

Training & Workshops Outlines

Smart Cities:

Strategic Planning for Smart Cities

Prof. Dr. Nicos Komninos

URENIO Research, Aristotle University of Thessaloniki

This training session will offer an overview of challenges, methodologies, and solutions for planning and development smart cities. The learning objectives are twofold. First, make clear that before developing software solutions and smart environments for cities, a more holistic planning approach is needed to define the strategy, metrics, and expected impact of digital solutions. Second, present a planning roadmap and governance model enabling the design, development and management of smart cities, and the integration of digital systems with the institutional and physical components of cities.

The training session is addressed to 20-30 government officials and university staff from Kuwait that will be invited by the organizers of the Conference. Priority should be given to persons involved in the development of smart cities or the renewal of cities of Kuwait with digital technologies and infrastructures. At the end of the training session, all participants will have a better understanding of smart city planning and the challenges encountered during their development. The training session will include three parts with a total duration of 4 hours.

A. Lecture (60 min): N. Komninos “Models of smart city formation, operation, and planning”:

The lecture will be based on the trilogy “Intelligent Cities: Innovation, knowledge systems and digital spaces” (Routledge 2002), “Intelligent Cities and Globalization of Innovation Networks” (Routledge 2008), and “The Age of Intelligent Cities: Smart Environments and Innovation-for-all Strategies” (Routledge 2014).

Five models will be presented, which outline the making of smart cities: (1) a model of structure between physical, institutional, and digital dimension of cities, (2) a model of smart city function, defining a series of innovation circuits, (3) models of connected intelligence that appears into smart cities, 4) a model of strategic planning for smart city development, and (5) a model of smart city governance for continuous change and update.

B. Discussion with participants (60 min): Participants are asked to read, before the training session, the White Paper “Schaffers, H., Komninos, N., Pallot, M. (eds) (2012). Smart Cities as Innovation Ecosystems Sustained by the Future Internet. FIREBALL White Paper. It is available at: <http://www.urenio.org/komninos/wp-content/uploads/2014/01/2012-Smart-Cities-FIREBALL-White-Paper.pdf>. The discussion and questions on issues raised in this white paper will offer a better understanding of past experiences, design of infrastructure and the need of balancing top-down and bottom-up approaches in the smart city planning process.

C. Interactive session (120 min): Building blocks for an effective smart city strategy:

Participants in the training sessions will be asked to form five groups, which will prepare and present the grand lines of a smart city strategic plan. These groups will work on (1) analysis of context and challenges, (2) objectives and priorities setting, (3) design of an action plan, and (4) implementation, (5) governance and assessment metrics.

Core challenge to address: The trainees will become familiar with a strategic planning process, which integrates at each stage digital solutions (smart systems) with active communities, and innovation / learning institutions.

Smart ICT:

Cyber-Defense, Cyber-Development, Cyber-Democracy (Cyber D3) Insights from Experience and Lessons learned from Theory, Policy, Politics and Practice

By: Prof. Elias G. Carayannis, David Campbell

George Washington University, U.S.A.

University of Applied Arts, Austria

This workshop focuses on a new approach in interdisciplinary and trans-disciplinary research.

Cyber-Development, Cyber-Democracy and Cyber-Defense are placed within a comparative framework of analysis, which is interested in inquiring further the involved challenges, opportunities and implications for theory, conceptual evolution, policy, practice, and learning. It will leverage in-class and on-line learning, mentoring and peer-collaborations as well as interactions with policy makers and practitioners from government, university, industry and civil society to address issues of defense, democracy and development in the “cyber” context as well as implications for and lessons learning from theory, policy, politics and practices within the US and abroad (it will envision and encourage foreign residences /consulting praktikums).

The workshop will use on the following materials as well as input from policy makers and practitioners and online resources:

SPRINGER TIKM – CYBER D3

o <http://www.springer.com/us/book/9781493910274>

o <http://www.springer.com/economics/policy/book/978-3-319-09068-9>

The unfolding dynamics of the revolution of knowledge production, innovation application and IT (information technology) poses dramatic changes on development, democracy and defense. Cyber-Development, Cyber-Democracy and Cyber-Defense reflect as a term and concept for this transformation. The joint phrase of “Cyber” should express and emphasize that the processes that drive development, democracy and defense are in fact interrelated, they cross-link, overlap and network with each other. A new complexity of Cyber and in Cyber emerges. This stretches our thinking and our practice to a new Cyber-Horizon beyond established structures.

