The potential of **Open Source Software** and **Open Educational Resources** for positive impacts on teaching, learning, and research is immense.

Open Source Software and Open Educational Resources

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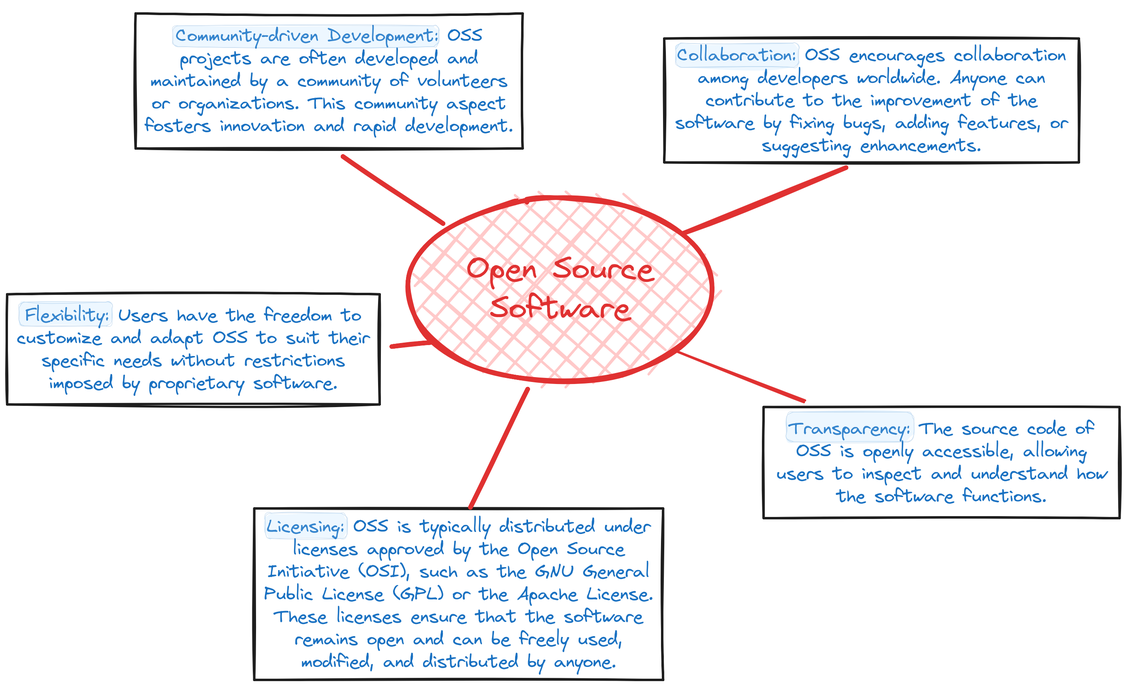
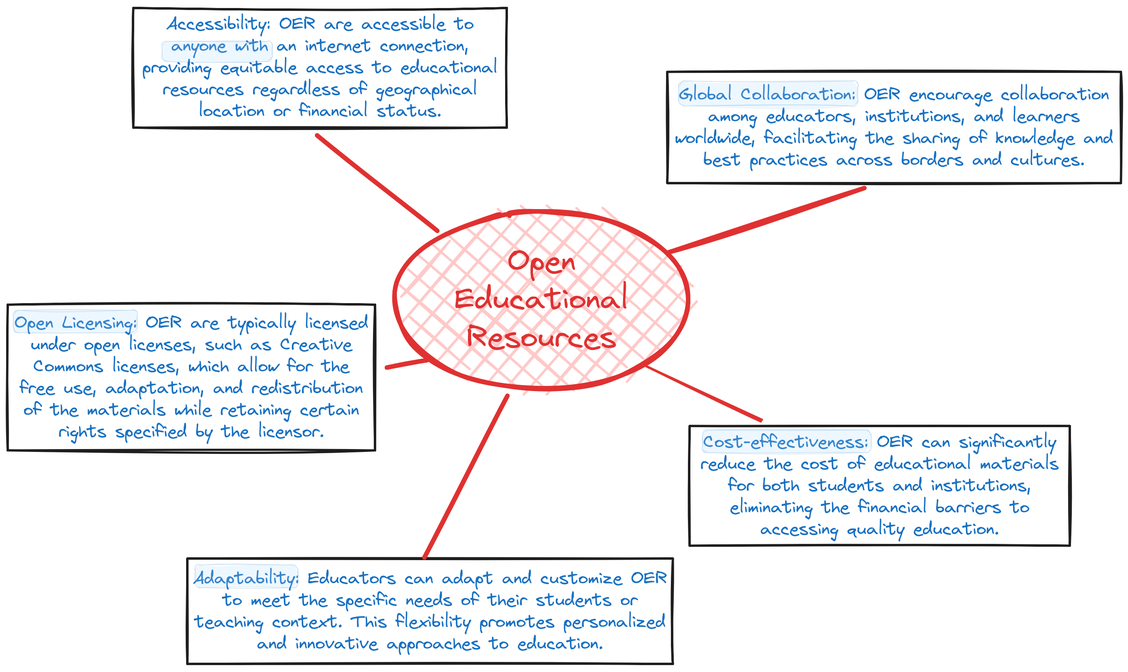
Open Source Software

