

Circulating Knowledge of Humanities and Sciences Museums through Communication between Public and Curators

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National Museum of Nature and Science

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1. What is “Science Literacy Passport β ”?

- It is an **interactive online database system** to build museum utilization model for lifelong learning.
- Target Users:
 - 1) **the general citizens of all ages**
 - 2) **museum curators**

1. What is “Science Literacy Passport β ”?

- The data of **museum educational programs** are shared between all users.
- Based on the feedbacks from participants, the programs can be improved.

What is “Science Literacy”?

a cluster of comprehensive abilities in science:
that ...

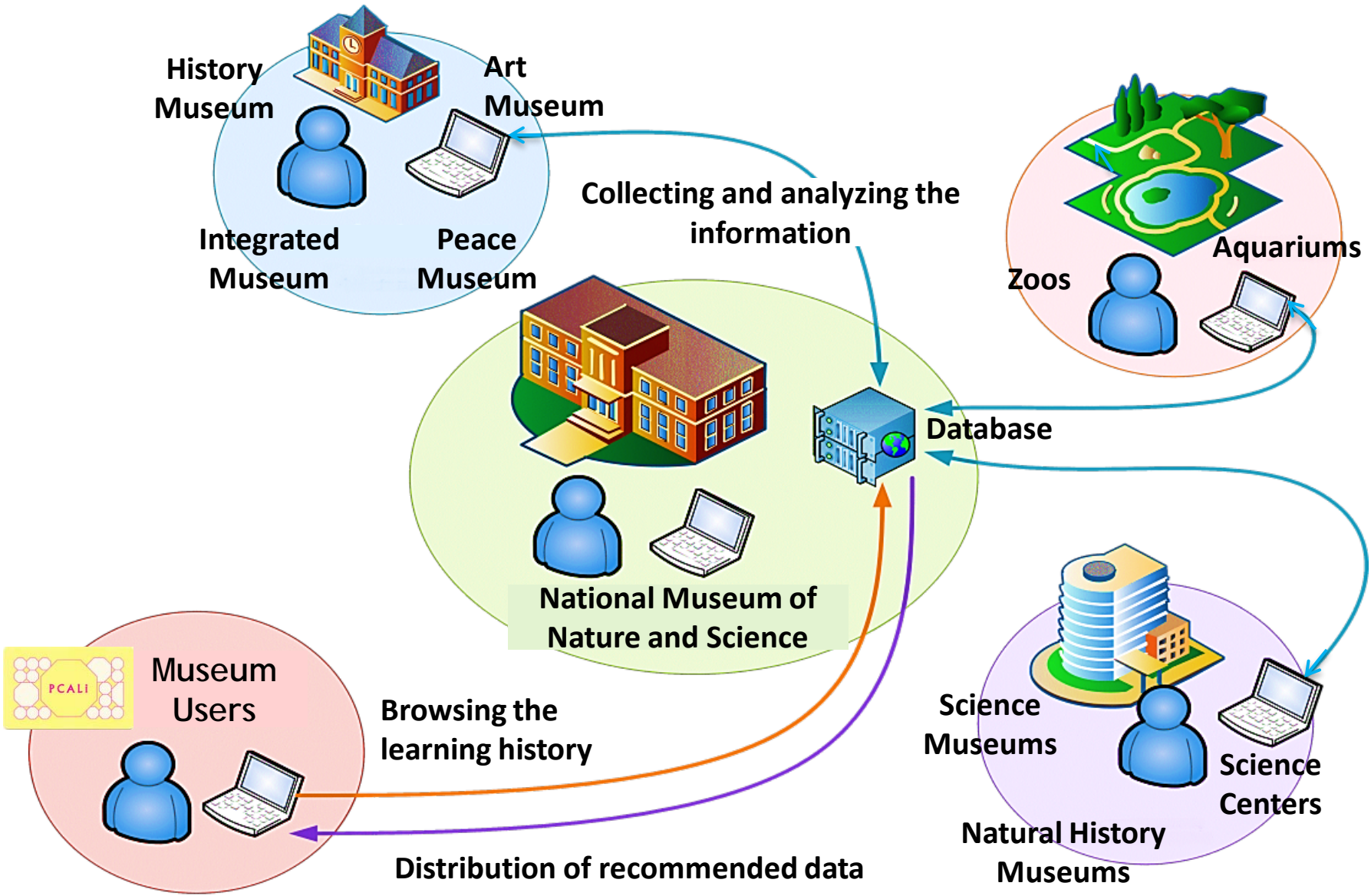
1. people possess appropriate **knowledge** and **ways of thinking** regarding science and technology
2. people **deal with changes** in natural world and human society
3. people make reasonable **decisions** and take **actions**

