

**Curation: What should be shown and what should  
NOT be shown**

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in a market store (meat selling zone)....



????!!



↑ basket analysis [Agrawal, 1993]??

## What's more??

- potential desire??

meat with vegetable...

- the other possibilities for a recipe??

vegetable with the other meat....



**chance:**

A chance is rare, hidden, potential or novel event(s) / situation(s) that can be conceived either as a future opportunity or risk.

“chance discovery” is discovery of chance!!

novel combination, placement etc.  $\Rightarrow$  new possibility

placement, arrangement, exhibition...  $\Leftarrow$  curation

curation  $\Rightarrow$  chance discovery?

# Curation?

[museum]

definition by *American Association of Museums Curators Committee (AAMCC)*:

- Remain current in the scholarly developments within their field(s).
- Make recommendations for acquiring and deaccessioning objects in the museum collection.
- Assume responsibility for the overall care and development of the collection.
- Advocate for and participate in the formulation of institutional policies and procedures for the care of the collection.
- Perform research to identify materials in the collection and to document their history.
- Interpret the objects belonging or loaned to the museum.
- Develop and organize exhibitions.
- Contribute to programs and educational materials.

- Advocate and provide for public use of the collection.
- Develop or contribute to monographs, essays, research papers, and other products of original thought.
- Represent their institution in the media, at public gatherings, and at professional conferences and seminars.
- Remain current on all state, national, and international laws as they pertain to objects in the museum collection.

Curators have responsibilities for various aspects of exhibition activities. However, the most important activity will be a plan of exhibition. They should properly exhibit a truth which is result of their researches and interpretations.



# e-Science Data Curation

JISC (<http://www.jisc.ac.uk/>)

- Curation: The activity of managing and promoting the use of data from its point of creation, to ensure it is fit for contemporary purpose, and available for discovery and re-use. For dynamic datasets this may mean continuous enrichment or updating to keep it fit for purpose.
- Archiving: A curation activity which ensures that data is properly selected, stored, can be accessed and that its logical and physical integrity is maintained over time, including security and authenticity.
- Preservation: An archiving activity in which specific items of data are maintained over time so that they can still be accessed and understood through successive change and obsolescence of technologies.

# Aspects of curation:

- Trust:
- Utility: Certain information about the data is necessary to enable future users to gauge the utility and reliability of the data.
- Discoverability:
- Access management:
- Heterogeneity:
- Complexity:

# Exhibition “Bacon and Caravaggio”

Oct 2 2009–Jan 24 2010, Museo e Galleria Borghese



## Very unique exhibition:

Not an “independent” special exhibition. Works were exhibited among permanent collections (some were in Japan).

Different types? of two painters are focused.

in addition....

in general sense.....

common??: *description of body and soul*

- **Caravaggio** (1573–1610) Italy (baroque)

perfect description (realism)

- **Francis Bacon** (1909–1992) Ireland ⇒ UK (modern)

déformer: satirical, horrifying, hallucinatory... → uneasy

different ?? similar??

“This exhibition proposes a **juxtaposition** of Bacon and Caravaggio. It intends to offer visitors an opportunity for an **aesthetic** experience rather than an educational one... [Coliva, 09].”

There are parallels that appear by themselves to the visitor’s sensibility and are not imposed by a theory of the curator. This is certainly one aspect of the vitality of exhibitions, which make the works live and in this are necessary for the works.



*Curators did not insist their philosophy.*

## Exhibition “Joseph Cornell / Jiřĩ Kolář”

April 19–May 26, 2007, Pavel Zoubok Gallery, NYC, USA

Pavel Zoubok Gallery’s concept:

“In bringing these artists together we are *confronted with two distinct traditions*, one rooted in the fantastical visions of **American Surrealism** during the 1930s and 1940s and the other in the more politically charged spheres of the **Central European avant-garde** of the 1950s and 1960s, *marked by social and cultural repression*. Cornell’s world, both inside and outside of the **box**, is one drawn primarily from the imagination. The worldliness and wonder of his art concealed a reality that was often fraught with sadness and an inability to connect directly with the world beyond Utopia Parkway and nearby Manhattan. By contrast, Jiřĩ Kolář’s life and work *reflected economic and political struggle and years spent in exile from his native Prague*. The myriad **collage** techniques that he pioneered over fifty years formed an alternative language at a time when the artist/poet saw those in power employing words as an instrument of oppression and misinformation. This progressively led him to a purely visual means of expression.”

