

# Chapter 1

## Knowledge-Based Value Generation

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### ABSTRACT

*This chapter aims to characterize Knowledge Based Development (KBD) from the perspective of value systems. After an introduction to its purpose and scope, the chapter is divided into five sections. The first section looks into the distinctive aspects of human knowledge-based or represented experience as the rationale for both Knowledge Management and Knowledge Based Development. The concept of KBD is introduced as a distinctive category and as the basis of a new social paradigm of special significance in view of both the current stage of human evolution and our impact on other Earth systems. In the second section the emergence and evolution of KBD as a field of study and practice is overviewed. Thirdly, the received perspective of knowledge capital as instrumental to increasing monetary growth and accumulation is contrasted with an integrated approach where all value elements relevant to a group are balanced into a unified system of categories. Such radical approach to KBD recaptures the essence of human value production and allows the redesign of accountancy and management practices at the organizational level, as well as of cultural and political practices at the communitary and global levels. Next, a review of some of the most visible KBD research agendas shows the trends in the evolution of this area and suggests the viability of a global R&D agenda. Finally, the possible contribution of KBD as a language to articulate national and international consensus-building on the most urgent issues is discussed as a conclusion.*

### INTRODUCTION

The global economic crisis that started in 2007, exploded in 2008 and continues to shake the foun-

dations of the whole financial establishment, seems an adequate context to put the received developmental and economic paradigms in perspective. As mortgage and investment institutions collapse, corporate capitalization vaporizes, stock value

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Figure 1. Dominant factors of major productive systems

	Production type	Input	Process		Output
			Agent	Instrument	
Physical Era	Hunting-gathering	Natural habitat	Human and animal	Hands and primitive tools and techniques	Game, fish and collected natural goods
	Agricultural	Land, water, seeds, fertilizers	Human and animal	Agricultural equipment and techniques	Agricultural goods
	Extractive	Natural deposits	Human and animal	Mining equipment and techniques	Stones, metals, minerals
	Industrial	Raw materials and energy	Human and automata	Industrial machinery, equipment and techniques	Manufactured goods and industrialized products
	Physical-based production	Matter and energy	Muscular strength and sensory-muscular dexterity	Physical tools, equipment and techniques	Physical goods
Knowledge Era	Knowledge-based production	(Relative) lower-level K-input	Rationality and Emotion	K-processing tools, systems and networks	(Relative) higher-level K-output

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plunges, Fortune 500 icons get bankrupt, credit sharply contracts, banks are nationalized and the first global recession unfolds, the current financial establishment and world economic system are seriously brought into question while claims for a new world order gain support. But a different configuration of players, financial centers, banking institutions or even global regulatory and supervision schemes might not be enough. Also, a new language to articulate collective preferences and priorities, public participation and social accountability seems necessary.

From a particular reinterpretation of both economic and knowledge acts, a historical deconstruction of the relationship between the values of a community, its social organization, its cultural products, and its knowledge base becomes relevant. Such reinterpretation is founded on the acknowledgement of an experiential evolution from material reality to represented or knowledge-based reality (cfr. Figure 1). This means that rather than material objects (all manifestations of matter and energy generating a sensory record) are the representations of these objects (ideas, emotions, etc.) what dominate individual and collective human experience. This substitution process<sup>1</sup> is at the core of psychological life, knowledge-based behavior and culture.

Under such perspective, the transition of adaptive and cultural patterns from nomadic societies of hunters-gatherers, through agricultural and industrial societies, up to the emerging knowledge societies can be observed. Under this social evolution process, it becomes apparent that while major transformations in social, economic and cultural organization have occurred throughout history, it might be precisely at the current transition from matter-based<sup>2</sup> to knowledge-based societies (roughly around the year 2000) when human experience is qualitatively leveraged and with it the realm of possibilities for social organization.

The fundamental realization behind this perspective consists in the qualitative difference between the natural principles describing the behavior of objects (mainly physics, chemistry and biology) and the natural principles describing the behavior of ideas and emotions as well as the subsequent impact such difference has on the social and economic possibilities of each domain. For example, insofar as the products of human activity upon matter and energy are regulated by space-time constraints, social norms regulating their production, distribution and ownership are restricted by physical possession, resulting in property laws. Likewise, thermodynamics determines the wasting of production lines, resulting

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