

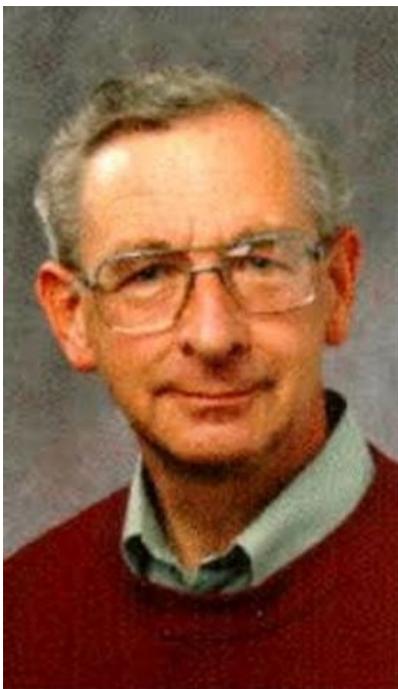
## The Web and Wider Issues

Thanks to much global research and IT investment, the World Wide Web now provides rapid access across numerous industries. Bright red shirts, books by Steven Jay Gould, and careers in the banking sector are all waiting patiently for customers.

Behind the many millions of impressive pages which can fill computer screens are armies of experts who deploy the Web's intrinsic tools and protocols in building the colourful arrays of pixels, pictures and text which entice buyers daily. This high-tech Web world is one of browsers, servers, and HTML form tags which allow Web pages to be programmed according to staff's design flair and know-how.

Some jargon employed in their work will appear sensible to readers with a smattering of school algebra and IT, for instance, <title> Sweet shop /title> and a test which reads if (amount >=6000). But not all jargon is user-friendly, like the phrase <meta charset= "uft-8" /> or colour: rgba (0,0,255, 0.5). Programmers make use of such phrases in a language called Javascript which triggers the interactivity we enjoy when browsing the Web.

Like other branches of the engineering profession, web devotees are working towards a well-defined product: pages that present a restricted data set, albeit on a site that permits searches, answer questions, and collects payments. As good engineers, the programming teams beavering away at consoles will aim for reliable designs and instructions that solve problems efficiently for both employers and customers. The range feature on used car websites is a great time saver once the search gets limited to a maximum of, say, £12,000, though admittedly there is the temptation to search again up to £13,000, just in case the next price bracket hides a real bargain. But what if the problem seems infuriatingly hazy, situations where people are unable to define the nature of their problem?



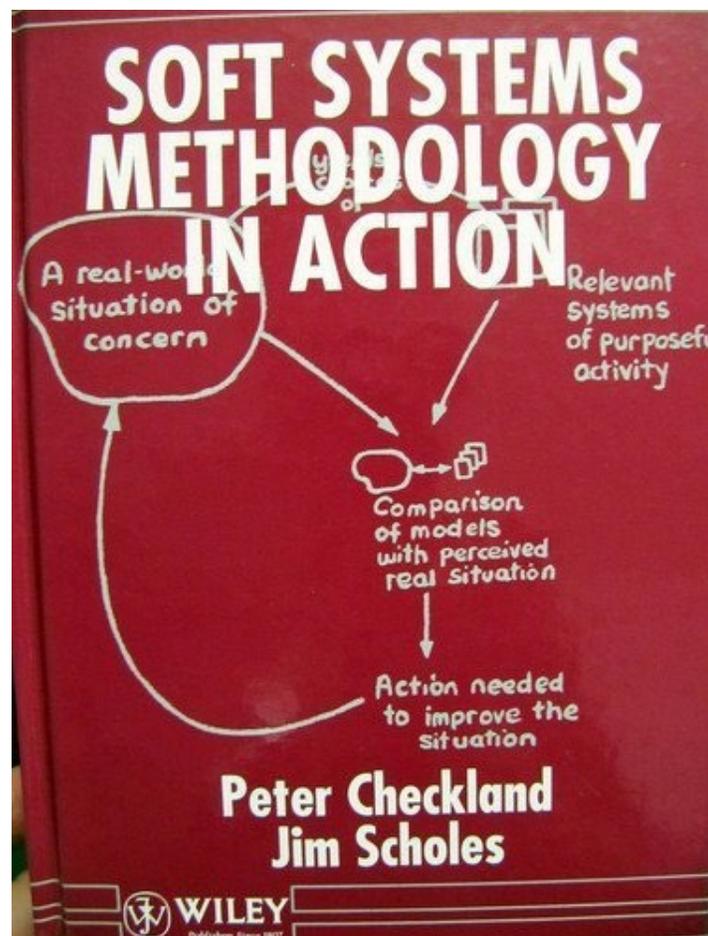
Professor Peter Checkland's thirty-year research programme at Lancaster University focused on devising a scheme for alleviating obscure organisational issues. Based in Lancaster's Department of Systems Engineering, he began the research with an approach familiar to engineers: find the best way to achieve a well-defined goal. During a busy period working with clients in both the private and public sectors, the history of each organisation emerged as complex and worth considering in more detail than usual, that is, not just corporate mission statements and reports, but how *particular staff in a particular place* interpreted their milieu.

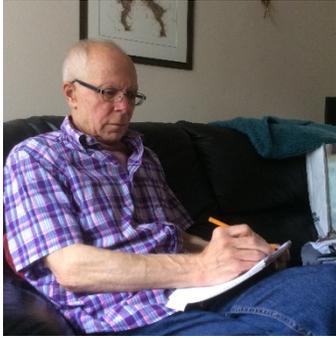
In support of this novel research, Checkland revised the department's engineering style of intervention to become Soft Systems Methodology, a set of principles suited to hazy organisational 'messes'. To summarise, SSM has four stages which are shared with – or better still handed over to - permanent staff: following an initial finding out stage (1), models are

sketched relevant to underlying problems (2), next, concerned personnel assemble to debate models (3), with feasible changes agreed during debate implemented in stage 4. SSM is recursive; the cycle of 1 to 4 can be repeated frequently by participants. While most studies have produced modest change, agreed 'hows' in the third stage could include modifying working arrangements within a sales team, or investing in high-tech factory security.

Peter Checkland's approach should not be read as a take-over bid on Javascript experts, the accountancy sector, or other well-known subjects. SSM merely supports flexible enquiry into unclear human issues outside established domains, where participants' notional diagrams drive the study. Consider a purposeful flipchart model (from the seventies) that includes two linked phrases '*Obtain & store financial journals*' and '*Agree the type of finance journals required by managers*'. In logic, the former is dependent on the latter, with an arrow indicating such dependency. Not part of the organisation, this instance of an SSM diagram aims to stir discussion about the 'what' and 'why' of handling journals. Are they value for money, and is their circulation done appropriately?

Quite reasonably, Website design teams try to grab the attention of prospective buyers of their trendy service. Working with the wider and frequently problematic notion of 'the organisation', SSM is adapted by users to assist learning and debate: their frequently changing interests take the stage, while technology must wait eagerly in the wings.





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*About the Author:* Now retired, Neil was a postgrad student at Lancaster (MA Systems) during the pleasant and intriguing year of 1982-83. Prior to Lancaster he worked in purchasing and sales administration; after Lancaster, Neil survived four years teaching in the UK's secondary sector.