The roles and issues for Knowledge Interlocutors in the 21st Century

Dzulkifli Abdul Razak
Chairperson,
BOD, USIM
Libraries
important
books
free
information
access
don
A library, to modify the famous metaphor of Socrates, should be the delivery room for the birth of ideas — a place where history comes to life.

(Norman Cousins)
...perceived roles of librarians in an information society

- **Creators**: developers and producers of information products and services
- **Collectors**: librarians, archivists and records managers
- **Communicators**: information workers, extension workers, subject specialists
- **Consolidators**: reference librarians, information brokers, analysts

*(A Curriculum for an Information Society, 1998)*
Librarians as **knowledge** interlocutors...
ALL OUR KNOWLEDGE HAS ITS ORIGINS IN OUR PERCEPTIONS.
Evolution of ‘Modern’ Knowledge

- Renaissance
- Age of Enlightenment
- Modern Science

http://www.worldology.com/Europe/early_dark_ages_2.htm
Renaissance

A flowering of culture that began in Italy around in 1300 and later spread throughout Europe.

Classical Greek and Roman ideas spreading through Europe.
The Vitruvian Man

...Vitruvian Man as a cosmography of the microcosm (*cosmografia del minor mondo*). Leonardo believed that the workings of the human body to be an analogy for the workings of the universe. (Encycl. Britannica)

A world-renowned drawing created by Leonardo da Vinci around the year 1487.
Philosophy of Humanism:
“having ultimate faith in humankind, believing that human beings possess the power or potentiality of solving their own problems, through reliance primarily upon reason and the scientific method applied with courage and vision.”

- Corliss Lamont
Scientists of the Scientific Revolution
(1500s-1700s)

Kepler
Copernicus
Newton
Galileo
Descartes
Ptolemy
SCIENTIFIC REVOLUTION

Refers to a shift into thinking about the study of nature that began in the mid-1500s and moved beyond religious teachings.

Early scientists made key advances in astronomy, physics, biology, medicine, and many other fields.
The moveable printing press

Painting of Johannes Gutenberg credited with the invention of movable metal type, examines printed copy in his workshop.
University of Bologna - probably the first university in the western world.

....trustee of European humanist tradition...
WESTERNISATION

Refers to the spread of values and ideas originating in Europe and the Western world.

An example is Kamel Ataturk ambition to westernise Turkey by substitute western models over Turkish traditionals, or Peter the Great's mission to westernise Russia, in which he employed and sent dozens of men to Europe to research and bring back information about the west.

https://www.haikudeck.com/definitions--education-presentation-zcZjWcALPg
COMMERCIAL REVOLUTION

Refers to the rapid expansion of trade and commerce that transformed Europe, starting in the 16th century.

This involved European colonial powers, particularly the Spanish and Portuguese, Dutch and British exploiting the resources and markets of their overseas colonies while spreading Western thinking.
Hellenic Period 338-31 BCE
- Diffusion of Greek culture throughout central and western Asia
- Asian & African cultural Influences felt in Greece
- Greek becomes the international language of diplomacy and commerce
- Rise of ‘cults’ in Greece and Greekland

Classical Period 500-338 BCE
- Greek philosophy, art, and science at peak of their creativity
- Marked the contribution of democracy to the West, its roots in the city-state of Athens
- The Persian Wars
- The Peloponnesian Wars
- Hellenic, Persian, Chinese, Indian
- Christians, Jews, Zoroastrians, etc.
- transcending boundaries - Europe
History of Science and Civilisation as should be taught:

- Greeks
- Romans
- Chinese
- Indians
- Muslims
- Renaissance
- Industrial Revolution
- Modern Day Civilisation

Earliest Civilisations: BC, 5th

600 - 1300

Dark Ages
1001 Inventions

Muslim Heritage in Our World

Second Edition

Chief Editor
Salem T S Al-Hassani

Co-editors
Elizabeth Woodcock & Rihab Saoud

Foundation for Science Technology and Civilization

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Al-Qarawiyyin (or al-Karaouine) university established in 859 by Fatima al-Fihri - the first degree-awarding institution in the world to UNESCO
Geocentric Model

Heliocentric Model
Who ‘discover’ the heliocentric model?

http://global.britannica.com/biography/Nicolaus-Copernicus
• Ibn al-Shāṭir (1304-1375) planetary models are the same as a number used by Nicolaus Copernicus (1473-1543). Ibn al-Shāṭir's planetary theory was investigated for the first time in the 1950s, and the discovery that his models were mathematically identical to those of Copernicus raised the very interesting question of a possible transmission of his planetary theory to Europe. It is known, however, that Copernicus' Mercury model is that of Ibn al-Shāṭir and that Copernicus did not properly understand it.


https://prezi.com/n-06vi10q2qf/ibn-al-shatir/
The Ambassador (1533)
by Hans Holbein The Younger
Example:

\[
\text{MDCCCCXXXIII} = \text{MCMXLIV}
\]
Leonardo Fibonacci (ca. 1170-1245) was the greatest Western mathematician of the Middle Ages. He believed the Indian number system had huge advantages over the Roman system and believed the people of Europe should adopt it. Fibonacci introduced the modern number system in the West, which ultimately allowed science and mathematics to flourish.

