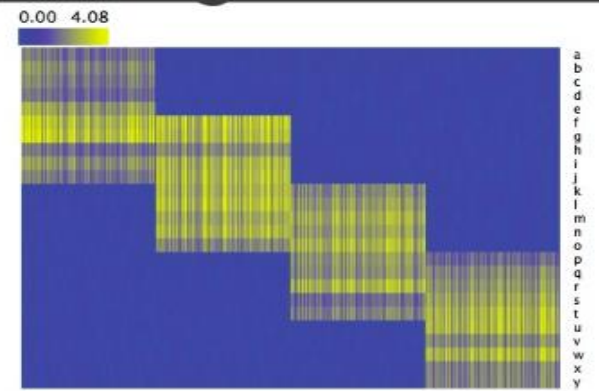
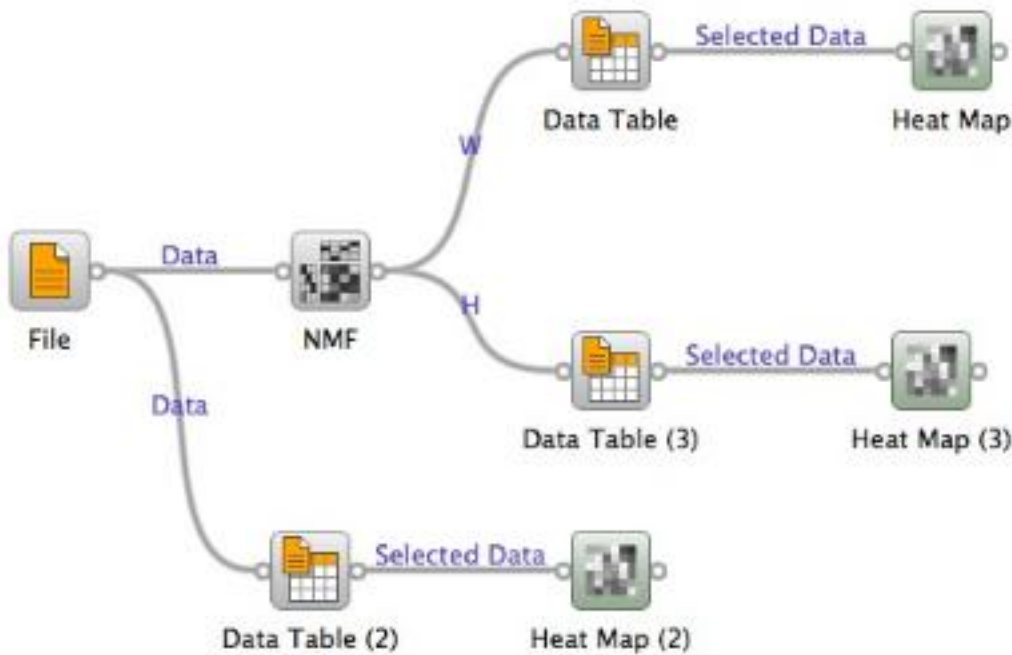
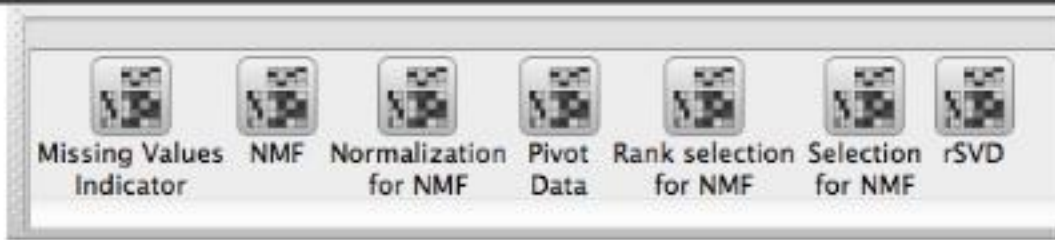
- ❖ Non-negative Matrix Factorization  
(非負値行列因子分解)

- ❖ Another approach to extract words related to learning from students' reflective writing all at once!

