Delphi Method Evaluation

Modeling of Transport Demand explains the mechanisms of transport demand, from analysis to calculation and forecasting. Packed with strategies for forecasting future demand for all transport modes, the book helps readers assess the validity and accuracy of demand forecasts. Forecasting and evaluating transport demand is an essential task of transport professionals and researchers that affects the design, extension, operation, and maintenance of all transport infrastructures. Accurate demand forecasts are necessary for companies and government entities when planning future fleet size, human resource needs, revenues, expenses, and budgets. The operational and planning skills provided in Modeling of Transport Demand help readers solve the problems they face on a daily basis. Modeling of Transport Demand is written for researchers, professionals, undergraduate and graduate students at every stage in their careers, from novice to expert. The book assists those tasked with constructing qualitative models (based on executive judgment, Delphi, scenario writing, survey methods) or quantitative ones (based on statistical, time series, econometric, gravity, artificial neural network, and fuzzy methods) in choosing the most suitable solution for all types of transport applications. Presents the most recent and relevant findings and research - both at theoretical and practical levels - of transport demand Provides a theoretical analysis and formulations that are clearly presented for ease of understanding Covers analysis for all modes of transportation Includes case studies that present the most appropriate formulas and methods for finding solutions and evaluating results

This report presents a critical analysis of the Delphi technique. The analysis is in four parts. First, the scope of the inquiry is defined, and issues pertinent to an evaluation of Delphi are raised. Second, conventional Delphi is evaluated against established professional standards for opinion questionnaires, and against associated scientific standards for experimentation with human subjects. Third, Delphi is evaluated with respect to its assumptions, principles, and methodology. Fourth, conclusions of the analysis are brought together and recommendations are made for the future use of Delphi.

The Delphi MethodTechniques and ApplicationsDelphi Critique; Expert Opinion, Forecasting, and Group Process

Forecasting is required in many situations. Stocking an inventory may require forecasts of demand months in advance. Telecommunication routing requires traffic forecasts a few minutes ahead. Whatever the circumstances or time horizons involved, forecasting is an important aid in effective and efficient planning. This textbook provides a comprehensive introduction to forecasting methods and presents enough information about each method for readers to use them sensibly.

The objectives of this study were to survey state-of-the-art media selection methodologies, to evaluate the techniques currently being applied to naval air training programs, and to present three of the techniques to the Naval Air Systems Command (NASC), who would select one for implementation and incorporation into a media costs handbook. Media selection methodologies were surveyed, and the following three were selected to represent the state-of-the-art: (1) the Training Effectiveness and Cost Effectiveness Prediction (TECEP) technique, (2) a computerized technique using logic similar to TECEP, and (3) small-group process called the 'DELPHI' method. The latter was included by direction from NASC because of specific interest in exploring its possibilities as a technique that is as efficient and as valid as the other techniques, and because of its perceived potential for minimizing subtle biases. After a review of the three methodologies, NASC selected the 'DELPHI' method for test case evaluation. The results indicate that any future use of the small-group process as a media selection technique will require more specific rules than those used during the test case evaluation. Further, the more rules and assumptions stated, the closer the 'DELPHI' method resembles the more algorithmic techniques surveyed. The conclusion reached was that the 'DELPHI' method, in fact, suffers from the same deficiencies as any other media selection technique, even when the ground rules and assumptions have been specifically stated.

Expanding upon his viral TEDx Talk, psychology professor and social scientist John V. Petrocelli reveals the critical thinking habits you can develop to recognize and combat pervasive false information that harms society in The Life-Changing Science of Detecting Bullshit. Bullshit is the foundation of contaminated thinking and bad decisions leading to health consequences, financial losses, legal consequences, broken relationships, and wasted time and resources. No matter how smart we believe ourselves to be, we’re all susceptible to bullshit—and we all engage in it. While we may brush it off as harmless marketing sales speak or as humorous, embellished claims, it’s actually much more dangerous and insidious. It’s how Bernie Madoff successfully swindled billions of dollars from even the most experienced financial experts with his Ponzi scheme. It’s how the protocols of Mao Zedong’s Great Leap Forward resulted in the deaths of 36 million people from starvation. Presented as truths by authority figures and credentialed experts, bullshit appears legitimate, and we accept their words as gospel. If we don’t question the information we receive from bullshit artists to prove their thoughts and theories, we allow these falsehoods to take root in our memories and beliefs. This faulty data affects our decision making capabilities, sometimes resulting in regrettable life choices. But with a little dose of skepticism and a commitment to truth seeking, you can build your critical thinking and scientific reasoning skills to evaluate information, separate fact from fiction, and see through bullshitter spin. In The Life-Changing Science of Detecting Bullshit, experimental social psychologist John V. Petrocelli provides invaluable strategies not only to recognize and protect yourself from everyday bullshit, but to accept your own lack of knowledge about subjects and avoid in engaging in bullshit just for societal conformity. With real world examples from people versed in bullshit who work in the used car, real estate, wine, and diamond industries, Petrocelli exposes the red-flag warning signs found in the anecdotal stories, emotional language, and buzzwords used by bullshitters that persuade our decisions. By using his critical thinking defensive tactics against those motivated by profit, we will also learn how to stop the toxic misinformation spread from the

