Intuitive vs. Analytical Mode of Information Processing: The News Broadcast Decisions Context

Haber Yayın Kararları Bağlamında Sezgisel veya Analitik Bilgi İşleme Modları

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Abstract

This research is about decision-making behaviour of news editors. In social settings, situation shapes the human behaviour. Accordingly, editorial decisions for news production and broadcast are bounded with the situation. The objective of the research is to illuminate the use of intuition and analytical process for news decisions. Qualitative methodology was used for the fieldwork. Interviews were conducted with seventeen journalists. Cultural Historical Activity Theory is used as a theoretical framework and methodological tool. Findings reveal that editors use both intuition and analytical methods for decisions. Varying situations significantly alter the editors' way of making news broadcast decisions.

Keywords: Intuitive and analytical decision-making, information behaviour, Cultural Historical Activity Theory, news production

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Öz

Bu araştırma haber editörlerinin karar verme davranışlarını konu almaktadır. Sosyal sahalarda şartlar insan davranışını etkiler. Buna bağlı olarak editörlerin haber yapım ve yayın kararları da şartlara bağlı olarak değişir. Bu araştırmanın amacı haber editörlerinin sezgisel ve analitik karar verme davranışlarının açığa çıkarılmasıdır. Nitel araştırma yöntemi kullanılarak onyedi gazeteci ile yüzyüze görüşme yapılmıştır. Bu araştırmada Kültürel ve Tarihsel Aktivite Teorisi modeli, kuramsal çerçeve ve analiz yöntemi olarak kullanılmıştır. Bulgular editörlerin kararları için – şartları göz önüne alarak yerine göre – sezgisel ve analitik yöntemleri kullandıklarını ortaya çıkarmıştır. Değişen şartlar, editörlerin haber yayın kararları verme davranışlarını büyük oranda etkilemektedir.

Anahtar kelimeler: Sezgisel ve analitik karar verme, bilgi davranışları, Kültürel ve Tarihsel Aktivite Teorisi, haber yapımı

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Introduction

This research is about the decision-making behaviour of news editors. The objective of the research is to examine the relationship between situation, profession, task structure and the decision behaviour of news editors. Scope of the research includes the factors affecting the editorial decisions, the way the news editors process information, and the outcome of the decisions made.

For the research, news production scope is limited to incident news. Event, financial, political meetings, press releases, magazine based breaking-news are exempted. Incident news involves large scale disasters, terrorist attacks, explosions, crashes, robbery, fire etc.

As a theoretical framework Cultural Historical Activity Theory is employed. The interviews were conducted with news editors and correspondents from various news institutions. The findings reveal that factors like situation, profession and task structure play crucial role on intuitive vs. analytical behaviour of editors' decisions.

Literature Review

Intuitive vs. Analytical Behaviour

Temporal and task related issues play a crucial role on human cognition. As judgement and decision making are cognitive functions, task structure, availability to access relevant information, availability of feedback loops, time constraints, uncertainty have major impact on the way people make decisions (Mishra, Allen, & Pearman, 2013; Allen, 2011; Salas, Michael, & Diazgranados, 2010; Klein, 2008).

For judgement and make decisions, "human satisfy information needs for decision by deliberative and rational processes, and choose among alternatives" proposition is widely affirmed by management and information behaviour literature (Kulthau, 2004; Wilson, 1999; Leckie, Pettigrev, & Sylvain, 1996; Simon 1987). However, in social settings, especially highly uncertain and time pressured task decisions cannot be accomplished through only deliberative processes. Under high uncertainty and time constraints, decision makers choose the first working solution, and this is less rational way (Sadler-Smith & Sparrow, 2007). Table 1 indicates the dichotomy between intuitive and analytical mode of functioning from information processing view.

Table 1. Features of intuitive and analytical mode of decision-making (adapted from Aydın, 2015; Moilanen, 2014; Allen, 2011)

Intuitive mode	Analytical mode
Rapid information processing	Slow information processing
Simultaneous cue use	Sequential cue use
Formal rules unavailable	Formal rules available and used
Reliance on non-verbal cues	Reliance on quantitative cues
Raw data stored in memory	Complex organising principles stored in memory
Cues evaluated perceptually	Cues evaluated at measurement level
Vicarious functioning	Vicarious functioning unnecessary due to use of organising principles
Pattern recognition	Task-specific organising principles
Emotions as drivers	Rationality priority

Intuition is the non-conscious processing of information via direct knowing (Salas et al., 2010; Sinclair, 2010). Allen (2011) and Hammond (2010) state that intuition is non-conscious, a hunch or a gut feeling that relies on long term memory. Decision makers recognise the patterns embedded in their mind through recall their past experiences and synthesise the current cues to take course of action (Dane & Pratt, 2007; Simon, 1987). Professionals and experts' intuitive ability is generated through use of long-term memory matching vast number of patterns (Hodgkinson, Langan-Fox, & Sadler-Smith, 2008).

