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Issues that concern e-learning environments

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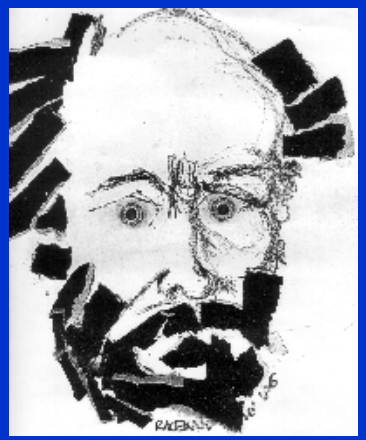

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Tutor support

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tutor ⇒ learner

Acquiring knowledge

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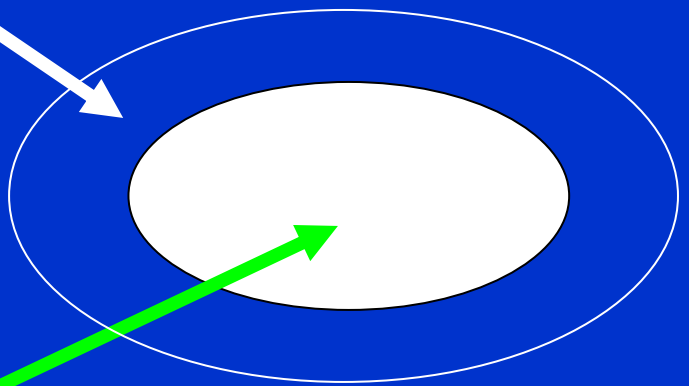
zone of
proximal
development

action requires help from
colleagues or tutors



core knowledge

gives ability to perform
autonomous actions

After experience or instruction

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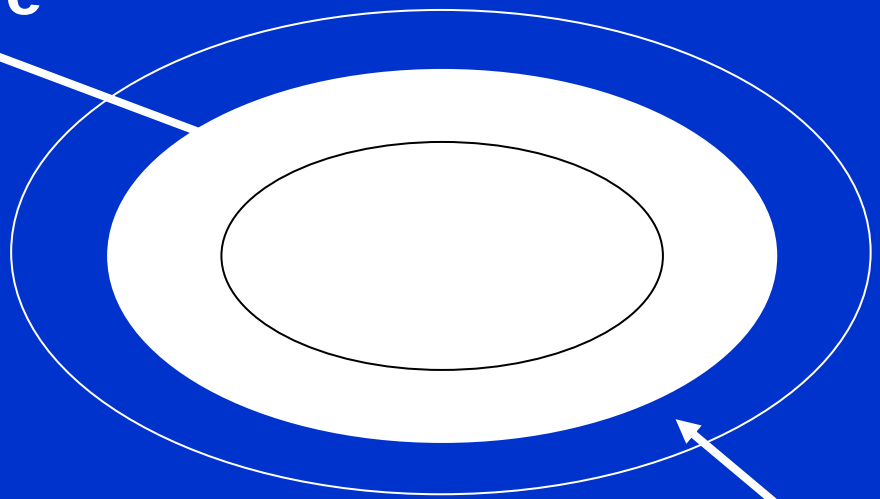
an enlarged core

learning has taken place



but there is always a new zone of proximal development

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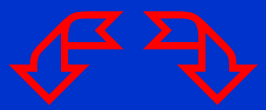
Tutor support



tutor ⇒ learner

Bloom's taxonomy of educational objectives

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knowledge ⇒

comprehension ⇒

application ⇒

analysis ⇒

synthesis ⇒

evaluation

but based on bevaviourist theories of learning

The nature of knowledge

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data ⇒ the syntactic codes on which machines operate

information ⇒ the addition of semantics which humans apply to data in context

knowledge ⇒ the ability of apply Information to solve a problem

intelligence ⇒ the appropriate choice of knowledge which is invoked for a particular task

