

Digital skills by employment sector

Discover the skills most in demand according to LSE graduates



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Overview

The document is designed to help students understand what digital skills are in demand in various employment sectors based on the results of the recent Change Maker's project: **Graduate Digital Skills**, undertaken by LSE project researchers.

The sectors reflect the results of the **project report** and link to the learning opportunities offered by the **Digital Skills Lab**.

The aim is for students to identify gaps in their knowledge and gain the skills and competencies that will enhance their graduate employability.

If you have any questions or feedback on this document, please email digital.skills.lab@lse.ac.uk.



Researchers

Sectors:	Research, market research, education and teaching
Top skill clusters:	Data Visualisation; Productivity / Office Applications; Data Science and Analytics
Typical job titles:	Research assistant, Data Analyst, Operations Manager
Key skills:	Excel: basic analysis and preparing data Microsoft Office: formatting features R: visualising and modelling data SQL: complimentary tool for big data

[Excel](#) skills that will come into use are basic Excel 'hygiene' skills (Excel 1-3) such as freeze panes, and big data analysis such as pivot tables (Excel 4b), sorting and filtering (Excel 4c) and lookup functions (Excel 5).

To present and report findings, the following [Word](#) and [PowerPoint](#) skills would prove useful: formatting documents/presentations, line-spacing, alignment, different pasting types, SmartArt, referencing tools, tables, printing and sharing, inserting images, track changes, commenting (Word 1, PowerPoint 1-3).

Useful [R](#) libraries to have a hold on are ggplot and ggplot 2 for data visualisation, tidyverse, cater and rmarkdown for recording operations and rshiny for displaying results.

Knowledge of [SQL](#) would be useful to pull together multiple datasets (using shared keys), to handle and clean large data sets (more efficient than Python and R), to complete full analysis, and to combine R and SQL together.



NGOs and Public Affairs

Sectors:	NGOs, International Development, Charities, PR & Communications, Marketing, Environment
Top skill clusters:	Productivity / Office Applications; Digital Marketing; Data Visualisation; Data Science and Analytics
Typical job titles:	Administrator, Fundraiser, Research assistant
Key skills:	Excel: versatile tool for project management and data Microsoft Office: formatting and collaboration Salesforce: managing fundraising efficiently

In this sector, important [Excel](#) skills to grasp are: Conditional formatting (Excel 3 booster), conditional IF functions and VLOOKUP (Excel 4a, Excel 5), data analysis tools such as pivot tables (Excel 4b) and sorting and filtering (Excel 4c), data visualisation tools (Excel 4d), goal seeking (Excel 4f) and Macros and VBA (Excel 6, VBA 1-5).

Other useful digital skills in this sector include [Word](#) for writing reports and briefs, formatting, sharing, commenting and track changes (Word 1) and [Salesforce](#) (which is not currently taught by the DSL).



Policy and Government

Sectors:	Policy, Government
Top skill clusters:	Productivity / Office Applications; Data Science and Analytics; Data Visualisation
Typical job titles:	Research Analysts/Associates, Economists, Policy Advisors
Key skills:	Data visualisation skills Digital designing skills Data management using R

Helpful [Excel](#) skills include data visualisation (Excel 4d) and data analysis, so functionalities such as lookup functions (Excel 4a, Excel 5), pivot tables (Excel 4b) and sorting and filtering (Excel 4c). Knowledge of [Tableau](#) is also beneficial.

[R](#) is a beneficial skill to grasp, specifically to automate tasks such as downloading datasets, running statistic regressions and calculating summary statistics. Additionally, [Stata](#) is useful in order to make statistical calculations and panel-regressions.

Digital design is a commonly used skill as well, for instance platforms such as Canva, Adobe InDesign and Photoshop, however these are not currently taught by the DSL.