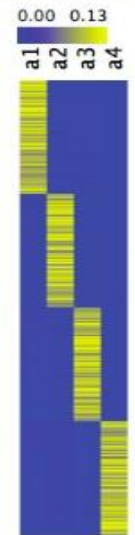
<https://blog.biolab.si/page/12/?mode=grid>



# NMF



Component 1  
Component 2  
Component 3  
Component 4





# Coffee Break

❖ 10:30 – 11:00

The workshop resumes  
At 11:00.

# PROGRAM

## 2. Analytics and Assessment Strategies: (Showcases)

- ❖ c. What data constitute the sources of analytics/assessment data/assessment method?
- ❖ What constitutes the Mirror of the Learning Mind?
- ❖ • Writing (Second Language Writing for Meta Cognitive Reflection)

(Dr. Yuri Kite)

# PROGRAM

## 2. Analytics and Assessment Strategies: (Showcases)

- ❖ c. What data constitute the sources of analytics/assessment data/assessment method?
  - ❖ •For quality assurance of students' work (Reflective Writing enhanced with ICT)  
(Prof. Masaki Watanabe)



# PROGRAM

## 2. Analytics and Assessment Strategies: (Showcases)

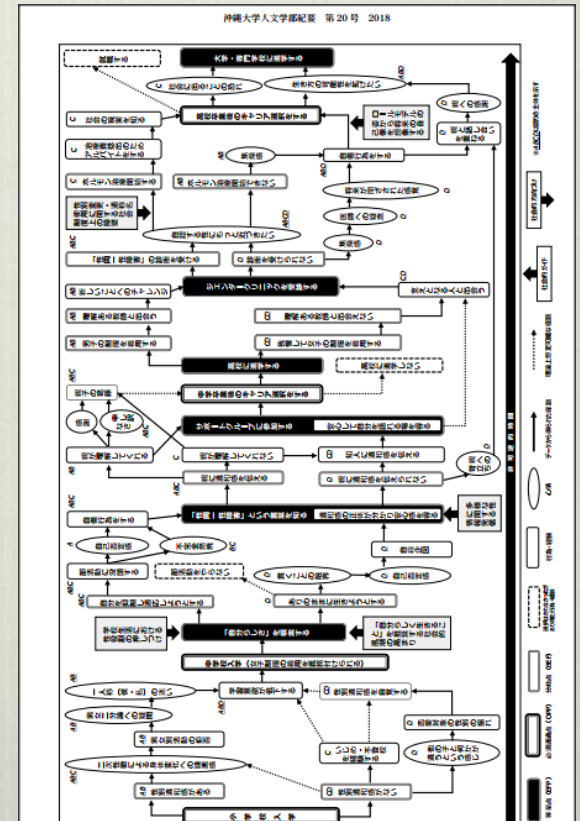
2. c. What data constitute the sources of analytics/assessment data/assessment method?

❖ Data Analysis: a qualitative way

TEA Analysis (Tomoya Ikezawa)  
Trajectory Equifinality Model

表2 TEMの概念表

概念	本研究の位置づけ
等至点: EFP (Equifinality Point)	①「自分らしさ」を模索する ②「性同一性障害（性別違和）」という言葉を知る【違和感の正体が分かり安心感を得る】 ③サポート・グループに参加する【安心して自分を語る場を得る】 ④高校に進学する ⑤ジェンダークリニックを受診する ⑥大学・専門学校に進学する
分岐点: BEF (Bifurcation Point)	①自分を抑制し適応しようとする・ありのままに生きようとする ②親に性別違和感を伝える・伝えられない ③高校で男子の制服を着用する・我慢して女子の制服を着用する ④理解ある教師と出会う・出会えない ⑤「性同一性障害（性別違和）」の診断を受ける・受けられない ⑥ホルモン治療を開始する・開始できない
必須通過点: OPP (Obligatory Passage Point)	①小学校入学 ②中学校入学 ③中学卒業後のキャリア選択をする ④高校卒業後のキャリア選択をする
社会的方向づけ: SD (Social Direction)	①<学校生活における性役割の押しつけ><「自分らしく生きること」を推奨する社会的風潮の高まり>: 女らしく、男らしくではなく、性役割にとらわれずに「自分らしく生きること」が大事だという社会的風潮が高まる (SG)。一方で、「学校生活における性役割の押しつけ」が「自分らしく生きようとする」方向性を抑制している (SD)。
社会的ガイド: SG (Social Guidance)	②<多様な性に関する情報発信>: メディア等を通して、男女二分論では捉えられない「多様な性」に関する情報に触れる機会が増えたこと (SG)。 ③<性別変更・通称名使用に関する社会制度上の障壁>: 「性同一性障害（性別違和）」の診断を受け、自認する性にもっと近づきたいと思っても、社会制度上、若年者には経済的な面においても厳しい状況がある。また、トランスジェンダー青年が就職する際、性別・名前に関して不利益・罰金を被る場合もある (SD)。



