

# **Understanding the past and present of Knowledge organization to create the futuristic KO tools**

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*"If I have seen further it is by standing on the shoulders of Giants."*

Isaac Newton

**Dedicated to all those Giants**

# Outline of the **P**resentation

- § Introduction
- § **R**easons for adopting subject-based approach
- § **P**urpose of Knowledge Organization
- § **O**rigins of modern science and birth of traditional Knowledge Organization
- § **K**nowledge and Human mind
- § **H**uman Needs – the Link between knowledge and Human Mind
- § **K**nowledge organization based on Human Needs
- § **F**eatures of Human Needs based KO
- § **A**dvantages
- § **C**onclusion

# Reasons for Adopting Subject-based Approach

- § Emphasis on organizing propositional knowledge
- § Restructuring knowledge from a “jigsaw puzzle”

# Purpose of Knowledge Organization

**Humans** - consciously or sub consciously engage themselves continuously in organizing entities be it materialistic objects or abstract entities such as thoughts, ideas or concepts etc, as it facilitates getting maximum benefits, with optimum utilization of resources by expending minimum effort.

**Knowledge** is one of the vital and fundamental resources required by human beings for each and every activity of their life.

**Purpose of Knowledge Organisation** is to

- improve and increase productivity and efficiency and
- develop comprehensive and holistic understanding about the world around us and our place and role in this world.

# Origins of Modern Science and Birth of Traditional Knowledge Organization

- § Renaissance Science
- § Industrial Revolution
- § Modern Education and Modern Libraries