Information Technology

Sectors:	Information and Digital Technology
Top skill clusters:	Productivity / Office Applications; Data Science and Analytics; Data Visualisation
Typical job titles:	Data Scientists/Analysts, Software/Product Engineers
Key skills:	SQL is highly essential Tableau and Power BI are powerful and often used data visualization tools Python is a versatile language with broad applicability Excel is important

In the Information Technology sector, [SQL](#) is convenient to query data and manage large databases (construction and maintenance).

[Tableau](#) and Power BI and [PowerPoint](#) (PowerPoint 1-3) and are used to create and present visualisations to tell a story to end users.

[Python](#)'s broad applications are useful in this sector, specifically for cleaning and mining data (especially used with large datasets) and web-scraping and automation functions that enhance work productivity. Some Python packages used include NumPy, pandas and matplotlib.

Beneficial [Excel](#) skills include data visualisation (Excel 4d), pivot tables (Excel 4b) and conditional IF functions and VLOOKUP (Excel 4a, Excel 5).



Consulting

Sectors:	Consulting
Top skill clusters:	Productivity / Office Applications; Data Science and Analytics; Data Visualisation
Typical job titles:	Consultant, Senior Consultant, Manager
Key skills:	Excel as a data handling and model building tool Microsoft Office (excluding Excel and Access) as a communication and organizational tool

Useful [Excel](#) skills in the Consulting sector include pivot tables and charts (Excel 4b and Excel 4b booster), filtering (Excel 4c), lookup functions (Excel 4a, Excel 5) and model building using VBA (VBA 1-5).

[PowerPoint](#) and [Word](#) are used to visualise data in presentations, communicate key messages, link tables/charts with Excel (PowerPoint 1-3, specifically PowerPoint 2 for linking) and draft business documents such as letters or proposals (Word 1).

Power BI and [Tableau](#) are used for storytelling purposes, building dashboards and supplying analysis to a wider audience.



Finance

Sectors:	Banking, Finance
Top skill clusters:	Productivity / Office Applications; Data Visualisation; Data Science and Analytics
Typical job titles:	Analysts
Key skills:	Excel as a model builder and data management tool Microsoft Office (excluding Excel) as a communication and organizational tool SQL deployed as a complementary tool for large datasets

In this sector, important [Excel](#) skills to grasp are pivot tables (Excel 4b), lookup functions (Excel 4a, Excel 5, Excel 5 booster), data visualisations (Excel 4d) and VBA to make repetitive tasks easier (Excel 6, VBA 1-5).

[PowerPoint](#) is used for data visualisation, creating impactful slides and linking graphs/tables to Excel (PowerPoint 1-3), and [Word](#) is important for drafting various business documents such as client letters or proposals (Word 1).

[Python](#) is increasingly being used in this sector to assist with everyday tasks. Common packages used as substitutes for the typical Excel math and matching functions include panda, NumPy and matplotlib as they have a computational power advantage.

While use of [SQL](#) is limited, it is still helpful to know how to extract data, as well as calculate and summarise data.



Retail and Manufacturing

Sectors:	Retail, manufacturing
Top skill clusters:	Data Visualisation; Productivity / Office Applications; Data Science and Analytics
Key skills:	Excel as a data management tool Microsoft Office (excluding Excel) as a communication and organizational tool SAP is essential

In this sector, useful [Excel](#) skills to know are data analysis tools such as lookup functions (Excel 4a, Excel 5), pivot tables (Excel 4b) and sorting and filtering (Excel 4c), along with data visualisation tools (Excel 4d).

[PowerPoint](#) is key to create impactful slides, represent data and link graphs and charts to Excel (PowerPoint 1-3). [Word](#) is useful for drafting business documents and reports (Word 1).

Additionally, SAP is a commonly used software, however it is not currently taught by the DSL.



Digital Skills Lab

Develop key skills employers want

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Study what you want, when you want
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“The skills workshops for Excel are a great way to prepare you for the job market. Becoming fluent in Excel contributes to your employability and also enables you to utilize Excel to optimize your personal organization (budgeting, career planning, etc).”



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