

# THE LAND OF CONFUSION – CLEARING UP SOME COMMON MISUNDERSTANDINGS OF INTERPRETIVE RESEARCH

Bjørn Erik Munkvold, University of Agder, Department of Information Systems,  
bjorn.e.munkvold@uia.no

Bendik Bygstad, University of Oslo, Department of Informatics, bendikby@ifi.uio.no

## ABSTRACT

*Qualitative research approaches are now well established in information systems research, and are given equal weight as quantitative research in research methods courses in graduate programs. Similar, the heated paradigm debate seems to largely have cooled off, with interpretivist research now being accepted as an alternative to positivism and other paradigms. However, from the authors' experience with teaching qualitative methods and reviewing qualitative research work, we see a growing tendency among both students and more experienced researchers to view qualitative and interpretive research as synonyms. We argue that this to some extent is due to a lack of precision in how the interpretivist paradigm is introduced in method textbooks and resources, where the rhetoric is sometimes conflated so as to indicate that all research focusing on the social and contextual aspects of technology use is by default interpretivist. On this background, our mission with this paper is to highlight the key characteristics of interpretive research that distinguish this approach from 'any qualitative study'. In this, we discuss core concepts and procedures related to interpretive data collection and analysis, including validation and generalizability. Finally, we present a set of guiding questions forming a checklist for whether the qualitative study conducted would qualify as interpretive research or not.*

## 1. INTRODUCTION

From its earlier marginalized status compared to quantitative research (Sutton, 1997), qualitative research has gradually become an established research strategy in the information systems (IS) discipline, now being treated in equal depth as quantitative research in research methods courses in master and PhD programs. It is even argued that qualitative research methods are particularly well suited for IS research, given the focus on “managerial and organizational issues associated with innovations in information and communications technology” (Myers, 1997). Regarding the underlying paradigms of IS research, the seminal classification by Orlikowski and Baroudi (1991) into the three main paradigms of positivist, interpretivist and critical research still serves as a foundation for analysis and discussion of research approaches in the IS discipline. For example, the Association for Information Systems (AIS) resource on qualitative research presents how qualitative research can be conducted based on all three of these paradigms (Myers, 1997), and also textbooks on research methods in information systems follow the same categorization (e.g. Oates, 2006).

However, from more than a decade of teaching research methods courses in master and PhD programs, we experience how the rather simplistic categorization of positivist vs interpretivist research results in many students having problems with distinguishing interpretivist research from qualitative research. One reasonably typical example from a PhD from 2014 is the following passages (slightly changed to avoid identification):

Please cite as Munkvold, B.E. and Bygstad, B.: The Land of Confusion – Clearing up some common misunderstandings of interpretive research (2016). Paper presented at NOKOBIT 2016, Bergen, 28-30 Nov. *NOKOBIT*, vol. 24, no. 1, Bibsys Open Journal Systems, ISSN 1894-7719.

- (i) “The empirical part of the dissertation is an interpretive case study (Yin, 2013), in order to study a phenomenon in a real context”.
- (ii) “The main purpose was to identify the success factors of social media for business purposes”
- (iii) “Data collection included interviews, observation and documents. Triangulation was used to ensure validity and reliability”.

While occurring frequently, these formulations are quite problematic. First, Yin’s book is an excellent guide for case studies, but it is a clearly positivist approach, second, “success factors” indicates a relatively straightforward relationship between independent and dependent variables that is incongruent with interpretive methods, and third, triangulation presumes an objective reality that is at odds with the interpretive ontology.

We argue that this to some extent is due to a lack of precision in how the interpretivist paradigm is introduced in textbooks and resources, where the rhetoric is sometimes conflated so as to indicate that all research focusing on the social and contextual aspects of technology use is ‘by default’ interpretivist. Our paper thus intends to highlight the key characteristics of interpretive research that distinguish this approach from ‘any qualitative study’, and to clarify common misconceptions on the nature of interpretive research. In pursuing this, we discuss core concepts and procedures related to interpretive data collection and analysis and validation, including triangulation and generalizability. Finally, we present a set of guiding questions forming a checklist for whether a qualitative study would qualify as interpretive research or not.