derived from notions of computer science in the 1960's

Tutor group support

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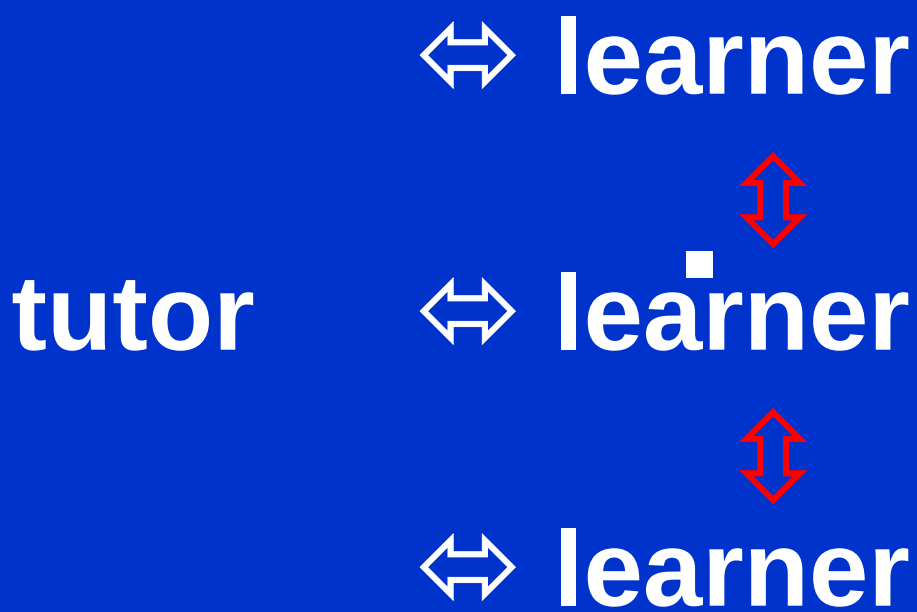

Group knowledge

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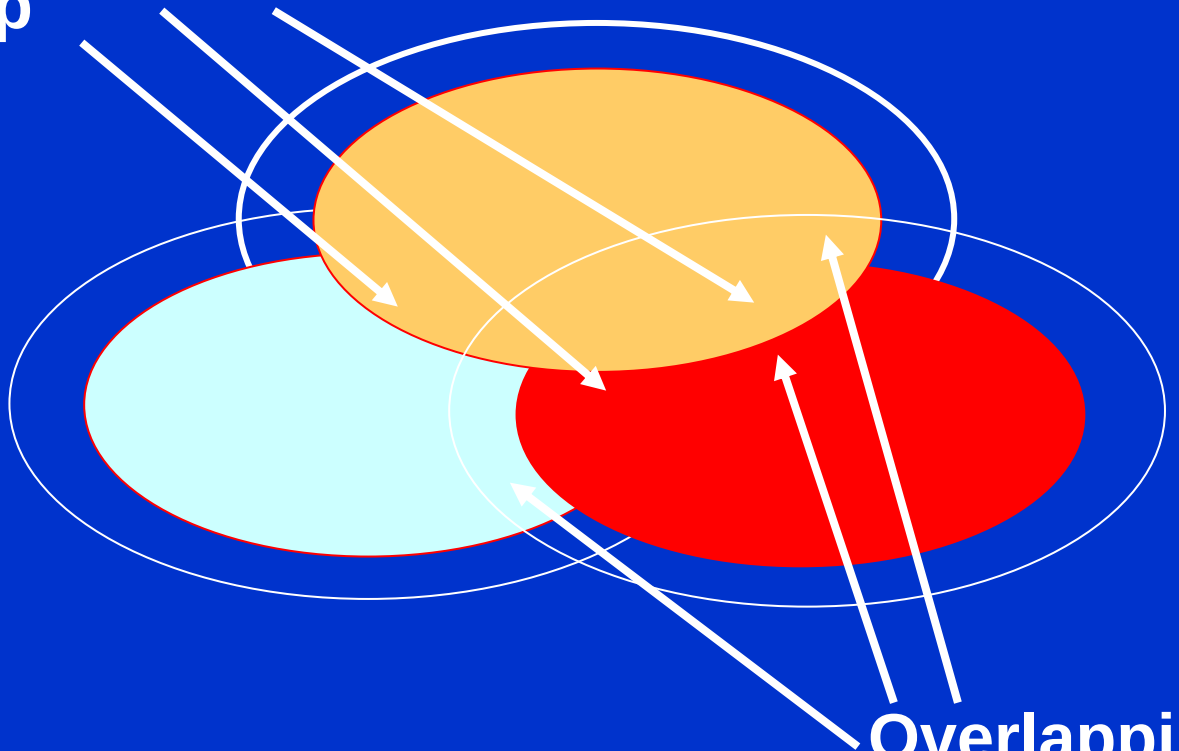
Overlapping core knowledge of a group



