# Chapter 24 Knowledge Management in Academic Community: Code and Content-Based Plagiarism Prevention MARG

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## ABSTRACT

Students are roots of a country's economic-expansion, often opt for different forms of Code-Content based Plagiarism in University Programming-Labs to avoid time-consuming and challenging academic tasks or due to grades, and peers pressure. Students may lack analytical and logical program development skills. This urges for need of Smart and Computationally-Intelligent system like University Code-Content Plagiarism Prevention Model (UCCPM) to keep a check and prevent incidences of plagiarism in Universities. Integration of 'UCCPM Intelligence' with 'MARG's Prevention' would prove to be a beneficial Academic Predictive Model. It would open new vistas of knowledge oriented academic-research and knowledge management in academic and research community. Key to nation's wealth is knowledge, which in turn, traces back to academic research and the level of knowledge attained among students' in Universities. Hence the undertaken research provides directions to Universities to smartly detect cases of plagiarism and take appropriate measures to prevent it.

#### INTRODUCTION

Knowledge is like money: to be of value it must circulate, and in circulating it can increase in quantity and, hopefully, in value - Louis L'Amour, author

Plagiarism is a hindrance to Knowledge Management (*Alan Frost*). Hence UCCPM acquires knowledge about student's behaviour of writing assignments. It also acquires knowledge about faculty's evaluation

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system design for student per semester to prevent plagiarism. UCCPM also incrementally generates knowledge in cyclic way as shown in Knowledge Management (KM) cycle, about possible plagiarism activities by students, reasons/catalysts behind plagiarism and redesigning of recommendations, assignments and preventive measures by faculty to curb growing rate of plagiarism. UCCPM also augments knowledge over various semesters about effectiveness of assigned lab assignments, grading system used for evaluation and iterative changes in acceptable levels of plagiarism by various universities as per their plagiarism policies/laws. UCCPM along with MARG is confluence of many disciplines and entities including social media, programming logic development, code-cloning, use of IT techniques, behaviour of student etc.

In today's digital era of Internet, emergence of bulk of data every day is becoming very common, which is processed further to form knowledge. But what about managing this humongous knowledge to derive maximum benefit out of it? This solely depends on principles of KM (*Michael E. D. Koenig*) that need to be embodied in every individual working at different levels like students in institutions and employees in different organizations. KM will bring about knowledge driven culture and capability across different individuals. This in turn will work as power house for a country's economic development.

The basic economic resource - the means of production - is no longer capital, nor natural resources, nor labor. It is and will be knowledge. - By Peter Drucker



Figure 1. UCCPM Knowledge Management Process Cycle

Figure 2. Mind-Map for Complete System



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