**Joseph Cornell** (1903–1972) USA

**several objects in a box**

**Jiří Kolář** (1914–2002) Czech

poet, writer, painter....

**collage**

The gallery had a concept of exhibition, but did not explicitly show the information in the gallery.

*Without any previous information, audiences could enjoy the differences and similarities of those two types works from their own viewpoints.*

### Exhibition in the Museum of University of Tokyo

In the museum of University Tokyo, they tried a unusual and tricky exhibition style. Where no panel for explanation is displayed. A director (curator) Endo pointed out that “We have intendedly organized a space without introduction, information, and educational objective. When audiences watch dead bodies which used to have lives and activities, they will conceive an importance of lives (Evening Asahi Shimbun, 11 March, 2010).”

*Properly few information gives audiences a chance of a deep thinking.*



**visitor's deep thinking (unsupervised!!) ⇒ chance!!**

rare and novel aspects, rare and novel concepts, rare and novel interpretations...

beyond curator's knowledge and expectations!! (positive)

sometimes misunderstandings (negative): not good for novice?

Faking Chance?? [Magnani and Bardone, 2010]

# **Applications and strategies as curation?**

- How to exhibit chance candidates?
- How to hide system designer's intention?
- How to suggest chances?
- How to make the user think freely and deeply?

The screenshot displays a medical data analysis software interface. The top section shows a list of test results with columns for 'Test Name', 'Value', and 'Unit'. The bottom section shows a detailed view of a specific patient's data, including a table of test results and a list of test names.

**Test Results Table:**

Test Name	Value	Unit
Triglyceride (TG)	105	mg/dl
FSA	4.68	mmol/L
White blood cell differentiation:Neutro	340	%
B2-microglobulin (urine)	340	mg/24h
White blood cell differentiation:Leu	30.4	%
platelet count	5	10 <sup>9</sup> /L
ICP	5	mmHg
B2-microglobulin (blood)	140	mg/L

**Test Names List:**

- protein
- NE
- ProGRP
- PVNS-II
- B. pyogen IgG antigen:
- decarbon
- B. pyogen IgG
- antigen: density
- EBV-VCA-IgG
- EBV-EBNA
- IF
- T-cell (CD2)
- T-cell: counts
- B-cell (CD20)
- B-cell: counts
- PHA
- Controlle
- SI
- Total immunity

	(F)	S	I
protein	124	-	-
NB	362	-	-
ProGRP	0.5	-	-
PIVKA-II	0.2	-	-
H. pylori IgG antigen:	0.3	-	-
decision	0.07	-	-
H. pylori IgG antigen density	12.2	-	-
EBV-VCA-IgG	6.8	-	-
EBV-EBNA	9.2	-	-
IF			
T-cell (CD2)		-	-
T-cell: counts		-	-
B-cell (CD20)		-	-
B-cell: counts	1.02	-	-
FHA	5.6	-	-
Controls	(+)	-	-
SI	(-)	-	-
Total immunity	(-)	-	-
less than L/HFF		-	-

data analysis results are obtained by C4.5.

according to the results, web browsers are automatically generated.

necessary information is shown in web browsers.

abnormal values (authorized data) are coloured.

by interactive interface on the web browser, hidden factors can be discovered.

actual interpretations are given by physicians.

data in gray zones can be discovered.

**chance discovery can be achieved during operating the interactive interface.**

# Decision making considering value or KANSEI

Introduction of the concept of “value” to the abduction procedure.

*initial decision making support is conducted by abduction.*

aim, desire — abduction — display of candidates

$F \not\models O.$

$F \cup h(t) \models O.$

$F \cup h(t) \not\models \Box. \quad h(t) \in H.$

*weak nogood:* (not serious nogood, sometimes ignored)

$Clothes\_up(-, -, silk), Clothes\_bottom(Uniqlo, navy, jeans) \text{ :- } nogood(weak).$

*Evaluation knowledge base:* (for KANSEI or value)

$Clothes\_up(Uniqlo, -, -) \text{ :- } casual.$

Usual recommendation for a formal situation:

$\{Clothes\_up(Versus, gold, silk), Clothes\_bottom(Versus, black, wool)\},$

$\{Clothes\_up(Zegna, black, wool), Clothes\_bottom(Versus, black, wool)\}, \dots$

User: I do not care the old fashioned thinking.....

