PANEL
on COLLA/ICCGI

Collaborative Society via Learning and Developing Collaboration

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Monday, June 22, 15:45 - 17:30

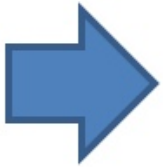
IARIA2018 (COLLA 2018), June 22-26, 2018 - Venecia, Italy

OUTLINE

1. Paradigm Shift on Education
2. SNS based collaborative language learning (pros and cons)
3. Learning style preference and collaborative learing

1. Paradigm Shift on Education

- School learning
- Learning by rote memory/ cramming
- Teacher-centered
- One-time evaluation by testing



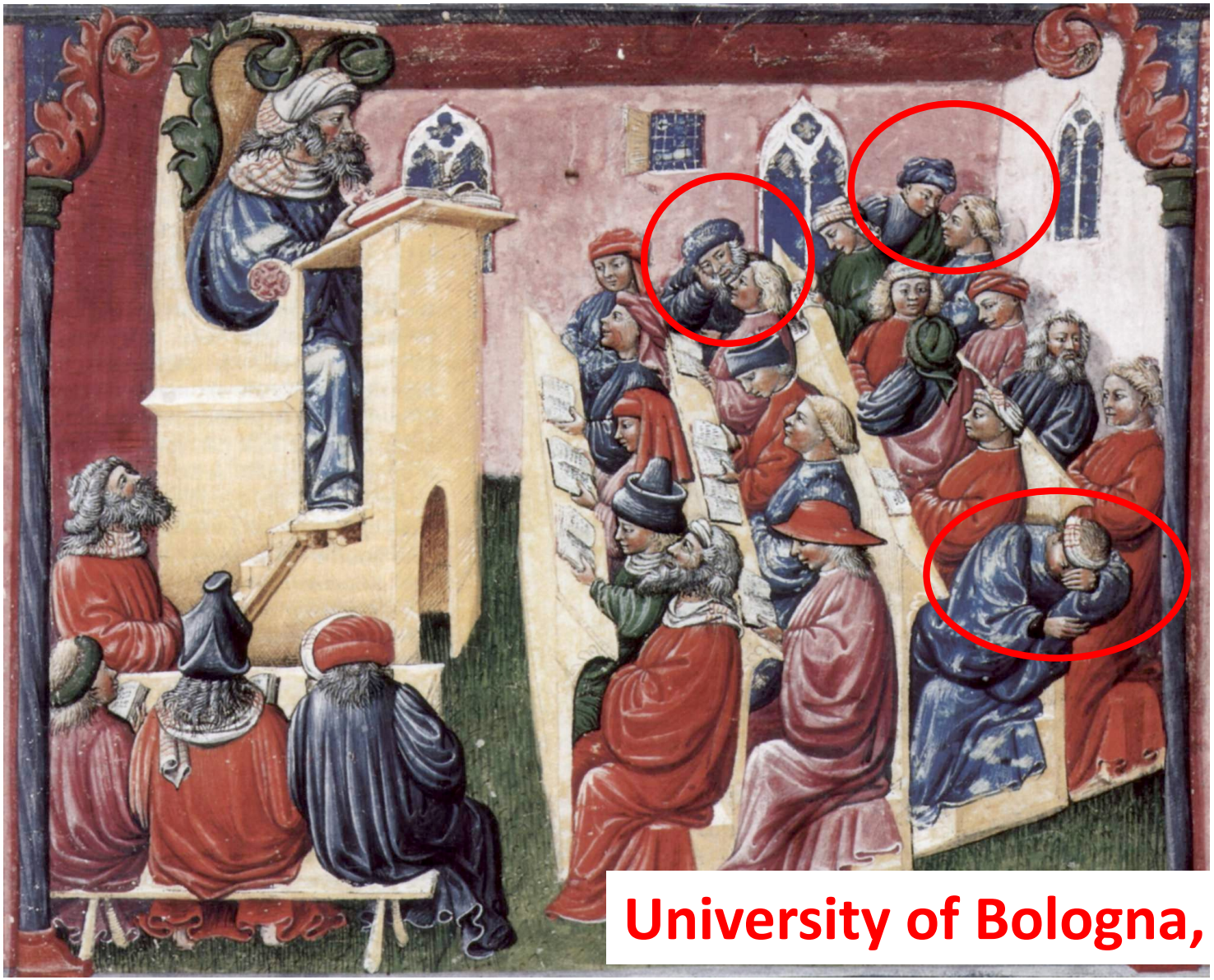
- Authentic learning
- Learning by Experience/ Constructivism
- Student-centered
- Continual evaluation by performance