Overlapping zopeds of a group

Groupwork at a computer

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. . . while pupils frequently work with computers in groups, the purpose is usually to maximise access to the limited number of terminals . . .

■

Nobody should suppose . . . that collaborative work is going to be a panacea . . . Indeed rather exacting conditions may need to be met before it proves possible at all.

Tutor role

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- tutors become legitimate peripheral participants;

- interaction records provide insight into the ways that the groups work/learn AND the value of tutor intervention

- there is a learning process for tutors as they see and reflect upon their support strategies

A unique opportunity

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For the first time, tutors are able to 'listen-in' to students at work.

This is only possible because of:
a) groupwork
b) electronic interaction

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What might be the necessary e-environment functions to support such tutors' role?

During the course:

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- as learners work through course material, it should be possible for them to highlight sections of the text; click on an icon and move directly to a chat or conference tool;

- the highlighted text should appear in the chat area (with a link back to the course material) and the learner should be able to ask a question which is added to the chat;

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During the course:

- **the chat/conference theme should be open to co-learners to add comments/replies;**

- **at some later point, the tutor should add reactions to the issues raised by the learners;**

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After the course:

At the end of the course the sections of the course (or maybe just links) which gave rise to interactions should be archived

Tutors should be able to edit those parts of the course that caused problems

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The next course:

The course (modified as necessary) together with the accompanying chat/conference will be archived and made available to the next cohort of learners

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Course assessment:

There should be various assessment forms to suit the methods of the tutor(s), for example:

- **online quizzes which could open a new thread in the conference**
- **assessment of learners' contribution to the chat**

Assessment

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Efforts in the past have focussed on content and getting students through exams.

In the workplace practically all activities are undertaken in teams

If we consider group interactivity as a major *process* element in our teaching then, we are obliged to assess that.

Learning from the interactions

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- not at all simple to obtain more than surface measures;
- cognitive and social dimensions need to be identified;

France Henri's main dimensions are:

- participative;
- social;
- interactive;
- cognitive;
- metacognitive

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But other analysts are more behaviourist and do not emphasise the cognitive dimensions explicitly:

Exploring Collaborative Online Learning -

D.D. Curtis & M.J. Lawson, Flinders University of S. Australia

Behaviour categories

- Planning
- Contributing
- Seeking input
- Reflection/monitoring
- Social interaction

This is an insightful analysis but . . .

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It is essential to emphasise that the focus of the analysis must relate to the *purpose* of the analysis.

What these might be?

- **tutor insight into the learning processes**
- **tutor development in terms of forms of intervention**
- **assessment**