Frame work to foster Science Literacy

4 Goals and 5 Generations

Science Literacy's Goal / Life-stage	Pre-schooler ~ Lower Elementary School	Higher Elementary School ~ Junior High School	High School / High Education	Families, Prime	Middle and Old Ages
Feel
Know
Think
Act

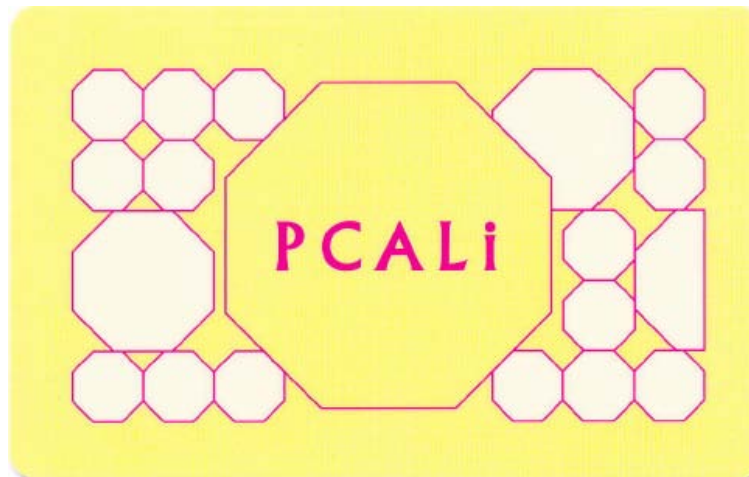
concept:



2. How is “Science Literacy Passport B” used?

- PCALi
(Passport of Communication and Action for Literacy)

Front
side

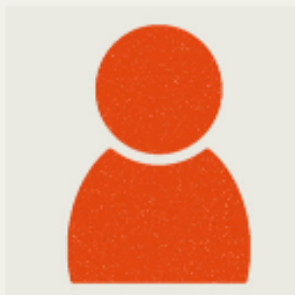


Back
side





Science Literacy Passport β



My Profile

Name ゲスト 1号

Passport No. 9900000001

Year of birth 2013

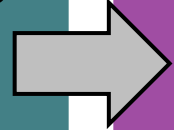
Live in 北海道

The history of the program which you participated

	Preschool ~ Elementary School	Higher Elementary ~ Junior High School	High School / High Education	Families / Prime	Middle and old ages
Feel					
Know					
Think					
Act					

Search

(1) Find events on the on the web (literacy-pass.jp)!!



Experience

(2) Experience events at museums!!



(3) Get your card's bar code scanned!!



Pi !!



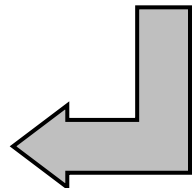
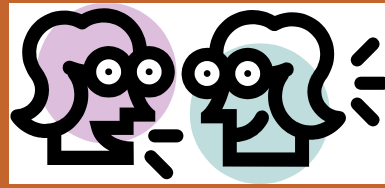
Connect

(4) Check your participation records on your PCALi account!!

(5) Recommend museum events to your friends!!