In 1202 he published *Liber Abaci* – the *Book of Calculation* – which began the spread of the modern number system in the West. Fibonacci updated the book and published a new edition in 1228. **In the absence of his contributions, the scientific revolution started by Nicolaus Copernicus in 1543 would not have been possible.**

http://famousscientists.org/page/15/?s=where+did+he+live
It was able to create a continental super-state that stretched from ocean to ocean, and from northern climes to tropics and deserts. Within its dominion lived hundreds of millions of people, of different creeds and ethnic origins.

One of its languages became the universal language of much of the world, the bridge between the peoples of a hundred lands. Its armies were made up of people of many nationalities, and its military protection allowed a degree of peace and prosperity that had never been known. The reach of this civilization’s commerce extended from Latin America to China, and everywhere in between.

And this civilization was driven more than anything, by invention. Its architects designed buildings that defied gravity. Its mathematicians created the algebra and algorithms that would enable the building of computers, and the creation of encryption. Its doctors examined the human body, and found new cures for disease. Its astronomers looked into the heavens, named the stars, and paved the way for space travel and exploration.

Its writers created thousands of stories. Stories of courage, romance and magic. Its poets wrote of love, when others before them were too steeped in fear to think of such things.

When other nations were afraid of ideas, this civilization thrived on them, and kept them alive. When censors threatened to wipe out knowledge from past civilizations, this civilization kept the knowledge alive, and passed it on to others.

While modern Western civilization shares many of these traits, the civilization I’m talking about was the Islamic world from the year 800 to 1600, which included the Ottoman Empire and the courts of Baghdad, Damascus and Cairo, and enlightened rulers like Suleiman the Magnificent.
Recent scientific and technological advances

- **Trial & Error Invention**: Boulton & Watt (1775) commercialised from Steam Engine
- **D & D (systematic invention)**: GE – Edison (1890), Westinghouse (1890), Wright Brothers’ Airplane (1902), Ford (mass produced cars, 1914)
- **R & D (linear)**: Polaroid (1937), Manhattan Project (1942-46), Tracor (1955), DEC (1957), Intel (1968)

Source: Modified from D Mahdjoubi (2008)
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**Example:**

1,944 = MDCCCCXXXXIII = MCMXLIV
The robotic clone of a twenty-year-old woman, Geminoid F, is the newest female android created by roboticist Hiroshi Ishiguro.— weburbanist.com
"The development of full artificial intelligence could spell the end of the human race. It would take off on its own, and re-design itself at an ever-increasing rate.

"Humans, who are limited by slow biological evolution, couldn't compete, and would be superseded."

The Realities of Transhumanism
...we are no more than biological machines [human capital?] and that free will is just an illusion.

- Stephen Hawking
The Grand Design (2012)
Biological machine is human being devoid of soul... hence, 

Where is the HUMANITY?

I AM HUMAN CAPITAL
Trust
intangibles
...a global tipping point...
What about ‘sustainability’?

Sustainability is to meet the needs of the present without compromising the ability of future generations to meet their own needs.

- Report of the World Commission on Environment and Development: Our Common Future
  Transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Co-operation: Environment
Joining of wholes

Formation of a whole

Connection of parts

Gathering of parts

Data

Information

Knowledge

Wisdom

Past

Experience

Understanding

Researching

Absorbing

Doing

Interacting

Reflecting

Future

Novelty

Context
“Biological machines” without a soul...

I AM HUMAN CAPITAL

HUMAN BEING

The HEART as seat of learning

http://www.cliparthut.com
Education for Sustainable Development

• implies a change of fundamental epistemology in our culture and our educational thinking and practice... not simply require an 'add-on' to existing structures and curricula

- Sterling (2004)
Organised ‘New’ Knowledge for Higher Purpose

Discipline separated (siloed) giving disjointed meaning

Individual Disciplines

Step wise

Economy - Social - Culture - Ecology
Everything must be done in order to reunite these two artificially antagonistic cultures – scientific culture and literary or a new transdisciplinary culture, the preliminary condition for a transformation of mentalities.

Instilling complex and transdisciplinary thought into the structures and programs of the University will permit its evolution towards its somewhat forgotten mission today – the study of the universal.
...inspired by a humanistic vision of education and development based on human rights and dignity; social justice; inclusion; protection; cultural, linguistic and ethnic diversity; and shared responsibility and accountability.

Incheon Declaration – 2015 WEF

World Education Forum 2015
19-22 May 2015, Incheon, Republic of Korea
Equitable and inclusive quality education and lifelong learning for all by 2030
Transforming lives through education
Librarians as knowledge interlocutors...
Terima kasih
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