Synthesis of individual contributions

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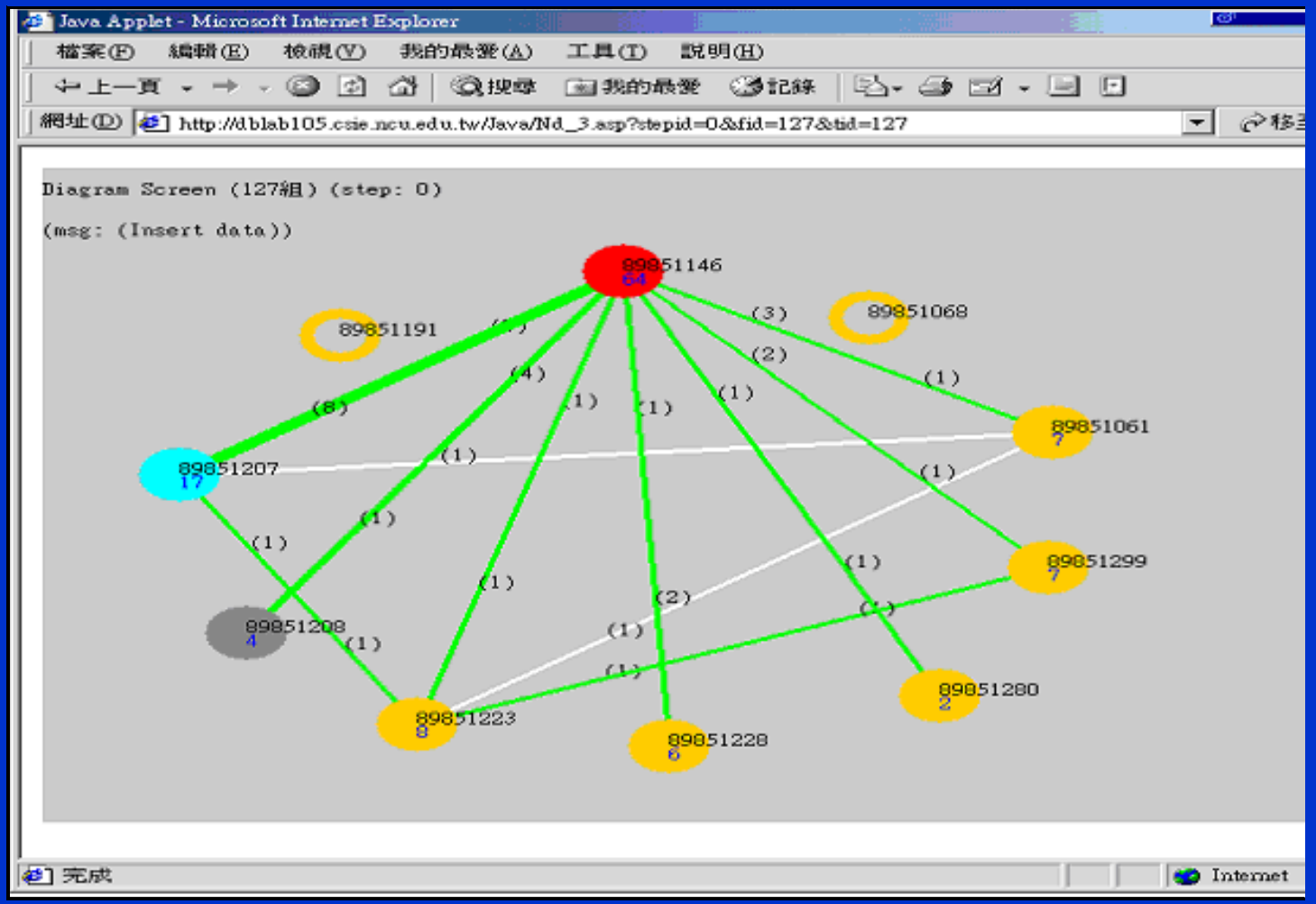
- This is a complex and time-consuming task
- A number of research teams are developing tools to semi-automate the process
- One such group is at the National Central University in Taiwan
- Gwo-Dong Chen, Kuo-Liang Ou, Hsiu-Ping Chen and Chin-Yeh Wang
- *Using group communication relationships to monitor web group learning* – JCAL 19, 4, 401-415



The members are listed counterclockwise, arranged by ID number in descending order. However, a teacher will face difficulties in classifying the communication pattern from a communication graph, such as shown in this figure.