# PROGRAM

## 2. Analytics and Assessment Strategies: (Showcases)

- ❖ c. What data constitute the sources of analytics/assessment data/assessment method?
  - ❖ •ePortfolio Assessment for Team-based PBL (Field Study)  
(Prof. Maki Okunuki)

# PROGRAM

## 2. Analytics and Assessment Strategies: (Showcases)

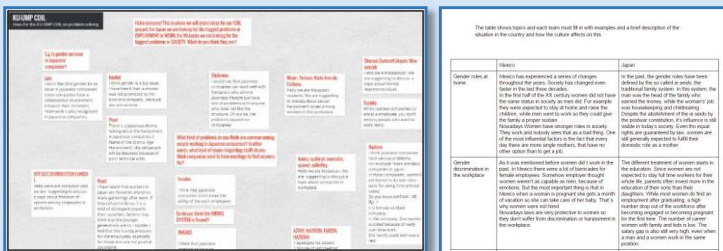
- ❖ d. Learning Analytics or Assessment for Active Learning (**PBL/TBL**)
- ❖ **Team Learning Activities outside class** -----archived on cloud  
(Tosh Yamamoto/Maki Okunuki/Ti-Chuang Chiang)
- ❖ •COIL (KU-NTU)



# Collaborative Online International Learning

## Comparison and Analysis Activities

In comparison and analysis activities, students exchange information and construct knowledge related to the topic assigned for the COIL project with their overseas partners.



Students using padlet (online dashboard) to do brainstorming on the issue of workplace problems (including women's rights) in Japan.

Students described the situation in the countries for the given topic using shared Google Documents.

## Collaboration Activities

During collaboration activities students work together on a group project with their overseas partners. Students learn not only from completing the project's end target but also through the process of working with their partners.



Utilizing Google Slides, Kansai University and SUNY Ulster students worked to transpose a story from Aesop's Fables into a contemporary international setting.

## COIL's Advantages

1. COIL allows students to engage in **cross-cultural interaction** with peers in universities around the globe without leaving their home country through the use of ICT and SNS tools.
2. Students receive chances to make practical use of **language and communication skills**.
3. Students acquire experience in **Project-Based Learning**, which boosts planning and team management skills.
4. The course increases **digital literacy** by utilizing a variety of technological tools to communicate and collaborate.
5. COIL can serve as the ideal **preparation for studying abroad** and/or undertaking global internships.
6. COIL boosts **internationalization on campus** by enhancing connections to global educational institutions.

## KU-COIL Types

SUNY COIL Model:

- (A) **Pre KU-COIL:** student to student virtual exchange over one week and a small number of virtual interactions.
- (B) **KU-COIL Enhanced:** the standard COIL practice, consists of 4-6 weeks of collaborative learning activities.
- (C) **KU-COIL Extended:** COIL is incorporated into the course for the whole semester.



Synchronous session with partner university in Indonesia in a COIL-enhanced course.

# Collaborative Online International Learning

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# Active Learning PBL in Global Teams Enhancing Future Work Skills

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*Utilizing Google Slides, Kansai University and SUNY Ulster students worked to transpose a story from Aesop's Fables into a contemporary international setting.*

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*Synchronous session with partner university in Indonesia in a COIL-enhanced course.*

# Future Work Skills 2020

While all six drivers are important in shaping the landscape in which each skill emerges, the color-coding and placement here indicate which drivers have particular relevance to the development of each of the skills.

