

Sensemaking in a large-scale corporate fraud investigation: The challenge of communication

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As part of the 'Making Sense of Information' project, at UCL Interaction Centre in London [1], we are currently performing field-studies in order to better understand the sensemaking challenges faced by lawyers and journalists. We are using our findings to explore implications for systems to support their work better. As part of our project, we have undertaken a case-study of a large corporate fraud investigation. This involved in-depth, retrospective interviews with 9 of the 30 lawyers who worked on the investigation, and provided us with 11 hours of interview data. This data has been analysed using Grounded Theory [2].

Our aim has been to capture rich accounts of information interactions supporting the investigation, how interaction related to sensemaking cognition, the role of integrated representations, and how the investigators managed the collaboration necessary for such a large and challenging sensemaking exercise. At the workshop we will focus on collaboration strategies and related difficulties in the context of other factors, and give some consideration to how systems might support investigators' collaboration needs more effectively.

The objective of the investigation was to assess some specific allegations made against an organisation and to explore related 'vulnerabilities'. This task occupied the team for a period of 3 months. Their primary evidence-base was an evolving, and extremely large, universe of documents recovered using data-forensics. This was supplemented by telephone records, and interviews with consenting employees. The investigation process corresponded well to the notional model of sensemaking presented by Pirolli and Card [2], and also Bodnar [3] and was complicated by the extent of the evidence-base, which was equivalent in size to 8.5 million novels. In combination with demanding time-pressures, investigation activities (e.g. filtering, reading and schematising) needed to be distributed and coordinated across a large team. In this context, our participants reported that effective and efficient communication represented a considerable challenge.

We have coded the data for communicative activities and identified four important communicative functions: *problem setting*, *expressions of interest*, *sharing findings*, and *challenging*. For example, team members worked on different, but frequently interlinking aspects of the investigation. The consequent need for discovery-sharing necessitated awareness of colleagues evolving theories and interests, and this required intensive attention and management. In the context of e-discovery, we believe that systems could potentially improve the effectiveness and efficiency of awareness propagation. Also, during meetings, team members presented interpretations which could then be challenged for validity. This, we believe, is a factor which points to the need for integrated sensemaking representations acting as seamless indexes to supporting

documentary evidence—a requirement which we believe generalises across many kinds of sensemaking activities as a support for ongoing review and evolution.

In the workshop, we will describe and exemplify the important communicative functions for supporting collaborative sense making, and discuss how they manifested themselves, some difficulties they presented, and how they might be addressed in system design.

References

- [1] <http://www.ucl.ac.uk/people/a.blandford/MaSI.html>
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- [3] Card, S. and Pirolli, P. The Sensemaking Process and Leverage Points for Analyst Technology as Identified Through Cognitive Task Analysis. In *Proceedings of 2005 International Conference on Intelligence Analysis* (McLean, VA, USA, May, 2005). <http://cryptome.org/intel-2005.htm>.
- [4] Bodnar, J.W. Making Sense of Massive Data by Hypothesis Testing. In *Proceedings of 2005 International Conference on Intelligence Analysis* (McLean, VA, USA, May, 2005). <http://cryptome.org/intel-2005.htm>.