

**Department of Information and Service Economy**

Information Systems Science

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<https://mycourses.aalto.fi/course/view.php?id=20058>

**Management Information Systems, Spring 2019**

**Assignment 9 (4 points) – Text-mining with Leximancer**

**Summary of assignment:** In this assignment you will learn how to use an automated content analyzer tool called Leximancer. Aalto BIZ has a campus license for the tool that can be used in all Otaniemi U-wing computer classes (U-256, U-257, U-344, U-351) or from your own Mac or Win computer via the new Virtual Desktop Infrastructure at <https://vdi.aalto.fi> (see detailed instructions for Method 2: “VMWare Horizon HTML access” and “Windows 10” at <https://it.aalto.fi/instructions/aalto-university-virtual-desktop-infrastructure-vdiaaltofi> ). Select Leximancer from the programs (Windows start icon) once the VDI is running.

In this assignment, you will analyze a digital transformation exam book that is available in PDF format from our library’s website. The tool can analyze also various other types of text data, such as docs, html, txt, csv and xml (from surveys, interviews, social media etc). Leximancer has been applied in hundreds of research articles, see the latest ones in Scholar google at [https://scholar.google.fi/scholar?hl=en&as\\_sdt=0,5&q=leximancer&scisbd=1](https://scholar.google.fi/scholar?hl=en&as_sdt=0,5&q=leximancer&scisbd=1).

**Detailed instructions:**

Go to <https://learningcentre.aalto.fi/en/> and search “Morabito” from Aalto-Finna. Scroll down and select the book titled “**The Future of Digital Business Innovation: Trends and Practices**” that is a Springer e-book. Click the link to Springer’s service and download the whole book as a PDF. Save it e.g. to the computer’s desktop (if you are using VDI, do this in the same environment).

Open Leximancer from Windows’ Start menu on left bottom corner: All programs > Leximancer4 folder > Lecimancer4.51.

If you are experiencing delays when launching Leximancer from the Start menu, wait for some time: when the software is launched for the first time, it creates several directories to the computer, which are checked by virus protection software in addition. After a while, the software should open up in a browser. Activate “Leximancer Projects” row from the left panel and right-click on top of it: select “Create Project” from the dropdown menu. Give a name and description to your project and click OK.

Click **Select Documents** icon in the center window. From the left panel, select desktop or other directory where you have downloaded the PDF. Activate the PDF file from the left **and right-click on it and select “Add to Document Set”**. Click OK after the file name shows in the center window.

Click to open “Text Processing Settings” and un-tick there “Identify Name-Like Concepts”. Click OK. Click the fourth blue box: **Generate Concept map**, and WAIT through all text-mining tasks until all four process boxes turn **green**. After that, click **Concept Map** from the Results area.

Use the three sliders below the concept map to change the “Visible Concepts 33%” to 100%, the “Theme Size 33%” to 40%, and the “Rotation 0” to any number where the figure looks good, and which minimizes the words appearing above each other.

Study the tutorials, videos and the product manual available at <https://info.leximancer.com/tutorial-guides> and *learn from them how to interpret the theme map visualization you just produced, and how to drill down into text excerpts via terms that are of interest to you.*

Note that Leximancer projects are not saved under your personal user profile in the class computers but to specific computers. Thus, you can't pause and continue with the same project unless you use exactly the same computer next time.

Report the following 5 points in your assignment report (in ca. 3 pages):

- 1) A screenshot or saved picture of the theme/bubble map, and an explanation how the map is interpreted (what do the colors mean, what are the gray nodes called, and what are they, etc.)
- 2) A screenshot of the theme list on the right of the theme map
- 3) Explain how you would search/query with the tool all instances where *design* is discussed in connection to *wearable*? Hint: note that *wearable* is a concept in the map, whereas *design* is just a word appearing in the text. AND How would you see/open the text excerpts containing these two words for more detailed examination? (you can include screenshots also in this answer).  
*Although you can search single or multi-item words (such as wearable device) easily in PDF's too, it is not easy to find instances where they appear in the same paragraph but not adjacent to each other. Leximancer helps in this.*
- 4) How would you utilize Leximancer when reading a course e-book or other study materials, such as articles for your thesis?
- 5) Finally, how many text sentences per block Leximancer analyzes by default?

### **INSTRUCTIONS FOR RETURNING THE ASSIGNMENT**

Return the assignment report to MyCourses **by 2.4.2019 at 23:55** (midnight). Note that -1 point is deducted from every late 24 hours of return

If you are experiencing problems with launching Leximancer from the Start menu (in computer labs), Go to Computer > Aalto HD (C:) > Program files > Leximancer-DesktopV4 and scroll down to **leximancer.exe** and double-click it to open.

When you close Leximancer from the browser, it goes to "sleep" to the tray on the lower right-hand corner (>, where you typically eject USB memory sticks before removing them). Right-click above the Leximancer ball icon and select "Open in browser" in case you want to reopen it during the same login session. Leximancer quits automatically when logging off the computer or via selecting Exit from the same tray.