## 2. PHILOSOPHICAL ASSUMPTIONS OF QUALITATIVE RESEARCH

Cresswell (1998) defined qualitative research as ”an inquiry process of understanding based on distinct and methodological traditions of inquiry that explore a social or a human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants and conducts the study in a natural setting” (p. 15).

The motivation for doing qualitative research, as opposed to quantitative research, writes Myers (1997), “comes from the observation that, if there is one thing which distinguishes humans from the natural world, it is our ability to talk! Qualitative research methods include case studies, ethnographic studies, action research, and other approaches. As illustrated in figure 1 qualitative research can be conducted within different research paradigms, such as positivist, interpretivist and critical.

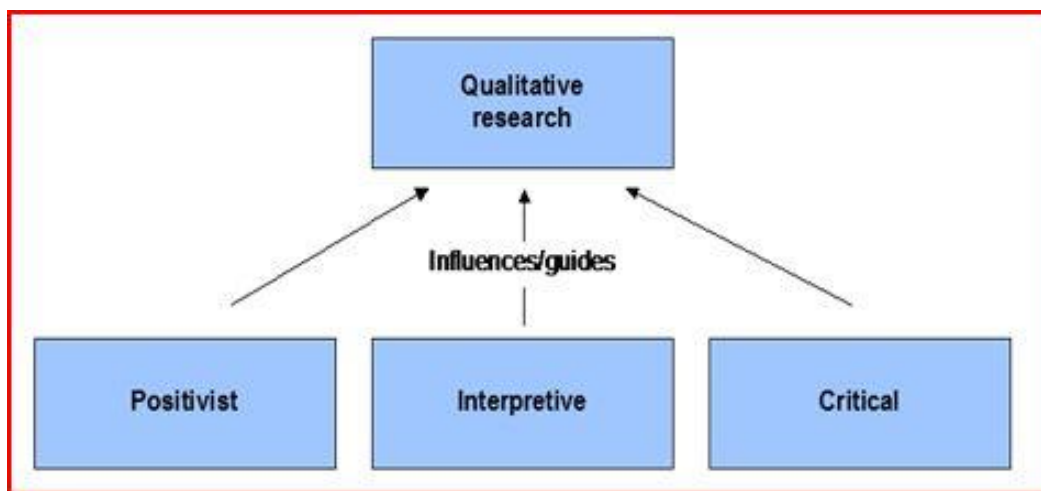


Figure 1 - Underlying philosophical assumptions of qualitative research (Myers, 1997)

This again clarifies how qualitative research should not be regarded as a synonym for interpretive research, a common confusion which we have already exemplified and which we will discuss in more detail throughout this paper.

The underlying philosophical assumptions will then frame several aspects of the qualitative research study, including the use of theory, the role of the research in data collection and analysis, and the criteria applied for validating the research. However, general for qualitative research is that the data analysis involves an iterative process where the researcher interprets and “makes sense” of the data. Still, as will be clarified in this paper, to earn the label of interpretive research there are several other criteria that need to be fulfilled. In the following, we introduce the key characteristics of interpretive research.

### **3. ENTER INTERPRETIVISM**

In this section we briefly summarize the key premises of interpretive research in IS, mainly based on the seminal paper by Orlikowski and Baroudi (1991) on the research approaches and assumptions in the study of IT in organizations. For an historical account of the emergence of interpretivism in IS research, we point to Walsham (1995b).

Interpretive research is based on the ontological assumption that an objective social reality does not exist, but is produced and reproduced among humans through their interactions (Orlikowski and Baroudi, 1991). Thus, the aim of interpretive research is to “understand phenomena through accessing the meaning that participants assign to them” (ibid., p. 5). In contrast to positivist research, interpretivist research does not aim for generalization to a larger population, but to develop an understanding of a phenomenon that can possibly inform other research settings. To the extent that regularities are observed related to the studied phenomena, these are believed to result from shared norms and interests of the humans rather than deterministic casual relationships as implied in the positivist perspective. As further distinguished by Orlikowski and Baroudi (1991), citing Putnam (1983): “Interpretive researchers construct interpretations or explanations that account for the way that subjective meanings are created and sustained in a particular setting (Putnam, 1983, p. 41). Such explanations are causal, but not in the positivists’ uni-directional sense; neither are they sought for the same purpose” (p. 14).