Morimoto, Y., (2008). E-Portfolios: Theory and Practice (in Japanese). Journal of JSiSE (教育システム情報学会誌) Vol.25 No.2 pp.245–263.

http://draco.u-gakugei.ac.jp/eportfolio/

1. Paradigm Shift on Education

Teacher-centered



University of Bologna, 1350s

1. Paradigm Shift on Education

Teacher-centered → **student-centered**

1. Paradigm Shift on Education

- **ICT technologies facilitate this trend!**

1. Paradigm Shift on Education

- **What have computers (ICT technologies) made us possible?**
- **How have computers (ICT technologies) changed class?**

1. Paradigm Shift on Education

- What computers made us possible are:

Interaction between learners

⇒Collaborative Learning

⇒Knowledge sharing

⇒Student-centered learning

⇒Active learning

1. Paradigm Shift on Education

Teacher-centered → **student-centered**

collaborative learning

computer-supported collaborative learning (CSCL)

collaborative inquiry learning

telecollaboration

active learning
learning by doing

1. Paradigm Shift on Education

student-centered language learning

- Interaction is critical to learning a language
  ------ Vygotsky (1978)
- Collaborative learning – relevant for language learning
  ------ Kukulska-Hulme & Shield (2008)
- Student-centred learning

Student-centred and small-scale course programmes resulted in more academic success than lecture-based course programme------ Severiens, Meeuwisse, & Born (2015)

- **Educational application of SNS**

effective for reflection activities ------ Kim & Kim (2013)

2. SNS based collaborative language learning

student-centered language learning

- **Educational application of SNS**

effective for reflection activities ------ Kim & Kim (2013)

Sociocultural SLA theory :

scaffolding interactions where language learners use the social assistance of more expert language users to incorporate new linguistic features into their developing language competence ------ Liu et al. (2013), p.3

SNS seems to be perfect for scaffolded language interactions ----- Liu et al. (2013)

2. SNS based collaborative language learning

student-centered language learning

- **Educational application of SNS**

  Facebook (Aladjem and Jou, 2016)
  Twitter (Lomicka and Lord, 2016)
  Instagram (Lomicka and Lord, 2016)
  Snapchat (Lomicka and Lord, 2016)
  Mixi (Ota, 2011)

2. SNS based collaborative language learning

facebook

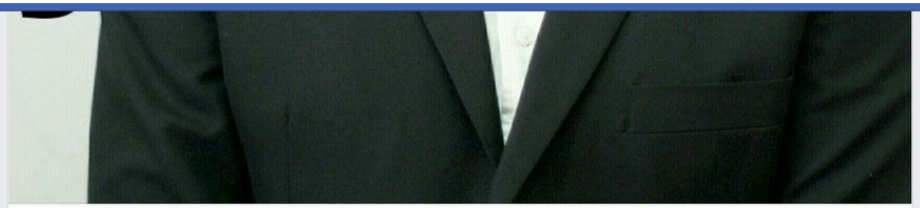
Let's speak Japanese（nihongo）　日本語（にほんご）を話そう！

Public Group

About
Discussion
Members
Events
Videos
Photos
Files

Search this group

Shortcuts
Learning Log System 1
科學教育事務



Like　Comment　Share

19

View 1 more comment

[redacted] Yurushiku onegaishimasu!
Like · Reply · 22w

[redacted] 今日は、とうぞう宜しくお願いします。

Like · Reply · 15h

Write a comment...

