Conceptualising, Mapping and Measuring Social Forces.

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1. How we got here.
Chart 1

Importance of Objectives: Adolescent Pupils

Percentage of pupils rating each objective “very important”

1. Initiative to introduce change 82
2. Independence 79
3. Outside Speakers: Careers, other topics 78
4. Apply knowledge to new problems 76
5. Characters / personalities 76
6. Careers information 73
7. Express self articulately 72
8. External examinations 71
9. Able to study independently 67
10. Masters of destinies 66
11. Consideration of others 55
12. Right and wrong 51
13. New subjects: Philosophy, sociology etc 44
14. Wide range of cultures / philosophies 38
15. Interest in non-examined subjects 37
16. Sense of duty to community 36
17. Parenthood: Home-craft 32
18. At home with figures / numbers 29
19. Non-examined aspects of subjects 28
20. Rules: (clothes / hairstyles in school) 22
21. Rules out of school behaviour 9
Why Main Goals Neglected

1. Do not know how to achieve.
2. Will not come to terms with social functions of education - incompatible with self-image.
3. No means of assessing – so can not:
   (i) See progress.
   (ii) Monitor own effectiveness.
   (iii) Get credit in certification process.
   (iv) Get credit in accountability and evaluation.
4. Value-Laden:
   One group or other opposes. Incompatible in same class.
   Need to individualise in relation to pupil's values so pupils can practice components of competence, but teachers don’t know pupils' values and do not respect "working class" values.
   Assessments value-laden.
   - Can only observe if classroom elicits.
   - Observers’ perceptions influenced by his/her values and competencies: Lack ability to manage independent, thoughtful, people.
   Need to influence values - fear of brainwashing.

Handle by choice. But prevented by lack of respect and worries about perpetuating status quo. Compare private schools.
5. Transformational. Can't specify outcome in advance.
7. No tools to help teachers administer individualised, CBE programmes. Too much to expect.
8. Variety and choice in conflict with equality: Worries about reinforcing social divisions.
9. Conflict with beliefs about behaviour to be expected of public servant. Requires teachers to attend to pupils’ needs and invent ways of meeting them. Requires teachers and pupils to be doing things they do not know how to do and the outcomes of which they cannot specify in advance. Public servants not expected to be innovators and adventurers: expected to do bidding of elected representatives. Criteria and tools of accountability. Creation and management of innovative climates in schools/public service.

Won't call for research because do not think it can help them with such problems.
Many of the reasons why these goals are neglected are extremely important on their own.

But the most important from the point of view of today’s discussion is that

they form an autopoietic, self-reinforcing, self-extending system

which is sketched in the next slide.
Figure 1: Feedback loops driving down quality of education

A prosperous, engaged, but non-sustainable society. Highly functional for some in the short term. Creates jobs and meaning for most. Prosperity bought by externalising costs to future, biosphere, Third World.

Awareness of non-sustainable nature of society.

Disatisfaction with the educational system.

Calls for change.

Failure to develop the talents to understand and change society.

Creation of society in which nothing is what it seems to be.

Inappropriate beliefs about the nature of the changes needed in education and how to be introduced.

Sociological imperatives
- Legitimise rationing of privilege.
- Neutralise demand for change in the social order.
- Promote "cornflakes package" people.
- Promote gullible, uncritical people.
- Create differentials which compel participation.
- Mis-allocate blame for social ills – lay blame at door of poor, parents, teachers – not managers of society.

Narrow educational activity
- Generates incompetence
- Produces qualities that are personally and sociologically useful in the short term but dysfunctional in the longer term.

Inappropriate criteria for teacher and school appraisal.

Demand for and acceptance of narrow, misleading and invisible assessments.

Failure to call for research.

Inability to design competency-oriented educational programs.

Lack of understanding of Nature. Development and assessment of competence, and, especially its basis in values.

Failure to understand need for variety in public provision.

Failure to create variety in schools.

Inappropriate beliefs about society and how it is to be run
- Wealth/Quo. comes from the market.
- Public servants are parasites on society.
- Elected assemblies can adequately supervise the public service.
- Governments should tell public servants what to do.
- Hierarchical management is effective.
- Hierarchical management promotes the most able leaders.
- Public provision should be uniform.
- Competition at tasks having single criteria of success is the most important driving force in society.

Intervention in these cells would help change the nature of the qualities nurtured and rewarded in the system. Motives which could be harnessed to do this are marked ✫.

†These need to be replaced by acceptance of the need to make managed economies work – to find way of giving effect to information concerning the public long-term interest, the need to explicitly create variety and information on the personal and social consequences of the options, and to find ways of holding public servants accountable for, and getting them to act in, the long-term public interest. This means systematic, broadly based, evaluation and participative democracy.
The attempt to change any one part of this system on its own is

• not merely negated by the reactions of the rest of the system

• but also produces un-intended, and often counterintuitive and counterproductive, effects elsewhere in the system.
Price Inflation as a System of Mutual Causality. (Discussion on next OHD.)
When we understand the problem of price inflation as a system of mutual causality defined by many interacting forces, we are encouraged to think in loops rather than in lines. No single factor is the cause of the problem. Price inflation is enfolded in the nature of the relations that define the total system.

Many of the links represented in this diagram are deviation-amplifying (heavy lines); negative-feedback relations (dotted lines) are more sparse. Positive feedback thus gains the upper hand.

The system can be influenced by amplifying some feedback loops and damping down others … as in electronic circuitry.
But note that such intervention is usually said to be dependent on “political will”, which is then said to be lacking.

In other words key feedback loops are missing from the diagram.

Our central task over the past few years has been to find ways of conceptualising, mapping, and measuring such social forces.

Unfortunately, we have not been very successful.
Fig. 1 This world model is a beginning basis for analyzing the effect of changing population and economic growth over the next 50 years. The model includes interrelationships of population, capital investment, natural resources, pollution, and agriculture.
Fig. 2. Basic world model behavior showing the mode in which industrialization and population are suppressed by falling natural resources.
Fig. 3. A pollution crisis is precipitated by lower usage of natural resources. In 1970, natural resource usage is reduced 75 per cent by more effective technology without affecting material standard of living.
By not running out of resources, population and capital investment are able to rise until a pollution crisis is created.

Pollution then acts directly to reduce birth rate, increase death rate, and depress food production.

Population, which, according to this simple model peaks at the year 2030, has thus fallen to one-sixth of its peak within 20 years.

This would be a world-wide catastrophe on a scale never before experienced.
Generalising this observation, what we have here is a dramatic example of the common experience whereby a programme aimed at fixing one problem creates a new set of problems somewhere else in the system.
That’s it, really.

I think I have illustrated the importance of developing new ways of thinking about, mapping, measuring, and harnessing social forces ... and intervening in systems *qua* systems.
Website: www.eyeonsociety.co.uk, especially http://eyeonsociety.co.uk/resources/fulllist.html, which contains pdfs of many articles and books, including the following:

John Raven: Conceptualising and Mapping Social Forces. http://eyeonsociety.co.uk/resources/scio.pdf (Includes refs to Morgan, Forrester, Meadows, etc.)


John Raven: Advancing and Defeating the PEGS Agenda: Socio-Cybernetics and Murray Bookchin http://eyeonsociety.co.uk/resources/GS09.pdf