social media influencers, fake news, and op-eds that permeate our culture and call out bullshit whenever we see it.

The Delphi technique is one method used for combining the knowledge and opinions of a group of experts. The primary characteristic of Delphi is anonymity; correspondece is the communication mode normally used. The concept is based on the premises that opinions of experts are justified as input to decisionmaking where absolute answers are unknown, and a consensus of experts will provide a more accurate response to a question than a single expert. The guidelines presented are for using the Delphi technique to develop habitat Suitability Index (SI) curves. SI curves are often used with the Habitat Evaluation Procedures and are necessary components of the Instream Flow Incremental Methodology. The Delphi technique is not a replacement for scientific methods traditionally used to gather information for SI curve development, but it offers an option that should be considered when SI curves or data for developing needed SI curves are unavailable.

The paper presents compilation of the experimental designs, questionnaires, and resulting group response data representing the raw materials of a Rand evaluation of Delphi procedures. (Analysis of the data and major conclusions are presented in AD-690 498). The Delphi technique uses an anonymous, orderly program of sequential individual interrogations, with controlled feedback from respondents between interrogations, to elicit and refine group judgments where exact knowledge is unavailable. Different experiments tested different hypotheses. One was designed to compare the relative accuracy of group answers obtained by the Delphi questionnaire-feedback method with those obtained by a structured, face-to-face discussion.

Rapid development of computer technology in recent years has presented broad opportunities for its use in various fields, including the field of language teaching. Various materials have been designed to assist language teachers and learners with their goals. At present, a number of tools, including a vast variety of language teaching software, is readily available on the market. However, limited research has been conducted on identifying evaluation criteria for language teaching software from multiple perspectives. This study has undertaken to identify and reach consensus on the evaluation criteria for language teaching software essential for the software design and selection. Specifically, this study sought to answer the following two research questions: 1. What criteria for evaluation of language teaching software are identified in currently published literature, including textbooks, software reviews, and Instructional Technology and Computer-Assisted Language Learning research? 2. Which criteria are deemed important by the representatives of the Board and Council of the International Association of Language Learning Technology? A three-phase research design was employed to carry out the purpose of the study and to provide answers to the research questions. First, published sources for existent language teaching evaluation criteria were identified. Second, a joint list of criteria was compiled from a variety of sources. Then, the criteria were organized into five thematic groups and eight subgroups. In order to validate and reach consensus on the identified criteria, a modified Delphi survey was conducted. Two rounds of the Delphi method were implemented and produced the final list of evaluation criteria for the selection and design of language teaching software.

Research is such an important subject for information professionals that there will always be a need for effective guides to it. Research skills are a prerequisite for those who want to work successfully in information environments, an essential set of tools which enable information workers to become information professionals. This book focuses on producing critical consumers of research. It also goes some way towards producing researchers in the fields of information management and systems. The first edition of this book was enthusiastically received by researchers, students and information professionals in Australia and beyond. Reviews of the first edition considered it a “a worthwhile addition to any information professional’s or research student’s reference shelf (Archives & Manuscripts). This new edition has an additional chapter on ethics, to address the importance of the ethical implications of research. It also has (as did the first edition) two unique characteristics: it is Australian-focused, distinctive among research texts for information professionals; and it has a multi-disciplinary focus, with its authors being drawn from information management (librarianship, archives and recordkeeping) and information systems. The numerous examples throughout the book are drawn from these multiple disciplines. The first edition of this book was road-tested with students from several disciplines who are studying in several universities. Its Introduction noted that "In research terms, the content have been refereed and found to be authoritative!" To this can be added the many satisfied users of the first edition.