Suggested Groups　See All

日本語能力試験
JLPT Japanese-Language Proficiency Test

JLPT
1,672 members
+ Join

日本酒文化発信
19,300 members
+ Join

Hapa Japan
4,127 members
+ Join

2. SNS based collaborative language learning

facebook

■Pros

- Any languages
- Internet slangs and trending words
- Discuss language problems
- Learn many contents quickly
- Share with friends/save pages/screenshot

■Cons

- Distraction
- Spend a lot of time without noticing
- Incorrect information
- Undesirable content

2. SNS based collaborative language learning

Instagram

- Some usefulaccounts for language learners
- **Visual media**
  → easier to learn
- **Bookmark function**
  → easy to get back to the posts you want to review later
- **Comment function**
- **Automatic translation**

2. SNS based collaborative language learning

■Pros

- Visual media
- Bookmark function
- Comment function
- Automatic translation
- More than 30 languages

■Cons

- Distraction
- Incorrect information
- not enough information

2. SNS based collaborative language learning

InCircle TALK

Chat system originally developed as a communication tool with a high insured security for the companies, hospitals, police stations etc.

https://www.incircle.jp/

2. SNS based collaborative language learning

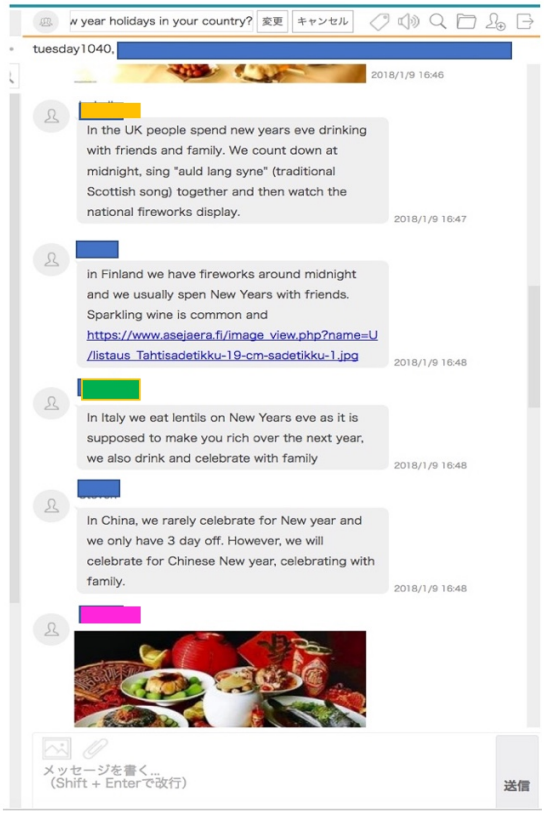
Trigger

- There are always some students who do not want to use the existing SNS systems.

- Unless all the students agree to use it, it is impossible to use it as a class communication tool.

InCircle can solve this problem!

2. SNS based collaborative language learning



2. SNS based collaborative language learning

■Pilot evaluation result

- More interaction among students via InCircle.
- Effective as a communication tool

■Future work

- How to encourage the studens who prefer “learning alone”

Supporting Collaborative Interaction among Learners Using Collaborative Learning System InCircle

Noriko Uosaki, Osaka University, Osaka, Japan
Takahiro Yonekawa, Brain Signal, Inc., Tokyo, Japan
Chengjiu Yin, Kobe University, Kobe, Japan