## KEY



Drivers—disruptive shifts that will reshape the workforce landscape



Key skill needed in the future workforce

**extreme longevity**  
Increasing global lifespans change the nature of careers and learning

**computational world**  
Massive increase in sensors and processing power make the world a programmable system

**superstructured organizations**  
Social technologies drive new forms of production and value creation

**rise of smart machines and systems**  
Workplace robotics nudge human workers out of rote, repetitive tasks

**new media ecology**  
New communication tools require new media literacies beyond text

**globally-connected world**  
Increased global interconnectivity puts diversity and adaptability at the center of organizational operations

Trans-disciplinarity

Design Mindset

Virtual Collaboration

Sense-Making

New Media Literacy

Cross Cultural Competency

Novel and Adaptive Thinking

Social Intelligence

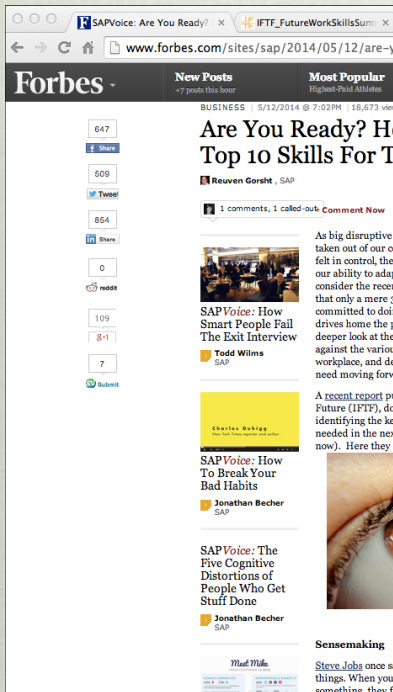
Cognitive Load Management

Computational Thinking

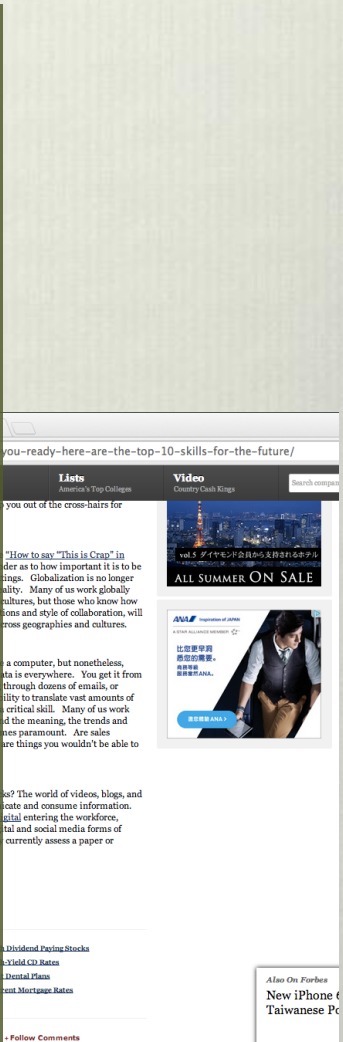


The Future,  
Better Life,  
Transcendancy

# 10 Needs for Future Education



Sensemaking  
 Social Intelligence  
 Novel & Adaptive Thinking  
 Cross-Cultural Competencies  
 Computational Thinking  
 New Media Literacy  
 Transdisciplinarity  
 Design Mindset  
 Cognitive Load Management  
 Virtual Collaboration



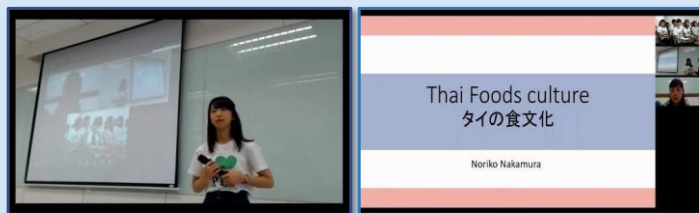
# Collaborative Online International Learning

KU-COIL Model:

## ➤ Student Mobility COIL

COIL is utilized as a method to connect KU students with their distant peers prior to, during, and after their visit in destination countries. One example of this model is "Triangle Collaborative Learning" Field Study Program between Kansai University (Japan), Panyapiwat Institute of Management (Thailand), and Cheng Shiu University (Taiwan).

