The mind beyond time and space:
Online collaborative knowledge building using Knowledge Forum

Learning Community Project, CITE, HKU
Knowledge Management & Learning

- Latest technology enables global sharing of information across platform and continents.
- Knowledge management is a logical extension of the Information Society.
- An attempt to cope with the explosion of information.
Basic Elements of KM

- Accessing, evaluating, managing, organizing, filtering, and distributing information useful to end users
- Professional judgement
- KM is about enhancing the use of organizational knowledge through sound practices of information management and organizational learning
- More than managing information flows
Knowledge Forum (KF)

- Knowledge Forum provides a computer-supported intentional learning environment for knowledge building and knowledge management
- It is initiated by a Canadian graduate school of education, the Ontario Institute for Studies in Education in the University of Toronto.
What is Knowledge Forum?

• Knowledge Forum® is a problem-centered collaborative knowledge medium that operates over a computer network.
KF DEMONSTRATION
Knowledge Forum includes knowledge building and management tools for:

- Collaborating
- Building idea networks
- Constructing, storing, and retrieving notes
- Referencing, quoting, and tracking notes
- Identifying knowledge gaps or advances
- Viewing the knowledge database from multiple perspectives
Enhance students’ knowledge-building ability

- Traditionally, schools are dominated by the teacher-led chalk-and-talk approach. Most of the time, there may not be enough time for students to discuss because of the tight teaching schedule and arrangement.

- KF can provide a room for students to have discussion and to develop their independent and critical thinking. Through the discussion and mutual learning process, students are actually forming a knowledge-building community. And in this community, students have to produce, share and advance the knowledge of the collective.
The roles of students have changed from that of clients to that of participants and workers in the community. Hence, there is a shift from teacher-directed approach to student-centred learning. It helps trace out students’ own paths of constructing knowledge collaboratively with teacher’s guidance and monitoring.
• The collaborative knowledge building approach is very important to students not only in the sense that it helps develop better thinking, analytical and problem-solving skills, but it also paves the way for student to develop their life-long learning abilities and attitudes.

• It works in line with the recent curriculum reform advocated by the Education Commission report on life-long learning towards 21st century in Hong Kong, which emphasized on the importance of learning how to learn
A good online collaborative knowledge building platform

Virtual Knowledge Domain

In other words, it mediates processing among human mind.
KF and Cognitive Issues

On Learning:
- It helps students to identify different components in thinking processes, structure and organize ideas through “Scaffold Supports” and “Rise-Above”

On Collaborative Knowledge Building
- It helps students to share, compare and contrast and advance their ideas
And other features that address the need of collaborative knowledge builders.
We hope that KF can help students in developing their:

- Thinking skills
- Meta-cognitive skills in learning
- Life long learning skills
Application of Knowledge Forum® (KF) in the contexts of Hong Kong

Since September 2001, KF has been localized in some of the Hong Kong schools through a research and development project called ‘investigating the formation of knowledge building communities with technology support’.

The project aims at supporting and investigating the development of life-long learning abilities in group collaborative learning contexts with facilitation of technology.
Peer Tutoring Project

Aim:
To extend the use of KF to more schools and provide an opportunity for students to collaborate as a knowledge building community during summer

Activities:
Except from on-line collaboration, students will be invited to join the peer teaching session and cross-school peer tutoring in order to display their collaborative work and share their learning experience
Research interests in PTP

Study on how online collaborative knowledge building lead to student’s:

– Cognitive development
– Meta-cognitive development
– Motivational change
Schedule of PTP

- **Milestone 1**
  - Mid to late June (after exam): Introductory session for students on the use of Knowledge Forum. Two workshops will be conducted for students

- **Grand opening ceremony: 10-7-2002 2:30pm**
  - Rayson Huang Theatre

- **Milestone 2**
  - Summer: Students work within own school/class on selected topics

- **Milestone 3**
  - From beginning of September: Students will conduct
    1. Peer teaching sessions to their classmates
    2. Cross-school peer tutoring
    3. Achievement tests and survey