Cyber-Development

Our working definition for the **Knowledge Economy (KE)** is: The Knowledge Economy is a state of economic being and a process of economic becoming that leverages intensively and extensively knowledge assets and competences as well as economic learning to catalyze and accelerate sustainable and robust economic growth (Carayannis, 2002, 2005).

Our working definition of **Cyber-Development** (an alternate, earlier term being e-Development) is: Cyber-Development is a set of tools, methodologies, and practices that leverage ICT to catalyze and accelerate social, political and economic development or in other words, Cyber-Development is Information and Communication Technology (ICT) -enabled and Knowledge Economy (KE) -inspired development that may enable the economies of developing and especially transitioning countries to become Knowledge Economies (Carayannis, 2002, 2005).

Cyber-Democracy

Advanced democracies or democracies of a high quality are also a “knowledge democracy”. One underlying understanding here is that knowledge, knowledge creation, knowledge production and knowledge application (innovation) behave as crucial drivers for enhancing democracy, society and the economy. Knowledge democracy does not only apply to industrialized countries, but offers, in principle, also important references for developing democracies, the newly industrialized countries and emerging markets. The implication of “Cyber-Democracy” is to look at knowledge democracy from the perspective of a globally evolving knowledge society in configurations of a multi-level architecture (global, trans-national, supra-national, national, sub-national, and local). Ramifications of Cyber-Democracy are: (1) the networking opportunities and capabilities of interaction and communication increase; (2) the volume of codified knowledge cumulates, and the possibilities to access (publicly access) this knowledge also improve; (3) digitalized (electronic) information and knowledge, and the world-wide web, created a network-style fundament and infrastructure of knowledge, allowing a knowledge conversion of the local into the global (gloCal) and vice versa, resulting in a gloCal platform for communication and knowledge interaction and knowledge enhancement. How does Cyber-Democracy relate to Cyber-Development and Cyber-Defense? Cyber-Democracy raises challenges for governance and of governance and the next-steps of further development of society and democracy.

Cyber-Defense / Cyber-Security

The policy on Cyber-Defense is the most important collective policy that is currently conducted and developed. It aims to counter current and new, symmetrical and asymmetrical threats locally but also globally. In the framework of national security of each state, major organizations and major companies seek to develop a cyber-defense protection from any possible threats. Cyber-Defense is due to emerge as the most important security challenge in the first 20 years of the 21st century. Cyber-Security is referred for the protection of a variety of installations: from a simple computer and internet connection and mobile telephones to national or private major infrastructures, such as water and electricity supplies.

The Cyber-D3 workshop will explore the relations of cyber-defense with democracy and development in an era of global fiscal crisis when effective technological tools limit human capital and increase technological knowledge, innovation and production. In war, future war-like operations will be held in far more complicated than the current one, military operational environments, where battles will be dealt at multiple levels and multiple dimensions. Military and civilian cyber-defense priorities and exigencies, will continue to require agile and networked, well-trained and well-led forces. This section will contemplate themes of Cyber-defense and Security, as well as emerging theories and values, legal aspects, transatlantic links (NATO, international organizations, and bilateral relations between states, and global trends and attempts otherwise stated as global challenges in a net-centric worldview context).

KMI: KM 101

By: Douglas Weidner

KM Institute

Introduction:

Summarizes Knowledge Management (KM) fundamentals. Covers: strategic rationale and operational tactics to introduce and fulfill KM's mission; Introduction to a proven methodology that can be started by you at the grass roots, including "No---Budget KM."

Who Should Attend

Anyone interested in learning more about KM, why it is vital – and how to do it right. Ideal Audience:

The "Knowledge Workers," especially those who have potential to be entry---level Knowledge Coordinators in a startup or emerging KM Dept.; those who need a robust introduction; more than a "what is" but a deeper dive into the rationale, culture change, and the need for better knowledge sharing across the enterprise.

What you will Learn...

What your organization should have uncovered before it started KM the first time; the essence of KM as taught to certified "KMers," and how to get on the road to success; key principles in the U.S. government funded KM Methodology, including change management; and, available resources to expand your own KM Body of Knowledge (KMBOK™). You will be prepared to lead grass roots KM initiatives in your business unit.

Prerequisites

You do not need a background in KM or IT to start the KM101 program. KM101 is an introductory course designed to build the foundation.