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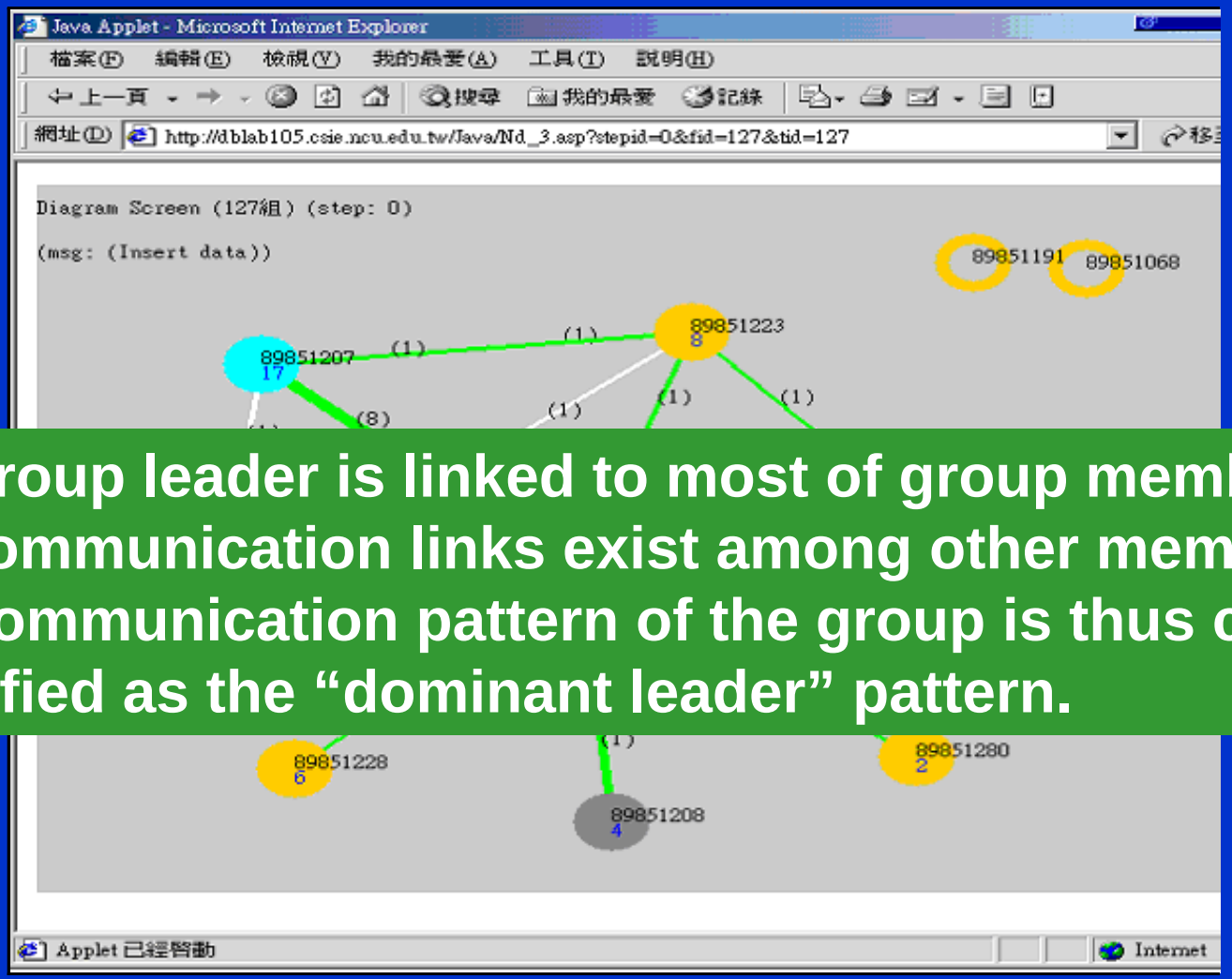

The group leader is linked to most of group members, but few communication links exist among other members. The communication pattern of the group is thus clearly classified as the “dominant leader” pattern.

The communication pattern extracting assistor provides drag and drop functions, and supports teachers in rearranging a communication graph to fit one of Millson’s communication patterns.