Interpretive research also aims for analytic generalization, in the sense of producing results that have implications beyond the studied research setting. But this form of generalization should not be confused with the statistical generalization targeted in positivist studies, which implies drawing inferences from a sample to a stated population to increase predictive understanding of phenomena (Orlikowski and Baroudi, 1991). In his frequently cited paper on the nature of interpretive case studies, Walsham (1995a) outlines four forms of generalization from interpretive research: development of concepts, generation of theory, drawing of specific implications, and contribution of rich insight. The first two forms are connected in that a concept can “be part of a broader network or an integrated clustering of concepts, propositions and world-views which form theories in social science” (Walsham, 1995, p. 79, citing Layder, 1993). The drawing of specific implications relates to particular domains of action and is paralleled with the notion of ‘generative mechanisms’ from critical realism (Bhaskar, 1979), viewed as “‘tendencies’, which are valuable in explanations of past data but are not wholly predictive of future situations” (Walsham, 1995a, p. 79). Finally, the form of generalization termed rich insight is intended to capture additional insights beyond the three former categories, that the reader can gain from reports and results of interpretive studies.

Qualitative research, and especially qualitative case studies, is considered the preferred strategy for answering ‘how’ and ‘why’ questions (Yin, 2003), i.e. to provide an understanding and explanation for the observed phenomena. As pointed out by Walsham (1995a), this would apply both for positivist and interpretivist research. Thus, qualitative research in general could be applied for exploratory, descriptive and explanatory research. However, as pointed out above, it is important to be aware of the distinctive

nature of explanatory research in positivist and interpretive research. While explanatory research in the positivist paradigm implies identifying “law-like” casual relationships with (ideally) universal generalizability, the explanations suggested in interpretive research would be local and endemic to the research setting studied but still with possible relevance for other settings.

In principle, the object of study in interpretive research is *understanding* (Weber’s “*verstehen*”), i.e. the subjective meaning that social actors create and share about their life world. If you claim that the object of study is “an IT solution” or “an organisation”, an interpretive researcher realizes that he/she has no direct access to such an object, only to individuals’ experiences and interpretations. In contrast, in positivist research the object of study is usually a relatively stable phenomenon (such as organisations, projects, systems) that can be examined by an outside, unbiased researcher with scientific instruments.

As discussed by Walsham (1995b), the early proponents of interpretive research in information systems had to provide a strong rhetoric as to how their research could provide a valuable alternative to the dominant positivist research paradigm. However, with interpretivism gradually becoming an established approach in information systems research, it has also found its way into standard textbooks used in graduate courses on research methods. Within information systems, there are still only a couple of textbooks that specifically target IS students, i.e. Oates (2006) and Myers and Avison (2002). While the characteristics of research paradigms are not discipline-specific, these books include examples of the application of these paradigms from IS research. (The Myers and Avison book is an edited volume of formerly published articles on research methods in IS, and thus not really a textbook developed for students on the subject).

In the Oates (2006) book, interpretivism is covered together with critical research in a chapter titled “Alternative Philosophical Paradigms”, thus implying an alternative to positivism which is covered in a separate chapter that also introduces the concepts of ontology and epistemology. For each paradigm, the book presents key characteristics, criteria for assessing the quality of research, and summarizing the main criticism typically raised against this approach. For interpretivist research, the following characteristics are listed (p. 292-293):

- a) *Multiple subjective realities*; “there is no single version of ‘the truth’. What we take to be ‘real’ or ‘knowledge’ is a construction of our minds, either individually or in a group.”
- b) *Dynamic, socially constructed meaning*; “whatever reality is, for an individual or a group, it can only be accessed and transmitted to others through yet more social constructions such as language and shared meanings and understanding. Language and shared meanings differ across groups over time.”
- c) *Researcher reflexivity*; “researchers are not neutral. Their own assumptions, beliefs, values and actions will inevitably shape the research process and affect the situation.”
- d) *Study of people in their natural social settings*; “research is aimed at understanding people in their worlds [...] studied from the perspectives of the participants and without the researchers imposing their outsiders’ previous understanding or expectations onto the situation.”
- e) *Qualitative data analysis*; “there is often a strong preference for generating and analyzing qualitative data – the words people use, the metaphors they employ, the images they construct.”
- f) *Multiple interpretations*; “researchers expect that they will not arrive at one fixed explanation of what occurs in their study. Instead they will offer more than one explanation, and discuss which, if any, seems stronger because there is more evidence for it.”