A book in the Systems Evaluation, Prediction, and Decision-Making Series, Systems Evaluation: Methods, Models, and Applications covers the evolutionary course of systems evaluation methods, clearly and concisely. Outlining a wide range of methods and models, it begins by examining the method of qualitative assessment. Next, it describes the process and methods for building an index system of evaluation and considers the compared evaluation and the logical framework approach, analytic hierarchy process (AHP), and the data envelopment analysis (DEA) relative efficiency evaluation method. Unique in its emphasis on the practical applications of systems evaluation methods and models, the book introduces several new evaluation models of grey system, including general grey incidence model, grey incidence models based on similarity and closeness, grey cluster evaluation based on triangular whitenization functions, and multi-attribute grey target decision model. Explaining intricate concepts in language that is easy to understand it provides step-by-step explanations of the various methods and models. The text illustrates the practical application, analysis, and computation of systems evaluation methods and models with an abundance of practical examples and empirical studies. The case studies examine post evaluation of road-bridge construction projects, the efficiency evaluation of the science and technology activities, the evaluation of energy-saving projects in China, and the evaluation and selection of international cooperation projects.

Comprehensively covers all aspects of long-range forecasting methods relevant to the social, behavioral and management sciences. This book is a synthesis of research in economics, sociology, psychology, transportation, education, and management--with occasional references to work in medicine, meterology, and technology. Describes a variety of forecasting methods, their strengths and weaknesses, and how to use them effectively, shows how to structure a forecasting problem, and gives detailed procedures for evaluating forecasting models in order to select the appropriate method for a particular problem. Draws upon material from approximately 1300 books and articles, and includes original research by author.

The Delphi Technique in Nursing and Health Research is a practical guide to using the Delphi methodology for students and researchers in nursing and health. It adopts a logical step-by-step approach, introducing the researcher to the Delphi, outlining its development, analysing key characteristics and parameters for its successful use and exploring its applications in nursing and health. The book addresses issues of methodology, design, framing the research question, sampling, instrumentation, methodological rigour, reliability and validity, and methods of data analysis. The Delphi Technique in Nursing and Health Research enables the reader to be aware of the limitations of the technique and possible solutions, to design a Delphi questionnaire for each of the different rounds of a study, to consider different approaches to the technique in relation to a study, to analyse the data from each round of a Delphi study, and to understand the importance of feedback between rounds. Key Features A practical guide to facilitate use of the Delphi technique Provides the reader with the necessary information to participate in and conduct Delphi studies Examines different types of Delphi, including the e-Delphi, and modifications made to the technique Includes examples of real empirical investigations, brief case scenarios and key learning points for each chapter Explores the role of the Delphi researcher Explores ethical issues and issues of anonymity, use of experts and controlled feedback

The results help to identify both the accuracies and hidden biases of forecasting techniques, information that should be of