User's selection for a formal situation:

$Clothes\_up(Muji, blue, cotton)$  and  $Clothes\_bottom(Versus, black, silk)$ .

System:

*casual, formal :- casual.*

System: Your coordination is *casual* and cannot be recommended for the *formal* situation....

User: OK, no problem!! It can be OK even for a formal situation!! You are very traditional!! You should change your old fashioned sense!!

Many hypotheses which might appear to be unnecessary, valueless, and meaningless should be generated by accepting weak nogood. However, such unnecessary, valueless, and meaningless can sometimes be chance. A strategy how to display such unnecessary, valueless, and meaningless is significant.

### *information filter*

Information will be displayed according to user's activity and favourite. ⇒ unexpected and unusual information cannot be displayed.

⇒ information cutting level can be changed by the user??

Display strategy:

Photos of Versus + Photos of Uniqlo

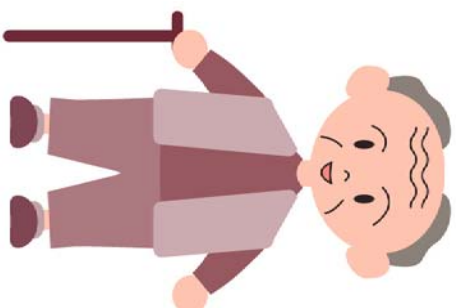
or

Photos of Uniqlo only or Photos of Versus only



# Information offering strategies for dementia persons

*How can dementia persons understand “he/she can sit on tree stumps?”*



to suggest information about its hidden functions

[Bozeat and Hodges, 2000]

They analyzed the feature of mapping between objects and their meaning for semantic dementia person from four factors — affordance, presence of recipient, familiarity, and problem solving.

- as a group, *the patients did not achieve better performance on a subset of affordable objects when use of these was compared with a familiarity-matched subset of objects lacking such affordances*. This absence of a general group benefit applied both to overall use and to the specific component of use afforded by the object's structure.[...]it became clear that there was a reliable benefit of affordance on the specific components of use, but only for the most impaired patients.

- The impact of recipient, **like affordance**, was found to be modulated by the degree of semantic impairment. The patients with a moderate level of conceptual impairment demonstrated significantly better use with the recipient present, whereas the patients with mild and severe impairment showed no effect. [...] It was not surprising, therefore, to find that familiarity also influenced performance on object use assessments.

## **Dementia care inspired by affordance**

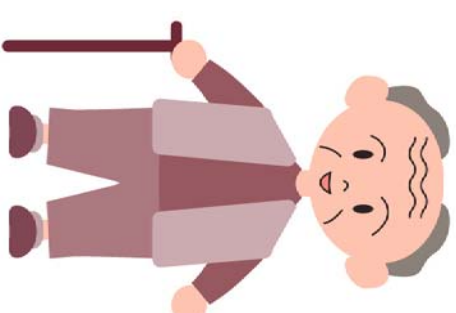
**A concept of affordance was introduced.**

affordance of something: “a specific combination of the properties of its substance and its surfaces taken with reference to an animal.” [Gibson, 1977]

*affordance*(furniture)



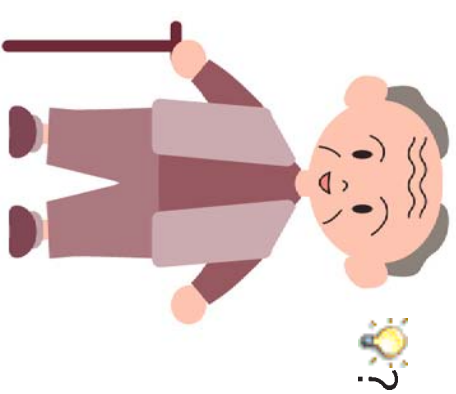
*affordance*(sit)



*affordance*(plant)



*affordance*(sit) → ?



for known object: ( $Object=chair$ )

$$Object \cup affordance \models meaning \quad (1)$$

$$Object \cup affordance \not\models \square \quad (2)$$

the user should be aware of *affordance* to obtain *meaning*

for similarly affording objects: ( $Object'=tree\ stump$ )

$$Object \cup Object' \cup M \cup affordance \models meaning \quad (3)$$

$M$ : a mapping function from  $Object$  to  $Object'$

to understand the same meaning of similarly affording objects, an additional mapping function  $M$  is required.

