Book Reviews

Future Edge. Joel Arthur Barker. New York: William Morrow and Company, Inc., 1992. 240 pp. (Order from Charthouse International Learning Corp., 221 River Ridge Circle, Burnsville MN 55337. Hard cover, $25.)

This book is the latest of Joel Barker's well known futuring ventures, including "The Business of Paradigms" and "The Power of Vision" videos, which have been widely used in Extension across the U.S.

Future Edge takes the trailblazing efforts of Toffler, Kuhn, and Naisbitt into the practical reality of each of our daily lives. The question Barker addresses in this book is "how do we best prepare people for the future?"

Three central ideas backstop future success—anticipation, innovation, and excellence. To be ready for the future, we have to understand "paradigms," the guidelines, principles, and frameworks that structure and set boundaries for all of our activities. Many of the changes happening to us come from unanticipated revolutions in the prevailing paradigms rather than from predicting trends based on existing paradigms.

In these paradigm shifts we can see innovation—in theories, like "constructivism," in the communication sector; or in practical functions, like "total quality management," in the work place. Anticipation results from "good strategic exploration." People must (1) understand their perceptions and the influences upon those perceptions, (2) cultivate divergent thinking skills, (3) develop convergent thinking skills, (4) learn how to map ways to get from the past to the future, and (5) image possible futures, either by writing, drawing, or explaining.

Next, Barker presents over 20 examples of the power of people's current thinking, their established paradigms, and their altered perceptions of reality. In doing so, he makes three major points: (1) our existing mental frameworks do indeed influence our judgments; (2) disregarding the strength these frameworks have over our perceptions hinders our ability to see other, possible futures; and (3) to construct the future, people must be primed and able to shift their "paradigms."

To support what he says, Barker introduces a spectrum of innovations that broke existing paradigms and created new realities. From IBM and Apple, the Total Quality movement, to the Discman, he provides an array of challenging examples, helps us see old situations in

new ways, and offers insights into how others dealt with anticipating the future and developed new forms of excellence.

Most of us, and most of the universities, companies, or departments we serve, are stuck in old ways of thinking. We can become more predictive in our future vision and can work in proactive ways to build desirable directions by asking Barker's paradigm shift question, "What is impossible to do in your business (field, discipline, department, division, or technology), but if it could be done, would fundamentally change it?" The keys to the question are in the words *impossible* and *fundamentally,* which force a different structure on the current reality that can create a new perception, or a *paradigm shift.*

Communication is experiencing a meteoric and, at times, an unpredictable revolution. Joel Barker's insights on how to study and understand change is a valuable and welcomed tool.

In fact, some of Barker's infectious thinking is already taking place in ACE. Recent discussion about what ACE should be, the questions over relationships with other professional groups and regarding professional activities, provide opportunities to define a vision for ACE and each of us professionally—a new paradigm. In *Future Edge,* Barker gives us a strategy and some tactics to create our vision.

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Instructional Message Design: Principles from the Behavioral and Cognitive Science (Second Edition). Edited by M. Fleming and W. H. Levie. Educational Technology Publications, Englewood Cliffs NJ. (ISBN 0-87778-2253-9). $53.25.

In a comprehensive overhaul of their now classic 1978 book, Fleming and Levie have turned out another masterpiece for educational designers.

In what is really a brand-new book rather than a second edition, the authors review the scope of research on learning and teaching and offer clusters of principles for the practical

design of educational materials and programs. They cover motivation, perception, psychomotor concepts, learning, concept-learning, problem-solving, and attitude-change, as well as briefly and adequately describe instructional design.

Originally, Fleming and Levie wrote the entire book. Now retired, they agreed to edit the

book if a new group of experts would prepare the content. In this edition each chapter is written by an educational design specialist and researcher who covers both the previous material and adds new principles from the cognitive sciences. For example, John Keller tackles motivation, discussing variation and curiosity, stimulation, and challenge, as well as readable style, interest, and formatting in text and graphics. Writing on perception, Bill Winn discusses cognitive processing and message design variables. Michael Hannafin and Simon Hooper examine learning, highlighting learner attributes and characteristics with sequences of instruction, instructional strategies, and transfer and generalization.

The book is full of examples for each principle. For example, when discussing the use of "adjunct questions to emphasize relevant information," the book offers four types of questions with suggestions on when to use them, a specific example of review questions and learning techniques, such as backward and forward effects, and note taking. It is supported by examples of message structure, with maps, perceptual clustering with figures and models, and spatial arrangements with text.

An excellent section on learning compares depth processing and engagement with the typical passive learning role. The problem solving chapter includes an excellent table that summarizes the three design issues vital to help learners acquire relevant information, build internal linkages, and devise external associations. It also includes samples of principles to help designers successfully develop strategies for each area using such tools as adjunct questions, signal words, and elaborative questions.

Although *Instructional Message Design* can be criticized for its high price, typical layout, barely adequate indexing, and lack of contemporary visuals and color, it will serve as an excellent design reference and message guide well into the 21st century. As agricultural communication becomes more "educational," this book will be extremely valuable to all of us involved in designing those higher order educational efforts.

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