# Variations to the Imen-Delphi Procedure aimed at Helping in the Emergence of Communities of Interests

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## Abstract

The Imen-Delphi (ID) procedure was designed in the early 1990's in order to facilitate a discussion among a group of panelists sharing a common future interest. The goal of the ID was to help the participants clarify their opinions and expectations regarding their preferable and possible futures. Thus, helping them commit themselves to the task of implementing their desirable agreed upon future (Passig 1993).

This paper aims, after a decade of using the technique, to evaluate its potential for Futures Research. In this paper, we scan a variety of studies that have been conducted using the ID procedure. The paper highlights the variables of the ID versions and discusses their benefits for the study of the future.

## Key words

Imen-Delphi (ID), future methodology, future imagery, emergence, community of interest.

## Introduction

The Imen-Delphi (ID) procedure was developed as a variant of the classical Delphi forecasting technique (Passig 1993, 1996, 1997, 1998, 2000). The classical Delphi technique is based on the assumption that group judgment of trends can enhance the validity of the forecast (Linstone & Turoff 1975, Woudenberg 1991). The RAND Corporation developed the classical Delphi in the early 1950's in a project that was funded by the US Air Force (Brown 1968, Helmer 1966a,b). It was made public only a decade later.

In contrast, the ID was based on the foundations of the Applied Social Systems Theories (Bahg 1990), and relies upon the strengths of later versions of the Delphi technique (Ranch 1979, Turoff 1975, Press 1983, Harkins & Kurth-Schai 1983, Poolpatarachewin 1980).

As Delphi has spread, many variants of the process have emerged out of the conventional procedure. Each variant aimed at improving the procedure in order to respond to needs and critiques. The attempts to refine the Delphi procedure were undertaken by Olaf Helmer (1966b) himself, the originator of Delphi. Since then many other versions have been suggested

to reflect and solve different problems. Variants that developed a practical approach to Delphi as a means to facilitate group judgment formulation and future decision making were suggested from the introduction of the conventional Delphi. The procedure that is reported here - the Imen Delphi - draws from and is built on the theoretical framework and strength of the following major variants.

Soon after the conventional Delphi was introduced, Donald Pyke (1970) developed a variant which he called the Sequence of Opportunities and Negatives (SOON). The Delphi was expanded to include an index of desirability as considered by those who will be affected by the occurrence of the event, and an index of feasibility reflecting major difficulties likely to be encountered by those engaged in the reification of the event.

The Policy Delphi (PD) is a unique feature in the development of the practical approach. A PD procedure, while it maintains anonymity and uses the function of the feedback, does not aim at obtaining consensus but rather to enhance the opportunity for considering all the different views of the participants. It seeks to generate the greatest possible number of opposing views on the potential resolutions of a major policy issue. The PD is, therefore, a tool for generating options and suggests several alternative courses of action to be considered by the policy makers. It helps to eliminate the bottle-neck problem of the committee approach and of the classical Delphi by providing clear delineation of all differing views, thereby providing the opportunity for all the participants to adequately prepare their perspectives on the respective issues (Turoff, 1975).

The Decision Delphi (DD) adds new features to PD. It does not deal with experts nor with lobbyists or advocates but with actual decision makers in order to recruit the panelists with regard to their actual position in the decision-making hierarchy (Ranch, 1979). In this procedure, anonymity is not fully implemented. The panelists' names are known from the beginning, but the responses are kept unidentified with any one participant (quasi-anonymity), in that the prestige of the others would provide a challenge and an incentive.

Another interesting procedure that provides the opportunity to conduct multiple information gathering rounds, in face-to-face settings such as workshops and seminars, while maintaining participant anonymity, is OSCAR (On-Site Conferencing and Researching). The OSCAR conference has been presented by Harkins and several associates of Anticipatory Sciences Inc. (1983). The goals of an OSCAR conference are to assist in planning and strategy formation, to clarify what the future has to offer, and to suggest ways to deal with change. It provides new

ways to think and act. It is a technology of time and event which can be put together in many ways to help achieve alternative understandings of reality.

Although many procedures exist for use in group judgment formulation and decision making, only the Qualitative Controlled Feedback (QCF) procedure incorporates a set of elements that could overcome the weaknesses identified in other group judgment, brainstorming or decision-making methods (Press, 1978, 1983). It does not require the members involved in the group interaction to reach consensus or 'group decision'. It does not allow group members to have interactions when they are making judgments, and it does not permit group members to know the identities of fellow group members, or their individual judgments on the issues in question.