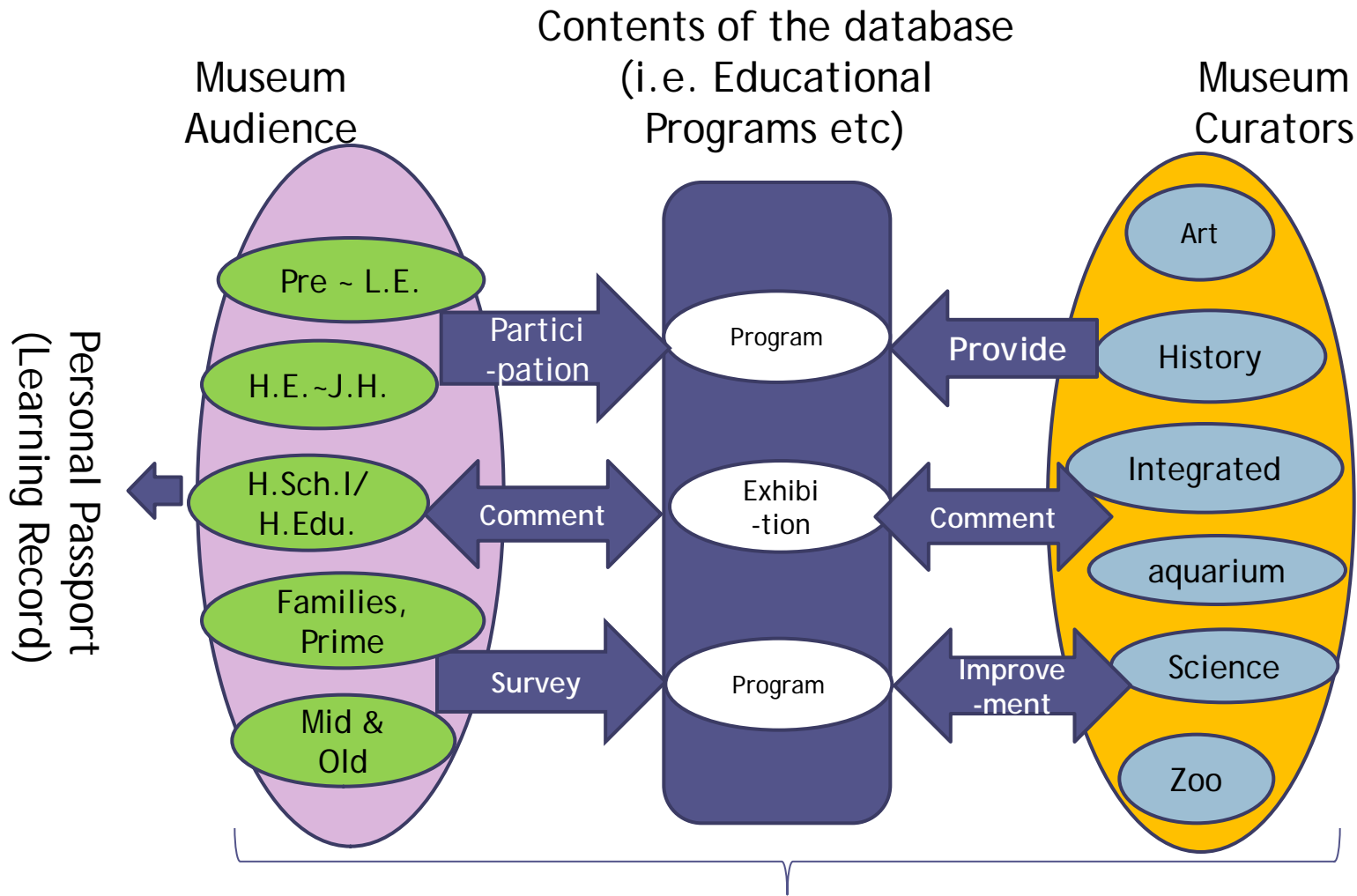


User ID:
Password:



How to Use PCALi.
Step (1)~(5)

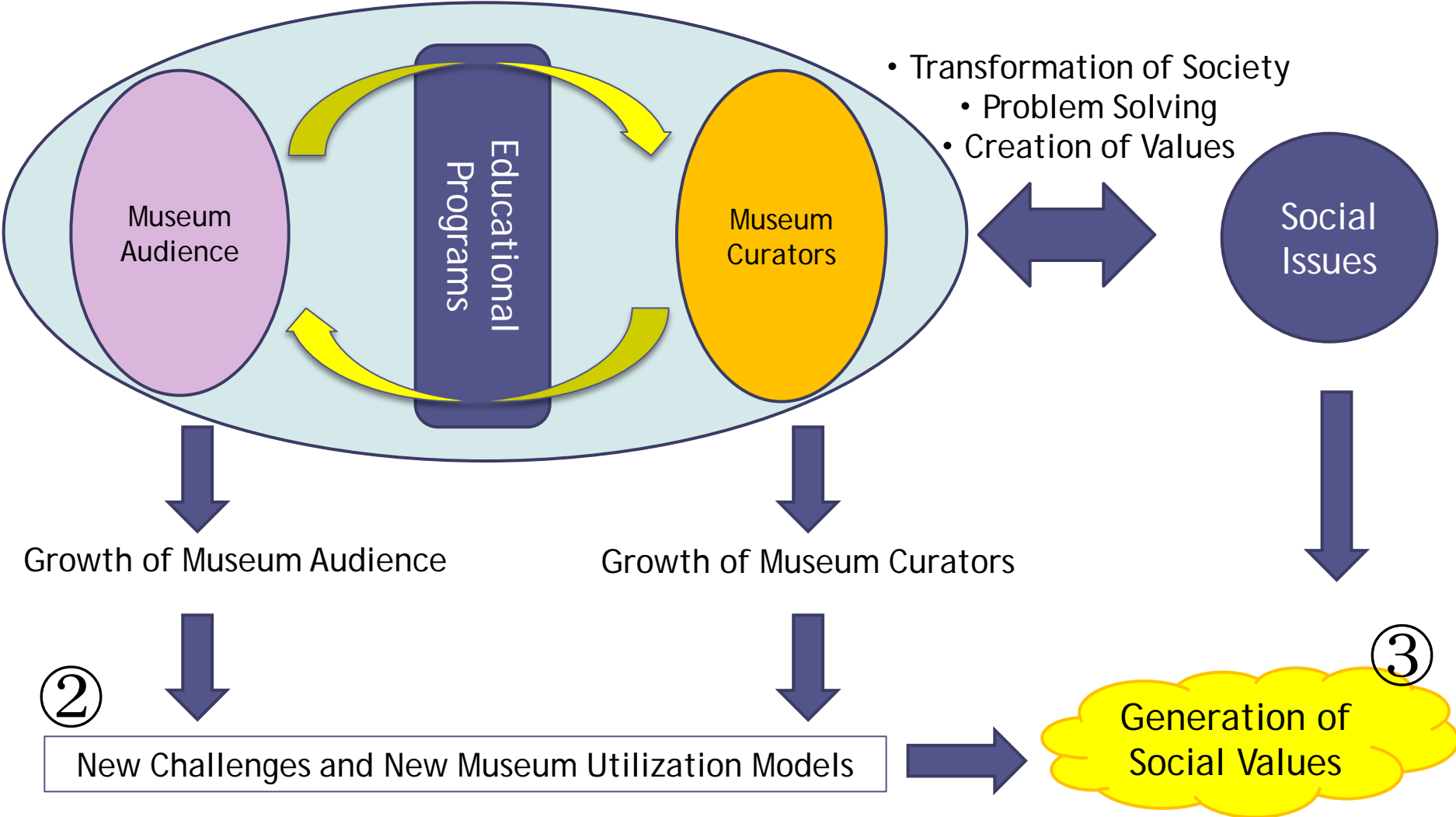
3. What is expected in this system?



Suggestion of Museum Utilization Models and Sharing Them

Social Impact of this system:

① Science Literacy Passport B System



4. Program Example (1)

- Institution:
Science Platform in Fukushima
- Theme: Radiation
- Object:
 - 1) To understand what radiation is through observation and experiment outside of school.
 - 2) To learn how to protect ourselves from radiation.
- Place:
In Fukushima
@ Space Park, Mushitec,
community centers, PTA etc



Frame work to foster Science Literacy

Radiation

Science Literacy's Goal / Life-stage	Pre-schooler ~ Lower Elementary School	Higher Elementary School ~ Junior High School	High School / High Education	Families, Prime	Middle and Old Ages
Feel	○	◎	◎		
Know	○	◎	◎		
Think	○	◎	◎		
Act	○	◎	◎		

4. Program Example (2)

- Institution & place:
Taman Pintar Science Park
(Jogjakarta, INDONESIA)
- Theme:
Batik Making
- Object:
Introducing the Batik
making process to the
younger generation



Frame work to foster Science Literacy

Batik

Science Literacy's Goal / Life-stage	Pre-schooler ~ Lower Elementary School	Higher Elementary School ~ Junior High School	High School / High Education	Families, Prime	Middle and Old Ages
Feel		◎			
Know		◎			
Think		◎			
Act		◎			

Frame work to foster Science Literacy

Four Goals and Five Generations

Competency

Science Literacy's Goal / Life-stage	Pre-schooler ~ Lower Elementary School	Higher Elementary School ~ Junior High School	High School / High Education	Families, Prime	Middle and Old Ages
Feel
Know
Think
Act

5. Who are the Partner Institutions?

Hokkaido Area

- Asahiyama Zoo
- Asahikawa city museum
- Asahikawa Science Center

Kansai Area

- Lake Biwa Museum
- Shiga Peace Museum

Kitakyushu Area

- MARINE WORLD umino-nakamichi
- The Kyushu University Museum
- Museum of Kyushu Sangyo University

Jogjakarta (Indonesia)

- Taman Pintar Science Park



Tohoku Area

- Fukushima University Science Platform in Fukushima
- Koriyama City Fureai Science Center
- mushitec-fukushima

Kanto Area

- Natural History Museum and Institute, Chiba
- Ibaraki Nature Museum
- Kanagawa Prefectural Museum of Natural History
- Science Museum
- Chiba City Museum of Science
- National Museum of Nature and Science, Tokyo

As of November, 2013.
New institutions are added at all times.

References:

- National Museum of Nature and Science, Tokyo., Development of a Continuous Educational Program Framework to Foster Science Literacy (The Advisory Council on Fostering Science Literacy 2010)
- Yoshikazu Ogawa, Development of an Educational Program Framework for Science Museum to Foster Public Science Literacy (PCST 2010)
- Yoshikazu Ogawa, Suggestion of Interactive Museum function in a Knowledge-Circulating Society (JMMA 2013)



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