Even the intuition literature emphasis on the recall of the past experiences and matching current cues with these, affects are another driving force for intuitive behaviour (Sinclair, 2010). Judgements can be altered or manipulated via affects (Dane & Pratt, 2007).

In work settings, where time pressure and uncertainty are high, the role of intuitive decision- making stands out. Time constraint avoids the organisational members from processing information through analytical steps (Hodgkinson, Sadler-Smith, Burke, Claxton, & Sparrow, 2009). Intuitive decision-making becomes feasible for rapid decisions for the contexts like breaking-news production. *"Split-second decision-making, gut instinct, curiosity and nose for news are highly prized attributes of any reporter or editor working in a fast-paced news environment"* (Machin & Niblock, 2006, p.403).

It is notable here that for rapid decisions in the breaking-news context, intuition is not solely used for taking course of action. In some cases, analytical processing is feasible. There is a trade-off between intuitive and analytical processing through considering situation and potential results (Aydın, 2015; Sjöberg, 2003). The editors consider the advantage of positive outcome and risk of negative outcome.

Dual-process decision-making theory (Allen, 2011) asserts that human use both deliberative and intuitive approach. In social settings, situation and task structure have role on the selecting dual-process mode and outcomes of the decisions made.

For analytical judgement, there should be plausible time to take action, various information sources should be presented to validate. There is vast literature about analytical information processing and decision making (e. g. Leckie et al., 1996; Simon, 1987; Simon, 1979; Stasser & Titus, 2003; Wilson, 2006; Wilson,1999). Analytical mode of decision-making is sequential and deliberative process. The relevant information should be highly available. Information gathered should be pooled and the judgement should be made through putting alternatives in order.

Since, social settings may prevent people from behaving rationally in a decision situation because of some external conditions such as uncertainty and/or time constraints; task structure is considered as highly complex. In this context, generally, a large set of cues are not available either (Hodgkinson et al., 2009; Hodgkinson et al., 2008; Klein, 2008; Klein & Calderwood, 1991). And it is notable here that level of experience has significant role on using intuition or not.

News Production Context

News production is an event driven activity. The process of breaking-news production is affected by time pressure. News agencies are operating in dynamic environments. Time management is vital for their survival since the competition is high in news market (Usher, 2018). The goal of the news agencies is informing the public with the news as soon as prompted.

Breaking-news are unscheduled and evolves fires, explosions, shootings, robbery, crashes, natural disasters etc. The nature of breaking-news cannot make possible to advanced planning since they are prompted after a notification received. Breaking-news contain highly unstructured, uncertain set of data so news agencies initially release on the news portals what happens and then develop the content within where, who(m), how, why enquiries (Niblock & Machin, 2014). Therefore, breaking-news are developing news and within decrease of the uncertainty, the correspondents struggle to access relevant information to significantly structure the news story (Schultz, 2005).

The major criteria for the quality of news production are timeliness, relevance, accuracy, objectivity, and ethics (Figure 1). Bounding with those, correspondents and editors take course of actions. Situational factors like time constraint, uncertainty, news task dependent factors like discrepancies and availability of relevant information, networking factors like reliability, capability of the information sources, profession factors like domain expertise and experience of the news poducers have major influence for accomplishing accurate, immediate, objective and ethical breaking-news production (Kaufmann, Meschnig, and Reimann, 2014).

Paterson (2011) states that in terms of gathering accurate primary information from the site, teams need to access the site (physically or remotely) where the news is

happening and collect the relevant information to use in the news production process. The key point for effective news production is to be at the right place at the right time. Whether the correspondents or a proximate representative (like network, freelancer etc.) should be present at the site to collect and share information with the newsroom. The information broadcasted as news should be accurate, timely, objective and ethical. These four criteria have equal importance, and the researcher figures it out to emphasise the balance between these four criteria to be considered while news production (Figure 1). Otherwise, the reliability of the news will be questioned, this situation harms the reputation of the news agency and the news agency will fall behind its rivals.
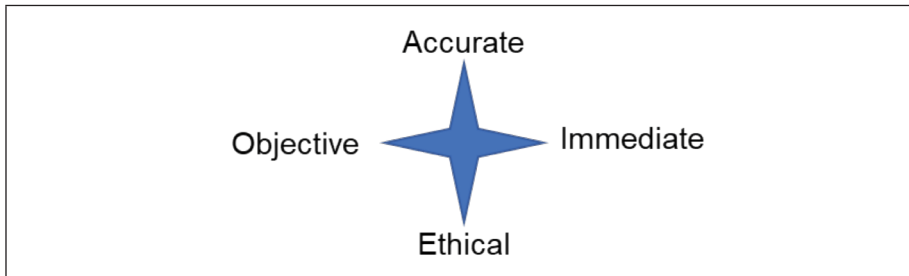

Figure 1. Balance between the features of the news

Technology and human factors are important entities for quality news production. Teamwork, coordination, rapid editorial decisions, and advancements in the information and communication (ICT) technology are standing out issues for breaking-news production (Paterson, 2011). Within the technological challenges, the transfer speed of the news increased significantly. Audiences are less patient than before to access fresh and updated information about any events or incidents. To satisfy the information needs of the audiences, news agencies restructure themselves to access timely, fresh, accurate information and disseminate in a rapid manner. Otherwise, audiences check the other internet sources like social media accounts, web pages etc. Here is a vague area since the accuracy and consistency of the news become speculative in these online portals.