While we agree that this list captures key characteristics of interpretive research, we also argue that it only partly serves to distinguish interpretive research from other qualitative research. Criteria d) and e) could

apply for qualitative research more in general, and criterion c) could also be argued to be relevant for any type of qualitative research in that the researcher should reflect on his/her possible influence on the research. However, the distinguishing characteristic of interpretive research would here be in recognizing that researchers are not and can never be neutral, and thus not striving for a neutral, objective stance as prescribed by the positivist paradigm. Also, criterion b) could possibly be confused with the subjective interpretation of the researcher as part of any qualitative research.

This leaves us with only a) and f) as truly distinguishing characteristics for interpretive research.

A further challenge is that in the chapters on qualitative data collection and analysis in the book, the practices for this are presented as general and not related to the underlying paradigm.

We should stress that this is not intended as a criticism of the Oates book, as demonstrated by the fact that we still use this textbook as the main reading in the methods courses in which we are involved. But as we will illustrate in the next section, the way interpretivism is presented in this and other resources may lead to some misconceptions among both students and more seasoned researchers.

#### **4. FOUR FREQUENT MISCONCEPTIONS OF INTERPRETIVE RESEARCH**

This section presents four common misconceptions often encountered in research studies presented as interpretive research.

##### Misconception 1: Qualitative research = interpretive research

This can be regarded as the ‘root misconception’, also serving as the initial basis for this paper. While interpretive research would indeed be based on a qualitative research approach, the frequent misconception addressed here is that all qualitative research ‘by nature’ is interpretive (Klein and Myers, 1999). This again can be traced to the very concept of “interpretation”. Students in their early versions of qualitative research proposals are often presenting the following line of reasoning: after collecting their qualitative data they will be conducting qualitative data analysis which involves interpreting their findings – ergo they argue to be doing interpretive research. In a sense, this misconception is understandable, given the key importance of subjective interpretation in any form of qualitative data analysis, as opposed to quantitative research. Yet, as then needs to be explained to the misguided students, all research involves some form of interpretation of the results by the researcher to identify the core findings, also statistical results from quantitative research. And the students then need to be reminded on the form of interpretation implied by the interpretivist paradigm, as expressed by the classic quote from Geertz (1973):

*“What we call our data are really our own constructions of other people's constructions of what they and their compatriots are up to.” (p. 9)*

Thus, clarifying misconception 1:

***While interpretive research is qualitative in nature, not all qualitative research is based on interpretivism***

However, there are also other tripwires in this land of confusion, where the nature of the research conducted can be misleading the researcher to think (s)he is doing interpretive research. This will be discussed related to the two next misconceptions.

### Misconception 2a: Interpretive research = explorative research

Explorative research (also referred to as exploratory research) refers to research on a topic or domain that is still in an early stage of exploration, with relatively few existing studies and results. Qualitative research in general is a preferred strategy for conducting explorative research, as this gives the possibility to ‘map’ the different issues of possible influence on the phenomenon in question. Thus, the need for conducting explorative research is often used as an argument for doing qualitative research. From a positivist perspective, this would then be considered the first step towards developing hypotheses that could later be tested through quantitative research.

But similar as for qualitative research in general, explorative research does not imply a specific research paradigm. Thus, while some explorative research can be based on an interpretivist perspective, other studies could be based on positivism or other paradigms. Further, as for qualitative research in general, interpretive research can also be used for developing new knowledge in established research areas, thus providing research of an explanatory nature. However, as discussed in section 3, the nature of this explanation differs between positivist and interpretivist research.

Thus, this misconception ‘goes both ways’, requiring the following clarification:

***Not all interpretive research is exploratory, and not all exploratory research is based on interpretivism***

### Misconception 2b: Interpretive research = inductive research

This misconception is closely related to the previous one, as indicated by their numbering. While qualitative research would often be inductive and open in nature, it can also be guided by relevant research from other areas. Similar, interpretive research can be guided by extant research (theoretical and/or empirical), as long as this does not limit the ability of the researcher to generate new concepts and insights that go beyond the frames of existing research. Thus, interpretive research does not require a grounded theory approach, in the sense of taking a ‘blank slate’ perspective. Similar, grounded theory is not an inherent interpretivist approach, and can be applied in positivist, interpretive and critical studies (Urquhart et al., 2010).

Thus, this misconception also requires a dual clarification:

***Not all interpretive research is inductive, and not all inductive research is interpretive***

### Misconception 3: Applying the same validation criteria for interpretive research as for positivist research

The third major misconception is related to the criteria applied for judging the quality of research. It is well established in interpretive research that the traditional quality criteria for assessing positivist research are not suited for evaluating interpretive research (Guba and Lincoln, 1989; Klein and Myers, 1999; Walsham, 1995a). Thus, so-called alternative or parallel criteria have been developed, including trustworthiness, authenticity, credibility, transferability, dependability and confirmability (Guba and Lincoln, 1989; Oates, 2006).

Still, especially for scholars inexperienced with interpretive research, when discussing the quality of their research they seem to have missed this distinction and instead evaluate their research using the traditional, positivist criteria. Consequently, they argue for “avoiding bias” in their research, using triangulation for increasing validity, and stating generalizability from their research to be limited. This is clearly against the core principles of interpretive research, as presented in section 3. This form of confusion is also discussed by Burrell and Morgan (1979), referred to as ‘ontological oscillation’. Thus, clearing up misconception 3:

*The quality of interpretive research should not be assessed with traditional, positivist criteria*

## 5. DELINEATING QUESTIONS FOR INTERPRETIVE RESEARCH

The former section intended to clarify common misconceptions on the nature of interpretive research and its areas of application. From this we saw that the nature of interpretive research can be both exploratory, descriptive and explanatory, with elements of both induction and deduction. Further, we emphasized the importance of applying relevant, alternative criteria for assessing the quality of interpretive research.

In addition to these overall clarifications, Table 1 presents a list of more detailed questions that can aid in determining whether a research study would qualify as interpretive or not. In section 5.2, we provide an ‘answer key’, briefly discussing the implications of alternative answers for each question.

### 5.1 Guiding questions

Guiding questions	Answer (Yes/No)
<b>Data collection</b>	
1. Does your interview sample target all available stakeholder groups?	
2. Do you use multiple methods for data triangulation?	
3. Do you aim to avoid researcher bias in the data collection?	
4. If your research includes multiple cases, do you apply a replication strategy for your selection of cases?	
<b>Data analysis</b>	
5. Do you use researcher triangulation in your coding and analysis?	
6. For cross-case analysis, do you focus on both similar and contrasting findings between the cases?	
<b>Validation</b>	
7. Do you apply ‘traditional’ criteria (reliability, validity) for judging the quality of your research?	
8. Do you take into consideration feedback from the informants that questions your interpretation of the findings?	
<b>Reporting your findings</b>	
9. Do you discuss multiple possible interpretations of your findings?	
10. Do you present your conclusions as predictive for similar settings?	

*Table 1: Guiding questions for distinguishing interpretive research*

### 5.2 Answer key

For each question in Table 1 we here present an ‘answer key’ for whether the response is in accordance with the interpretivist research principles or not. Since compliance with interpretivism for an individual question does not necessarily imply that all criteria are met, this is denoted as ‘possibly interpretive’.

*Q1. Does your interview sample target all available stakeholder groups?*

*YES: possibly interpretive      NO: not in accordance with interpretivist research*

Explanation:

In section 3, the focus on multiple subjective realities and multiple interpretations were identified as distinguishing characteristics of interpretive research (based on Oates, 2006). Thus, to the extent possible, interpretive studies should aim for covering the viewpoints of the different stakeholders involved in the research setting studied, to be able to capture possibly differing perspectives on the studied phenomena. In the case that certain stakeholders are left out of the analysis (either by design or due to not being available), this should then be discussed as a possible limitation to the study.

*Q2. Do you use multiple methods for data triangulation?*

*YES: not in accordance with interpretive research      NO: possibly interpretive*

Explanation:

Data triangulation is a metaphor from geography, aiming at establishing facts by using more than one source. It assumes an objective reality to uncover, which is not congruent with interpretive ontology (Willis, 2007). This does not imply that the interpretive researcher should refrain from using multiple methods for collecting data from various sources, but the rationale for this would then be to contribute to a richer understanding of the focused question and not to verify a ‘true understanding’.

*Q3. Do you aim to avoid researcher bias in the data collection?*

*YES: not in accordance with interpretive research      NO: possibly interpretive*

Explanation:

In an interpretive study researcher bias is unavoidable, since an unbiased view presumes an omniscient position, which is not available to mortal researchers. The interpretive researcher should, however, be explicit on his/her criteria for selecting data sources. And as pointed out by Walsham (2006), acknowledging researcher bias does not preclude taking a ‘neutral’ stance in the sense “that the people in the field situation do not perceive the researcher as being aligned with a particular individual or group within the organization” (p. 321).

*Q4. If your research includes multiple cases, do you apply a replication strategy for your selection of cases?*

*YES: not in accordance with interpretive research      NO: possibly interpretive*

Explanation:

In positivist research, a multiple case study design is usually based on a replication logic, similar to conducting multiple experiments (Yin, 2003). Thus, if the same results are observed from a set of cases with similar characteristics, or with variations in the results that can be explained through pre-defined variation in some of the case characteristics, this is believed to give stronger support for the initial propositions guiding the research than for a single case study design. And in the cases of contradictory findings, “the initial propositions must be revised and retested with another set of cases” (Yin, 2003, p. 47). In contrast, in interpretive studies the main rationale for studying several cases is to be able to learn more about the phenomena in different settings, and document possibly varying results based on the interaction with contextual influences.

*Q5. Do you use researcher triangulation in your coding and analysis?*

*YES: not in accordance with interpretive research      NO: possibly interpretive*

Explanation:

The main goal of researcher triangulation is to reduce the effect of researcher bias (ref. Question 3).



Again, the problem from an interpretive perspective lies with the term *triangulation*. Interpretive researchers would also welcome the possibility for working together on data analysis, but then as a source for identifying and discussing multiple interpretations (ref. also Question 9).

*Q6. For cross-case analysis, do you focus on both similar and contrasting findings between the cases?*

*YES: possibly interpretive      NO: not in accordance with interpretive research*

Explanation:

As explained for Question 4, multiple case studies within the positivist paradigm are usually conducted based on a replication logic. According to this perspective, most weight would be given to findings that are supported across several cases, rather than conflicting findings reported from one or a few cases. In contrast, from an interpretivist perspective, contrasting findings would be investigated in detail, as a basis for identifying multiple interpretations of the studied phenomenon.

*Q7. Do you apply 'traditional' criteria (reliability, validity) for judging the quality of your research?*

*YES: not in accordance with interpretive research      NO: possibly interpretive*

Explanation:

Reliability and validity are positivist concepts, which are part of research designs that aim at objectivity and replicability. Interpretive research uses concepts such as credibility and authenticity. Ref. also the discussion related to misconception #3 in Section 4.

*Q8. Do you take into consideration feedback from the informants that questions your interpretation of the findings?*

*YES: possibly interpretive      NO: not in accordance with interpretive research*

Explanation:

Member validation (or member checks) serves different purposes in positivist and interpretivist research. In positivist research it is used to validate and verify factual information, while in interpretive research it is used to enrich the description. In positivist research informants have no role in the interpretation of findings. In interpretive research informants' interpretations of findings can be part of the research design (Bygstad and Munkvold, 2011b).

*Q9. Do you discuss multiple possible interpretations of your findings?*

*YES: possibly interpretive      NO: not in accordance with interpretive research*

Explanation:

As discussed in Section 3, the focus on multiple interpretations is a key distinguishing characteristic of interpretive research. While in the positivist paradigm, the aim is to identify the single, 'true' explanation of the findings.

*Q10. Do you present your conclusions as predictive for similar settings?*

*YES: not in accordance with interpretive research      NO: possibly interpretive*

Explanation:

As outlined in Section 3, while interpretive research can result in implications intended to be relevant for future research and practice, these are not presented as predictions but rather as 'tendencies' which may or may not play out in future situations (Walsham, 1995a).

## 6. DISCUSSION AND FURTHER RECOMMENDATIONS

The list of questions presented in the previous section is intended to serve as a simple checklist for determining whether a research study would qualify as being termed interpretive or not. We should stress here that our presentation of interpretive research is at a rather general level, not taking into account the many existing variants of interpretive research such as phenomenology and ethnomethodology (Holstein and Gubrium, 1998). It is considered beyond the scope of this study to discuss these variants, as it does not affect the core arguments made in this paper. Further, while we in Section 3 tried to distinguish how the notion of explanation should be understood differently in interpretive research compared to the positivist focus on uncovering a regular pattern or law, some would argue against using the term explanation at all related to interpretive research. See Hovorka and Lee (2010) for a further discussion on this.

As stated related to the suggested answer key, even if one or more questions would indicate conformance with interpretivist principles, this does not necessarily mean the research complies with these principles on all aspects. As such, the checklist is most effective in ruling out what should NOT be termed interpretive research, by highlighting aspects of a research study that would not be commensurable with an interpretive research perspective. For example, question 3 serves as a true litmus test in that a desire to avoid researcher bias is fully in breach of interpretive principles.

As discussed earlier, based on our experience we expect that several students that originally position their research as interpretive would end up with a different result after taking our ‘test’. The natural follow-up question would then be: if my research does not qualify (fully) as interpretive research, what is the ‘correct’ label for my research? One possibility could of course be that after clarifying the possible confusion about qualitative and interpretive research being synonyms, it turns out that the study in question is rather a positivist, qualitative study. But there are also other possibilities.

One possible answer is *critical realism*, which has been established the past decade as an alternative to positivist and interpretive IS research (Mingers 2004; Bygstad and Munkvold, 2011a). The basic assumption of critical realism is the existence of a real world independent of our knowledge of it. Critical realism combines a realist ontology with an interpretive epistemology; although a real world exists, our knowledge of it is socially constructed and fallible. The fruitfulness of this perspective has been shown both in terms of method (Wynn and Williams, 2012) and empirically through a number of case studies (e.g., Bygstad, 2010).

Another possible answer can be *design science research*, which is defined as a problem-solving paradigm that seeks to create innovations. In an IS context this means using the IS knowledge base to build IT artifacts and evaluate them systematically in terms of novelty and usefulness (Hevner et al., 2004). The goal of design science is not truth but utility.

In our opinion, for IS research the three ‘classic’ paradigms of positivism, interpretivism and critical research should be supplemented with critical realism and design science research. Further discussion on this ambition is outside the scope of this paper, but is needed to create a larger palette of research approaches in use in our discipline.

## 7. CONCLUSION

In this paper we have aimed at clarifying some common misconceptions about the nature of interpretive research, regarding its relationship with qualitative, exploratory and/or inductive research, and the criteria used for validating this form of research. Our clarifications are summarized in the following four ‘tenets’:

- *While interpretive research is qualitative in nature, not all qualitative research is based on interpretivism.*
- *Not all interpretive research is exploratory, and not all exploratory research is based on interpretivism.*
- *Not all interpretive research is inductive, and not all inductive research is interpretive.*
- *The quality of interpretive research should not be assessed with traditional, positivist criteria.*

In addition we have provided a set of guiding questions with answer key, that could help further in reflecting on whether a research study could qualify as interpretive research according to its basic principles. Our guidelines for reflection can thus be seen as complementary to the existing guidelines for conducting and evaluating interpretive research (Klein and Myers, 1999; Walsham, 1995a, 2006).

We hope this can contribute in resolving current misunderstandings on these issues, both among students and more experienced researchers. We encourage further work discussing the role of interpretive research relative to other paradigms in qualitative research.

## ACKNOWLEDGEMENT

As an old Genesis fan, the first author would like to pay tribute to the 30<sup>th</sup> anniversary for their song “Land of Confusion”. We thank the IS PhD students at University of Agder, the IS research group at Westerdals Oslo ACT and the three NOKOBIT reviewers for their useful comments and questions.