Module Outline

Module 1.01 – Intro to the Knowledge (K) Age

Module 1.02 – Post---industrial Knowledge Age Imperative

Module 1.03 – Let's Define Knowledge (and Its Attributes)

Module 1.04 – Understand Basic KM Fundamentals ---New K Paradigm

Module 1.05 – Understand Basic KM Fundamentals – K Modes (Tacit vs. Explicit)

Module 1.06 – Understand Basic KM Fundamentals – K Processes

Module 1.07 – K---Intensive Activities – Focus on four hi---level activities to seek K---Age improvements

Module 1.08 – KM Principles

Module 1.09 – Proven KM Methodology (Overview) – KM Bulls & Squirrels

KMI: Certified Knowledge Practitioner (CKP)[™]

By: Douglas Weidner

KM Institute

Introduction

Earn "Core" Certification from the KM Institute; the lower-cost solution for Knowledge Workers and Coordinators of KM initiatives, covering the core of the acclaimed CKM (flagship).

Who Should Attend

The KM Institute CKP is ideal for anyone tasked to lead or improve a KM initiative - anyone interested in gaining a solid grasp of common KM principles at an advanced level with actual "hands-on" experience performing KM.

CKP Graduates range from KM workers to managers, government to commercial, and just about everyone in-between.

Learn and Experience:

- A Comprehensive overview of KM
- Your Role on the KM Team
- Best practices/case studies
- Real-world exercises
- KM Bulls & Squirrels[™] - and their importance
- Change Management and Keys to Success
- A Company-wide "KM Awareness Plan"
- Social Media and other Hot Topics

Prerequisites

You do not need a background in KM or IT to start the KM Institute CKP Program.

Three Phases of Certification

Pre-class online learning -- Live Workshop -- Post-class continued learning/networking

Module Outline

Module 1.01 – Intro to the Knowledge (K) Age

Module 1.02 – Post-industrial Knowledge Age Imperative

Module 1.03 – Let's Define Knowledge (and Its Attributes)

Module 1.04 – Understand Basic KM Fundamentals - New K Paradigm

Module 1.05 – Define KM

Module 1.06 – Understand Basic KM Fundamentals – K Modes (Tacit vs. Explicit)

Module 1.07 – Understand Basic KM Fundamentals – K Processes

Module 1.08 – K-Intensive Activities – Focus on four hi-level activities to seek K-Age improvements

Module 1.09 – KM Principles

Module 1.10 – Proven KM Methodology (Overview) – KM Bulls & Squirrels

Module 1.11 – Understand K-Age Roles

Module 1.12 – Understand Strategic KM Methodology and Knowledge Maturity Model (KMM)

Module 1.13 – Essential Concepts/Manage Change

Module 1.14 – Start-up Techniques/Knowledge Cafes

Module 1.15 – Get Started

KMI: Certified Knowledge Manager (CKM)[™]

By: Douglas Weidner

KM Institute

Introduction

The highly acclaimed KM Institute CKM program is KM Institute's flagship course, delivered in up to 15 countries yearly, with thousands Certified since 2001.

Who Should Attend

The KM Institute CKM is ideal for anyone tasked to lead or improve a KM initiative ---anyone interested in gaining a solid grasp of common KM principles at an advanced level with actual "hands---on" experience performing KM.

CKM Graduates range from newcomers to seasoned practitioners, project managers to CKOs, public/private sectors, and just about everyone in---between

Learn to...

- **Perform** KM using proven tips/tools anyone can use!
- **Build** Collaborative Environments; better communication, spark innovation
- **Transform** your organization into a rapid---learning environment
- **Develop** innovative ways to motivate your staff with quick wins
- **Create** the KM Vision for your company, including a solid strategy to get there
- **Initiate** with your peers successful Communities of Practice
- **Discover** usable, real---world KM principles and keys to success

Prerequisites

You do not need a background in KM or IT to start the KM Institute CKM Program.