For news broadcast, the correspondents, editors and live stream crews collaborate. The accuracy check of the information takes place and editorial decision made after it is transferred to the news room. However, large number of online news portals, social media accounts share inaccurate information at the time of critical incidents. The editors' decision behaviour is stimulated by trust level of information sources (Widén-Wulff, 2007; Widén-Wulff et al., 2008).

When we shed light onto the process of breaking-news production (Figure 2), as soon as the news centre receives a notification about an incident, news teams are dispatched to the site to collect information or the newsroom gather information

from their freelance network. At the initial stage, any unexpected incident prompted, the correspondents gather information such as couple of words and share it with the news room. The editors decide to release or suspend; and then the breaking-news line up process exits (Figure 2). The breaking-news are developed in a continuous manner via live information transfer from the incident site. For collection and transfer of information physical enquiries, face to face chat/talk, satellite/mobile phones, news sharing software applications, SNG vehicles are widely used. Information transfer from the site and information processing at the newsroom are communicative actions; and iterative.
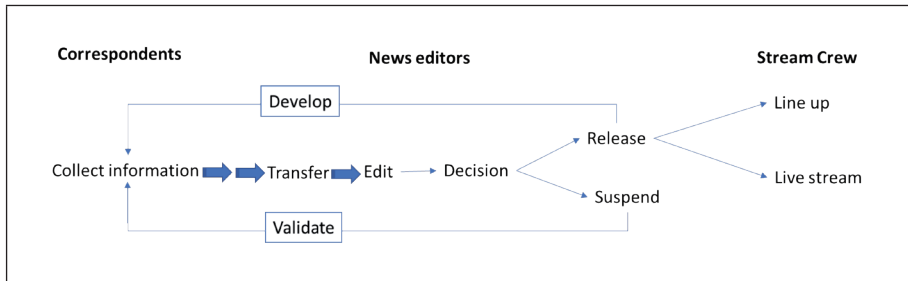

Figure 2. News Production Cycle (Adapted from Aydın, 2015)

Methodology and Theoretical Framework

The researcher used qualitative approaches for fieldwork, data collection, and conceptual analysis. This research is grounded on Cultural Historical Activity Theory (CHAT) as a theoretical framework and methodological tool for conceptual data analysis. The rationale behind using the qualitative approach is to comprehend the nature of the phenomena and social meaning (Blumberg, Cooper, & Schindler, 2011). This research's objective is to investigate the nature of information processing and judgement behaviour of news editors and correspondents. Accordingly, qualitative approach is appropriate for fieldwork (Yin, 2009).

CHAT

CHAT is grounded on Marxist theory to understand the nature of human behaviour. The theory relies on the Soviet psychology and early works of Vygotsky (1978) and Leont'ev (1978). CHAT provides overarching explanatory framework that enables the investigation of information behaviour of humans in social settings (Allen, Karanasios, & Slavova, 2011). Accordingly, it is based on human consciousness to explain human behaviour (Wilson, 2006).

CHAT affirms that every activity is shaped by situation, prompted by a true motive, and objectives are transformed to outcomes. The theory evolves the principles that any

human behaviour/activity is conscious/non-conscious, object oriented, mediated by artefacts, composed of sub-activities (activity, actions, operations), has internalisation/ externalisation cycle and involves tensions-contradictions (results with transformation/ development). Engeström (2000, 1999, 1987) has vast number of theoretical and practical research on CHAT and developed newly social nodes (division of labour, community, rules & regulations, interacting entities). Figure 3 illustrates the structure and hierarchical level of an activity system.

