TRANSMITTAL SLIP

TO:

ROOM NO.	BUILDING

REMARKS:

EXO/DDA

DDA REGISTRY

D/PAO has action and
D/OIT RECEIVED A COPY.

INFO COPY TO:
D/OIT
ADDI
done 10/31/85

STAT

STAT

FROM:

ROOM NO.	BUILDING	EXTENSION

FORM NO. 241 1 FEB 56 REPLACES FORM 36-8 WHICH MAY BE USED. (47)

EXECUTIVE SECRETARIAT

ROUTING SLIP

TO:

		ACTION	INFO	DATE	INITIAL
1	DCI		X		
2	DDCI				
3	EXDIR		X		
4	D/ICS				
5	DDI				
6	DDA		X		
7	DDO				
8	DDS&T				
9	Chm/NIC				
10	GC				
11	IG				
12	Compt				
13	D/OLL				
14	D/PAO	X			
15	VC/NIC				
16	D/OIT		X		
17					
18					
19					
20					
21					
22					
	SUSPENSE		Date		

Remarks

TO #14: Please prepare an appropriate response.

STAT

Executive Secretary

30 OCT 85

Date

3637 (10-81)

XOR CORPORATION

10-22

85-3714

Dear Mr. Casey:

A year ago I met you at AFIO dinner and showed you my possible IBM PC software‡ that would simulate the intelligence business in a way that would benefit the Community and the country.

My first product, NFL Challenge, is a hit this fall (see cover of PC World enclosed). See NFL release.

I am interested as to what kind

next

‡ attached

XOR
CORPORATION
5421 OPPORTUNITY COURT
MINNETONKA, MN 55343
(612) 938-0005

of Cooperation I can get from you and your staff (particularly CI) for the project

This product could be the "FBI" (ABC series by QM) of software and I would like your support and endorsement. You'll not regret it.

Also enclosed is a paper summarizing a talk I gave to a Consultant to the Community on calibrating analysts.

Sincerely,

Glenn Diamond

Attachments
Enclosures
CC:

STAT

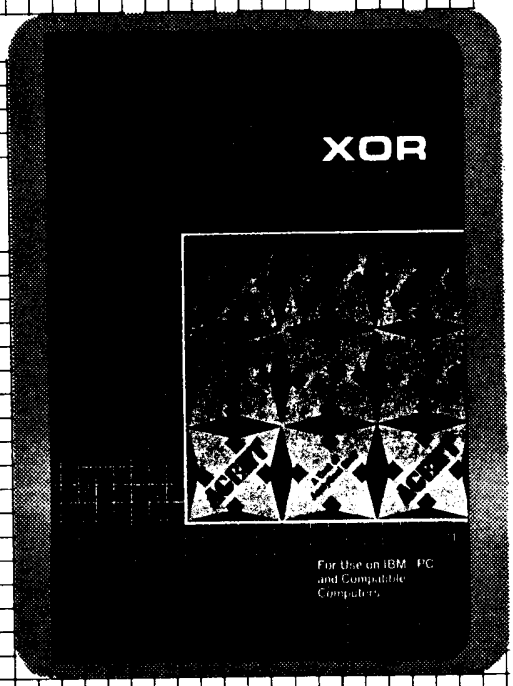
AGENT 2.0™

A Test of Analytical Skill

AGENT 2.0 is a test of your analytical skills that challenges your information processing ability. You have the information. Is the crisis real or imagined? Is the spy ours or theirs? Is the file fact or fiction? You must decide the truth of Operation Kaleidoscope. Agent 2.0 is a counterespionage adventure, in-basket exercise, and PC DOS tutorial all combined into first class software. Created by Michael de St. Hippolyte.

Requires IBM® PC with DOS 2.0, 128K memory, color/graphics adapter, and color monitor.

IBM is a registered trademark of International Business Machines Corporation.