vital interest to all policy-makers and planners.
Experimental research by social and cognitive psychologists has established that cooperative groups solve a wide range of problems better than individuals. Cooperative problem solving groups of scientific researchers, auditors, financial analysts, air crash investigators, and forensic art experts are increasingly important in our complex and interdependent society. This comprehensive textbook--the first of its kind in decades--presents important theories and experimental research about group problem solving. The book focuses on tasks that have demonstrably correct solutions within mathematical, logical, scientific, or verbal systems, including algebra problems, analogies, vocabulary, and logical reasoning problems. The book explores basic concepts in group problem solving, social combination models, group memory, group ability and world knowledge tasks, rule induction problems, letters-to-numbers problems, evidence for positive group-to-individual transfer, and social choice theory. The conclusion proposes ten generalizations that are supported by the theory and research on group problem solving. Group Problem Solving is an essential resource for decision-making research in social and cognitive psychology, but also extremely relevant to multidisciplinary and multicultural problem-solving teams in organizational behavior, business administration, management, and behavioral economics.
Philosophy; General applications; Evaluation; Cross-impact analysis; Specialized techniques; Computers and the future of delphi; Eight basic pitfalls: a checklist; Delphi bibliography.
Through the use of real world examples drawn from various fields, the book provides in-depth procedures for: analyzing and combining different types of data collected in the needs assessment process, prioritizing needs, selecting solution strategies, designing and implementing solution strategies, and examining major multiple-method needs assessment studies."--BOOK JACKET.
Focusing on uses of the Delphi method in social planning, this book discusses practical issues which need to be considered for the technique to be applied successfully; illustrates use of the technique through case studies; and assesses the potential of the method for social policy and planning.
Health systems should function in such a way that the amount of inappropriate care is minimized, while at the same time stinting as little as possible on appropriate and necessary care. The ability to determine and identify which care is overused and which is underused is essential to this functioning. To this end, the "RAND/UCLA Appropriateness Method" was developed in the 1980s. It has been further developed and refined in North America and, increasingly, in Europe. The rationale behind the method is that randomized clinical trials--the "gold standard" for evidence-based medicine--are generally either not available or cannot provide evidence at a level of detail sufficient to apply to the wide range of patients seen in everyday clinical practice. Although robust scientific evidence about the benefits of many procedures is lacking, physicians must nonetheless make decisions every day about when to use them. Consequently, a method was developed that combined the best available scientific evidence with the collective judgment of experts to yield a statement regarding the appropriateness of performing a procedure at the level of patient-specific symptoms, medical history, and test results. This manual presents step-by-step guidelines for conceptualising, designing, and carrying out a study of the appropriateness of medical or surgical procedures (for either diagnosis or treatment) using the RAND/UCLA Appropriateness Method. The manual distills the experience of many researchers in North America and Europe and presents current (as of the year 2000) thinking on the subject. Although the manual is self-contained and complete, the authors do not recommend that those unfamiliar with the RAND/UCLA Appropriateness Method independently conduct an appropriateness study; instead, they suggest "seeing one" before "doing one." To this end, contact information is provided to assist potential users of the method.
Businesses are collecting massive amounts of data every day as a way to better understand their processes, competition, and the markets they serve. This data can be used to increase organizational productivity and performance; however, is essential that organizations collecting large data sets have the tools available to them to fully understand the data they are collecting. Organizational Productivity and Performance Measurements Using Predictive Modeling and Analytics takes a critical look at methods for enhancing an organization’s operations and day-to-day activities through the effective use of data. Focusing on a variety of applications of predictive analytics within organizations of all types, this critical publication is an essential resource for business managers, data scientists, graduate-level students, and researchers.
"Clinical versus Statistical Prediction" is Paul Meehl's famous examination of benefits and disutilities related to the different ways of combining information to make predictions. It is a clarifying analysis as relevant today as when it first appeared. A major methodological problem for clinical psychology concerns the relation between clinical and actuarial methods of arriving at diagnoses and predicting behavior. Without prejudging the question as to whether these methods are fundamentally different, we can at least set forth the obvious distinctions between them in practical applications. The problem is to predict how a person is going to behave: What is the most accurate way to go about this task? "Clinical versus Statistical Prediction" offers a penetrating and thorough look at the pros and cons of human judgment versus actuarial integration of information as applied to the prediction problem. Widely considered the leading text on the subject, Paul Meehl's landmark analysis is reprinted here in its entirety, including his updated preface written forty-two years after the first publication of the book. This classic work is a must-have for students and practitioners interested in better understanding human behavior, for anyone wanting to make the most accurate decisions from all sorts of data, and for those interested in the ethics and intricacies of prediction. As Meehl puts it, " "When one is dealing with human lives and life opportunities, it is immoral to adopt a mode of decision-making which has been demonstrated repeatedly to be either inferior in success rate or, when equal, costlier to the client or the taxpayer.""
Physiolophy. General applications. Evaluation. Cross-impact analysis. Specializet techniques. Computers and the future of delphi. Eight basic pitafalls. a checkelist.
"This book covers the basics of traditional educational testing, measurement, and evaluation theory and methodology, as well as sociopolitical issues and trends influencing the future of that research and practice"--Publisher's description.
This volume is the outcome of a recent NATO Advanced Study Institute (ASI) on "Technology Assessment. Environmental Impact Assessment. and Risk Analysis: Contributions from the Psychological and Decision Sciences." The Institute was held in Les Arcs. France and functioned as a high level teaching activity during which scientific research results were presented in detail by eminent

lecturers. Support for the Institute was provided by grants from the NATO Division of Scientific Affairs. the u.S. Office of Naval Research. and the Russell Sage Foundation. The Institute covered several areas of research. including quantitative studies on decision and judgmental processes. studies on human intellectual limitations. studies on risk attitudes and perceptions. studies on factors contributing to conflicts and disputes about hazardous technologies and activities. studies on factors influencing forecasts and judgments by experts. studies on public preferences for decisionmaking processes. studies on public responses to technological hazards. and case studies applying principles and methods from the psychological and decision sciences in specific settings.

This handbook summarises knowledge from experts and empirical studies. It provides guidelines that can be applied in fields such as economics, sociology, and psychology. Includes a comprehensive forecasting dictionary.

The scientific research proposal is part of the task to be carried out in academic and research institutions around the world. This is a complex decision-making problem, because decision-makers must determine the projects that are appropriate to the subjects addressed by the institution, those projects must be achievable within a reasonable deadline, they must have the financial means and the budget necessary to be carried out, the staff must be sufficiently qualified and an optimum number of personnel must be available to succeed the tasks and not interfere with other research projects.