INFODEMIOLOGY
-insights into health information seeking

3.11.2016 – Informaatiotutkimuksen päivät, Tampere.
Jonas Tana
Åbo Akademi & Yrkeshögskolan Arcada

Project outlines

- Research project aiming at an article based doctoral dissertation (Åbo Akademi - Information Studies)

- Planned to be finished by 2018

- Funded by A.F. Lindstedts & Svenska handelsinstitutets fond and Fonden för teknisk undervisning och forskning (fot the academic years 2016-2017 & 2017-2018) as part of larger eHealth projects at Arcada UAS

Background

- Increased focus on and enhanced importance off health information because of the growing emphasis on the individual/client/patient in the health arena

- Ease of access to health related information. Accessible anywhere and at any time.

- Increase in health information seeking
  - 88% in the age group 25-34 in Finland
  - 4000 health related queries per second (Google)

What?

- Infodemiology: *the study of the determinants and distribution of health information in an electronic medium with the ultimate goal to improve public health* (Eysenbach 2009*)

- Aim is to examine how this infodemiological data (big data) can be utilised to broaden the understanding of health information seeking behaviour on the internet

- Supply (what is published) and demand (what is sought for) in focus

*Eysenbach, G. (2009). **Infodemiology and infoveillance: Framework for an emerging set of public health informatics methods to analyze search, communication and publication behavior on the internet**. *Journal of Medical Internet Research* 11(1):e11

How?

- Analysing search engine data for different health related queries
- Analysis of user behaviour in health related online resources
- Social media

- *Are there temporal/seasonal/spatial variations and trends?*

Why?

- Application of big data in health care can complement and extend the existing understanding of health related behaviour on the internet
- Help inform health care providers as to why, when and where people seek and find health information
- Provide useful insights to planning health campaigns and health services
- Methodological aspects
  - developing tools for health surveillance
  - employing digital data to the study of health information behaviour

Collaboration

- HUS Terveyskylä/Virtuaalisairaala (national spearhead project)
  - virtual hospital entity with over 20 different "houses" planned
  - offering users information about services and topical information in format of news, articles, self-help guides, self-evaluation surveys, treatment and therapy, etc.
- Mielenterveysseura
- Oma Terveys Oy (terve.fi)
- Eastern-Uusimaa Emergency Services Department

Article 1 – Case: Depression

- Log analysis for five search queries related to depression in Finland
- Data from Google Trends
- Three timeperiods: 2004-2015, 2010-2015 and 2015
- Increase or decrease in query trends
  - Diagnostic prevalence has decreased during the time period
  - Query trends?
- Analysis of temporal trends (months/weekdays)
  - Correlation with diagnostics (depression/suicide)?
  - *When are we feeling depressed here in Funland?*

Questions? Comments? Concerns?

Thank you!

Jonas Tana

jonas.tana@arcada.fi

+358 40 771 90 77