Kansai University students visited Thailand then Taiwan for a project-based learning field study in each country. Utilizing video conference tool, their distant peers were able to join remotely in final presentations and discussions at the end of each project.



Presentations by KU students at the end of their PBL in Thailand, prior to their visit to Taiwan. Their peers from CSU attended the presentations via ZOOM (video conference app).

## ➤ Module Exchange COIL

Lectures exchange with overseas partner universities.

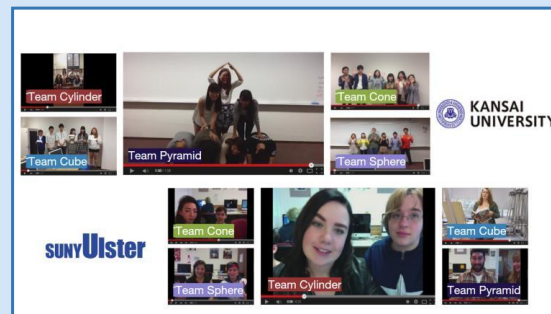


Science and Technology lectures exchange with University Malaysia Pahang (Fall Semester 2016).

## COIL Practice Examples at Kansai University

### Ice Breaker Activities

Integrating COIL into the classroom enables students to work together virtually with distant peers around the globe. Creating a good social connection is especially important due to the nature of online communication during COIL activities. Integrating a visual self-introduction into the beginning of their COIL exchange helps students establish a social rapport with their distant partners and motivates engagement in later COIL activities.



Students created a group video introduction and posted it on YouTube for viewing.



Self-introduction on Facebook pages.

# Collaborative Online International Learning

KU-COIL Model:

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Kansai University students visited Thailand through the learning field study in each country. Distant peers were able to join the program at the end of each program.

**Meta Cognitive Reflection  
Not only in Writing  
But in Rich Media**



Science and Technology lectures exchange with University Malaysia Pahang (Fall Semester 2016).