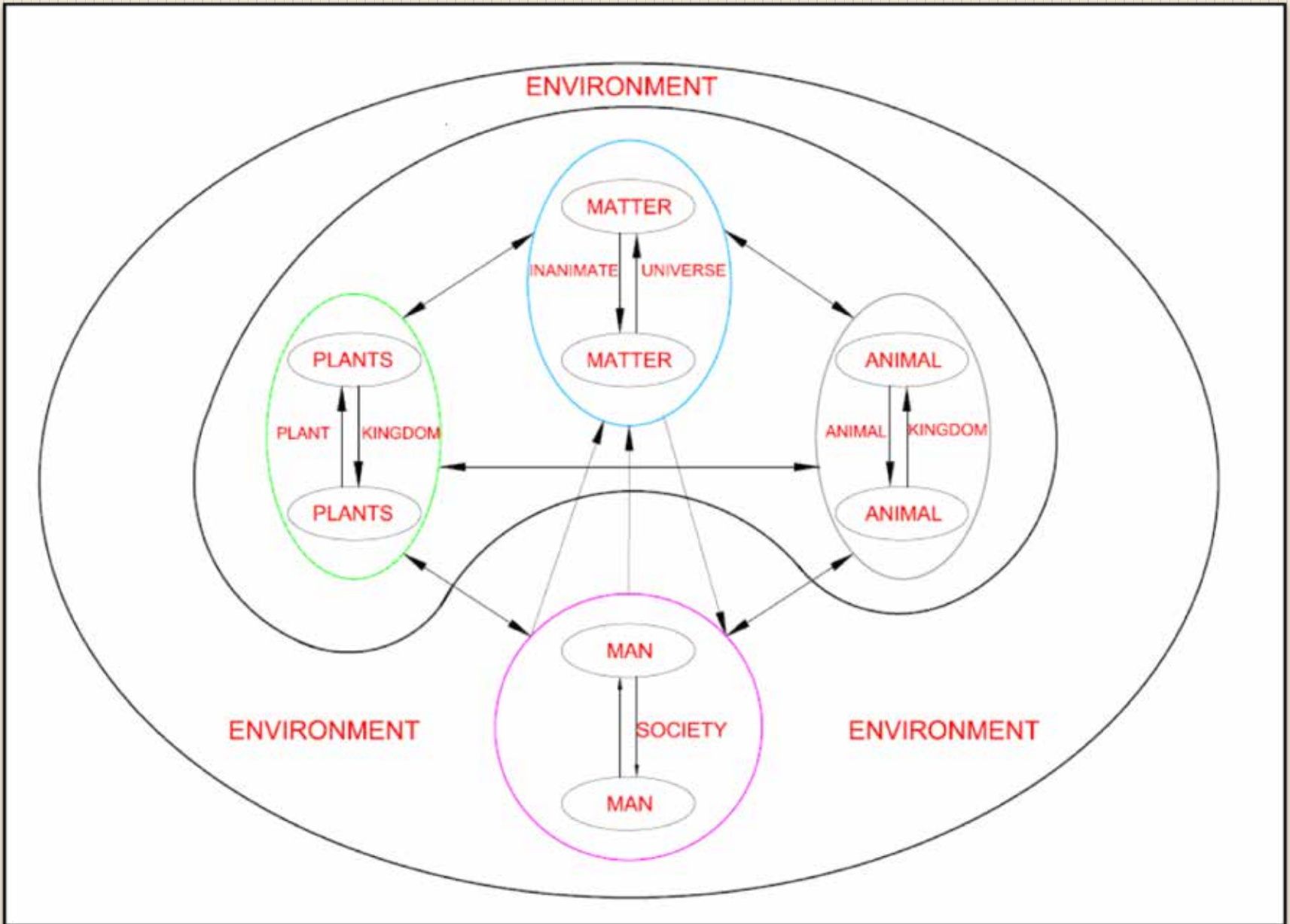
# Knowledge Creation

**K**nowledge and Human Mind

**K**nowledge is creation of the Human mind

**R**easons for seeking knowledge

# Scope of Knowledge





# Human Needs

The Link between Knowledge and Human mind

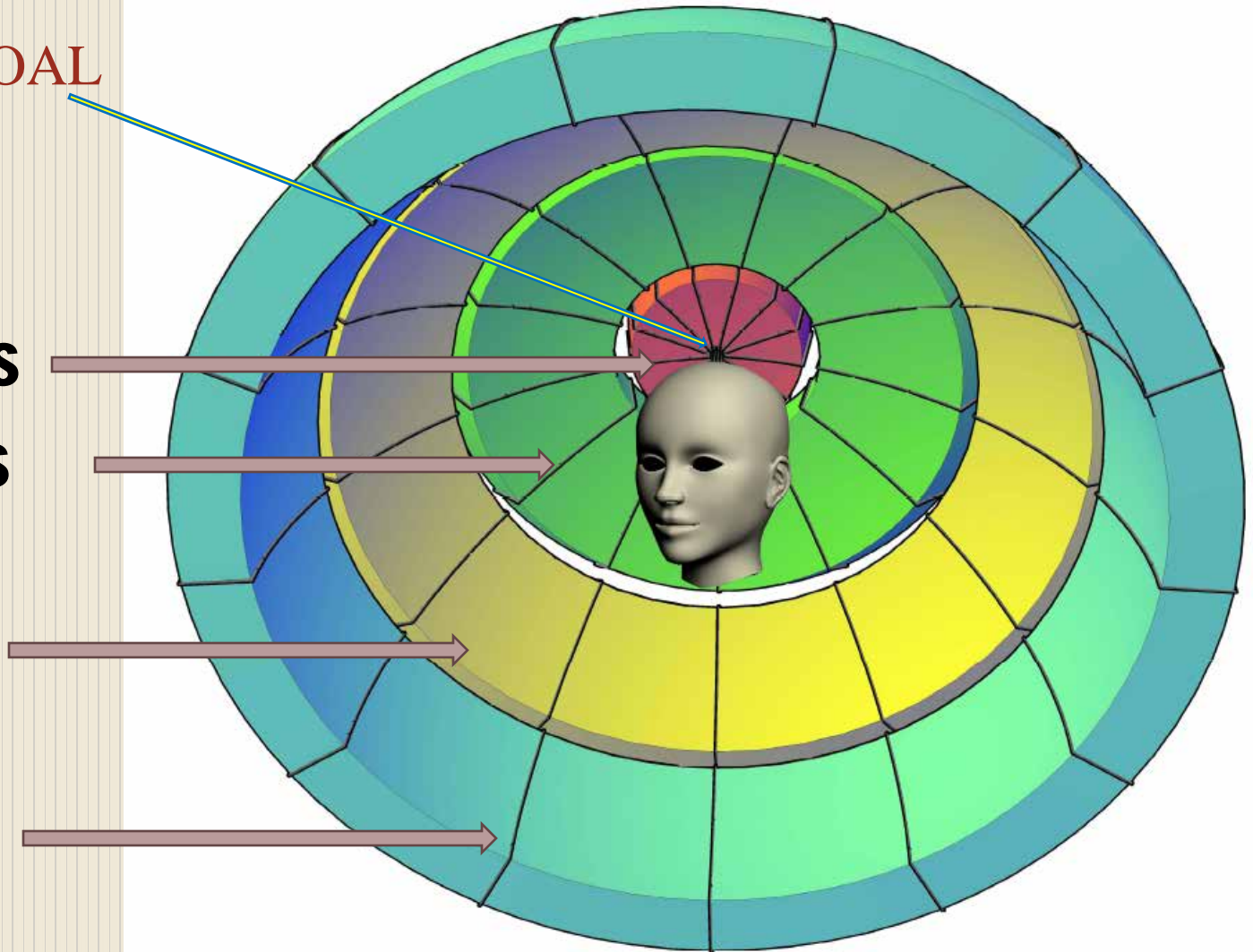
EXISTENCE GOAL

NEEDS

PREREQUISITES

ASPECTS

ENTITIES



## **Process adopted by Human Mind**

- § Understanding, Analysis, Comparison, Evaluation and Application
- § Division
- § Integration

## Associations (Semantic Relationships)

§ **H**ierarchical based on “*Is a*” relationships – While Understanding

§ **N**etworks based “*Required for*” – While Applying

---- Knowledge Organization both Hierarchical as well as Network (simultaneous organization)

# Knowledge Organization based on “Human Needs”

Human Being is Universal, So are his Needs

- ü **universally** applicable,
- ü **adaptable**,
- ü **scalable**,
- ü **interoperable** and
- ü **suitable** to both electronic as well as conventional environments.

# Schema of Knowledge Organization based on “Human Needs”

Fundamental Needs Level 0

Pre-requisites Level 1

Aspects Level 2

Entities Level 3

# Fundamental Categories

- ∅ **Health**
- ∅ **Food**
- ∅ **Clothing**
- ∅ **Shelter**
- ∅ **Knowledge** (Acquisition, documentation, storage, organization, communication, dissemination)