The QCF operates differently from the conventional Delphi in several ways. First, QCF feedback is qualitative rather than quantitative, which means that statements explaining individual judgments rather than group response means and standard deviations are provided as feedback. These qualitative responses may contain information, insights, perspectives and nuances not provided in quantitative responses, which may be of value to individual respondents and to those using the research results. Finally, the QCF does not attempt to achieve consensus. Although the majority or all of the participants may agree on one or many items, consensus is never suggested as the process goal.

Finally, but not least, the Ethnographic Delphi Futures Research (EDFR) (Poolpatarachewin, 1980) represents a creative synthesis of Ethnographic Futures Research (EFR) (Textor, 1979) and the Delphi procedure. It was designed to combine the strengths of both procedures while minimizing their methodological weaknesses. Its advantage is the assurance that the participants will be intensely involved in generating the issues to be considered for group response so that the scope and focus of the issues under consideration cannot be significantly narrowed or distorted by the biases of the researcher.

However, the ID procedure, is based on Systems Thinking, similar to other recent procedures such as Future Search (Weisbord and Janoff, 2000), Search Conference (Emery and Purser, 1996), Syntegration (Beer 1994), etc. The ID, unlike other recent Systems based procedures for creating futures, was designed to develop shared future images among a group of people sharing a common future interest while using the same iterative feedback as the Delphi.

The ID main objective is to enable a group of panelists to establish a collective future mission and to efficiently cope with complex problems regarding their future. The ID procedure is

geared to promote the responsibility and the self-awareness of the participants towards their probable and preferable future. The procedure, as opposed to the classical Delphi technique does not direct the participants to foresee future events. The procedure, instead, is designed to guide them towards general agreement and future growth. They are directed to reach one of the following five types of agreement: total agreements, majority, bipolarity, partial agreement, or total disagreement.

## ID Procedure

The ID procedure is built on the strength of the conventional Delphi and the OSCAR procedure. The ID procedure is iterative - self repeating and self adjusting. Like OSCAR, it is a continuous and focused conversation among concerned individuals, which is carried out in rounds. Here is how it could work (Passig, 1992, 1993, 1996, 1997):

- The selection of panelists would be based on the fact that they are a specific group concerned with a common future issue.

- They are provided with prepared summaries of previous forecasts and studies concerning their possible futures and will be asked:

(1) to read the attached excerpts and projections, which experts had compiled;

(2) to imagine the whole group of panelists sitting in front of them reading the same material;

(3) to imagine they had the opportunity to ask them questions on how they view their future in light of the studies they all had just read;

(4) to think about questions which would extract images from the panelists' minds and hearts concerning their future;

(5) to challenge the panelists' motivations and self-expectations;

(6) to draft a story dealing with a future dilemma that would challenge the panelists to use their perspectives, notions and objectives in dealing with that situation.

**First-round**

The researcher then can develop a questionnaire based on the questions of the panellists. This questionnaire constitutes the first round of an ID procedure.

Repeated attempts should be made to explain to the panellists the reason of having them learn their future. They should be told that they are accustomed to thinking that the causes of the present lie in the past. However, in a very real sense the causes of the present lie in the future, which means that the image of the future people have in their minds can have a dramatic effect on what they do in the present. Repeated attempts need to be made to convince the panellists that the reasons for this kind of study are (1) to inform them about the possibilities of the future being discussed, and (2) to help them assess their present actions accordingly. It should be emphasized that individuals who actively imagine themselves in a variety of clear future roles tend to generate long-term goals. Most importantly, they tend to work enthusiastically and self-confidently toward their attainment. The idea of having them learn their future, thus, is to help them generate positive personal goals, and promote their confidence in attaining those goals. This idea needs to be enlarged in various opportunities explaining that it is important to learn and create complex images of the future since on their basis it is possible to develop skills through which one may adapt to change and create change.

The panelists can then be asked:

 (1)  to read the attached studies and projections, which experts had compiled;

 (2)  to read the questions and answer them briefly;

 (3)  to read the stories and try to enlarge upon them in their reflections;

 (4)  to submit questions to the rest of the panel if they choose to do so.