## REFERENCES

- Bhaskar, R.A. (1979). *The Possibility of Naturalism*, London: Routledge.
- Burrell, G. and Morgan, G. (1979). *Sociological Paradigms and Organisational Analysis*. Ashgate Publishing Company, Aldershot.
- Bygstad, B. (2010). “Generative Mechanisms for Innovation in Information Infrastructures”. *Information and Organization*, 20(3-4), pp. 156-168.
- Bygstad, B. and Munkvold, B.E. (2011a). “In Search of Mechanisms. Conducting a Critical Realist Data Analysis”. *Proceedings of the 32nd International Conference of Information Systems (ICIS)*, Shanghai, China.
- Bygstad, B. and Munkvold, B.E. (2011b). “Extending the Role of Informants in Interpretive Case Study Research in IS”. *Journal of Information Technology*, 26(1), pp. 32-45.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: choosing among five traditions*, Thousand Oaks, CA: Sage Publications.
- Geertz, C. (1973). “Thick description: toward an interpretive theory of culture”, in Geertz, C. (Ed.), *The interpretation of cultures*. New York: Basic Books, pp. 3-30.
- Guba, E. G. and Lincoln, Y. S. (1989). *Fourth Generation Evaluation*. Sage Publications, Newbury Park, CA.
- Hevner, A., March, S., Park, J., and Ram, S. (2004). “Design Science in Information Systems Research”. *MIS Quarterly*, 28(1), pp. 75-105.
- Holstein, J. A. and Gubrium, J. F. (1994). “Phenomenology, Ethnomethodology, and Interpretive Practice”, in Denzin, N. K. and Lincoln, Y. S (Eds), *Handbook of Qualitative Research*: Sage, Thousand Oaks, CA, pp. 262-272.

- Hovorka, D. S. and Lee, A. S. (2010). "Reframing Interpretivism and Positivism as Understanding and Explanation: Consequences for Information Systems Research". *ICIS 2010 Proceedings*, Paper 188.
- Klein, H. K. and Myers, M. D. (1999). "A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems". *MIS Quarterly*, 23(1), pp. 67-94.
- Layder, D. (1993). *New Strategies in Social Research*. Polity Press, Cambridge.
- Mingers, J. (2004). "Re-establishing the real: critical realism and information systems", in Mingers, J. and Willcocks, L. P. (Eds.), *Social Theory and Philosophy for Information Systems Research*. Chichester: Wiley, pp. 372-406.
- Myers, M. D. (1997). "Qualitative Research in Information Systems". *MIS Quarterly*, 21(2), pp. 241-242. *MISQ Discovery*, archival version, June 1997, <http://www.misq.org/supplements/>. Association for Information Systems (AISWorld) Section on Qualitative Research in Information Systems, updated version, last modified: March 1, 2016, [www.qual.auckland.ac.nz](http://www.qual.auckland.ac.nz)
- Myers, M. D. and Avison, D. E. (Eds.) (2002). *Qualitative Research in Information Systems: A Reader*, Sage Publications, London.
- Oates, B. J. (2006). *Researching Information Systems and Computing*: Sage Publications, London.
- Orlikowski, W. J. and Baroudi, J. J. (1991). "Studying Information Technology in Organizations: Research Approaches and Assumptions". *Information Systems Research*, 2(1), pp. 1-27.
- Putnam, L. L. (1983). "The Interpretive Perspective: An Alternative to Functionalism," in Putnam, L. L. and Pacanowsky, M. E. (Eds.), *Communication and Organization*, Sage, Beverly Hills, CA, pp. 31-54.
- Sutton, R. I. (1997). "The Virtues of Closet Qualitative Research". *Organization Science*, 8(1), pp. 97-106.
- Urquhart, C., Lehmann, H. and Myers, M. D. (2010). "Putting the 'theory' back into grounded theory: guidelines for grounded theory studies in information systems". *Information Systems Journal*, 20, pp. 357-381.
- Yin, R. K. (2003). *Case Study Research*. California, Sage Publications.
- Walsham, G. (1995a). "Interpretive case studies in IS research: nature and method". *European Journal of Information Systems*, 4, pp. 74-81.
- Walsham, G. (1995b). "The Emergence of Interpretivism in IS Research". *Information Systems Research*, (6:4), pp. 376-394.
- Walsham, G. (2006). "Doing interpretive research". *European Journal of Information Systems*, 15, pp. 320-330.
- Willis, J. (2007). *Foundations of Qualitative Research: Interpretive and Critical Approaches*. SAGE Publications.
- Wynn, D. and Williams, C. K. (2012). "Principles for Conducting Critical Realist Case Study Research in Information Systems". *MIS Quarterly*, 36(3), pp 787-810.