

## **What is knowledge? By Sui Fai John Mak**

### **The water metaphor of knowledge**

**Water** – one of our most precious resources on earth could exist in different forms.

It could exist in **vapour, liquid, and solid**.

In **liquid** form – see the **water fall** below

In **vapour** form – see its reflection from **the rainbow** – how beautiful it could be



In **liquid** form again – in ocean, see below.

In **solid** form – in iceberg



So knowledge is “represented” and “appeared” in nature in different forms, in different phases, and is ubiquitous throughout the nebulous networks. It’s pervasive.

Water is just one form of networks in nature which could illustrate the different phases of knowledge. As knowledge is fluid, so is water.

We could represent water in the below form: It’s still H<sub>2</sub>O only that it appears in different forms to you.

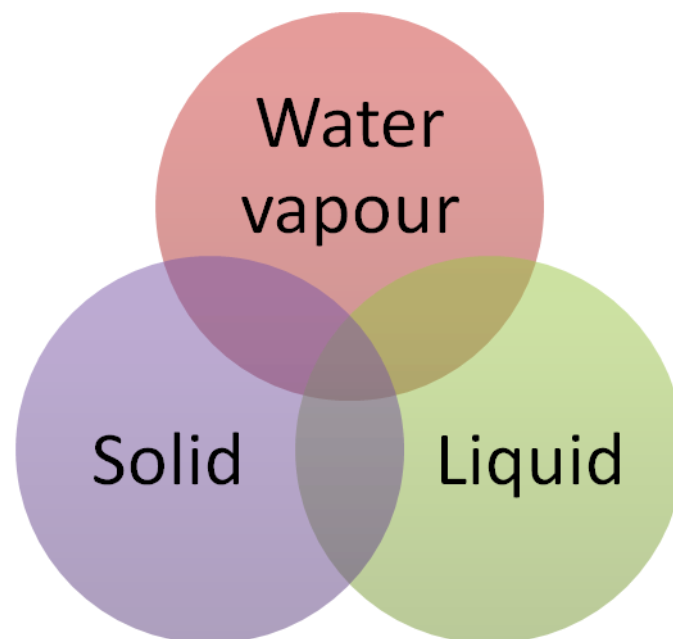
In **solid** form - the iceberg, the knowledge is frozen – it could be sensed – touched and we could understand it as it is tangible. This is where more of us know it when it appears above the ocean.

Do you know that in ice-cream the ice formed are coming from a mixture of water and milk or skim milk powder? So we are taking water in the form of ice-cream. Isn’t it yum?

In **liquid** form, the knowledge is fluid – it could “flow from one place to another”, from one resource to another. We all drink water everyday, would that be the analogy we could draw on the absorption of knowledge (nutrients, water) into our body, through the blood stream into our brain? That might be the knowledge that we are referring to when reading an artefact, an article or sharing our knowledge with others through interaction, communication and collaboration.

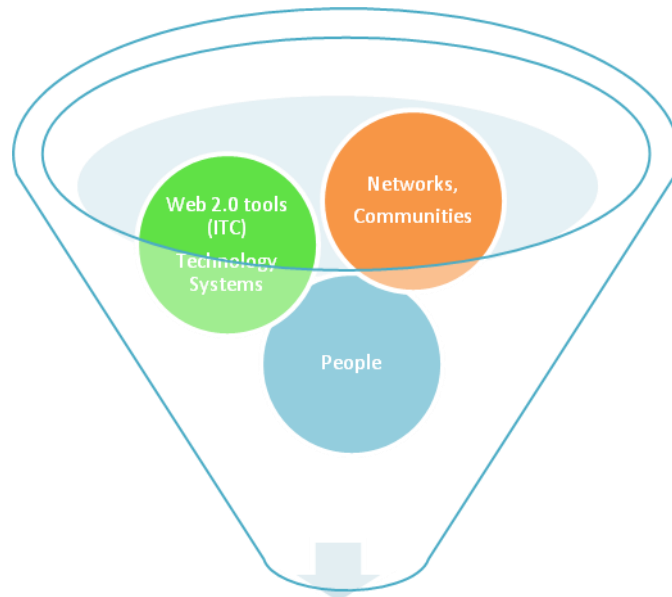
We all need rain; it is the most valuable resource to us on earth. We can’t survive without rains. Otherwise there would be drought. So, knowledge is surely important in such a form – the rain. But it could also cause flooding, if there is too much rain,

Let’s look at a tsunami, with big waves of water, thundering through the ocean to the land, it could kill, it could destroy everything. Or in the case of a reservoir, if the water overflows, the water would flow from the dams, and could swamp nearby village. So, would too much knowledge be a problem? May be too much “evil knowledge” or “viral meme” is the problem, not the knowledge itself in its “secured contained state”.



In **vapour** form, water is everywhere, but might not be seen by our naked eyes. We could sense it, especially when the environment is too humid. We could also see the vapours in the form of clouds. Here there would be a lot of knowledge (or information) in the form of water vapour which is hidden there in digital networks, communities, internet and artefacts and people who are immersed in the networks. At times, it could appear in different forms, like a condensate, or in the clouds, or in fumes or mist.

We could also show it below

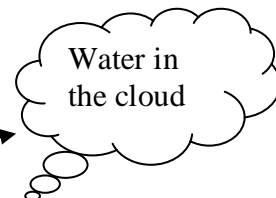


How we interact with knowledge

The Web2.0 tools (ICT) are there to collect the water (in the form of water vapours or liquid water or solid ice in the digital/virtual networks. The Networks, Communities are “reservoirs or streams of water, water vapours banks, rains and icebergs”. The people are immersed and are part of the networks and communities.

**The iceberg**

Above: Explicit Knowledge



So water vapour (vaporised knowledge is everywhere)  
Where knowledge is in the networks and nodes of networks  
(Internet, artefacts, people)

The Iceberg

Water level (ocean)

Below: Implicit or Tacit Knowledge

Water – solidify knowledge immersed in liquefied Knowledge

Knowledge exists in different phases (vapour, liquid and solid) that depends upon:

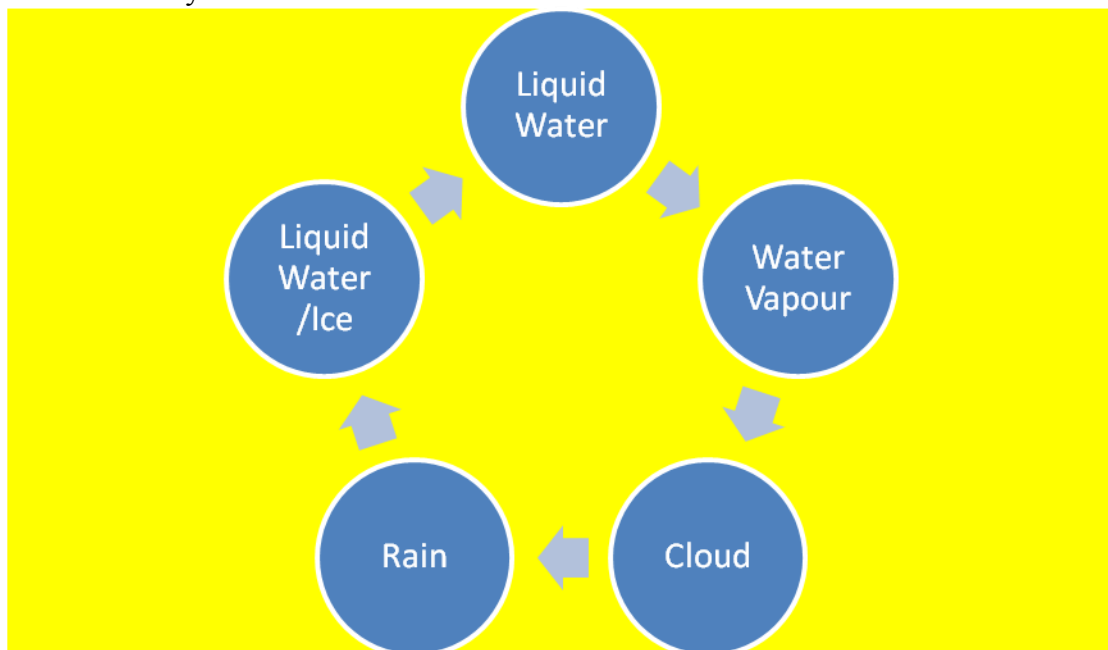
1. Temperature
2. Pressure
3. Composition (Purity)

Temperature, pressure are the ambient environment factors which “shape” and “define” the state of water. This is where our institutions, our teaching and learning strategies come into place.