Currently, the emphasis of the third generation of CHAT is on the interacting neighbour activities which are bounded with the shared objective and supporting the central activity system.
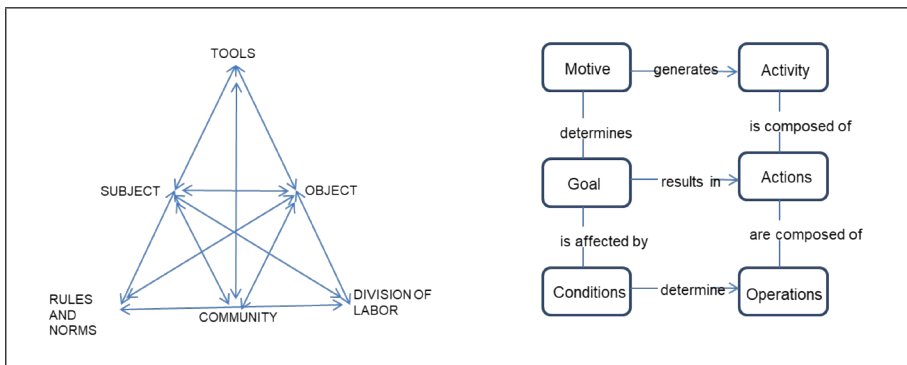

Figure 3. Structure (Engeström, 1987) and Hierarchical Levels (Wilson, 2008) of an Activity System

For this research, the information processing and decision-making modes are grounded on CHAT. Object-oriented motives, mediation, supporting sub-activities/ hierarchical level; and interacting activity systems (Engeström's Third Generation) are used for coding the field work data and discourse/content analysis; internalisation/ externalisation cycle is used to comprehend the phenomena deeply during interviews analysis and feasible to articulate the findings.

Data Collection

We used three different methods for data collection: interviews, news portal archive search, and critical incident technique. Triangulation was used for data collection. The rational to this approach is to avoid biases and inconsistencies by ensuring the validity, accuracy, relevancy; minimising the threats; and scrutinising the contradictions that present opposite views about the propositions; establishing convergence by confirming single proposition from various sources (Berg, 2009; Easterby-Smith, Thorpe, & Jackson, 2008).

Informant sheet, consent form, semi-structured interview questions were sent to the participants one week prior to the scheduled interview date. Interview questions were directed to the participants at their work place via advanced meeting organisation (exception: one participant was communicated through phone). Average duration of the interview records is 50 minutes. *Critical incident technique* (Flanagan, 1954) was utilised during interviews for mining the nature of the behaviour. The interview questions are present at the appendices part (Appendix 1). The interview questions were translated into Turkish and addressed to the participants.

Participants

Correspondents, editors and news stream crews were participated in this research. The fieldwork was conducted in Turkey between September 2015 and March 2016. Demography of the participants varies and the researcher considered to have balanced demography according to the experience, departments and profession. Expert, veteran, and intern journalists participated. Twelve participants (six editors) were working for salary basis in different news institutions, one participant was veteran, two participants were interns, two participants were freelancers.

Data Analysis

As an initial step of the data analysis, the researcher constructs overall activity system through employing the hierarchical structure (activity, actions, operations) (Figure 4). The aim of this approach is to deconstruct the overall activity into sub-activities, and reveal the sequential, dynamic process. For the research, overall activity system is news production; supporting activities/actions are broadcast decision, information processing, information transfer, collect information; operations/nodes are presented at each corner of the triangles. At the same time, these nodes are mediators for human behaviour. Dotted lines reveal the transformation of objectives to outcomes. Each outcome becomes the tools of sequential activity system. Situations shape the motives of activity systems therefore decision-making behaviour is bounded to situation.
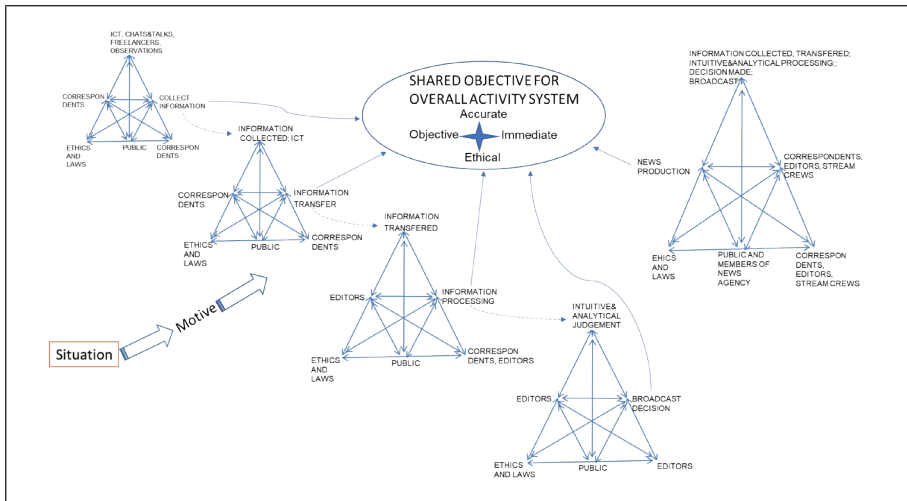
Figure 4. Shared Objective and Interacting News Production Activity System for Coding and Analysis Process

Second step of the analysis includes the construction of shared objective. The research is grounded on the third generation of CHAT (Engeström, 1999), so interacting activity systems support the overall activity system (news production). For avoiding tensions, discrepancies and breakdowns shared objective is generated for whole organisation. Shared objective is accurate, ethical, objective, timelines production of news.

