

# A Knowledge Management Model for Natural Resources Management in Southeast Asia

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## Background

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- o The region is beset with NRM problems
    - v Watersheds in the Visayas and Central Java
    - v Biodiversity in GMS
    - v Coastal resources in the Sulu Celebes Sea
  - o Collective expertise in the region should be brought to bear on these challenges through regional NRKM solutions
  - o Institutional and individual capacities for NRKM should be strengthened
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## Background

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- o The study analyzes feasibility of the Web based community of practice or CoP as a KM model for NRM
  - o The study tests the CoP as a knowledge sharing and capacity building platform specifically in the design of a learning program.
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## Background

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- o The study revisits the curriculum development process with an added dimension, the Internet.
  - o The Internet has not only caused the death of distance but has also destroyed exclusivity, undermined hierarchy, enabled nonlinear/asynchronous interaction & globalized education.
  - o The educational process now assumes a new label: *knowledge management*. Communities of practice may eventually become to knowledge management what invisible colleges were to the educational process.
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## Statement of the Problem

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Can a community of practice transcend institutional, geographical, disciplinal and language barriers in the design of new curricula?

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## Objectives

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- o to study a knowledge management (KM) model for natural resources management in Southeast Asia;
  - o to test a system appropriate to the KM model; and
  - o to determine the feasibility of designing a post baccalaureate program on NRM Knowledge Management for Southeast Asian professionals employing the above model and system
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## Community of Practice (CoP)

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- o Group of people sharing a common interest in a specific area of knowledge/ competence; a focused social network
  - o Process of social learning that occurs through collaboration, sharing of ideas, finding solutions, building innovations.
  - o Associated with KM as ways of developing social capital or sharing of tacit knowledge
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## Features of a CoP

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- o Members come together *voluntarily*
    - v to share and develop their knowledge
    - v To solve common problems
    - v To support one another in finding answers
  - o Members would have strong professional, ideological or personal ties
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## The Invisible College

- o the free transfer of thought and technical expertise, carried out without the established designated facilities or institutional authority
- o In earlier times, the term also included certain aspects of secret societies



## The University



The word *university* is derived from the Latin *universitas magistrorum et scholarium*, roughly meaning "community of teachers and scholars".

## The Brotherhood

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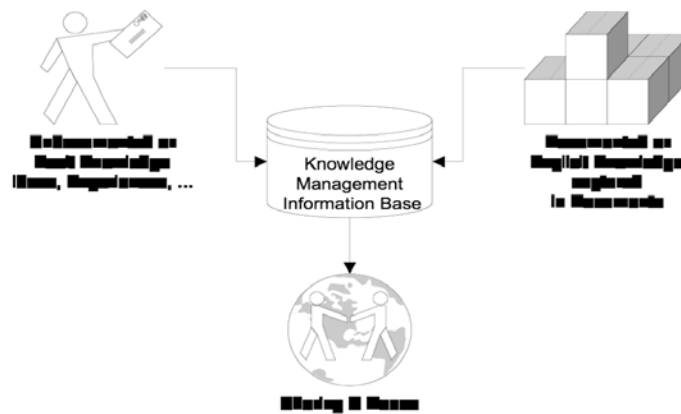
## Knowledge Management

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- o A newly emerging discipline that treats intellectual capital as a manageable resource
  - o The goal of KM is the sharing and reuse of knowledge resources
  - o Has three prerequisites
    - v Technology (hardware and software)
    - v Workflows
    - v Conducive organizational environment
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## Goal of Knowledge Management

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## Natural Resources Body of Knowledge

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- o Land, water and air resources
    - v Land management
    - v Water resources management
    - v Clean air
  - o Landscape Approach
    - v Upland ecosystems
    - v Lowland ecosystems
    - v Coastal ecosystems
    - v Marine ecosystems
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## Natural Resources Knowledge Management

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- o The sharing and reuse of expert knowledge on natural resources management (NRM)
  - o *May* cover the following domains
    - v Brown issues (land)
    - v Blue issues (coastal and marine)
    - v Green issues (biodiversity)
    - v Grey issues (industry/ carbon/ air & water)
    - v Red issues (energy)
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## Methodology