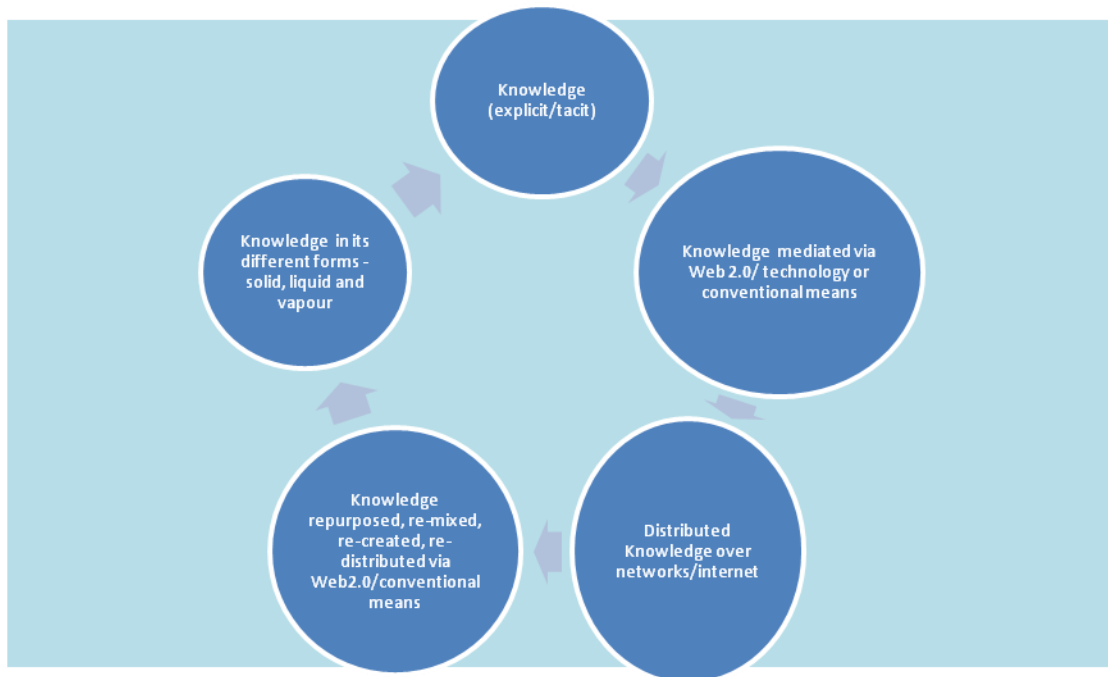
### What is learning?

Learning is the becoming activities, processes and refining of water: through condensation (clouds), rain, collection, purification, distillation, re-collection and consumption..... We need (knowledge & information)- rain, we need water, and we need plenty of them for navigation, for our consumption and for our survival on earth. Through evaporation, liquid water goes into the atmosphere, condensate and form the clouds, then it pours down as rain and we would collect it, and where necessary store it in different forms (vapour, liquid and solid forms). It also appears in the natural forms as cloud, rain, seawater, ice etc. The whole water cycle repeats again as part of the ecology. So, our knowledge would be refreshed in the same manner through such learning cycle, where our knowledge is mixed and mashed, re-purposed and is created in different forms, in different places or spaces, at different times through such phase changes. It may be liquid → Vapour → liquid → solid etc.

The “water” cycle....



In the same way



The learning cycle...

This is where I am up to....  
Still pondering.

More to come.

**John Mak**  
**10/07/09**