Third step for data analysis is conceptualisation of the interview transcripts. Through the discourse analysis transcript data coded to each node of the above activity system. By doing so, fieldwork data is split into categories, themes. The rational to use this approach is gaining advantage to conceptualise the data, deconstruct the human behaviour, illuminating the meaning of the behaviour, comprehending the editorial decisions phenomena in the news production context.

For the last stage of the analysis, discourse analysis and interpretive paradigm (Burrel & Morgan, 2005) were used to interpret conceptual codes; and excerpts from interview transcripts were quoted to establish concise research findings.

Findings

After conceptual codes were generated using CHAT terminology (Figure 4, above), excerpts from transcripts were matched to the situation/condition. CHAT asserts that every human activity (intuitive vs. analytical) is prompted with motives and bounded with the situation/condition. Accordingly, to interpret the research findings, discourse

analysis was employed through projecting conceptual code in various situations/ conditions to comprehend what factors are motives for intuitive or analytical mode of editorial decisions.

Excerpts which are relevant for our research objective were coded for conceptual analysis. A sample excerpt sheet was generated and is available in Appendix 2. The Situation/condition labels may be suitable for more than one situation however one excerpt was labelled with one situation/condition for illustrating as a sample.

The situation/conditions which are significant role on editorial decisions were broadly generated in three categories: environment, task features and profession. There are factors playing role in these situations are listed in Table 2.

After discourse analysis and interpretation of the results, how each situation plays role on the intuitive and analytical decision-making was summarised in Table 2.

As a summary of the findings, editors make sense of the potential gains and losses before using intuition and analytical processes. This cognitive behaviour is another decision-making approach of using insight or gut feeling that is paving road to intuition.

Table 2. Research Findings

	Intuitive mode	Analytical mode
Environment		
Temporal issues	High level of time pressure enforces the editors to give broadcast decision as soon as possible. Deliberative processing is time consuming.	The access to relevant information and using deliberative process is time consuming however suspicious information (disinformation) from the field pushes the editors to suspend, and they return to the field to validate information.
Uncertainty	At the initial stage of the incidents uncertainty is high. High level of uncertainty avoids the editors from deliberative processing. Availability of reliable information is very scarce.	To pool relevant information and choose among alternatives option is available at the developing stage, where uncertainty start to decrease.
Spatial proximity	Networks enable editors to access information. Quality of the network (trust) play role to disseminate the information without validating from other sources.	For abroad networks and freelancers, editors behave suspicious and validate from various sources.

Table 2 continued

Task features		
Complexity	For highly complex tasks, if the editors possess large set of cues, intuition is used to integrate.	Where the task requires much information to be absorbed, and cues in hand are not adequate, editors collaborate to gather new information.
Feedback cycle	The time constraint, uncertainty, spatial proximity may hinder feedback loops. This situation forces the editors to use intuition.	Sequential information seeking, sharing, transfer is facilitated by feedback loops. The news content becomes rich and quality of the news increases.
Profession		
Expertise	Domain-specific and experience-based expertise have significant impact on intuitive judgement. Overconfidence and synthesis of vocational skills play role for intuition.	Personal and professional anxieties, fear direct the editors for analytical process to shed light to the road they are walking. More experienced editors may make-sense and be aware about the discrepancies of the information in hand.
Technological advancements	Discrepancies in communication technology limit the editors to access large amount of information.	Quality of the ICT like SNG, Mobile sharing hubs, satellite phone etc. have role on the editorial decisions. The data, records received enable to generate alternative options.
Social capital	Trust and ethical concerns play critical role on editorial judgement. If there are no contradictions aroused according to the editor's insight and past experiences, intuition is used.	Information comes from the secondary level or freelancer networks may needs validation. Trust and ethical concerns may lead the editor for further information seeking.

Discussion

Our research objective is to comprehend the decision-making behaviour of the news editors. Interacting with the situation and conditions, human behaviour varies. Accordingly, editorial decisions are bounded with the situation. Our focus is on the use of intuitive and analytical approach for news decisions.

The research findings are consistent with the dual-process approach research of Salas et al. (2010), Allen (2011), and Mishra et al. (2013). News editors use intuitive approach under time pressure. At the time pressured situations rapid information processing exist, cues are used simultaneously, formal organisational rules are unavailable, past patterns are recalled and matched to current cues. However, if an inconsistent manner is noticed feedback cycle become active to gather relevant information from sources. The news editors do not let the immediacy to overwhelm the accuracy and ethical side.

At the initial stages of the incidents, and this is prompt point for breaking-news stream, uncertainty is high. Correspondents are not available to access reliable information in highly uncertain environments. Overlapping with Hodgkinson et al. (2009), Sinclair (2010) editors decide on the action use their gut-feeling and direct knowing for taking course of action about broadcasting breaking-news. Intuitive decision-making behaviour is crystallised at the breaking-news production stage.