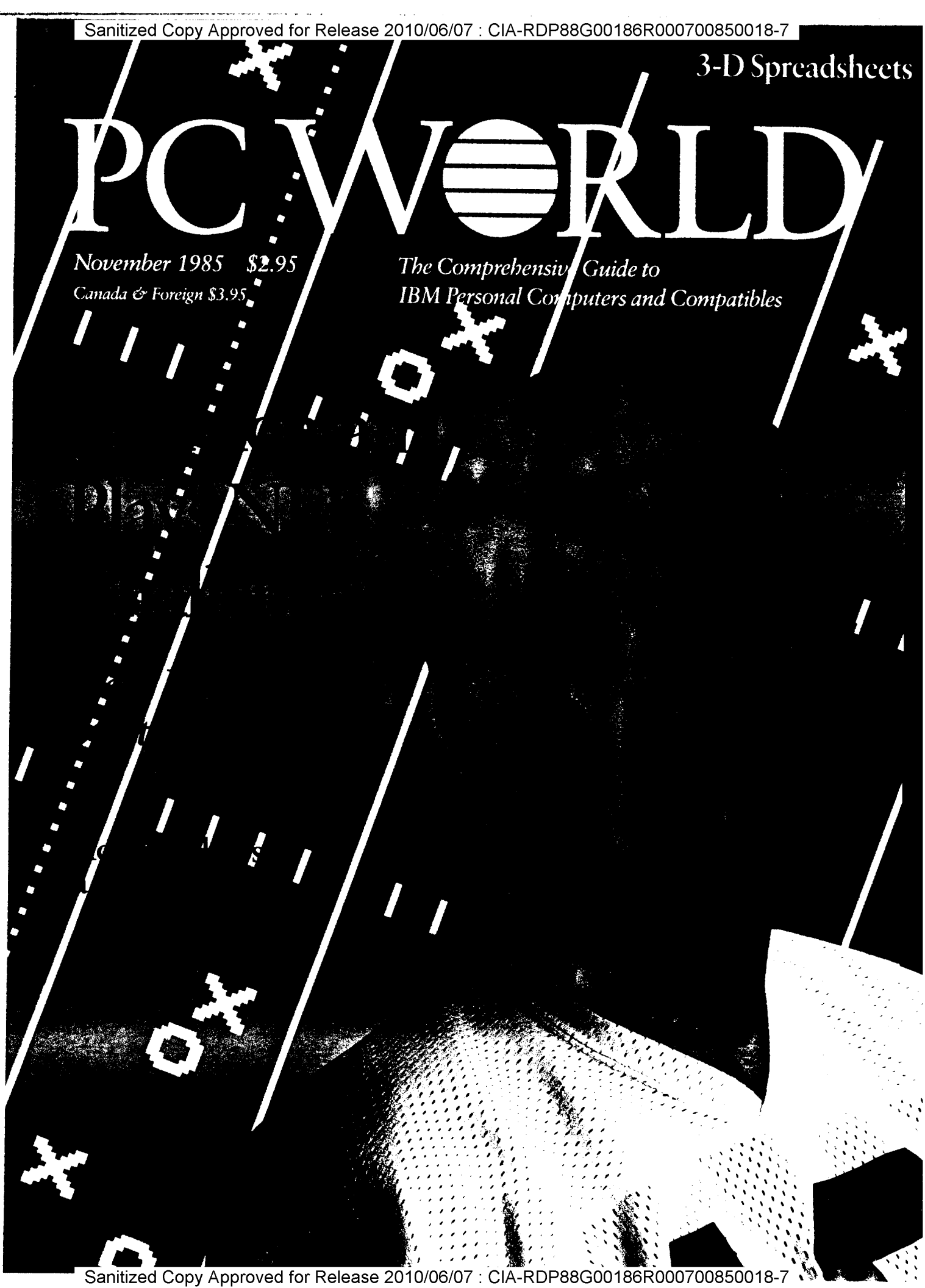


3-D Spreadsheets

PC WORLD

November 1985 $2.95
Canada & Foreign $3.95

The Comprehensive Guide to
IBM Personal Computers and Compatibles



PC WORLD
November 1985
Printers

Sanitized Copy Approved for Release 2010/06/07 : CIA-RDP88G00186R000700850018-7

LEADING EDGE WITH NFL CHALLENGE SIMULATION

PC WORLD COVER: "JOE MONTANA PLAYS NFL CHALLENGE"

New York, New York, October 28, 1985 — The National Football League has joined the personal computer world with the introduction of its officially-licensed simulation of NFL football, NFL Challenge, which graces the cover of the November issue of PC World, the IBM PC world's largest publication.

