



The obituary as bricolage: the Mann Gulch disaster and the problem of heroic rationality

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Abstract

This paper discusses Claudio Ciborra's critique of traditional economic rationality. It recounts his account of the Mann Gulch Disaster. The important aspect of his reading of the disaster is that apparently irrational actions may provide appropriate solutions for complex problems. He bases this observation on a phenomenology-inspired understanding of the world which emphasises *Dasein's* characteristic as being-in-the-world. The paper interprets this as an important contribution to the critique of rationality as put forward by critical research in information systems. However, this phenomenological approach also raises new issues due to its difficulty of dealing with intersubjective understanding and problems of self-application. The paper concludes by suggesting that such difficulties can be overcome by appropriating Ciborra's idea of bricolage and that this special issue may be read as an expression of such collective bricolage.

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Introduction

The first time I ever heard Claudio Ciborra speak was during the International Workshop on Phenomenology, Information Technology, and Management at the London School of Economics in May 2002. He used the Mann Gulch disaster as an example of bricolage and innovative thinking. This reinterpretation of a much-discussed incident was impressive because it underlined the weaknesses of some of the assumptions about rationality that we find in business studies. It therefore represents an important contribution to critical research in information systems. I would like to use this short paper to briefly recount Ciborra's reading of Mann Gulch and contextualise it in the current debate on critical research on information systems (IS). I will end by arguing that the current special issue, which was created by a number of scholars who express their (probably divergent) views of Ciborra's legacy, is a fitting example of the fragmented rationality and necessity to 'muddle through' that Ciborra tried to describe with regard to IS in organisations.

Apart from the first time I met him at the LSE and some brief encounters at conferences, I cannot claim to have known Claudio well. This paper is thus not an intimate personal account but rather an attempt to use some of his ideas and develop them further. In this sense, the paper will probably differ from the majority of the other papers of this special issue. However, I hope that it will still be seen as a valuable contribution to this special issue, particularly since it tries to contextualise a collection of thoughts, such as the special issue, within his frame of reference.

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Mann Gulch

The Mann Gulch disaster was a fire that went out of control in the Mann Gulch on the 4th of August 1949. It killed 13 airborne fire fighters in a matter of minutes. The Mann Gulch disaster regained prominence when Norman Maclean produced a book-length account of it in 1992. This account of the disaster was used by Karl Weick (1993) as the basis of an analysis of sensemaking and the collapse of understanding in organisations.

In order to understand the argument based on the disaster, it is useful to briefly recount the incident. The Mann Gulch fire started innocently enough, probably set alight by a thunderstorm, and was quickly noticed by a ranger who called for help. A total of 16 'smokejumpers' (specialist airborne fire fighters), under the command of foreman Wagner Dodge, were dispatched to extinguish the fire. It quickly became clear that the fire was larger than expected and the fire fighters had to retreat. This caught the team of fire fighters by surprise and therefore went against their expectations and training. They lost the imitative and started to lose faith in the functioning of their team. The fire moved faster than they did and the situation became very dangerous to them. Wagner Dodge, the foreman, had the idea to light 'escape fires', which would allow the fire fighters to escape by creating areas where no combustible material was present. He lit an escape fire which provided a safe area for himself and ordered the others to do the same. If the fire fighters had followed his orders, there is good reason to believe they might have escaped the fire. However, at this stage coordination had broken down and the fire fighters were not following orders any more. Most tried to outrun the fire and failed. Of the 15 fire fighters and the ranger involved in the incident, only Dodge and two others survived.

Weick, in his classic 1993 paper, used the disaster to analyse group dynamics and processes of collective sensemaking and reality construction. Building on Maclean's and Weick's work, Ciborra raised the question why Dodge could come up with the solution in a complex and dangerous situation and why the other members of the team could not even copy his solution. Weick briefly touches on this question as well but he concentrates on group processes. For Ciborra, the interesting question was a phenomenological explanation of Dodge's thought processes. While, in hindsight, the idea of an escape fire seems plausible (partly because it was successful), at the time it would have been counter-intuitive. Not only were American fire fighters in the 1940s not taught this technique, but it should have seemed counterproductive. This type of escape fire in different contexts, for example in a forest fire, would have had the opposite effect and exacerbated the danger. Nevertheless, Dodge realised that an activity that was against regulations and counterintuitive represented the solution in a life-and-death situation.

Claudia Ciborra was fascinated by this account on the personal as well as professional level (cf. Lawrence, 2005).