**Second-round**

The underlying purpose of the second round is to facilitate a thorough interaction that would generate specific ideas listed as statements, which the group could carry out as a redefined mission around the issue under discussion. Therefore, the second-round questionnaires should be designed around proposed mission statements. The statements that comprise the second round are narrated in the course of the reporting process. While the panelists are completing the first-round questionnaire, the researcher is engaged in organizing the answers that were received. The researcher summarizes the responses in reports coinciding with the issues under consideration. These reports should be presented to the panelists. They will be asked to review the first-round reports and to submit mission statements around which the second round questionnaire will be formed.

The panelists will be asked the following three questions on each one of the second-round mission statements:

(1) Do you *prefer* this statement to be fulfilled in your future?

(2) What is the *likelihood* that this statement will apply to your future?

(3) How *important* is this statement to the future of your group?

The purpose of this round is to help organize thoughts and focus the discussion around more specific solutions for (1) preferred futures, (2) expected futures and (3) important futures.

The ID procedure is aimed at producing some type of agreement on an alternative future mission: complete disagreement, plurality, bipolarity, majority or complete consensus. The second round is designed to achieve that purpose. The first question (preference) is designed to solicit a scaled answer: (a) definitely yes, (b) possibly yes, (c) probably not and (d) absolutely not. The second question (expectation) is also designed to solicit a scaled answer: (a) certain, (b) uncertain, (c) probable and (d) improbable. The third question (importance) is again designed to solicit a 4-scale answer: (a) very important, (b) important, (c) average and (d) not important.

This procedure is similar to the QCF procedure developed by Press (1978) to be used to facilitate group judgment formulation and decision making. The second-round design of an ID reflects some QCF features. Like the QCF it does not require members involved in the group interaction to reach consensus or 'group decision', and it does not allow the group members to have interactions when they are making judgments. However, the panelists agree to base their agreement on the majority of the votes.

**Third-round**

At the beginning of a final third-round session, the panelists should be given feedback concerning their panel's responses to the mission statements of the second round. This list of mission statements that comprise the third round should be adapted from the mission statements of the second round that receive the majority vote as being very important goals for the future of the panel. The panelists are then asked the following two questions on each one of the third-round mission statements:

(1) Are you satisfied with what the group did to achieve these goals?

(2) What would you suggest/recommend doing in order to promote/achieve these goals?

(They should be asked to be very specific.)

The purpose of a third round is to have the panelists take responsibility, formulate a final proposed list of future mission statements and to generate new ideas and recommendations.

## A variety of ID studies

In the last decade, we have been conducting a variety of projects in which we used the ID procedure to engage people to reflect on their collective future. Many of these projects were published in academic venues and others in business venues. In this paper we briefly describe a sample of projects partially not yet published in academic venues due to copyright procedures. The executive summaries of the projects, however, could have been ordered from the sponsoring agencies and institutes. Following is a brief description of the projects. We will later discuss the procedural variations we have implemented in each of them.

### *A future mission for communal services*

In recent years, communal service providers have been vigorously evaluating the social and communal trends, which are shaping the evolving 21st Century community. Many of the studies published, in the last decades, that were conducted using various forecasting methodologies aimed mainly at observing evidence that counts for trends. However, our study, mandated by the Israeli Society of Communal Services (ISCS), was an effort to facilitate a future oriented interaction among a group of 60 managers from its top directorial ranks working to develop and run community centers and services. The project aimed at helping them generate new future images of relevant and improved future community services.

The issue that the board of the ISCS faced was how to use the knowledge that has been accumulated by various Futures Studies in order to renew its future working mission for better reflecting undergoing changes in the Israeli society. For that matter, we used the Imen-Delphi (ID) procedure to facilitate a structured discussion through rounds of questionnaires with iterative feedback on the following community related issues: social processes, leisure, technology, values, structural organization, and community topography.

The ID procedure in this project involved people who were familiar with each other, and who used to have similar discussions in various other settings. The procedure forced them to focus on much defined categories on a tight timetable.

The participants in this study developed a set of mission statements for the ISCS that point to a striking transformation in the role of their organization—from a provider of supplementary communal services to a primary provider of a variety of educational and national services. The outcome was a surprise to most of the participants, even though some of them expressed the notion that this mission statement was unconsciously underline the conflicts that emerged among decision makers in the last few years. The procedure helped the participants agree upon the newer mission and delineate creative ideas on how to achieve the goal.