PC World's cover story, "Joe Montana Plays NFL Challenge", gives NFL Challenge high praise indeed. Says John Bello, executive vice president of NFL Properties, the licensing arm of the NFL, "We have been watching the steady growth and rising prominence of personal computers in our society and felt that the time had come for the NFL to get involved. And we're really pleased with NFL Challenge."

David Bunnell, Publisher of PC World, says, "When IBM got involved in personal computing, it was big news, but it was expected. The NFL getting into personal computing is unexpected, and it is very exciting. It allows PC World to put NFL Challenge and Joe Montana on the cover."

The November issue of PC World is available on newsstands nationwide. In his conclusion, PC World associate editor Eric Brown writes, "... NFL Challenge is great fun. It's been a long time since a program has consistently kept me up until 3 in the morning... Sophisticated simulation games such as NFL Challenge might provide the spark that's been missing from the world of PC's."

NFL Challenge is an extremely sophisticated simulation of NFL football that uses all of the features of the IBM Personal Computer and its pure compatibles. It has many sophisticated features and features state-of-the-art animated grpahics of actual football plays.

In the feature article, 49ers star quarterback Joe Montana plays a quarter of NFL Challenge against Brown in a replay of Super Bowl XIX. Montana, coaching the 49ers, takes the ball down the field to score on his first drive, highlighted by a big fourth-and-one 14-yard touchdown pass to Dwight Clark. The quarter ended with the 49ers leading 13-3.

CC-Mr. Casey DCI

NFL is happy, CIA will be too.

Sold pr. for Intel

XOR CORPORATION

Brown describes Montana reacting to the animated play graphics of one play: ""I need help," he said as he saw the eight rushers draw a bead on his on-screen doppelganger. "Oh, man. What's he throwing to the weak side for?" Pass incomplete."

Montana's reaction to NFL Challenge? "I think it's great," he was quoted as saying. "I especially like the idea that you can use the Undo key to see what would have happened if you had called another play. You don't get that luxury on the field."

we did good

NFL Challenge was developed by Minnesota-based Xor Corporation under a license from NFL Properties. Says Buddy Diamond, Xor's founder, "Our crack team of Harvard and Stanford wiz kids was told to push back the outside of the envelope as far as the IBM PC is concerned, and they did it. And our package, created by NFL Properties' Creative Services Division, which includes the highly informative NFL Illustrated Playbook, is the best in our industry."

The product is available in hundreds of retail stores nationwide, including B. Dalton Software Etc., Wherehouse Entertainment, ComputerCraft, Schaak Electronics, and Lechmere Sales. It costs $99.95. Said John Dvorak, noted computer columnist for the San Francisco Examiner, "If there's a computer game worth $99.95, this is it, believe me."

Brown's comment in his article sums it up: "NFL Challenge is more than a game; it's a close simulation that can teach you a lot about football." For the millions of IBM personal computer users interested in the NFL, NFL Challenge is a dream come true.

QED

-30-

Mr. Casey -

Output from NFL Challenge for Sunday's big NFL game

Xor Corporation
Summary of Fifty Runs of Vikings at Bears.
Simulation Run October 22, 1985.
Uses full-strength end-1984 rosters so best use of results is in evaluating season-to-season change.
To edit to 1985 rosters for customized simulation, see NFL Challenge User's Guide pages 17, 18, and 36.
NFL Challenge Simulation Version V1.03