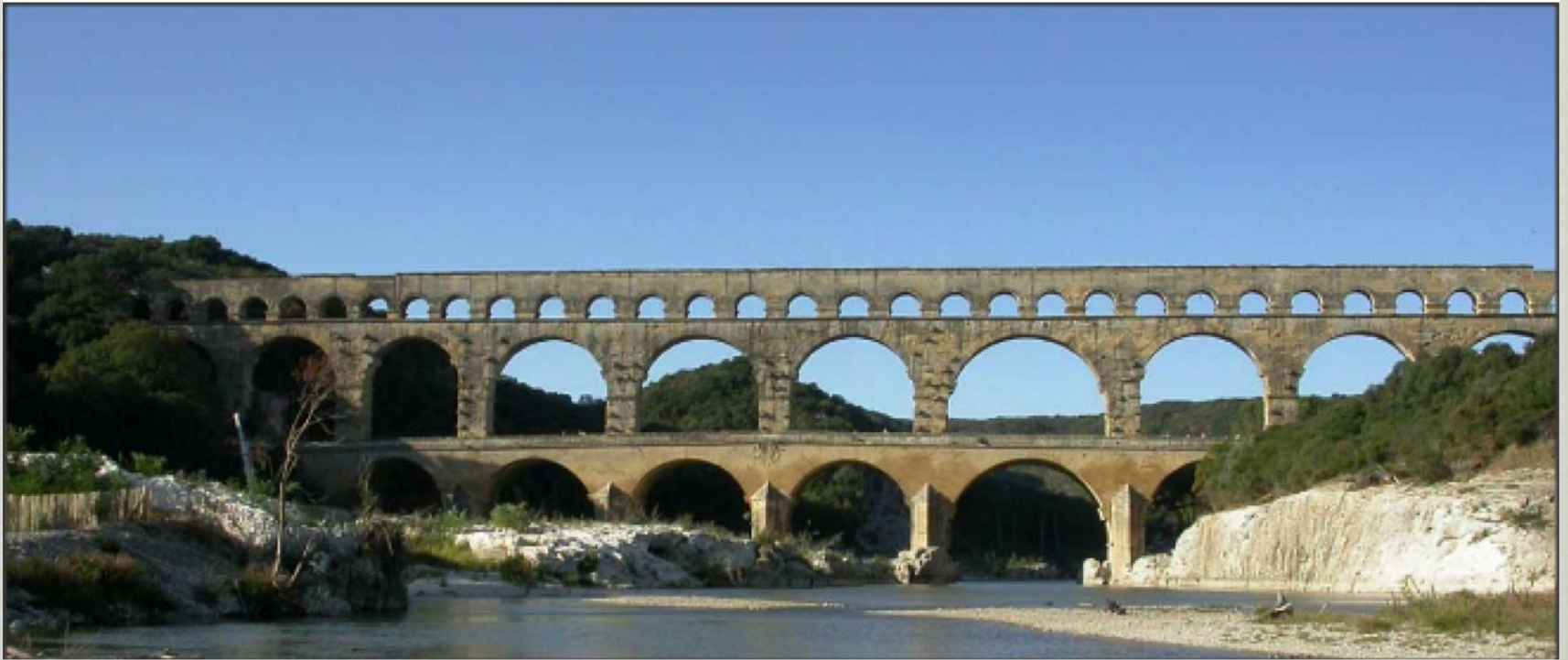




# Collaborative Online International Learning

Image of Learning compared to bridge building in Rome.

Snapshots for the learning process as well as the development flow of the learning set by the learner.