*A future mission of VR in schools*

The exploration of Virtual-Reality (VR) as a potential alternative space for human activity presents great challenges for contemporary thinking. For many researchers, VR has the potential to be a powerful new tool in the classroom. It can extend the classroom, via new windows, into other realities. By reflecting the real world, the simulation gives a participant the chance to try out different options without the dangers, expense, or time consumption, which doing the 'real thing' might involve. One may also try out scenarios that are actually impossible to do in the real world, and determine which scenarios present the best chance of accomplishment.

The purpose of this study (Passig & Sharbat 2000) was to lead a debate through an ID procedure and reach an agreement, among a worldwide group of experts, concerning the future of VR in schools, which can be both preferable and possible. We offered a group of experts who are involved with VR and education an opportunity to take part in an on-line, future oriented discussion with iterative feedback concerning the rationale of using VR in schools in the future. The study was conducted with 50 worldwide experts from the U.S, Canada, UK, Germany, Switzerland, Austria, Greece, Australia, New Zealand, Singapore and Venezuela.

This study was conducted through e-mail. This electronic ID version was designed in order to enable the worldwide group of experts, conduct an anonymous conference whose purpose was to reach an agreement regarding the future objectives of VR in the curriculum. This study, therefore, sought to examine whether it is possible to enhance the efficiency of the discussions taking place on the network. This study wished to harness the ID procedure for conducting group discussions on the net.

The mutually agreed upon concepts regarding the use of VR in schools generated in this study pointed out to a new pedagogy that needs to be addressed by developers, users, scholars and teachers. The agreed upon future mission statements in this research aimed to define the role of VR technology and its contribution to education. The future images pointed out to certain fields and subjects where VR could be especially helpful. It demonstrated the standards and methods that could support the VR technology and lead to its more effective utilization in learning. The results express the hope of the group of experts who participated in this study that VR will change the structure of the classroom, the curriculum and the learning style of the students. Moreover, they hoped that VR will enable students to cope with various learning disabilities.

## *A future mission for vocational training*

Updating vocational curriculum according to reflect real world technological developments have turned out to be a national necessity that the whole educational, economic and social systems have been required to take part in.

This project that was presented to the Israeli Industrialists Union dealt with the challenge of implementing cutting edge technologies within the future vocational curriculum.

Eighty-five educational supervisors, entrepreneurs and senior managers from the Israeli industry participated in this project. The project procedure attempted to motivate the participants to draft an agreed upon future oriented vision for vocational education, as well as suggest means of its implementation. The objective was to examine technological trends (2020) and their impact on training programs, as well as suggesting a model for cooperation among the industry union and training entities.

The panelists who participated in this project agreed upon a vision and generated ideas how to realize it in the following five categories:

- Technologies to be part of the core curriculum.

- Skills to be developed.

- New study programs to be developed reflecting cutting edge technologies.

- Best and most efficient training methods to reflect future technology requirements.

- Models of cooperation among the industry at large and vocational/training system.

*A future mission for Direct Banking*

The characteristics, regulations and future scope of the "new economy" are not clear even to experts. Therefore, the assumptions upon which monetary regulations are based are in constant change. This project, which has been invited by the largest bank in Israel—Bank Hapoalim, aimed to establish a think tank forum from a group of senior managers. Its objective was to draft a working vision for the Direct Banking Department. The group included 25 senior managers from all departments of the bank. The project was based upon the assumption that the bank capability to lead the market of direct banking products, will depend a great deal upon the relevancy of its activities, which result from their accord to future trends as well as a clear vision.

The think tank panel engaged through the ID procedure into three thorough working sessions. As triggers the sessions included lectures and presentations in order to study the nature of the emerging 'new economy' in a variety of aspects: future communication technologies, future customers' life styles, and national and international trends in banking regulations. The procedure produced a preferred and agreed upon list of future mission statements for the Direct Banking Department. Generally speaking, the vision the participants have generated, conceived the core business of the department in a very different way than it used to be at the opening of the procedure. The initial core business before engaging in the ID procedure was defined by the department as merely a vehicle to minimize the costs of the transactions with technologies. However, at the conclusion of the procedure, the core business was conceived as a collaborative vehicle to engage people in a variety of transaction never executed before. This vision was then translated into real products and services.

