

[论文名称] 重点学科信息化的态势及分析

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[摘要] 本文着重讨论主要学领域信息化的总体发展态势, 分析发现: (1) 学科与信息化结合紧密是学科信息化的总体态势, 但融合程度有差异, 二者融为一体尚不占主导地位。(2) 不同学科的融合程度有差异, 呈现规律性模式特征。可分: 高度融合型、适度融合型、应用结合型、松散耦合型。(3) 不同模式学科的信息需求特征差异显著, 关键技术支撑的需求相对突出。(4) 不同模式学科的信息化发展瓶颈集中在信息化软环境, 且学科与信息化融合的程度越松散, 其软环境的需求越明显。基于上述态势和分析, 提出了发展学科信息化的相应建议。

This paper focus on development characteristics and main models of informatization in our key disciplines:(1) there exist overall trend that information technology is connected with discipline development more and more closely, while different subject has various integration level with informatization. At present, the fully fusion is not the dominant characteristic yet. (2) There exist regular pattern of various integration characteristic in different subjects. It can be divided into 4 model types, i. e., highly integrated model, moderately integrated model, application-bound model, loosely-coupled model.. (3) The requirements of informatization for different models are various. Highly integrated model has strongest demand for infrastructure and public platforms, weakest demand for hardware requirements. Moderately integrated model has strongest demand for technical support of more documentation, information, data acquisition, weak for software tools of developing proprietary. Application-bound model has obviously demands for technical support and data sharing mechanism. Loosely-coupled model has diverse demands, software tools is the relative strongest. (4) The bottleneck of different models focuses on the soft environment of informatization, which is needed urgent especially for those loose coupled types' subjects. Finally, puts forward suggestions to further promotion of e-Scinece.