If  $M$  can be determined and the usage of  $Object$  is known,  $Object'$  can also be understood.

*affordance*(furniture)



*affordance*(sit)

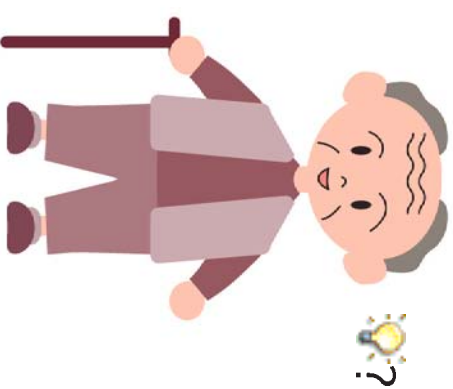


$\Downarrow M$

*affordance*(plant)



*affordance*(sit)



For normal persons,  $M$  is easy to understand. However, for dementia persons, it is pointed out that it is rather difficult to understand and determine  $M$ .

The final issue: how to suggest hidden information (affordance)?

My assumption: such complex situation can be transformed to a combination of simple situations. To deal with complex situations, it is necessary to develop a mechanism to transform complex situation to a combination of simple situations such as polynomial.

⇒ **curation?**

*combination of (well known) simple situations → (novel) complex situation*

from the viewpoint of affordance: in order to make the user aware of proper affordance, *change the user's perspective by rather simple signals*

# New type curation

Chance discovery: discovery of rare, hidden, potential or novel event(s) / situation(s)

For discovery of chance: abduction, functional interface etc. have been applied...

**!For better chance discovery!**

“Chance” cannot be insisted to users!

“Chance” should be discovered by themselves!!

“Chance” can be different for each other.

⇒ *new type of curation*



## **New definition of curation in chance discovery: [Abe, 2010]**

- Curation is a task to offer users opportunities to discover chances.
- Curation should be conducted with considering implicit and potential possibilities.
- Chances should not be explicitly displayed to users.
- However, such chances should be rather easily discovered and arranged according to the user's interests and situations.
- There should be a certain freedom for user to arrange chances.

Usually, curations are based on an educational system and it is rather difficult to discover rare issues. Such a system provides fixed information and therefore by following such information, we can reach the correct and intended goal.

**Successful (keep a certain freedom for audiences) curations are rather rare..... Difficult for usual audiences. Sometimes, leading to incorrect directions?? bullshit??**

*Curators deliver (communicate) a certain concept to audiences.*

## Curation and communication

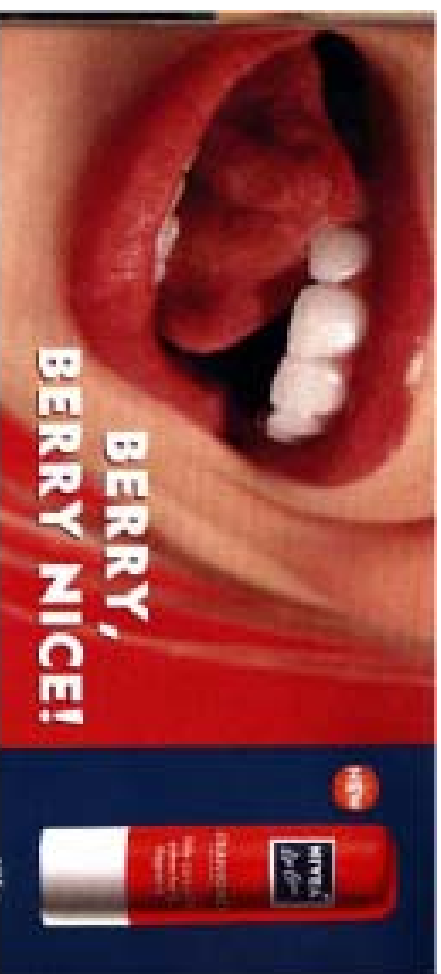
How to reach a correct goal without explicit guidance?

