Chapter 55
Mental Informatics and Agricultural Issues:
Global Change vs. Sustainable Agriculture

Attila Gere
https://orcid.org/0000-0003-3075-1561
Szent István University, Hungary

Dalma Radványi
Hungarian Academy of Sciences, Hungary

Richard Sciacca
Vox Populi Golbal, USA

Howard Moskowitz
Mind Genomics Advisors, USA

ABSTRACT

This chapter presents an approach to understanding the importance of connected aspects of a topic, such as the relevance of issues for global change or for sustainable agriculture. The approach, Mind Genomics, identifies a specific topic, creates a battery of related questions which in concert "tell a story," requires the researcher to provides several alternative answers to those questions, and then tests the answers as combinations, as vignettes. Respondents rate the vignettes on judgmental attributes, such as the degree to which the respondent "agrees" with the story being told by the vignette, or the emotion that the respondent feels when reading the vignette. The analysis of such data shows the impact of each of the answers, the "communication elements," as a drive of "agreement with the values of the respondent," and the linkage of each element to a set of emotions. Mind Genomics provides a new tool to understand responses to agricultural issues, creating in its wake the possibility of a new "mental informatics."

DOI: 10.4018/978-1-6684-5352-0.ch055

INTRODUCTION: A LOT KNOWN ABOUT THE PHYSICAL WORLD BUT WHAT ABOUT THE MENTAL WORLD?

During the past century, the expansion of science has occurred at an ever-accelerating pace. The amount and depth of theoretical and practical knowledge manifest themselves in the published information to be found in the archival scientific literature, and at the same time in the practical consequences – more food, for more people, at lower costs. To many, the world of agriculture stands as a living disproof to the conjectures of that most demoralizing of all classical thinkers and economist, Thomas Malthus (Petersen, 1999), who opined centuries ago that we would soon starve because the growth of population is exponential, whereas the growth of resources to feed the population is linear.

We know a great deal about the science of agriculture, about weather changes, about the positives and negatives of various agricultural policies. When we talk about these so-called 'positives' and 'negatives,' we talk about points of view established using economic measures, measures without emotions, measures without taking into account to the soul of the most important factor of all, the person.

Our objective in this chapter is to explore two topics of interest to agricultural economics, topics treated from the point of view of the person, not from the traditional point of view of economics, of dollar and cents, of policy. These two topics are laden with emotion, and therefore relevant. The first is reactions of people to messaging about global change, and the implication of the issue of global change for the correct policy and messaging. The second is the reaction to sustainability of agriculture, especially protein, put into concrete, real form, by focusing on other sources of protein, and not just on general issues.

Our goal is to establish the applicability of a newly emerging science, Mind Genomics, to be used to understand the 'mind of people' who are confronted with agriculture-relevant information and/or decisions to be made. With Mind Genomics, we present an affordable approach for the agricultural profession to understand the 'mind of the consumer,' while at the same time understanding the objective, external situation in the so-called 'real world.'

BACKGROUND

Just What Is Informatics, and How Does Knowing the Mind of the Person Fit With Today's Informatics?

The rise of computing, and the study of information itself and its application, has led to this new field called 'informatics,' the field to which Mind Genomics wishes to contribute. The definition of Informatics below, from Indiana University (source: https://soic.iupui.edu/about/what-is-informatics/) follows:

The Indiana University School of Informatics and Computing defines the field as "the study and application of information technology to the arts, science and professions, and to its use in organizations and society at large." Informatics students build new computing tools and applications. They study how people interact with information technology. They study how information technology shapes our relationships, our organizations, and our world.

Informatics is a new and rapidly developing field. It uses computing to solve the big problems: privacy, security, healthcare, education, poverty, and challenges in our environment. All Informatics applications