Big data as support in decision-making and a source for knowledge creation

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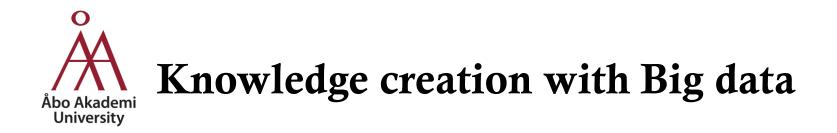
Big Cities meet Big Data (BCBD): City of Turku

- **Request**: A need to study the practical use of Big data and its effects in the public sector

- **Aim**: Understanding of what Big data is (concept) and how it is applied (use) in the city of Turku

- A variety of questions on different aspects of Big data (concept, use, possibilities and challenges, efficient information management, tools etc.)

- Big data as support in decision-making and a source for knowledge creation

Big data as support in decision-making in City of Turku

- According to a majority of the respondents, Big data is used as support in decision-making in City of Turku, while many are unsure

- The use of Big data as support in decision-making covers all parts of the city (to different extent)

- The use of big data is said to contribute to understanding, knowledge and better decision-making

- Big data should and could be used more; '*Big data can be used more as support in decision-making. […] Possibilities exist to increase cost-effectiveness and efficiency in the public sector, by enhancing the use and utilisation of big data.*' (Director, City of Turku)

Knowledge creation with Big data

- **Theoretical expectation**: Big data is considered to create new knowledge as (large) datasets offer a higher form of intelligence and knowledge that can generate new insights (e.g. Knapp, 2013)

- **Empirical findings**: The use of Big data is said to contribute to understanding, knowledge and better decision-making; 'a source of information producing new knowledge' (City officials in City of Turku)

- **Conclusion**: Creating new information and knowledge out of Big data, and its use as support for decision-making in organisations, would enhance the quality and increase trustworthiness in the decision-making

Knowledge creation with Big data

Increase in trustworthiness, quality and legitimacy

Knowledge as a base for decision-making

Decision-making in organisations

Information and knowledge creation with big data