**Advertising communication** relies considerably on inferences and assumptions which help in proceeding towards eventual interpretations. [Pop]



*based on proverb*

The best things in life are free.

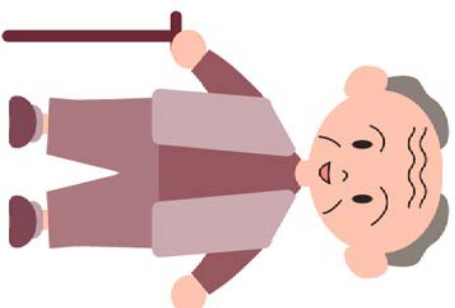


*based on sound*

*Both curation and advertisement intend to deliver a certain concept to audiences. As easily guessed “communication” plays a significant role in curation and advertisement.*

## Communication and abduction/affordance

*How can dementia persons understand “he/she can sit on tree stumps?”*



to suggest information about its hidden functions

**A concept of affordance:** affordance of something: “a specific combination of the properties of its substance and its surfaces taken with reference to an animal.”  
[Gibson, 1977]

*affordance: communication between human and environment*

*affordance(furniture)*  
← *communication*



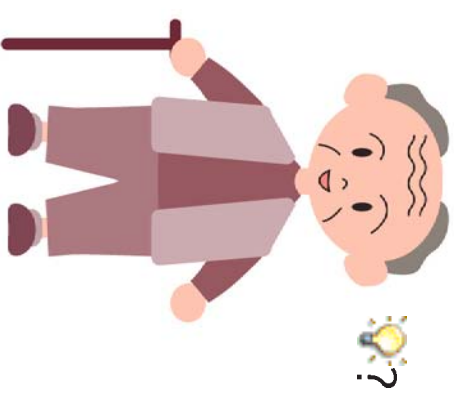
$\Downarrow M$

*affordance(sit)*  
*communication* →

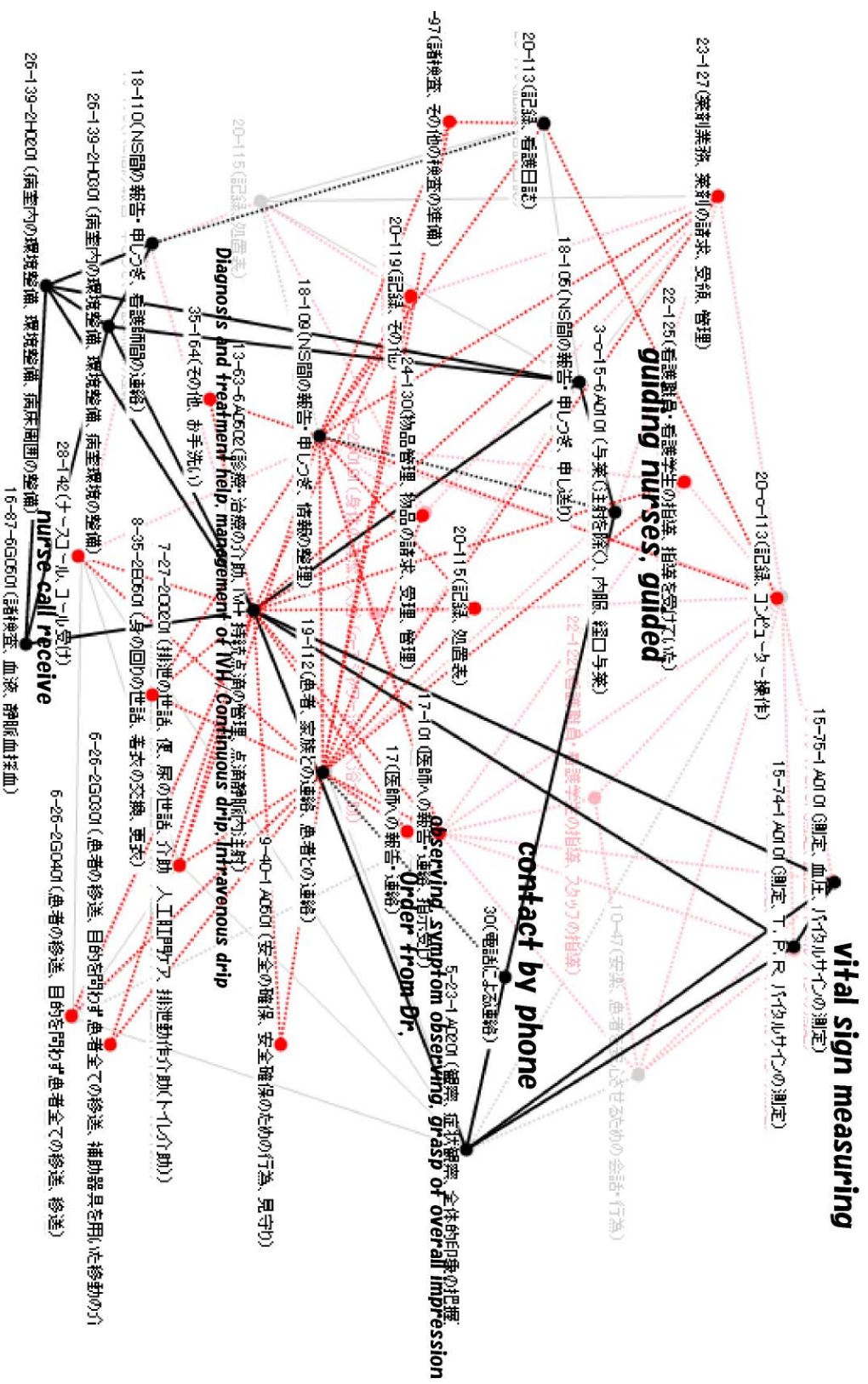