Supporting Hammond's (2010) study, our data analysis affirms that if the news task is highly complex (there is much information to absorb, many people engaged in, many decisions to be made, scarce information sources available), the news editors use their long-term memory to recall and fill the gaps to produce accurate content for the news. If the cues in hand are available to use intangible, tacit knowledge, intuition is feasible tool (Moilanen, 2014). On the other hand, if the cues in hand are not adequate for taking actions further, to hedge the complexity analytical information processing approach is employed. Overlapping with Byström (2002), Byström and Jarvelin (1995), Leckie and colleagues (1996) highly complex tasks enforce to seek and gather information through sequential and analytical approaches. Cues in hand evaluated with collaborative action through generating communication with the correspondents (or other networks, information sources) and feedback cycle enable to develop the information content.

Indicating the benefits of the feedback cycle during the news process, our research illuminates the collaborative actions are taken for news decisions for hedging discrepancies of information, catching the deadlines, ensuring the immediacy. Consistent with Aydın (2015), validation through feedback cycle information make the editorial decisions rapid.

Professional editors are more advantaged over less experienced ones. Their experience-based expertise is competency. Our analysis is similar with Kaufmann et al. (2014), Salas et al. (2010), Kahneman (2011) findings that experience level (in years) facilitate the use of intuition at the breaking-news production stage. Unlike the daily news bulletin or documentary news, breaking-news production force the correspondents to access information as soon as possible, and the editors for rapid broadcast decisions. Under these circumstances, rapid actions through intuition gives advantage of being pioneer for the breaking-news.

Overlapping with Moilanen (2014) and Dane & Pratt (2007), personality and emotional aspects such as overconfidence and anxiety play role on using intuition or analytical approach for editorial decisions. If the editor feels that confirmation of the news broadcast is risky, the deliberative approach is employed to gather new information from incident site.

Domain expertise is one another critical point in news production settings. Consistent with Usher (2018) and Dane, Rockman, & Pratt (2012), highly qualified

journalists provide contribution for rapid, accurate, objective and ethical news broadcast. To confirm the news quality, news agencies tend to employ high skilled, professional staff.

Technological advancements alter the way of news production. ICT tools are used by the news agencies on the one edge and social media accounts on the other. In seconds, social media accounts discuss what happens, how, why. However, without validation process, misinformation is released as truth. This era is not lacking the possession of information. The main point is how to validate the information, make it accurate, ensure reliability, know it is objective and provide ethical content. This key activity for the gaining competitive advantage in news market, providing highly validated, accurate, timely, objective, consistent, ethical news are become core competencies of the news institutions. These are always taking into consideration whether working in fast-paced or slow-paced context.

Benefits of the technological advancements on editorial decisions can be listed as: rapid access to the information, rich news content, capability to validate news from various sources, however, biased and speculative news rapidly disseminated in social media accounts hinder the benefits in some cases.

Availability of strong networks and ties stand out in the news market. Findings affirm Usher (2018) that the information comes from trusted sources should be broadcasted. Past experiences of the editors about the behaviour of the information provider stimulate the direction of the editorial decision. Findings overlaps with Widén-Wulff (2007) and Widén-Wulff et al. (2008), social capital issues are focus point such as trust between the news agency and information sources. The news editors widely mention about the role of trust for communicating information.

The research objective is accomplished through indicating the situational factors shaping the editorial decision behaviour and illuminating how the news editors make news broadcast decisions while these situations are viable. Our findings emphasis on the proposition that the four criteria (accuracy, objectivity, ethical, immediacy) are cutting edge for all news editors.

Consequently, the research contributes to the literature and theory via illuminating the role of intuition in organisational settings, interplay between intuitive and analytical mode of decision-making, and employing CHAT as an analytical tool for coding transcript data and conceptual data analysis.

Conclusion

Situational factors like environment, task structure and profession play role on news production stages. The news agencies or editors have no effect upon the exogenous

factors (environment and task structure). However, the news editors hedge the disadvantageous manner of time constraints, uncertainty, task complexity, spatial proximity through utilising the feedback cycle, expertise, technological advancements, and social capital for decision-making. Interplay between intuition and analytical approach is viable at the time of news production. Dual-process mode is feasible for editorial decisions.

Intuitive decision-making behaviour is crystallised at the breaking-news production stage. However, taking into consideration the news criteria, editors concern the trade-off intuitive and analytical behaviour. The four criteria (accuracy, objectivity, ethical, immediacy) belong to the process of news production are cutting edge for all news editors and they are taken into consideration by them before arriving at any decision.

For developing news both intuitive and analytical processing exist. The content of the news is fostered via gathering updated information from sources. At the deliberative stage, slow information processing exists, task-specific information is sought, cues are evaluated at measurement level.