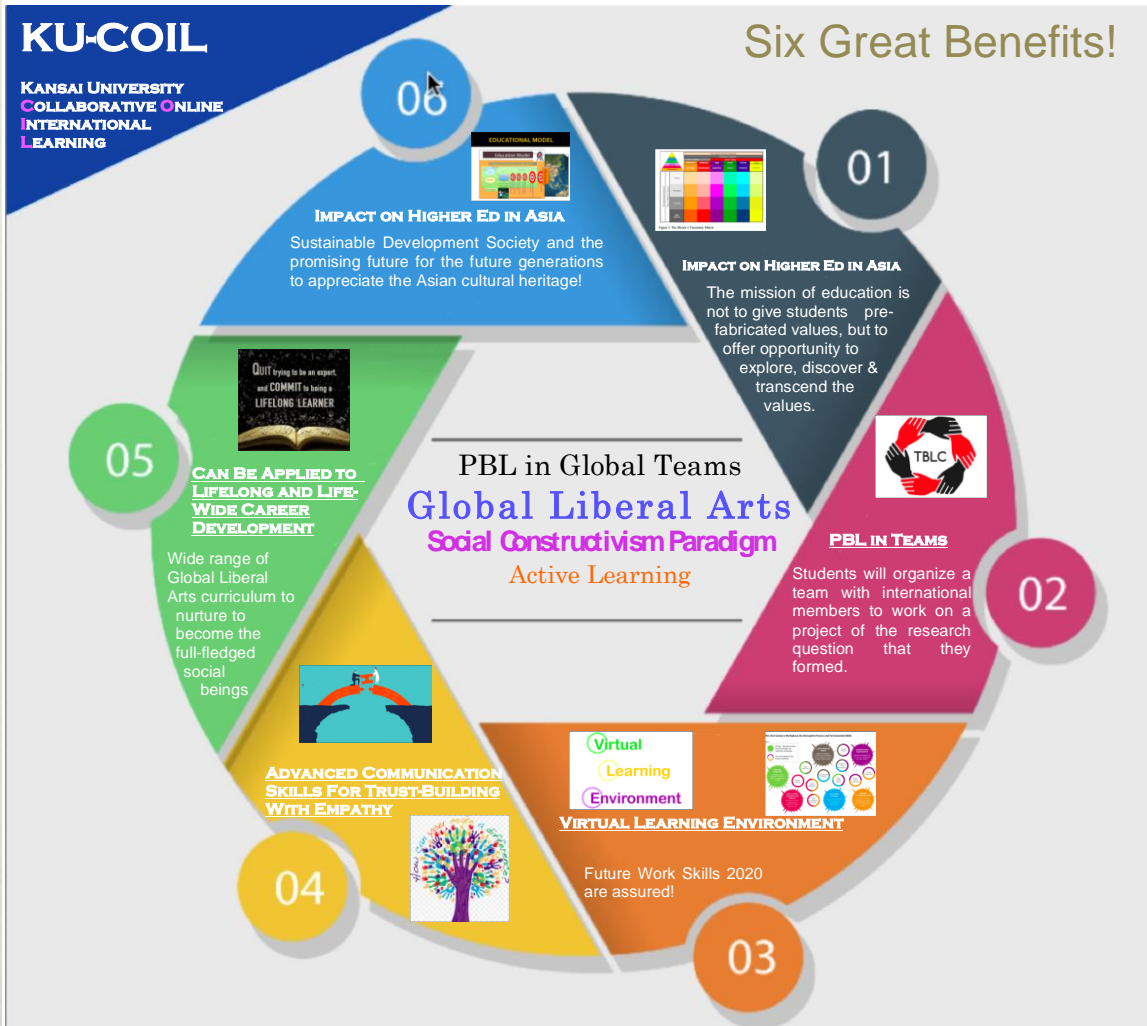


シューシュタルの遺跡より

# COIL LEARNING ENVIRONMENT FOR PBL THROUGH TBL

ICT –Enhanced Learning to Foster Work Skills 2020

Tosh Yamamoto, CTL, Kansai University – Masanori Tagami, Otemon U – Tomoko Sato, CLTD, Tohoku U – Maki Okunuki, HLC, Kwansai U – Anthony Liao, Vivian Wu, Steve Yang, Asia University – Meilun Shih, CLTD, NTU – Shelly Young, NTHU – Wu-Yuin Huang, NCU – Ming-Puu Cheng, NTNU – An-Pang Cheng, Raymond Chen, NIU – Juling Shih, NUTN (Student Presenter: Tomoya Ikezawa)



<https://i2.wp.com/www.teambasedlearning.org/wp-content/uploads/2015/12/TBLC-Logo-New.jpg?resize=399%2C300>

<https://i.pinimg.com/736x/7b/b7/08/7bb7082fbd2c759c03dec736b0754470--high.jpg>

<https://www1.lehigh.edu/sites/default/files/media/resolve16icorps-illo.jpg>

<http://deirdrehughes.org/wp-content/uploads/2015/01/21st-century-work.jpg>

# PROGRAM

## ❖ 3. Wrapping Up: Summary

(Tosh Yamamoto/Maki Okunuki/Ti-Chuang Chiang)



# PROGRAM

## ❖ 3. Wrapping Up: Summary

(Tosh Yamamoto/Maki Okunuki/Ti-Chuang Chiang)

**We have looked at:**

**Learning Analytics including the learning process**

**Showcases**

**Proposal for more efficient analytics strategies**

**This is just a beginning!**

# ISGC 2018: Half-Day Workshop

## Learning Analytics

**Thank you for your active  
participation & interaction !**

Workshop Organizers/Presenters:

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Dr. Tosh Yamamoto, CTL, Kansai University  
Dr. Stephen Young, Dept. of Computer Science and Information Engineering,  
National Central University, Taiwan  
Dr. Yuri Kite, Kansai University  
Dr. Minoru Nakazawa, Kanazawa Institute of Technology  
Prof. Maki Okunuki, CTL, Kansai University & Kwansai Gakuin University  
Prof. Masaki Watanabe, CTL, Kansai University (iGroup Japan)  
Prof. Ti-Chuang (Timothy) Chiang, Medical Informatics Division, College of Medicine  
National Taiwan University