*affordance(plant)*  
← *communication*



*affordance(sit)*  
*communication* →



# Missing communication as chance



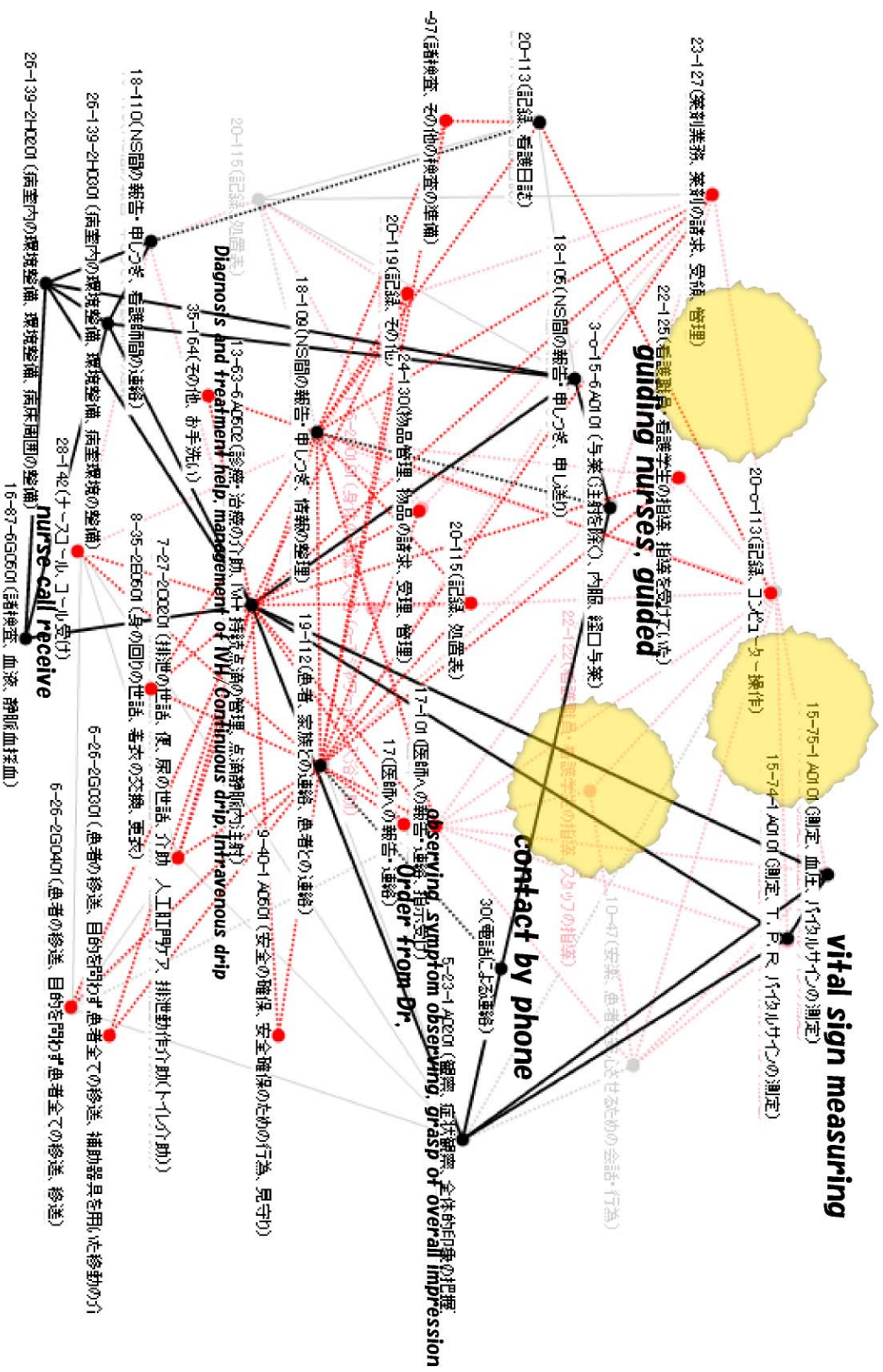


*Discovering chance is rather difficult for non-experts.....*

*Need a certain implicit guidance?*

*Experts' view?*

## affordance selection?



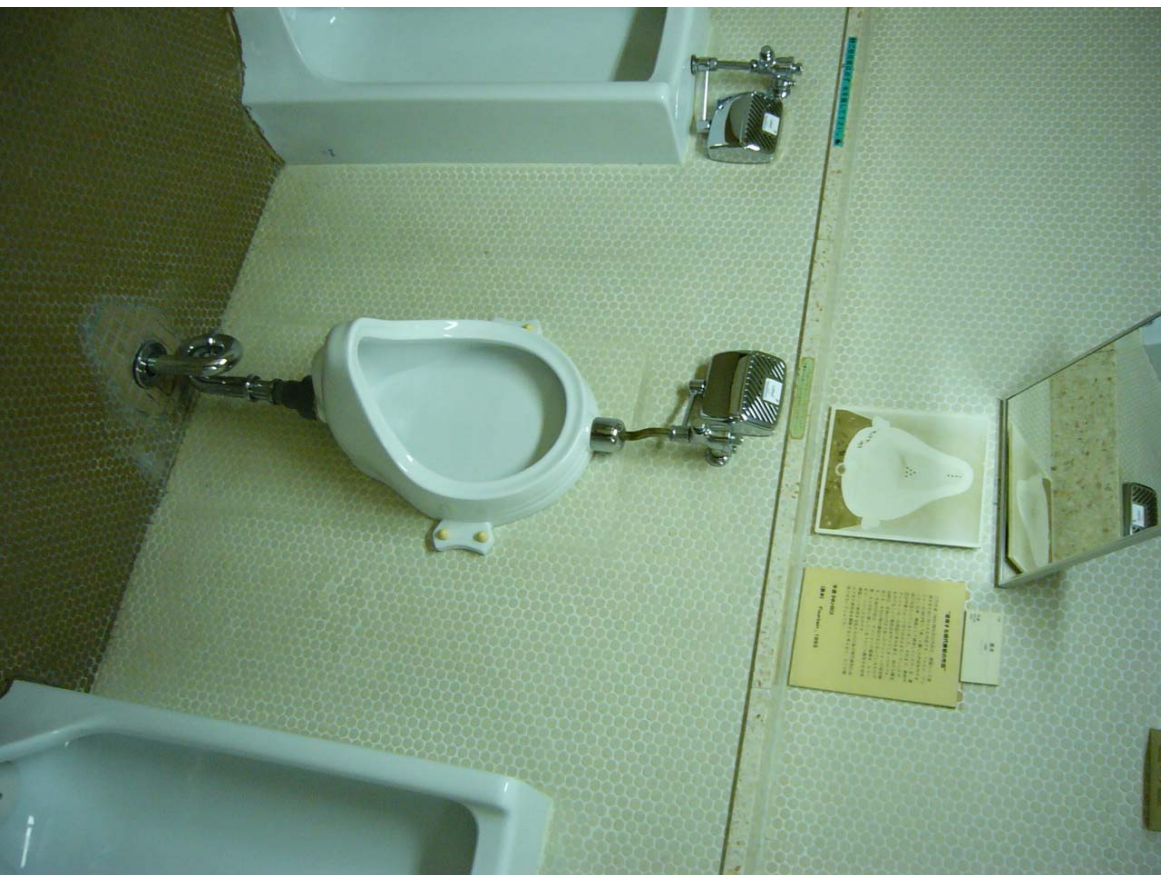
*A proper strategy based on curation (abduction, affordance, and communication) should be developed for an improved chance discovery.*