He elaborated on Weick's notion of improvisation and bricolage. The bricoleur is someone who can create order out of chaos, using the local contexts and the materials at hand. This immediately puts us in the frame of reference of a Heidegger (1993)-inspired 'existentialist phenomenology' (Introna & Ilharco, 2004). Dodge represented *Dasein*, a being in the world, who was in a situation which, for him, contained meaning. He was capable of extending his life-world in such a way as to successfully address a problem that none of the other fire fighters could. He acted contrary to what he had been taught in a situation where no help was available. Briefly, with regards to our usual assumptions of economic rationality, he did the wrong thing but he knew (or hoped) it was indeed the right thing. This is a central issue of Ciborra's work and it is closely linked to critical research, as I will argue in the next section.

The critique of rationality in IS

Critical research is an approach to research that dates back to the 19th century. In IS it has been identified as one of three recognised 'paradigms' (Orlikowski & Baroudi, 1991). While pieces of critical research have been around for several decades, it seems that we are currently seeing a surge of activity in the area as evidenced by academic conferences and a number of special issues in journals such as the Journal of Information Technology, the Information Systems Journal and Information Technology and People. The increase of activity in critical research has contributed to a lack of clarity of the concept (Brooke, 2002). I believe that critical research can best be characterised by its critical intention to change social reality. This is based on a Marx-inspired understanding of history as a struggle and the corresponding view of social interaction as conflictual, particularly in capitalist societies (Hirschheim & Klein, 1989). On the basis of such a view of reality, critical research aims to change reality to create a better world for those who are suppressed and alienated (Alvesson & Deetz, 2000; Walsham, 2005). Based on this critical intention critical researchers tend to concentrate on certain topics, prefer certain theories and methodologies.

This brings us back to Ciborra's critique of rationality. The predominant view of rationality in business literature is that of an individual purposive approach to life that implies a detached and objective understanding of reality and helps agents maximise their utility. One should note that this type of rationality is not confined to economic thinking. Historically it seems to be closely linked with the success of the natural sciences, a success that humanities and social sciences wanted to emulate. The debate of this rationality and its alternatives is thus deeply linked to conflicts between different 'paradigms'; it has to do with ontology and epistemology, with how we believe we can understand the world. In business studies, the traditional view of rationality supports an understanding of management as an objective, scientific activity that requires a competent and strong personality.

Managers define and realise strategic visions of their organisation. They are the lone heroes who ensure survival and success of the company. This view has consequentially been called 'heroic management' (Gosling & Mintzberg, 2003).

The heroic view of management has been much criticised. It has been identified by critical management researchers as one of the roots of the dysfunctionalities of capitalism and thus as a root of alienation and disempowerment. The purposive rationality of management has thus also become a topic of critical research in IS (Cecez-Kecmanovic *et al.*, 2002; Saravanamuthu, 2002). Ciborra's work constitutes an important stream of this critique. It differs from other ways of criticising economic rationality by its reliance on the phenomenological tradition, which has developed an approach which can arguably complement the Marxist critique put forward by the Frankfurt School and related approaches. Ciborra (2002) starts with the question whether management can usefully be based on methods derived from the natural sciences. He doubts the proclaimed objectivity of scientific statements and he is also sceptical of the resulting traditional view of technology as passive and value-neutral (Ciborra, 2000).

His alternative approach is based on phenomenology, which, according to Heidegger is fundamentally an ontological enterprise (cf. Heidegger, 1993, pp. 28; Moran, 2000, pp. 229). A phenomenological view therefore changes not only our perception of reality but its very nature. The distinction between the world out there and our model of it blurs. The hope that there is an ordered reality that science and rationality can detect in order to overcome the chaos of our everyday life is vain. Researchers who understand this no longer look for objectively existing patterns but are free to concentrate on how we make sense of our world, how we can cope with *Dasein* as being-in-the-world, to use the Heideggerian term; how we muddle through. It is not possible to do the philosophical discussion on phenomenology and rationality justice in a short paper. Phenomenology was a reaction to German idealism, rather than logical empiricism, which is more closely linked to the rationality of heroic management. I believe that one can nevertheless say that the adoption of a phenomenological approach rules out a simplistic acceptance the standard economic view of rationality.

Ciborra has used this theoretical framework to address a number of instances where detached rationality and heroic management are predominant in IS. The context within which we move in late modernity (if this is where we find ourselves) is such that the tenets of rationality are even less applicable than when they were first used in management studies. We find ourselves in a world dominated by seemingly uncontrolled and uncontrollable developments that are summarised by the concept of globalisation (Ciborra & Hanseth, 2000). In this volatile environment the hope that we can plan our future, including the controlled use of ICT, is fallacious. An important notion that symbolises this mistaken belief is

that of strategy. Consequentially, Ciborra extends his critique to the widely spread idea that corporations must have well-formulated strategies and should attempt to follow these. He uses theoretical considerations but also empirical findings to demonstrate that such a belief in strategy is misguided and can even be counterproductive. Strategy is no objective yardstick provided by managers with superior understanding and rationality but it is at best an expression of the attempt to muddle through, to make sense of the situation, and to use the local context as bricolage. One important reason why we can never assume that strategy will be successful is that all actions have non-intended side-effects which preclude the possibility of planning the future comprehensively. These side effects create risks, which can be defined as man-made dangers. In a modern society, risks abound and the very attempt to overcome them is likely to create more risks. This is why Ciborra imports Beck's (1986) ideas of the risk society in his critique of rationality. He argues that a mistaken belief in the capacities of economic rationality not only fails to cover all relevant risks but in fact constitutes new ones (Ciborra, 2004).

But what remains for us if traditional rationality is no longer available? Ciborra believes that other manifestations of rationality are developing that have no strong claim to objective knowledge but that allow us to make sense and construct our realities and allow us to persist. An important aspect of this alternative rationality is bricolage, which he defines as:

tinkering through the combination of resources at hand. These resources become the tools and they define in situ the heuristic to solve the problem. 'Let the world help you': bricolage is about leveraging the world as defined by the situation. With bricolage, the practices and the situations disclose new uses and applications of the technology and the things (Ciborra, 2002, pp. 49).

Management relies on bricolage but it can also be found in all sorts of different contexts, for example in computer hacking. Another example of alternative uses of rationality is that of hospitality, a traditionally social concept that Ciborra extends to the dealing with other entities, such as technology. Technology is seen as an 'ambiguous stranger' (Ciborra, 2002, pp. 110) who needs to be received and accepted.

At this stage of the brief overview of Ciborra's phenomenologically informed critique of traditional economic rationality and the related idea of heroic management, it is worthwhile to return to the Mann Gulch disaster. The events in Mann Gulch produced an insurmountable challenge to traditional rationality. Had Wagner Dodge, the foreman, acted rationally in the traditional sense of the word, he would have had to form an objective view of the situation and algorithmically apply his learned knowledge to find a solution. This was practically impossible because he did not have the means to collect the necessary data. However, had he even done so, he would not have found the solution that saved his life, and might have saved the lives of the other fire

fighters, had they understood it. Acting rationally would thus have been counterproductive. Instead, Dodge reconceived the situation and injected sense where none was to be found. He used his local context and the materials at hand to create a solution which should not have been open to him. The lessons to be drawn for management research are problematic. The case shows that managers may be better off not acting rationally. If this is so, then the usual business school assumption that traditional rationality is desirable becomes brittle. Managers need different conceptual tools to understand the world, which I take to be Ciborra's main contribution to the critical debate of rationality in management.

One can probably debate whether the current interpretation of Ciborra's work reflects his intentions. I have tried to demonstrate that his use of the phenomenological approach represents a support of the critique of economic rationality. However, Ciborra also embraced some ideas of established economic theory, such as transaction cost theory, which could be argued to go counter this narrative. To a large degree, such a debate would be beside the point. In this phenomenological account of Ciborra's thought, the essence appears to be a critique of traditional rationality. Whether there is some 'true' reality behind this perception is a question that the phenomenologist would reject as not answerable. The question nevertheless shows that there are problems with the phenomenological approach, which leads us to the conclusion.

The self-application of the critique: the obituary as bricolage

Ciborra's alternative account of managerial rationality will be welcome to many of us who are unhappy with the traditional way things are taught at most business schools. It also promises new insights and new, and hopefully better, ways to describe and develop manage-

ment. However, it is also fraught with some difficulties. One of these is the question of self-application. The phenomenological critique of rationality, as for example in this paper, often takes the form it tries to discredit. It offers linear and objective accounts of 'real' events. Or, to express this differently, it voices a postmodern critique of identity, rationality, and action, but it does so using the thoroughly modern medium of academic writing.

Another critique of the critique refers to its possible idiosyncrasy. Phenomenology seeks the essence of phenomena by looking at our perception. While modern phenomenologists, following Gadamer and others, realise that the individual creation of reality is socially conditioned, there is still the fact that all perceptions are fundamentally linked to the perceiver. In Heidegger's terms one could say they are always-mine (*jemeinig*). This is problematic because it may preclude the successful use of phenomenological ideas in management. It may thus jeopardise the success of the critical endeavour that Ciborra attempted.

The current issue may point to a way to overcome both of these problems. We can interpret the special issue as an extended obituary. Unlike most obituaries, however, this one is not written by one author but by a variety of authors and the papers are only linked by the common reference point of Claudio Ciborra. The authors recount relevant experiences, thereby using the intellectual material ready-to-hand. And while the individual accounts will be idiosyncratic, the overall collection of texts will allow the reader to develop new ways of gaining access to Ciborra and his thought. I would therefore argue that this special issue can be interpreted as an obituary that is an example of bricolage. It, therefore, does Claudio Ciborra intellectual justice by reflecting his ideas. At the same time it shows how some of the potential objections to his phenomenological understanding of the world can be overcome.

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