- ∅ **Recreation, Entertainment, Creativity**
- ∅ **Environment, Natural Resources**
- ∅ **Philosophy/Religion**
- ∅ **Society** (social Security)
- ∅ **Emotional Security**
- ∅ **Economy, Industry**
- ∅ **Infrastructure**
- ∅ **Trade, Commerce, Business**

## **Example:**

**Level 0 (fundamental need) – Health**

**Level 1 (pre-requisites) –**

Diet/Nutrition, exercises, hygiene,

diseases, prevention/curing systems, pharmaceuticals,

pharmaceutical industry, knowledge about

human body, infrastructure, psychology, management and

administration of medical facilities, Education, Research

and Development (illustrative list)

## **Level 2 (aspects) – Diet/ Nutrition**

Dietary Categories,

Specific Dietary Regimens (specific to Age, Sex, physical condition, occupation)

Nutritional policy/planning/programs

Socio-economic, cultural aspects of Nutrition

Nutritional Education

Environmental aspects of Nutrition

Nutritional research and Development

Nutritional indicators/surveys/statistics



## **Level 3 (entities) – Dietary Categories**

**C**arbohydrates

**P**roteins

**F**ats

**V**itamins

**M**inerals

# Advantages

**Ease of use**

**Permanency and Sustainability**

**Proactive**

**Holistic and Comprehensive**

**Displays the relationships that exist between subjects and the fundamental needs they fulfill very clearly and explicitly**

**THANK YOU**