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Communities

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- **Much is said about the need for common and sharing cultures and intentions in communities**

- **Little is said about capitalising on *difference***

Difference in learning communities

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- The structure and design of the course will support recognition of differences . . . Rather than contribute to their avoidance or suppression
- Differences of values, circumstances, belief, role or interest will be central to the life and learning of the participants
- These differences will be the basis of, and provide support for multiple (and changing) sub-communities
- Such differences will be the focus for understanding, debate and dispute - rather than become targets for assimilation, reconciliation or the grounds for marginalizing minority interests

from Hodgson & Reynolds, 2002

Universities need to focus their attention on stimulating learning communities which are process-oriented, building on *difference* rather than uniformity - true democracy

Questions???

I hope so . . .

also in the future

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Key issues about groups

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- the design of tasks for groups of learners

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- the composition of effective peer groups

- assessment of group working

An important distinction

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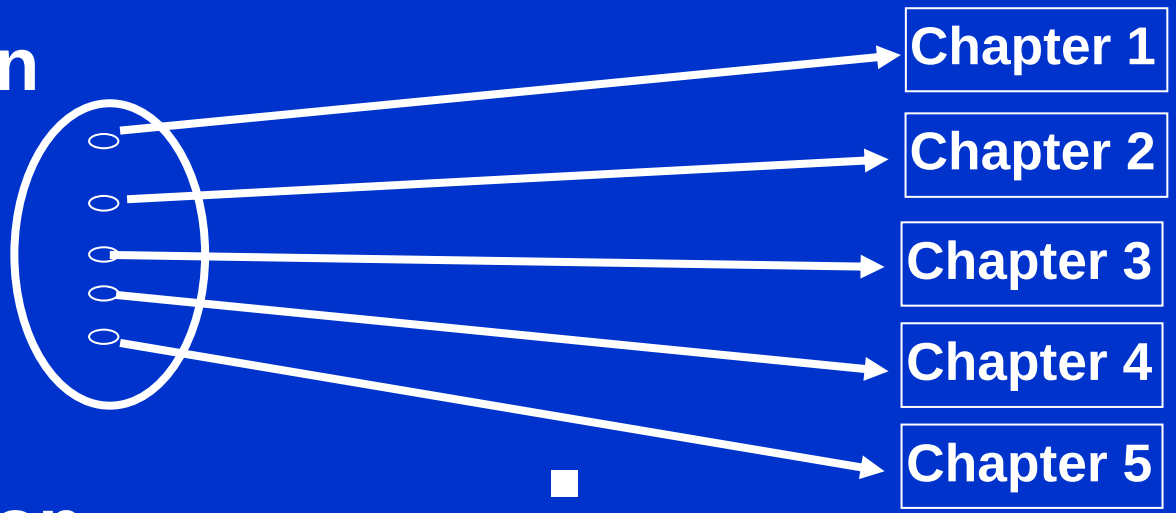
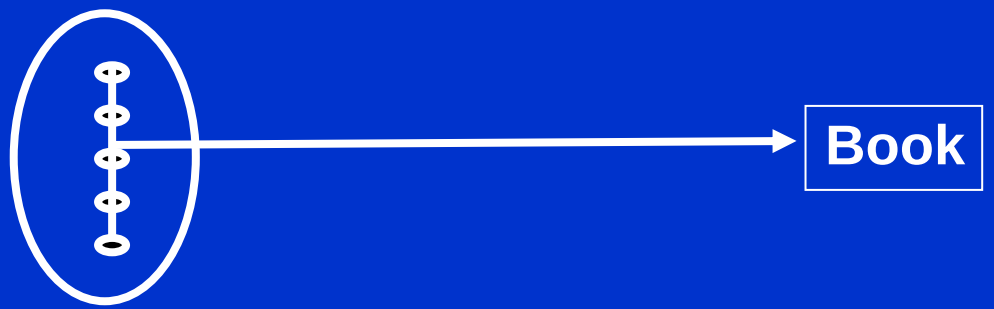
Cooperation



Collaboration



Intentions:	personal shared

Expectations:	of self of others

Goals and ownership

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Cooperation **depends upon a supportive community of actors who agree to help one another in activities aimed at attaining** ***the goals of each person*** **involved.**

■

Collaboration, **on the other hand, depends upon the establishment of a common meaning and language on a task which leads to the community setting a** ***common goal***.

Group composition ?

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