

## The DIKW Model for Innovation

**D**ata simply exists. It gains context to become

Information by human interaction, which itself becomes

 $\mathbf{K}$ nowledge by interconversion of different forms of information.

 ${f W}$ isdom comes from repetition of the DIK cycle.

**Data** by itself has no meaning. It fills databases. This data must be examined in order to become meaningful. Generating more data accomplishes little. Humans must interact with it. This is the first step whereby humans and their social networks become important.

**Information** arises when humans examine the data. This provides a framework for understanding what the data represents. This information can be tacit, held inside our heads, or explicit, presented in a fashion that all can see (see **Tacit and Explicit Information** for details). Information only creates value when it interacts with information produced by others. Information that is held by an individual, which is never revealed or acted upon, has no value. The greatest medical discovery in the world does little good if it dies with the discoverer.

**Knowledge** is the ability to take an action. It is created when information is transformed through human social interactions. A single individual cannot create knowledge de novo. They must interact with information created by others to arrive at an action, a decision. This is key. Individuals and organizations must work with the tacit and explicit information generated by others in order to devise a course of action. Often, this course of action is to generate more data, resulting in a new DIK cycle. Knowledge leads to action.

**Wisdom** encompasses the best, most appropriate action. It usually arises from multiple rounds of the DIK cycle. It requires experience. The DIK cycle often describes an analytical process, one in which simplification is key. Wisdom requires synthesis, often bringing together a wide range of knowledge created from a huge amount of information representing a tremendous mound of data.

**Knowledge** and **wisdom** can only be created by an efficient **network** of humans. Data can be generated with little human intervention. But to become information it must, by definition, be examined by humans. Humans must then disperse and convert this information into tacit and explicit forms for knowledge to be created. This must often be done several times, and sometimes by different groups of humans, for wisdom to be achieved

The rate limiting step for most organizations is the creation of knowledge. They often do a poor job supporting the human interactions needed to transform information into knowledge. While they deal well with explicit information, they have a difficult time with tacit information, sometimes actively working against the interactions needed. Knowledge creation, which is necessary to develop wisdom, works best in an open and transparent human social network across which information moves rapidly.

The faster information flows to individuals, the faster the process of knowledge creation and the easier it is to make appropriate decisions.