Consequently, this research has two contributions. Illuminating the interplay of intuitive and analytical mode of editorial decisions and using CHAT as analytical tool for decision-making context are two main contributions.

Further Research

There is not available research about the effects of the social media on the news productions process. Misinformation and disinformation are available online as soon as incidents prompted. As a research question: "How does information generated on social accounts shape the editorial decisions?" can be a topic for the further research.

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Appendices

Appendix 1. Interview schedule

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Leeds University Business School

Interview Questions

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Research Topic: "Intuitive vs. analytical information processing for editorial decisions in the news production context"

Name of the researcher: Alperen Mehmet Aydın

Institution: Leeds University Business School, AIMTech Research Group, Leeds, UK

Date and Location:

Name of the participant:

Position and Experience (in years) of the participant:

Introduction

This research is about the information processing behaviour of correspondents and news editors under time pressure. Especially, editors work under time pressure while breaking-news production since the uncertainty is high, information is scarce, inconsistent, inaccurate at the initial stage of the incidents. On the other hand, the rivalry in the news market forces the editors to broadcast as soon as possible.

The aim of this research is finding answers to "How do editors keep the balance accuracy, immediacy, ethics, objectivity criteria of news under time pressure?"; and "How do they judge the information gathered?".

Questions

1. How you hear about any incident?

2. Could you describe how you or your team prompt to incident site please?

3. Could you explain the steps for news broadcasting please?

4. A) (For correspondents only) How you collect information at the site? What tools, networks are used?

    B) (For editors only) How you edit the information gathered from the incident site? What are the criteria?

5. Do you validate information mostly? Please could you mention how you validate under time constraint?

6. For judgement process, what is your intention? Do time constraints avoid you? How do you behave under time pressure?

8. Could you explain an experience of your about broadcasted breaking-news which involves catastrophic biased content?

Appendix 2. Sample Situation/Condition Labels and Coded Interview Transcripts*

* xxxx is used for labelling the codes and I# is used for the interview number

Complexity: I12: "I possess the information, but we cannot broadcast, we should get permission from legal bodies. Editors should learn about what can be broadcasted, what not."

Complexity: I12: "There is very small number of leaks from military, so approach alluring information about military. It may be a trap or manipulation."

Complexity: I13: "Evaluation of the information in a team for critical events is important. Every single people has different insights, experiences."

Complexity: I2: "We broadcast … soldiers were kidnapped by terrorists however one of the soldiers was spy and help the terrorists to attack and kidnap. It is not easy to know about this detail at the beginning. This complex, and vague side of our job. For couple of days we have mercy for this spy."

Expertise: I11: "Disaster news are sensitive and critical. We do not have to exaggerate. Our responsibility is calming down the public while deciding on publishing accurate and immediate news."

Expertise: I14: "It is not a debate program, or documentary type. You should broadcast what happened only without interpretations. I believe easier way to do. Eliminate the interpretations and release."

Expertise: I15: "We love emotional stories but while making decisions be rational. Professional work needs detailed information. Fill the gaps and then broadcast."

Expertise: I16: "First time I come across this situation, I got nervous, but on the other hand this may be chance for me. Really complex and hard decision…"

Expertise: I16: "I have a map of Istanbul, road by road. I know about the structure, demography etc. When a notification received, I can guess what can be happened it hat milieu. Years give you this experience."

Expertise: I16: "I match the circumstances with my past experiences and give decision."

Expertise: I17: "I know the milieu, the incident happened. Impossible to any people to enter from outside. The building is protected very much. I wait for the correspondents to validate. So, my gut feeling was right. The murderer was the assistant."

Expertise: I2: "Type of the explosion reveals who did it. Our insight drives us to guess. Our experience makes us understand what is happening through recognising the cues."

Expertise: I2: "We evaluate the information with the other departments sometimes, before release it to be broadcasted. Every department has specific expertise."

Expertise: I6: "Internet was suspended, I only had initial information about the regime. The internet suspension made me think the news is true and the information received from our foreign correspondent is newsworthy. I broadcasted immediately."

Expertise: I9: "I put the pieces in order and judge about to broadcast or not. My past experiences in Turkish news market, help me to use my insights. However, I return to the correspondents at the site to validate. I judge that initial data includes biases, errors."

Expertise: I9: "The difference between our and the local or small scale news agencies is the approach to profession. Our team consist of pioneer journalists in Turkey. So, our news meets the quality standards every time."

Feedback cycle: I10: "Public hesitate to provide information mostly."

Feedback cycle: I11: "A car exploded, I line up that someone attacked the car via bomb. However, it was handmade bomb of the car owner. It exploded."

Feedback cycle: I16: "An explosion, and the name of death person was mistakenly broadcasted. The public give this name, but we should have to validate."