## ID Variations

It has been suggested in the literature that the study of images of the future can empower the thinking of organizations and help them develop clearer concepts and purposive sound actions. Organizations are confronted by a great challenge that of imagining the ideal, and then acting to transform the imperfect present into a perfect future. Since the ID procedure is an applied social methodology for the enhancement of the future imagery of an organization (Passig 1996), it was essential in the various projects to be attentive to the needs of the participants and modify the procedure to fit the issues in consideration in order to better generate creative future images.

What came out of this special attention was a series of variations in the procedure that covered a range of aspects. At the end of each project we assessed the new modifications in order to evaluate their effectiveness in improving the overall goals of the ID procedure. We were concerned that the modifications might have damaged the cohesiveness of the initial procedural design and affected the reliability of the procedure to engage participants in generating purposeful future imagery. We were glad to realize that on the contrary it has just strengthened the cohesiveness of the procedural design.

The following is a list of deviated modifications, which came out from the participants' feedback. These modifications were carried out in the course of the procedures in the ID projects mentioned above and various other published projects (Passig 1996, 1997, 1998, 2000).

*Participants*

In the original ID procedure (Passig 1993), the participants were volunteers from the particular group being researched who agreed to take part in a future oriented discussion regarding their common future. The ID procedure did not intend to involve participants that will statistically represent the entire group. It was designed to just engage the participants to take a pro-active approach to their future.

In the course of the various projects, a genuine need has evolved to include in the procedure a larger number of participants or even the entire group concerned with the issue at hand. In the Direct Banking project, all the employees of the Direct Banking Department took part in the discussions, since the head of the department thought it will be consistent with the department's corporate culture if everybody participates. In the Communal Service project, the Vice President of the ISCS believed that the opportunity to take part in such a future oriented debate should be proposed to all the departments of the ISCS. However, since we could not involve in the procedure thousands of people, we decided to have each department come out with a handful of volunteers willing to commit themselves to the procedure.

We found that it is necessary to be attentive to the diversified needs of each group in the process of forming the final ID list of participants. Since the nature of the ID is to engage people to think about their common future, we realized that we should be alert to the organization's inner politics and corporate culture. That culture is the background to the common effort to draft a new future mission. It was clear that the organization will take

seriously the suggestions of the participants if no constrains will be presented at the initial stage of the panel formation. This characteristic of the ID procedure was very much appreciated by the participants (see Table 1, 2).

Table 1. Participants' issues in the original ID procedure

| Strongly agree | | % | | Strongly disagree | Participants |
|---|---|---|---|---|---|
| 5 | 4 | | 3 | 2 | 1 | |
| | 73% | | | | | I enjoyed working as part of a group of panelists who volunteered to take part in this study. |

Table 2. Participants' issues in the ID variations

| % voted strongly agree | | | | Participants |
|---|---|---|---|---|
| Community Services | Vocational Training | Virtual Reality | Direct Banking | |
| 58% | 79% | 80% | 84% | The working procedure with other participants was empowering and enjoyable. |
| 60% | 77% | 80% | 83% | The forum of participants was relevant to the aims of the ID project. |

*Facilitators' role*

In the original procedure, the researchers defined their role as facilitators. The initial idea of facilitating the project was to enable the streaming of the questionnaires. In the initial ID procedure, we were in charge of collecting the triggers (excerpts from a variety of resources to trigger and initiate the discussion), organizing them into categories and distributing them among the participants for their input. This pre-round stage was designed to enable the participants draft questions for the first round questionnaire. The role of the participants throughout the entire procedure was to suggest a list of questions and draft their answers. The role of the facilitators was to collect, organize, summarize, crunch numerical data and present them to the participants for their further input.

However, in the course of the various projects, we found the participants willing to take part in the collection of the triggers as in the case of a future mission for VR. In other projects, as in the cases of the Direct Banking and the ISCS, the participants clearly stated that they would

like to take over the aspect of data processing and organization. Indeed, the facilitators in those cases became more of heads to an extensive teamwork, which involved almost the entire procedure.

The reason for such a change in roles derives from the nature of the ID procedure. The ID procedure aims at engaging a group of people to reflect deeply on their future images and debate those images with their fellow participants. The participants found it easier to delve into their future aspirations through the process of sorting and analyzing the entire group's reactions. It did not suffice to mark down their answers to the questionnaires. They have learned more about their future preferences by analyzing the group's other future ambitions and dreams (see Table 3, 4).

