

Of Mice and Man (a revelation)

I have recently been thinking about the problems of the computer industry and have had a revelation that I think quite relevant to our situation here at ARC. I would like to share my thoughts with you but first I would like to give you some background of the events leading up to my current ideas.

1

I have long thought about how magical and mysterious our modern analytical techniques would have seemed to intelligent people before Euclid, Newton, (etal.) gave us formal definitions and methodology for geometry, calculus etc. There are certainly many historical examples for such conceptual or methodological breakthroughs. The concept of a "Breakthrough" is much overused in modern society and I dont intend to lay one on you now (so you can rest easier). I would, however like to point out that Physics and it's resultant effect on computer hardware in fact has had a major breakthrough with the development of integrated circuits. Whereas computer programming is still using the same methods employed with the first computers. Granted some progress has been made but most people agree that a breakthrough in computer programming is necessary and maybe long overdue.

2

The problem seems to be that programming (system design etc.) is a much more complex problem.

3

EXTREMELY COMPLEX PROBLEMS (the principle problem of our times)

4

Historically our analytical techniques have not dealt well with problems of extreme complexity or that contained an inordinate number of independent variables. Statistics has attempted to deal with this area but has had very limited success. Its approach has been to use traditional analysis and it has had the same problems as other branches of science in dealing with problems of this nature.

4a

Extremely Complex Problems generally have the following properties:

4b

1) large number (approaching infinity) of independent variables,

4b1

2) lack of localization,

4b2

and generally cause the following reactions in people attempting to deal with them:

4c

1) Confusion

4c1

2) Frustration

4c2

3) Chaos

4c3

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If you accept the premise that the most pressing problem in modern society is that society's inability to solve extremely complex problems and ,that a major conceptual or methodological "breakthrough" is necessary to facilitate such solutions then it seems someone should setup a laboratory that would attempt to create (in a controlled way) the conditions and an environment necessary to maximize the probability of a breakthrough of the desired type.

4d

THE BREAKTHROUGH LAB

5

This Laboratory should have all the attributes of a normal project with the following exceptions.

5a

1) A director who is autonomous and really not a member of the project. This allows him to really be in control of the project. In essence he is the experimenter.

5a1

2) An inordinate number of intelligent people in order to maximize the chance of a breakthrough.

5a2

3) Unusually diverse professional and personal backgrounds in order to cover as much of society and technology as possible (cross fertilization)

5a3

4) The pseudo project should be in a high technology area.

5a4

5) Avoid success in traditional terms. This will cause a false sense of accomplishment and will make the project members complacent. (Remember the goal is a breakthrough, not a successful project)

5a5

6) Maximize confusion, frustration, and chaos. This is the general atmosphere for complex problems and a breakthrough is more likely under these conditions.

5a6

7) It is probably necessary (maybe not) that the members of the pseudo project not be aware of the labs real goals.

5a7

8) The members of the project should be highly motivated to achieve the projects goals (not the labs) even if ill or self defined.

5a8

9) All problems, even if simple, must be viewed in a higher context in order to make them complex (remember, these are the ones we are after).

5a9

The laboratory's primary purpose is to create and maintain an environment suitable for a "breakthrough". This means care must be

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taken that the frustration level of the participants must not become so high, or the incremental rewards so low, as to cause the subjects' to leave the lab or the apparent normalcy of the project to become unstable. Such tools as apparent inept or indecisive management, fuzzy goals and unclear departmental or functional lines can, and should, be used as effective devices in creating an atmosphere of "creative frustration".

5b

Some Comments

6

You have probably suspected that my breakthrough lab is really ARC. Quite frankly the frustration and chaos here has been driving me nuts. I just cannot accept the apparent madness of our situation. I have pieced together a conceptual model of whats going on here at ARC that really explains the situation as I see it. I have discussed my model with several people and it has been as revealing to them as it has been to me.

6a

The experimenter in our BREAKTHROUGH LAB is DCE and the mice are the members of the ARC staff. The confusion and seeming inability to get organized and lack of goals are all calculated. The various groups and their diverse directions are all part of the plan to create the desired atmosphere in the hope that the much desired breakthrough will happen. I don't mean to imply that Doug is some demoniacal mad scientist, but it should be noted that he is tampering with our lives in a very significant way.

6b

You may be surprised to learn, now that I understand the game here at ARC (or at least think I do) that I have not quit. After all, being a mouse running somebody's maze isn't a very nice way to think of ones self; however, I have played many games and most have been worse. The major frustration for me has been not understanding what was going on. Now that I have put that behind me I can get to work and decide if I want to play and how I can get the most out of this new and certainly interesting game.

6c

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Donald C. (Smokey) Wallace, Richard W. Watson, Don I. Andrews,
A. Jim Blum, A. Analysis, Meredith(Reddy) E. Dively, Jeanne M.
Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Mark Alexander Beach,
Judy D. Cooke, Marcia Lynn Keeney, Carol B. Guilbault, Susan R. Lee,
Elizabeth K. Michael, Charles F. Dornbush, Elizabeth J. (Jake)
Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White, Diane
S. Kaye, Paul Rech, Michael D. Kudlick, Ferg R. Ferguson, Douglas C.
Engelbart, Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper,
Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, Jeanne B. North,
James C. Norton, Jeffrey C. Peters, Jake Ratliff, Edwin K. Van De
Riet, Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor