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**Information Systems Research Methods: exploring the implications of Hannah Arendt's analysis of the human condition**

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**Abstract**

In 'The Human Condition' (1958) Hannah Arendt presents a picture of what it is to be human based on the activities that we humans undertake. She distinguishes three forms of activity fundamental to our lives – labor, work and action. In her view the western intellectual tradition has failed to take proper account of the distinctions between the three activities. She considers that this way of categorising human actions is important to understanding the way that modern life has developed and seeks to describe each one as fully as possible.

Labor refers to the actions required to meet the unceasing need to satisfy our bodily needs. Work includes all those activities by which physical products are produced. It is through work that man (homo faber) transforms raw materials into tools and creates the human world we live in. However it is the third type of activity – action (vita activa) which promises to shine a different light on both the way organisations make use of Information and Communications Technology (ICT) and the role current research methods play in developing our understanding of the potential value to be obtained by organisations from this technology. This paper presents Arendt's analysis of these three human activities and then explores the implications for business research methods – in particular those applied within the Information Systems discipline (IS).

**Keywords:** Hannah Arendt, human activities, ICT artefact, IS discipline research methods, organisation's use of Information and Communications Technology

**1 Introduction**

The political events of the first three quarters of the 20<sup>th</sup> century – the period of Arendt's life, had a deep effect on her writing, in particular in developing the questions that she set herself. The extremes of political forms during her life time and the extra-ordinary developments of technology and science since the 17<sup>th</sup> century were central to her concerns for the management of human affairs. For her the conditions of human life had undergone profound change over this period with every sign that this would accelerate into the future. Her concern was that both our responses as communities and the ways of looking at the world expressed by philosophers, political philosophers, ruling elites and commentators of all types were failing to address issues emerging from these changes that she judged to be urgent. Her ideas have implications for the future development of science, the future use to which technology maybe put and the management of organisations.

This paper draws on one of her major publications – the book entitled 'The Human Condition' first published in 1958, (1998). In this book, Arendt formulates the fundamental conditions of human life in terms of our capacities for an active life (vita activa). She identifies and analyses three activities that form the basis of an active human life and labels them labor, work, action. Although not discussed in the same depth, the vita contemplativa (life of contemplation) emerges as a contrast.

A key theme winding through much of Arendt's writings is the importance for us as humans to try to understand what we are doing and perhaps why we are doing it. In the Human Condition she

proposes 'a reconsideration of the human condition from the vantage point of our newest experiences and our most recent fears' (Arendt, 1998, p5). This paper has an aim similar in spirit to Arendt in that it seeks to clarify the assumptions underpinning IS research methods and the forces driving the way organisations make use of Information and Communications Technology (ICT).

The next section introduces the book by Arendt – *The Human Condition*. Section 3 describes the activity of work and outlines the impact of these on scientific and IS research. Section 4 describes the third activity – action and its role in human affairs. Section 5 assesses the implications of these ideas for business organisations use of ICT and Information Systems (IS) research methods.

## **2 The Human Condition**

In 'The Human Condition', Arendt analyses each of the three activities – labor, work and action, the interaction between them and the impact of each on humans as individuals and communities. In her view the western intellectual tradition has failed to take proper account of the distinctions between the three activities. She considers that this way of categorising human actions is important to understanding the way that modern life has developed and seems likely to continue developing in the future.

Labor refers to the actions required to meet the unceasing need to satisfy our bodily needs. Work includes all those activities by which physical products and mental structures are produced. Contemplation is the activity most prized by the Greek philosophers. With this they turn their back on the *vita activa* (active human life of labor, work and action) to create the time, space and absolute quiet required for the search for truth. Action, the activity by which men interact with each other and work together, is the basis of political life.

According to Arendt (1998), western philosophy has for long put contemplation as the highest form of human activity. It was from this activity that the key truths of human existence were expected to emerge. In the hierarchy of human activities, Labor (not initially distinguished from work) was considered the lowest form of activity. Action – the life of the community (*polis* for the Greeks and the republic for the early Roman empire) was recognised but ranked below contemplation. In later periods, after the Roman republic ceased, it seems to have disappeared as a recognised activity. We owe the identification of the concept of work to Arendt herself, but its steady rise in importance dates from the scientific and industrial revolution of the seventeenth century, (from which Arendt dates the beginning of the modern era). Labor, considered the lowest and least important activity for most of western history gained importance through the work of Marx in the nineteenth century. It is the activity of action that has struggled to gain recognition in modern times and a place in the hierarchy. Arendt views this development with concern. For her this bodes ill for human community life in general and western civilization in particular.

## **3 The activity of Work**

Arendt (1998) draws a sharp and unusual distinction between labor and work. Labor corresponds to the biological process of the body and is what we need to do in order to preserve our life. Work fabricates the ever increasing range of things that make life easier for us. The results are highly visible in the physical remains of one civilization after another. We have an immense and successful experience in this activity – we know how to do it. The following section describes the main characteristics of work and how scientific and IS research communities have embraced it.

### **3.1 Work**

It is through work that man (*homo faber*) transforms raw materials into tools and creates the human world we live in. Work produces objects for use that are durable. Use may wear them out eventually but we do not consume them in the same way as we consume the products of labor. These objects

can be considered objectively, as once created they have an independent existence from their owners and makers, men. Through work man creates his world and some degree of stability. But this comes at the price of destroying elements of the natural world in order to create the physical items that are use objects. In contrast, Labor leaves little trace, is repetitive with each person carrying out the same job again and again and the results are consumed immediately.

An important stage in the process of work is the thinking required for the creation of things. We are guided by mental models, blueprints of the final object before making them. Both model and object are durable remaining as a guide for other workers to make and remake and if appropriate change again and again. This essentially mechanistic world view offers us the potential for a feeling that we can control our lives. It gives us satisfaction and self-assurance and a feeling of stability. Labor, crucial to survival in the endless life process, has neither beginning nor end. Whereas the act of work, the fabrication of things, has a clear beginning and a clear end, marked by the existence of the new thing, with enough durability to remain in the world as an independent entity. The ultimate test of success is the existence of the final product.

### 3.2 The community of scientists

For the community of scientists, the concepts and attitudes engendered by work are embedded in the way it operates. Arendt (1998) dates the emergence of this community to the seminal action of Galileo in making a telescope and turning it to study the sky. The two actions – making a telescope and the approach to creating knowledge through empirical observations established the core of scientific method. From the start this community knew no political boundaries (Wulf, 2015) and sought to focus exclusively on subjects of scientific interest (Gribbin, 2006).

The Cartesian world view proposed by Descartes was to have a major influence on this community. This starts with the fundamental dichotomy of subject/object (Foulds, 2013; Hubert Dreyfus on Husserl and Heidegger,1978; Riemer and Johnston,2014) and encourages the acceptance of an objective reality which we can come to know through perception, description and measurement. It places human reasoning and the power of the human mind to solve problems above most other activities. Men of science create models of the world and use experimentation and observation to test their accuracy in representing natural phenomena and acquiring knowledge. Because for them the process by which knowledge is acquired is more important than the final result, they prize the qualities of creativity within the limits of man created thought ideas, experimental success, industry and truthfulness.

The extra-ordinary success of scientific research especially in the 'hard' sciences has ensured that all other disciplines have sought to repeat their achievements by applying the same research methods. Their ideas now permeate research in all other disciplines including IS and the everyday life of practitioners and executives in charge of managing new ICT applications.

### 3.3 Information Systems Research

The IS research community was formed around the problems and questions raised by organizations' attempts to exploit the new Information and Communications Technology (ICT). This is a discipline that differs in a number of ways from that of the traditional sciences. The tools investigated - 'the IT artefact' (computing hardware, data storage facilities, systems software and most recently electronic communications) undergo constant development, so that the researcher faces an ever changing set of research questions around the potential of new applications and facilities. The organisations that implement new ICT, and their employees, are crucial factors in whether and how this potential is realised. Each new application installed represents an unprecedented opportunity or threat of change to the organisational structure and power relations within it (Orlikowski and Robey, 1991). Moreover the research community is also under constant pressure from the other stakeholder - the

practitioners (consultants, business executives, government) to deliver practical and effective guidance on implementing new applications (Ramiller et al, 2008). It is an applied field with all the complexities that this implies. As Lee (2001) stated 'research in the information systems field examines more than just the technological system, or just the social system, or even the two side by side; in addition it investigates the phenomena that emerge when the two interact'.

The Cartesian worldview infuses the work of both sets of stakeholders – practitioners and researchers alike. Mainstream IS researchers believe in their ability to use the scientific method (positivism) to develop theories that can model ICT artefacts and their implementation well enough to describe and predict the outcomes of implementing each new wave of applications. Researchers develop guidelines on the major operations of design, adoption and implementation for managers and practitioners. Classical positivism emphasises the reliance on measurable evidence to support theories. Research methods include passive observation, measurement and statistical analysis, survey, questionnaire, instrument experiments, case study and simulation (Mingers, 2003). This is the dominant stream of research as measured by the proportion of empirical academic papers that fell into this category - over 75% for the latter period of the 1990s (Mingers, 2003). Work in this stream is critically assessed by academics for both the practical value of the results and the rigour of the research method applied. Researcher objectivity is a key criteria. The research results convince through their adherence to accepted standards of validity, reliability, replicability and generalisability. From the early 1990s, a new strand of research came into being applying interpretivist or social constructivist methods (Orlikowski and Baroudi, 1991). These methods are "aimed at producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context" (Walsham 1993). This approach sought to take account of the effects of ICT applications on the organizational culture into which it was being installed. The implication (implicit) with this approach was that the greater level of understanding would enable researchers to offer better guidelines on key practitioner problems. The research methods used include interviews, qualitative content analysis, ethnography, hermeneutics, grounded theory and participant observation (Mingers, 2003). These methods rely on the researcher judgements to a much greater extent than positivist methods. But criticism of these methods by mainstream IS researchers based on the positivist world view has driven the development of an extensive literature offering guidelines for good practice (Walsham, 1993, 1995, 2006; Klein and Myers, 1999). Researchers in this stream have sought to deal with criticisms largely by seeking to establish rules and guidelines that adhere to the standards of positivism and hence to the Cartesian worldview. IS researchers have also been quick to apply methods such as those based on phenomenology developed in other disciplines– notable social science. Essentially all these approaches are classical scientific approaches - testing existing theories and/or gathering empirical data to develop new theories combined with an intense debate on the quality of the research process and results obtained.

Despite success in for example quickly developing valuable knowledge on the potential and use of new IS applications, results achieved in terms of application by managers within organisations have been erratic. Planning the implementation of a new IS gives a flavour of typical experiences. The belief in the power of planning, good organization and rational analysis following the recommendations made in numerous manuals and text books has failed to deliver problem free installations. The widespread experience of managers, of project delays (Keil et al, 2000), user criticism, poor fit to business needs (Davenport, 1995) and unused systems (Markus, 1983; Markus and Keil, 1995) has led to a degree of pessimism and frustration with this process (Sauer and Cuthbertson, 2003; Ramiller et al, 2008; Riemer and Johnson, 2014). Another source of confusion is the numerous reports of conflicting research results as to the use made of similar IS. Barclay's (1986) work on the differing use made of CT scanners when introduced into two separate radiology departments, is an early example.

#### **4 The activity of Action**

It is by the actions of men and women working and debating together that the political and social life of the community is kept alive. This is by far the most complex activity of which we are capable and the most difficult to make sense of. Our developing knowledge of our own history offers many examples of our relative lack of success in managing this activity – the lost cities unearthed by archeologists, the unending warfare, the political malaise of modern times. This for Arendt (1998) is the highest form of human endeavour, but has attracted the least attention in terms of scrutiny and analysis. This section describes the main characteristics of action and some of the problems it raises.

##### **4.1 The individual human being**

Heidegger (2010) and the existentialists see a wider world in which the experiences of the individual human life involve far more complexity. For Heidegger the traditional Cartesian ontology has a major gap in its description of how we humans relate to the world. It fails to include the practical day to day lived experience of all humans – of our experience of Being in the world. Each individual is catapulted into the world as it is and must deal with it from minute to minute throughout his or her life (Foulds (2012), Hubert Dreyfus on Husserl and Heidegger (1978), Barrett (1978) and Riemer and Johnson (2014)). We do so with great success - 'We are coping beings' (Hubert Dreyfus on Husserl and Heidegger, 1978). Heidegger is acutely aware of the complexity of individual experience of 'Being' in the world, and the myriad potential personal choices facing each person.

For Arendt (1998), it is the implications of the uniqueness of each new born on the life of the community that is most significant. 'Human plurality, the basic condition of both action and speech, has the twofold character of equality and distinction' (Arendt, 1998, page 175). By equality she means that men are similar enough to be able to deal with each other. The basic needs of life are known and understandable to all without additional explanation. But each individual born with the same biological structure is nonetheless a unique being as Heidegger describes so eloquently and has a life to live in conditions that no other person experiences. With these qualities together with speech, we each have the potential to take the initiative to create some new endeavour. This when taken in concert with others is the essence of action.

##### **4.2 Action**

The actions we take determine the way we live - our culture, our values, how we deal with others, the distribution of power and how it is used... A vibrant community with many people contributing to its political life through their actions, can generate many possible ways of living.

Action is the only activity that goes on directly between men and women without the intervention of humanly created artefacts or other naturally occurring things. For each of us to take part it makes great demands on us as individuals – on our willingness to get involved, the courage to use our intuition, to make and keep to our judgements, to recognise our aloneness but trust in our dealings with others. It is through action and speech we reveal ourselves. It is our choice how far we reveal ourselves and we are dealing with others making the same choice so we can never fully know the character of our co-actors. Through action we can make a new beginning but the consequences are unpredictable. Not the least because Action depends on the actions of others as well as ourselves. And these other people will react to our action causing events to develop in unpredictable ways and this in turn will lead to further reactions. We can foresee a ripple effect of ever widening effects of a chain of reactions generated by one initial action. As a result the means-ends debate can have no relevance as Actions may have a beginning but can have no predictable end. It is in the performance of an action that the value lies not the end product/ event and by its nature this process is irreversible.

Harari (2014) gives a wonderful illustration of an action. In his book, *Sapiens* (Harari, 2014), he charts the key events in the progress of the species *homo sapiens* over the last 70,000 years. His description of the agricultural revolution is salutary. The archaeological record shows that over a lengthy period of hundreds or possibly thousands of years groups of hunter-gatherers developed the technology of agriculture. The process seems to have been one of small steps, moving the species from a life of roaming a known geographical area at random to returning to one location for part of each year to finally settling permanently in one place. Each step would have offered immediate benefits in terms of the increased availability of food. With more food came population increase, arguably a success for the species. Many people and tribes will have acted together to forward this development. However as Harari points out - an unexpected result of this was to catch us, the species of *homo sapiens*, in a trap. The process was irreversible in that with more people to feed the only solution to avoiding famine was to continue farming more and more intensively. Moreover any hunter-gatherers in the same locality would have been forced out. The two ways of life cannot co-exist in the same area. The farmers being more successful with ever greater numbers would have triumphed. But this came at a great price. For the population at large the conditions of living deteriorated markedly. Hunter-gatherers tend to have a varied work load eating a varied diet (that seems to have been a healthy one) and lived longer lives than their descendants. Village life farming a nearby area creates demanding, hard, unpleasant jobs. The food may be plentiful but is greatly reduced in variety leading to an unhealthy diet and short lives. Ten thousand years later, the effects of this series of actions are still being felt. This is an early example of technology driven major change which has had far reaching and unimaginable consequences on the way we live.

#### 4.3 The Rejection of action

Philosophers and political elites alike, down the ages, have disliked the haphazardness brought about by the actions of multiple agents, and sought to reject, ignore or avoid it. Politicians and governing elites prize stability and control of community life. The three frustrations inherent in this activity of 'uncertainty of outcomes, irreversibility of the process and anonymity of its authors' (Arendt, 1998, p220) led to the desire to escape the political world of human affairs completely through the elimination of the personal element. Early attempts of political philosophy, notably by Plato (Popper, 1966) thought to handle political matters in the mode of fabrication (work), reducing the complexity of human life to the certainty and solidity of models. These approaches also explored the possibility of designing an ideal governance structure opening the way to the more or less futile attempt to design and implement utopias. The recent elevation of the activity of labor in the hierarchy of human activities, has merely altered the form of rejection of action. After all labor rests on the concept of mass manufacture and the sameness of human beings (in terms of the jobs undertaken) and this is in direct opposition to the concept of the plurality of mankind embedded in action. It is notable that most attempts to create order in human affairs tends to reduce the potential of the plurality of man and hence turn human communities towards the mindless acceptance of the status quo.

Adam Curtis's (2016) review of the main political events of the western and middle-eastern civilizations since the death of Arendt in the mid nineteen seventies, bears out her analysis. Curtis has labelled this period of inexplicable political and economic shocks apparently happening at random and beyond control - HyperNormalisation. He attributes our arrival to this 'strange place' on our collective unwillingness or inability to deal with the complex and uncertain reality of human life. Those in control have projected a simplified picture of events which they subsequently failed to manage effectively. The increasingly disenfranchised populations of the countries concerned have in response tended to retreat into individualism expressing this through rejection rather than the creation of workable alternatives and turning their back on public life. Contemporary surveys of levels of political trust in the western world support this judgement. They show an apparent long term global decline in trust in government (Edelman Trust Barometer, 2018; Standard Barometer 88 Autumn 2017).



#### 4.4 Supporting the activity of Action?

Despite the attempt to overlook our ability for action, it nonetheless continues to be a major feature of human life. Scientific endeavour may be carried out in the mode of work but the choices made as to what to investigate represent a series of actions. The problem is that by refusing to accept this reality we are unlikely to learn much about how to make the best use of this ability. The western political realm and its analysts have a great deal of experience of the phenomena but little apparent understanding of how to harness it well. The creation and maintenance of traditions has helped governing elites by setting boundaries on choices and simplifying options (Arendt, 2006). As numerous civilizations attest the form of tradition sets the priorities for a community, directs the use of surplus wealth and determines what questions and issues are considered of most importance. But this also reduces the freedom for action by the population at large. Moreover the design of the structures and institutions of western civilization are clearly based on the activity of work – an expression of our belief in the value of planning and control and rejection of action. As a species we seem unwilling to face the implications of human action – unpredictable outcomes that cannot be undone, only responded to. It is the perceived burden of acting rather than the enormous capacity to make enduring changes in our lives that dominates our thinking. The actor never quite knows what he is doing, ‘(becoming) “guilty” of consequences he never intended..’ (Arendt, 1998, p233). He never remains master of his acts and this seems to be the big stumbling block for us and our communities.

What would be involved in accepting action as an important aspect of human life? It is a process without end, so it is the process we need to address. If we cannot see the end then it is action itself that must be the basis on which we make our decisions. We should initiate action only because it seems good in itself without worrying about consequences. Implementation then involves the familiar factors of planning and work.

To explicitly accept and manage action within our lives would involve a fundamental change in individual and community attitudes. If we cannot master the process or control the outcomes (clearly our preference!), we can learn to live with them and make the results of them work for us. This puts a premium on being alert to the unexpected directions that the action takes and being ready to respond with agility and effectiveness (“going with the flow”). It means acceptance of living with change that is beyond our control. For the community as a whole this brings other values to the fore, with respect to the web of human personal relationships by which we all live. The creation of covenants and the rule of law enshrined in western civilization has long been recognised as a stabilising force making the uncertainty inherent in action more tolerable (Arendt, 1998, p243). To agree on actions means accepting our fellow men as equals in the decision. It means trusting our collaborators and the population at large. It means making promises and sticking to them. It means above all that we give up personal sovereignty so that we as a community have the freedom to act jointly. It means accepting that actions can lead to disastrous (as well as wonderful) results. Arendt (1998, p237) suggests that a willingness to forgive is key to living with irreversible consequences. The regular amnesties of the 20<sup>th</sup> century and creations of such formal structures as Truth and Reconciliation commissions (for example The South African Truth and Reconciliation Commission (TRC), 1995 ) holds out some hope that western civilization is moving in this direction.

#### **5 Business use of ICT and IS Research Methods**

Business organisations of all types are generally designed around the concepts of work with a special emphasis on the requirement to obey orders (Nielsen, 1984). Such organisations are expected to control all aspects of their operations – the antithesis of Action. They have tended to assume that most problems can be solved now or in the future by use of organisational and business theory. The relatively stable conditions (in terms of business operations) of business over the first part of the 20<sup>th</sup> century led to a huge success in the development and application of business theory. The increasing volatility of the last quarter of the century may not have shaken the belief in the possibility of control

but the existence of human action within organisations is becoming more apparent. Ciborra's (1996) concept of 'bricolage' seems to capture the essence of human action. Bricolage was his word for the way he saw strategy being created at his case company, Olivetti – through tinkering and trial and error. As Fernandes (2005) comments this term 'refers to the fact that organizations are complex and behave in an unpredictable manner' – a good description of the results of widespread human activity of action. It seems that the pressure for action is linked to the degree of change experienced (from industry conditions, new technology, competition, size, growth..).

Organisations approach the installation and use of ICT with a similar attitude, in line with work characteristics. Ironically, ICT is itself a change agent within the host organisation but the core assumption for practitioners is that it can be planned for and controlled in a similar way to other business operations, through the application of theory and experience from previous projects. The implementation and use of the ICT artefact involves people interacting with it and each other and hence involves the potential of the human community concerned, for action. The decision to implement a new IS itself constitutes an action which has generally proved to have unexpected, unplanned consequences in many companies.

IS research has produced many powerful results and theories, using a wide range of research methods, developed in the scientific tradition. But the focus on developing (and claiming) generalizable results has perhaps misdirected the use to which some of these theories have been put by companies. The fundamental assumption of both practitioners and IS researchers stemming from the approach dictated by a work environment, is that organisations will be able to use a new IS application in a similar way to another organisation. Practitioners want rules of best practice on how to manage the implementation of new information systems within their own unique organisational situation and IS researchers aim to develop this type of advice.

But IS research results are found in specific organisational situations – giving a snapshot in time ill designed to yield understanding of the dynamic process of real life usage. This may affect their general applicability elsewhere. The context for the research and its application is highly significant. Both organisational cultures and the changes wrought over time, within and without the company by human action will profoundly affect the potential and use of any IS. Organisations create their own traditions and culture. We need only contrast the publically acknowledged cultures of Google, IBM and a 'gig' economy new start up to see how different these can be. This may lead to situations in which best practice needs to be tailored for each organisation. Moreover organisations operate within dynamic situations of continuous change, not least from the ongoing series of actions initiated by their own managers – a unique group of people. The impact of another human action – an intervention (such as for example implementation of another IS application) may change the situation so far that theory no longer applies.

There is the potential for a gap between practice and theory, between practitioners and researchers. IS research theories require careful interpretation and modification for each organisational situation (for the context of both time and place).

## **6 Conclusion**

The life of organisations is complex and can be fast moving. Although human action provides regular interventions that have the potential to set organisations onto major changes of pathway with unpredictable results for the organisation and its use of ICT, all participants in this life process – staff, managers, IS researchers and IS practitioner consultants behave as though it can be controlled with the methods generated by the activity of work. IS research and IS research methods have produced some impressive theories. But less attention has been given to how best to use these results in practice. The final value to organisations depends on the quality of management and users,

and their ability address the implications of the regular and inevitable shifts in direction of the company wrought by the actions of all concerned.

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