Table 3. Facilitators' role in the original ID procedure

| Strongly agree | | % | | Strongly disagree | Facilitators role |
|---|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 | |
| 82% | | | | | The facilitators conducted the procedure in a manner that made its goals clear and easy to follow. |

Table 4. Questionnaires issues in the ID variations

| % voted 'strongly agree' | | | | Facilitators role |
|---|---|---|---|---|
| Community Services | Vocational Training | Virtual Reality | Direct Banking | |
| 78% | 72% | 86% | 77% | The interactions within the working groups in formulating the questionnaires were inseminating. |
| 61% | 68% | 93% | 65% | The way the facilitators led us to analyze and formulate the mission statements was effective. |

*Means of communication*

In the original procedure of the ID, a face-to-face communication between the facilitators and the participants was established. The assumption in the original ID procedure was that with an absence of a direct connection among panelists due to anonymous constraint, a face-to-face interaction between facilitators and the group as a group was required, yet in the various projects that had been conducted we found that this assumption had been disproved. In the project regarding VR in education, a wide world communication stream through e-mail had to

be established. Yet the participants did not reject this kind of interaction neither with other panelists nor with the facilitator.

In the project regarding future vocational education, the communication between the facilitators and participants has been accomplished through snail-mail, which was convenient for the participants since they didn't have to physically gather in different places. Alternatively, in the Direct Banking project as well as in the Community Services project face-to-face meetings between the facilitators and participants has been especially proven to be efficient, probably due to the personal acquaintance among participants.

During the course of the ID studies, we found that it is possible to reach the participants through various means. Constraints such as: distance, budget, location or special needs, brought about a change in the original streaming of communication between the facilitators and participants. The flexibility in the means of communication resulted from the main objective of the ID procedure itself. The Imen-Delphi aimed at streaming a process that will enable a group of participants to retrieve and refine their opinions regarding a future mutual interest. The Imen-Delphi technique is an exercise to create communication among a group of individuals, which enables them to study experts' forecasts, to create new future images, to find common ground and determine a common future mission. The procedure intends to promote responsibility, self-awareness as well as group emergence. The subjective character of an obtained agreement is the most important element of the collective development. Therefore, the flow of the procedure ought to reflect the genuine needs and constraints of the participants. In any case, the procedure should remain under the assumptions and basic rules of anonymity (Table 5-6).

Table 5. Means of communication in the original ID procedure

| Strongly agree | | % | | Strongly disagree | Means of communication |
|---|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 | |
| 68% | | | | | The information presented in the teasers increased my knowledge of possible trends. |

Table 6. Means of communication in the ID variations

| % voted 'strongly agree' | | | | Means of communication |
| --- | --- | --- | --- | --- |
| Community Services | Vocational Training | Virtual Reality | Direct Banking | |
| 79% | 75% | 74% | 94% | The facilitator's presentations about the variety of trends increased the overall clarity of the aims of the procedure. |
| 60% | 71% | 80% | 80% | The active involvement of the facilitator in the procedure supported the objectives of the study. |

## Discussion

The ID procedure is an applied social methodology for the enhancement of future imagery (Passig 1998) of decision makers in organizations. As such, we found it appropriate in the various projects to be attentive to the needs of the participants and modify the procedure to fit the issues at hand. What came out of this attention was a series of variations covered here.

We took this free approach to modify the procedure from the foundations of Applied Social System's Theories. Applied Social System's approach claims that science needs to work for the betterment of human systems. Bohm and Peat (1987) suggested that the increasing fragmentation and specialization of science led to 'the point where the whole activity is losing its meaning'. Therefore, they said: 'we need to change what we mean by science', and bring about basic changes that: 'would represent significant move toward liberating the surge of creativity that is needed if science is to help in confronting the deeper problems of humanity'.

We found this approach powerfully articulated in Mitroff and Churchman's 'Manifesto' (1992). They provided definitions and concepts of science that are very different from the prevailing tradition. They believe that the institution of science should 'exist primarily to serve humanity, and not the narrow specialized interests of disciplines. "Any science or discipline that loses sight of this fundamental principle not only forfeits its legitimacy, but its basic right to existence," they claimed.

Standing on the shoulders of Mitroff and Churchman, the ID procedure and its variations are a response to their manifesto of systems service. It is our belief that the variations of the ID procedure demonstrate that scientists can realize the challenge of this vision. System science can be successfully placed at the service of an organization to better generate new ideas about the future.

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