Social capital: I10: "I cannot say our news broadcast policy are highly ethical. Some of us publish what he/she heard. We are far behind the ethical news."

Social capital: I12: "Be blind while making news, only put every piece of information to develop content, do not put your opinion."

Social capital: I15: "News should not harm innocent people. Sometimes we avoid publishing. First, we notify police. After the problem is solved, we broadcast."

Social capital: I2: "For example, fake notification to Police about the a …. production company widely broadcasted in the national media as breaking-news. A couple of days later, the notification was fake, and the rivalries manipulated the situation. Economic loss was significant, and also reputation…"

Social capital: I2: "We should be strictly bounded with Press Law, but at the same time norms of the society. Family and individuals' privacy and confidentiality. Your broadcast decisions may result with irreversible actions."

Social capital: I3: "If you trust your source, you broadcast what you received. You do not return to foster your information channels. This make you keep time."

Social capital: I4: "If formal bodies, institutions provide any information, we accept it is most accurate and shape our news content according to this."

Social capital: I4: "We have limited connection with the other news agencies. As you know we are rivals. For validation purposes we communicate."

Social capital: I6: "A man sends you a video record. The images are different than what the public knows. Be careful! Danger selected you and approaches to you. First try to find the source, search who and what is the purpose. Not automatically broadcast."

Social capital: I6: "One of our friends broadcasted breaking-news about a businessman and it was so important news. The news content represented that the information is gathered from intelligence agency, however, the information source leaked that to destroy the reputation of the businessman. … The process burns the journalist reputation down."

Spatial proximity: I11: "The features of information provider are important. Use primary sources mostly, secondary sources problematic most of the time. Spatial proximity lessens the relationship between you and your network."

Spatial proximity: I13: "Local correspondents are capillary vessels for our news agency. Centrally we operate 24 hours with our teams however we are only in İstanbul and Ankara. The quality of the news become evident how your local network operates. They are very well working, and we are the biggest and most trusted agency in Turkey."

Spatial proximity: I2: "… incident is a very good example for us. It is a breaking news disaster. The … agency line up that the injured people are saved and conveyed to a hospital. After a couple of minutes, this breaking-news was rejected by authorities. The rescue teams delayed."

Spatial proximity: I3: "Abroad networks are, except prominent news agencies, mostly freelancers. We have small number of correspondents working abroad. In some cases, we received interpreted news and eliminate this kind of information."

Spatial proximity: I4: "Strength of our networks are headstones for our work. Strong ties facilitate the accurate and immediate information as soon as prompted."

Spatial proximity: I7: "My network is very strong, and they are so close to the governmental bodies in the Middle East. Up to date, I have not seen they send me biased or misinformation. I trust them. … dated bombing in … news, … and … make mistake but I did not."

Technology: I1: "Last decades technology was slower. At the firs years of mine, we validate information couple of hours later we received the first notification. Nowadays, process is less than a minute."

Technology: I1: "Social media accounts are speculative most of the time. Dis- and misinformation is disseminated. I think some of the accounts are consciously disseminate these kinds of news."

Technology: I5: "When I think that I cannot fill the blanks, I search news portals, and either twitter. I approach social accounts suspiciously, but it has advantage for rapid validation."

Technology: I8: "Not only corporate communication technology, I utilise …. Applications for immediate transfer. Also, I receive photos and videos."

Time pressure: I14: "Stress and dynamic features of the news environment affect your behaviour deeply. Rarely we judge in wrong way, to gain the race…"

Time pressure: I6: "Reliability and serving accurate news is preferred to immediacy. You broke what you gain so far, with a very tiny mistake. While making decisions, think about this."

Uncertainty: I11: "If you cannot verify the information, broadcast but quote the source. You can hedge yourself from over reactions. But note that, mostly the source will not be known, audience knows who line up the news."

Uncertainty: I11: "Two opposites…One says 300 deaths, on the other hand one says 25. Which one is true. Which will you broadcast. For military or war like attacks, it very difficult to validate, and access reliable information."

Uncertainty: I12: "I keep contact with … institution to develop my news content. It is so important since I gather clear, reliable information from the professionals. This type decrease uncertainty and expedite my way of making decisions."

Uncertainty: I13: "The child was kidnapped, I decide not to release the news first. I validate who is the kidnapper. It was her uncle."

Uncertainty: I2: "For example, you can present the minimum number of the deaths. 3 deaths cannot be altered to 2 deaths after a couple of hours. You should stick to ethical rules first."

Uncertainty: I5: "I line up incidents such as fires, severe weather as soon as I received data. However, for the terrorist attacks, I do only give concise information. They aim to provocative activity."

Uncertainty: I6: "After we received video records and photos, it is easy to decide on the broadcasting. Most of uncertain points are getting clearer. But, when prompted, it is only couple of words, very hard have opinion about the big picture with these couple of words."