Bears won 45.0 of 50.0 games played
Vikings won 5.0 of 50.0 games played

Average Results from 50 games played

Team	Bears	Vikings
Points	25	13
First Downs	23	14
Rn - Ps - Pn	11 - 11 - 1	4 - 9 - 1
3rd Dn Convs	6 - 13 - 46.2%	4 - 12 - 33.3%
Time of poss	35:16	24:50
Total Net Yds	356	213
Plays - Avg	64 - 5.6	52 - 4.1
Net Yds Rush	189	79
R Plays - Avg	40 - 4.7	22 - 3.6
Net Yds Pass	167	134
At - Cp - Int	23 - 13 - 1	26 - 13 - 1
Average Pass	7.0	4.5
Sacks - Yds	1 - 5	4 - 31
Punts - Avg	4 - 39.5	6 - 40.8
Return Yds	119	127
Penalty - Yds	6 - 47	4 - 34
Fumble - Lost	2 - 1	1 - 1

Minimum Results from 50 games played

Team	Bears	Vikings
Points	10	0
First Downs	7	3
Rn - Ps - Pn	3 - 4 - 0	1 - 2 - 0
3rd Dn Convs	2 - 7 - 28.6%	0 - 8 - 0.0%
Time of poss	23:59	17:50
Total Net Yds	159	91
Plays - Avg	42 - 3.8	28 - 3.3
Net Yds Rush	82	30
R Plays - Avg	27 - 3.0	11 - 2.7
Net Yds Pass	77	61
At - Cp - Int	15 - 7 - 0	17 - 7 - 0
Average Pass	5.1	3.6
Sacks - Yds	0 - 0	0 - 0
Punts - Avg	0 - 0.0	1 - 44.0
Return Yds	29	37
Penalty - Yds	1 - 10	1 - 10
Fumble - Lost	0 - 0	0 - 0

Maximum Results from 50 games played

Team	Bears	Vikings
Points	55	27
First Downs	41	32
Rn - Ps - Pn	18 - 19 - 4	12 - 17 - 3
3rd Dn Convs	13 - 19 - 68.4%	9 - 19 - 47.4%
Time of poss	42:10	36:01
Total Net Yds	639	402
Plays - Avg	92 - 6.9	88 - 4.6
Net Yds Rush	302	142
R Plays - Avg	57 - 5.3	35 - 4.1
Net Yds Pass	337	260
At - Cp - Int	32 - 20 - 3	44 - 23 - 3
Average Pass	9.6	4.9
Sacks - Yds	3 - 18	9 - 68
Punts - Avg	8 - 44.3	9 - 42.6
Return Yds	258	245
Penalty - Yds	11 - 93	8 - 74
Fumble - Lost	6 - 4	4 - 4

CC-Mr. Casey, DCI "Understanding of Intelligence methods can help all U.S. people who are involved with decisions and/or trust."

A Microcomputer Program for Calibrating Intelligence Analysts

by Glenn E. Diamond, Xor Corporation

"It is likely that most analysts, most of the time, are not even aware of the background level of uncertainty because their job is to bring reason out of the chaos, not to study the chaos itself."

-- Fredric S. Feer
Analytical Assessments Corporation
Colloquium on Analysis and Estimates (1979)
Consortium for the Study of Intelligence

A. Generally.

In the intelligence production system, the Analyst could be said to be a knowledge worker who fashions information from data for action by the policymakers and decisionmakers of national government.

Analysts, just like fine machine tools, must be calibrated constantly to assure that their outputs are within acceptable tolerances demanded by the end users of the product. Surely, a normal result of all human analysis is partial error. To paraphrase Bishop Berkeley: To be is to be deceived.

In each analysis, the analyst uses critical judgments, assumptions, and logic upon the data to create information in usable form. Rarely does the analyst have the time, inclination, or bureaucratic imperative to do these two things: a) Seek and incorporate into analysis raw intelligence that has been filtered out of collection output due to it being false, erroneous, or based on deception as determined by counterintelligence, or b) Systematically analyze the critical judgments, assumptions, and logic underlying the analysis from a counterintelligence perspective.

B. Calibration Important.

An analyst out of calibration is susceptible to preconception, self-deception, and external deception. Analysts are the target of strategic deception; we know that. Deception is expanding exponentially now; we know that. Yet we depend on intelligence analyses and estimates in formulating our national policy.