Norman's viewpoint: "make things visible, including the conceptual model of the system, the alternative actions and the results of actions." [Norman, 1988]



*For a good interface, Norman's will be the best strategy. However, as a chance discovery's interface, it will steal a certain chance. For instance a door might be used as a BBQ grill board. A doorknob might be used as a hummer...*





- The information offering system for dementia patients: *“invisible” interfaces under the concept of chance discovery.*

- Extended KeyGraph<sup>®</sup> interface: “semi-visible” interface under the concept of chance discovery.

**Users can discover potential element (affordance) that is correct but is not obviously considered or controlled by a system designer.**

## **Chance discovery procedure**

- Logically guaranteed candidates (affordance) can be displayed by abductive procedure.
- Users can determine which candidate is better for their (future) decision making.

For such procedures, a strategy by abduction and analogical mapping will be effective. Abduction functions as a logical guarantee and analogical mapping functions as an extension of or support for potential element discovery.

In addition, in affordance selection, communication between an environment and an individual will be conducted.



## *Missing communication as a chance (conclusion)*

In general, affordance is easy to obtain if one is in an environment and feels the environment. For chance discovery, affordance is not easy to obtain, because it potentially exists in an environment. There will be a *missing link between the environment and us*. In order to select the better affordance, it is necessary to discover such a missing link. A missing links can be suggested by *abduction* and extended or suited by an *analogical mapping procedure* which can also be achieved by abduction.

Chance ⇒ バブル崩壊

1989 年 11 月 9 日ベルシンの壁が崩壊



資本主義が社会主義より優れているとの認識



株価の先高感が強まり、12 月にはいり、日経平均先物と現物との差が  
1000 円以上開く

この先物高と現物安の異常格差が大問題だった ⇨ **chance!!**



ソロモン・ブラザーズ証券は 1989 年 12 月上旬、現物買いの先物売り（3 月限）の裁定取引を 1900 億円分実施。ソロモンの現物買いで、  
バブルはますます膨らむ。

1989 年 12 月末、日経平均は、38916 円の史上最高値となる。

ソロモン証券は、日本株の暴落へ備え、大量のプットを買う。そして、ほぼ同時期の、1990 年 1 月 11 日、不人気の国債の入札に参加、600 億円分を購入

1 月 16 日、ソロモン証券は、買って間もない大量の国債を、損を承知で投売り。国債価格は暴落して、金利は暴騰

金利の上昇をきっかけに株価は下落、先安感が支配的

1990 年 2 月 26 日ソロモン証券の大量の現物売りが、東京市場に衝撃

をもたらす。日経平均は、34891円から33322円へとたった一日で4.5%も暴落  
ソロモン証券は、下がりきった先物を買戻し、大量の現物を売った



## バブルの崩壊!!

chance を見切ったソロモン証券はボロ儲けした

chance に気づかなかった、もしくはもっと上がる chance と思った

日本経済は沈没し、今に至る

chance は、たとえ同じ現象を見ても夫々の人にとって異なるものなのである。