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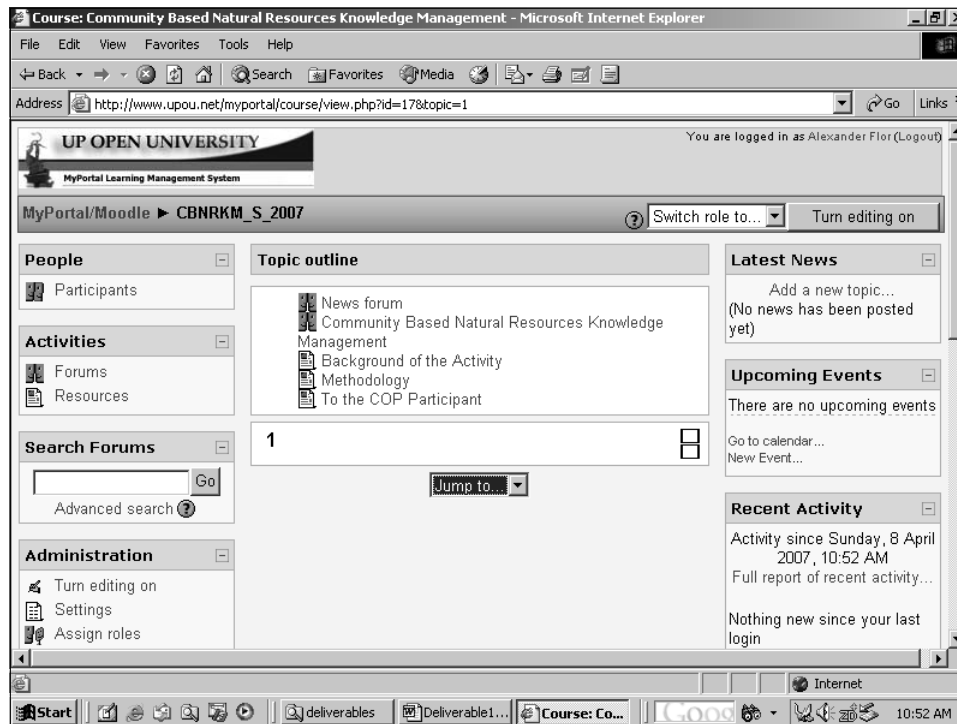
- o Constructivist Framework
    - v Networking
    - v Consensus building
    - v Peer Review and Participation
  - o Online Platform
    - v Community of Practice (COP)
    - v Discussion forum
    - v Sharing of electronic files (FTPs)
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# NRKM CoP

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- o Composition
    - v Philippines – 5
    - v Thailand – 7
    - v Indonesia – 4
    - v Lao PDR – 5
  - o Discussion Forum ran from 16 August to 1 October as a phased experiment
  - o Four structured discussion forums
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The screenshot displays the 'IWLE Staff Workspace' interface. At the top, the browser title is 'IWLE Staff Workspace - UPOU ver 2.0 - Microsoft Internet Explorer'. The address bar shows the URL: 'http://ivle.upou.org/workspace/staffclassroom.asp?course=CBNRKM\_1\_2007'. The main content area features a user profile for 'ALEXANDER FLOR' dated 'Tuesday Apr 10, 2007', with navigation buttons for 'My Profile', 'UPOU Home', 'UPOU Mail', 'Library', 'Tech Support', and 'Log Out'. Below this is a 'Courses' section for 'CBNRKM 1 2007 Community Based Natural Resources Knowledge Management', listing four discussion forums: 'Introduction [0/0]', 'Community Based Natural Resources Management [0/0]', 'Knowledge Management [0/0]', and 'Certificate in Natural Resources Knowledge Management [0/0]'. The left sidebar contains 'FACULTY and STAFF Workspace' with sub-sections for 'Course Guide' (New Course, Edit Course, Search & Bookmark, Other Courses, Delete Bookmarked Courses) and 'Course Tools' (Assignment, Discussion Forum, Chat Rooms, Course FAQs, Distribution List).



## Results: Proposed Post Baccalaureate Program

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- o A graduate degree program
  - o Would consist of 18 units of coursework and including a special project
  - o Six courses:
    - v Natural resources management I
    - v Natural resources management II
    - v Knowledge management
    - v Networking
    - v Monitoring and evaluation
    - v Special Projects
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## Regional in Scope

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- o A program catering to nationals of the ten ASEAN countries
    - v Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Philippines, VietNam
  - o Transnational accreditation
  - o English as the medium of instruction
  - o Make use of alternative modes of delivery
  - o Country representation in the faculty
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## How did the CoP fare?

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- o Enthusiastic reception and knowledge sharing during F2F interactions
  - o Expressed commitment for participation
  - o But during the CoP process itself...
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## Participation in Forums

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DISCUSSION FORUMS	MAJOR THREADS	REPLIES
Introductions	13	21
CoP Process	5	14
Grad Program	5	19
Comments	3	4
TOTAL	26	58

## Reasons for Low Participation

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- o Language
  - o Culture
  - o Time constraints
  - o Incentives for participation
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## Conclusions

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- o The CoP Model may be used for NRKM provided that certain measures are met.
- o Web Based LMS can adequately serve as an NRKM system for a regional CoP
- o Factors affecting success
  - v language barrier
  - v cultural sensitivities of Southeast Asians
  - v time constraints/ commitment to the CoP
  - v connectivity
  - ~~v non-material incentives~~

## Concluding Statement

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Communities of practice can transcend institutional, geographical and disciplinal barriers but not language and cultural barriers in the design of new curricula?

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## Recommendations

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- o Consider...
  - v Address language issues
  - v Plan for face to face interaction
  - v Consider the Asian's comfort zone
  - v Use intermediaries
  - v The carrot and the stick
- o Graduate Program on Natural Resources Knowledge Management be developed & implemented by a consortium of  

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universities in the SEA Region.