COLLA 1 Room B（10:30 ～ 12:15） Tue. 26th, June. 2018

Thanks

Q&A

WWW.IARIA.ORG

COLLA 2018

Learning and Developing Collaboration

Keys to Successful Collaboration

- The collaboration environment is two (or more) entities work to a common goal
- The key item for a successful collaboration is a clear definition of the environment
  - The objective
  - The work items
  - The exchange of work items
- The critical difficulty to a collaboration environment is the addition of a new entity

The Future Road

- It is clear that the future will be based upon more, rather than less, collaboration.
  - Medical success is, will be, based upon collaborative care
  - Autonomous objects (automobiles, vacuum cleaners, …) require a collaborative space
- We have too many collaborative environments attempting to solve the same problem that cannot collaborate

A Suggestion

- "I have a better idea"
  - Key element for constructive innovation
  - Key element for cacophony
- Migration plan
  - The most difficult task is the migration of an existing environment to a new environment
  - The most common approach is to develop a plan to move from (abandon) the old and move to (instantiate) the new
  - *Perhaps the migration plan approach should be to build on the strength of the old; that is, design for future migration (future innovation)*

Panel on COLLA/ICCGI

Collaborative Society via Learning and Developing Collaboration

Roles on Cooperation and Learning

Petre Dini, IARIA, USA

petre@iaria.org

Monday, June 25th

June 24-28, 2018 - Venice, Italy

COOPERATION FACETS

1. Human-machine Cooperation in Self-driving Cars/Buses in Smart Cities

2. Tutoring-like Human Cooperation

3. Group Cooperation-based Ranking Systems

Self-driving Cars/Buses in Smart Cities/Campuses

https://www.hel.fi/uutiset/en/helsinki/helsinki-self-driving-bus-regular-service

Human-Machine Collaboration [Friendly, Deep-learning, …]
Human-Machine Interfaces [Rear-time, Multi-modal, …]
Human-Machine Cooperation for Vehicle Driving [Co-assistance]
Human-Machine Interaction for [Semi-] Autonomous Driving
Passengers-Cars Cognitive-Sharing Campus/[Streets] Buses
Delegation & Mutual Control [Cognitive aspects]

Tutoring-like Human Cooperation

History on Tutoring Systems

- adapting questions to answers' accuracy

Clustering Same-level of Knowledge Cooperating Similar-knowledge Clusters

Damage of Impedance-mismatching

- delays for quorum agreements
- biased output
- not validated/endorsed output

On-line Ranking Systems

- History on Group Cooperation-based Ranking Systems

- Faked/distorted/untrue News/reviews/reports
- Building Clusters of Trusted Reviewers
- Acquiring Quorum of Trusted Reviewers
- Allow a Time-window for Ranking Validity

- Useless of Ranking Systems vs. Human (changing) Behavior
  - case study: Trivago
  - facts: bad news are spreading times fastest than good news
    good guys are times more silent than bad guys

Case Study: Deep Learning

- *IEEE Communications Magazine*
- *May 2018, vol. 56, no. 5, pp. 124-129*

Theme: Human Activity Recognition via multi-Wi-Fi-APs

Important to: crowdsensing, social networks, recommendation systems

Via: Wi-Fi Channel state Information to discover

- **Traditionally: signals + calculations + one AP**
- **With dense and complex environments: no intuitive model**
- **With Deep Learning model, from Multiple APs, via Special Datasets, Special Data Structure, Convolution Neuronal Networks, Feature Extraction, from Wi-Fi Channel State Information**
- **Large-scale body/citizens movement sensing**

Helps for Cooperating Environments/Cites

Systems/models/theories

- GPS
- Deep Learning
- AI (*revived* Artificial Intelligence)
- Cognitive science and Cognitive modeling
- Neuroscience
- Human modeling
- e-Citizenship platforms/Social networks

Achievements

- Low price & huge memory
- Low price & huge computation power
- Micro-&Miniaturization
- Advanced distributed architectures/approaches (Clouds, MMWave, 5/6G, etc…)

Thanks

Q&A

WWW.IARIA.ORG