A properly calibrated analyst will "turn over as many rocks" as necessary to produce good intelligence product. This is an art; if too many "rocks" are turned over, the product has decayed past its half-life, if too few, the product is more opinion than information as it was fermented from tunnel-vision or myopia or preconception or premature cognitive commitment (Harvard's E. J. Langer's term).

Calibration of the analyst is an example of integrating counterintelligence into all aspects of the inteligence production system. In fact, the modern analyst must have an "on-board counterintelligence module".

In a state-of-the-art intelligence production system, the counterintelligence staff analyzes the analysts who have already analyzed themselves. All collected data should pass to analysis unfiltered, but counterintelligence-rated.

C. The Simulator.

A microcomputer-based (hence portable) program can be developed which, though abstract in nature, can enable an analyst or the analyst's superiors or counterintelligence to check analyst calibration.

It will present to the analyst a "test pattern" over which the analyst can lay a specific analysis for calibration:

1. Identifies data universe of analysis.
2. Uses "n-1, n+1" rule to reach contradiction point.
3. Identifies critical judgments and assumptions.

4. Uses "disconfirmed disconfirmation" to check logic.
5. Builds "matrix of analyses" off of analysis.
6. Analyst analyzes analysis of analysis with manager.

The result of this activity can produce useful information for the analyst, intelligence management, and counterintelligence to create multi-leveled all-source deception insurance. That is what must be done.

For instance, step one assures that an acceptable universe of data was analyzed. That implies data of all "vectors" and "scalars", including negative data, uncertain data, false data, deception data, etcetera.

Step two alters that universe in many ways to ascertain at what point the analysis breaks down or contradicts itself. This rates the calibration of the analyst in his data acquisition function, and especially pointing out anchoring biases.

Step three is an important process as the analyst analyzes the analysis; dissects it for the additional tests. The quality of this dissection is an important calibration check too, since if the checking is sub-standard the analysis will tend to head in that direction.

Step four is the falsification test. An analysis must be falsifiable to be usable as finished intelligence product. Every disconfirming element must be reckoned and either confirmed or disconfirmed. Which leads to step five, wherein all the various possible analyses branching from the main analysis are elaborated. Of course, absolute disconfirmation (the disconfirming of all disconfirmations) is an "A". One thing the analyst will learn from this program is that A's are seldom given.

In step six, with other staff, the analyst grades the analysis and re-calibrates. A record should be kept to aid in future evaluations of the analyst's analyses and estimates and to assist the analyst from time to time.

D. The Goal.

The major problem in analyst training and evaluation is the problem of defining the analyst itself. This program ends up there. The modern analyst in the modern intelligence production system probably needs to be evaluated not in academic terms, but as the hybridization of collector, counterintelligence, and collator. The shoe-box gives way to Arthur C. Clarke's "monolith". And objective and subjective observation of the analyst-in-calibration would be high-quality grist for the counterintelligence mill.

Though Don Quixote said "facts are the great enemy of truth", it is important to state that when in a near-infinite potential data environment, the analysis supercedes the data as the fundamental weakness. A finite set of data analyzed infinitely will yield more "fungible truth" than an infinite set of data analyzed finitely.

The Analyst Function can be refined and refined. If we analyze it.

The End

Glenn E. Diamond is the founder of Xor Corporation, an IBM PC software development house in Minnetonka, Minnesota that specializes in advanced simulation work. Its first simulation for the consumer market, the popular "NFL Challenge", officially-licensed by the NFL, is the cover story topic in the November issue of PC World: "Joe Montana plays NFL Challenge". Mr. Diamond is a recognized technological thinker who has made contributions in the fields of third world industrial development ("Export Development Functionality with an Import Substitution Form Factor for an Optimal Industrial Development Velocity per Increment of Domestic Resource Costs Employed", AAPRD, 1981) and conventional deterrence ("Robotic Armored Infantry Command for Ultimate Conventional Deterrence Along the NATO Central Army Group Front", D&FA-ISSA, 1983).