Open Source Software (OSS) refers to software whose source code is freely available to users. This means that anyone can view, modify, and distribute the code as per the terms of the respective license.

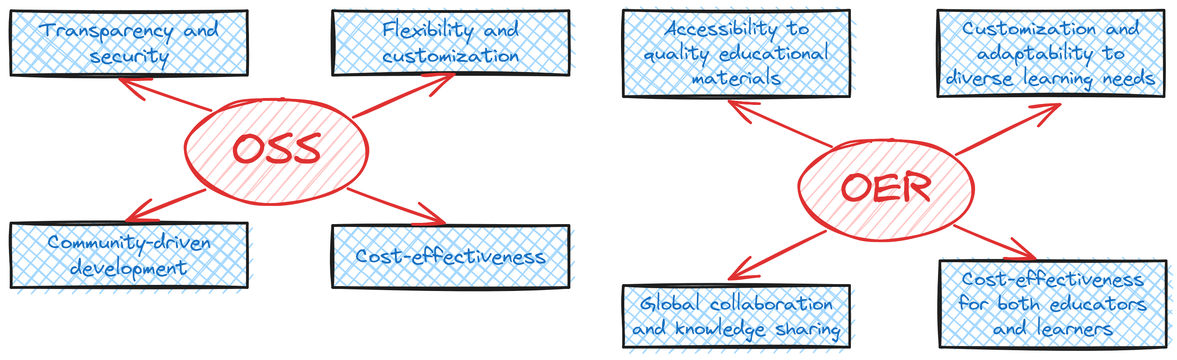


Open Educational Resources

Open Educational Resources (OER) refer to educational materials that are freely accessible, openly licensed, and available for use, reuse, modification, and sharing.



Benefits of OSS and OER



Recent Developments

Quarto

`Quarto` is an open-source scientific publishing system.

- Author using Jupyter notebooks or with plain text markdown in your favorite editor.
- Create dynamic content with Python, R, Julia, and Observable.
- Publish reproducible, production quality articles, presentations, dashboards, websites, blogs, and books in HTML, PDF, MS Word, ePub, and more.

Myst

`MyST` is an ecosystem of open-source, community-driven tools designed to revolutionize scientific communication.

MyST's powerful authoring framework supports blogs, online books, scientific papers, reports and journals articles.

Reactive Notebooks

`marimo` is an open-source *reactive notebook* for `Python` — reproducible, git-friendly, executable as a script, and shareable as an app.

When you change a variable, `Pluto.jl` automatically re-runs the `Julia` cells that refer to it. Cells can even be placed in arbitrary order - intelligent syntax analysis figures out the dependencies between them and takes care of execution.