Three Phases of Certification

Pre-class online learning -- Live Workshop -- Post-class continued learning/networking

4---Themed Approach to Certification

Theme I “KM Essentials” ---a guide to practical KM and the role of KM Leader

Theme II KM Institute Methodology to Perform KM, intro to Bulls/Squirrels™

Theme III Track through the Methodology, learn how to Perform KM

Theme IV Enter Life---Long Learning Program, where special KM Hot Topics are surveyed

Module Outline

Theme I: KM401 ---Implement Grassroots KM

Module 1.01 – Intro to the Knowledge (K) Age

Module 1.02 – Post---industrial Knowledge Age Imperative

Module 1.03 – Let’s Define Knowledge (and Its Attributes)

Module 1.04 – Understand Basic KM Fundamentals ---New K Paradigm

Module 1.05 – Define KM

Module 1.06 – Understand Basic KM Fundamentals – K Modes (Tacit vs. Explicit)

Module 1.07 – Understand Basic KM Fundamentals – K Processes

Module 1.08 – K---Intensive Activities – Focus on four hi---level activities to Seek K---Age improvements

Module 1.09 – KM Principles

Module 1.10 – Proven KM Methodology (Overview) – KM Bulls & Squirrels

Module 1.11 – Understand K---Age Roles

Module 1.12 – Understand Advanced/Strategic KM Methodology and Knowledge Maturity Model (KMM)

Module 1.13 – Essential Concepts/Manage Change

Module 1.14 – Start---up Techniques/Knowledge Cafes

Module 1.15 – Get Started

Theme II: KM402 – Study the KM Institute KM Methodology to Perform KM

Unlike Theme I, this Theme has numerous self---study modules.

Module 2.01 – KM Universe Model™. Introduction to KM Models and metaphors, especially how to use models to diagnose and prescribe KM actions. *This is a self---study module in eCKM.*

Module 2.02 – Review KM Principles of US Army (self-study). Evaluate published ‘Keys to Success’

Module 2.03 – Understand Early KM Frameworks – Global Unified KM Framework™ KM Education Forum – Renewed attempt/establish credible KM Standards for KM Body of Knowledge (KMBOK™)

Module 2.04 – Innovative K Café – Core KM Methodology

Module 2.05 – Evaluate Alternative KM Methodologies

Module 2.06 – Study KMBOK™ by Phase (Phase II – Create the K Imperative ---Strategy)

Module 2.07 – Study KMBOK™ by Phase (Phase III – Design/Justify KM Initiative)

Module 2.08 – Study KMBOK™ by Phase (Phase IV – Implement/Manage Organizational Change)

Module 2.09 – Study KMBOK™ by Phase (Phase V – Operate and Maintain – Continuously Improve)

Module 2.10 – Understand the Knowledge Maturity Model (KMM™)

Theme III: KM403– Perform KM Methodology

As with Theme II, this Theme has numerous self---study modules and supporting enrichment materials.

Module 3.01 – Benchmark Proposed KM Solutions (A115) – Acquire K from other sources

Module 3.02 – Perform Knowledge Audit (A22) – Traditional approach to understanding the present state (“As---Is”)

Module 3.04 – Develop KM Vision, Values Statement and Performance Targets (A23) – Strategic Planning Activities

Module 3.05 – Develop KM Strategy (A24) – Decide which KM Bulls to Design/Justify

Module 3.06 – KM Bull #1: Best Practices Management Process (BPMP)

Module 3.07 – KM Bull #2: Content Management (Repositories)

Module 3.08 – KM Bull #3: Lessons Learned Management Process

Module 3.09 – KM Bull #4: Expert Locator

Module 3.10 – KM Bull #5: “Connect & Collect”

Module 3.11 – KM Bull #6: Enrich Communities of Practice (CoPs)

Module 3.13 – KM Bull #8: Idea Management Process (Innovation)

Module 3.14 – KM Bull #9: Personal KM – Improve personal skills & competencies/engage KWers in the K Age

Module 3.15 – KM Bull #10: “Expert Flight” – K Elicitation and complex K Capture

Module 3.16 – Link Plans, Get Buy---In

Module 3.17 – Design/Justify “To---Be”

Module 3.18 – Implement, Continuously Improve

Theme IV – Study Special KM Skills and Topics

Module 4.01 – Create KM Change Management Plan

Module 4.02 – Select Appropriate KM Metrics

Module 4.03 – Leverage Storytelling & Appreciative Inquiry in Change Plan

Module 4.04 – Understand Use of Social Network Analysis

Module 4.05 – Understand Emerging KM Technologies

Module 4.06 – Understand KM Sciences

Module 4.07 – Understand Implications of Intellectual Property (Patents, TM, ©)

Module 4.08 – Cert Program Wrap Up/Review

Module 4.09 – Conclusion/Assessment