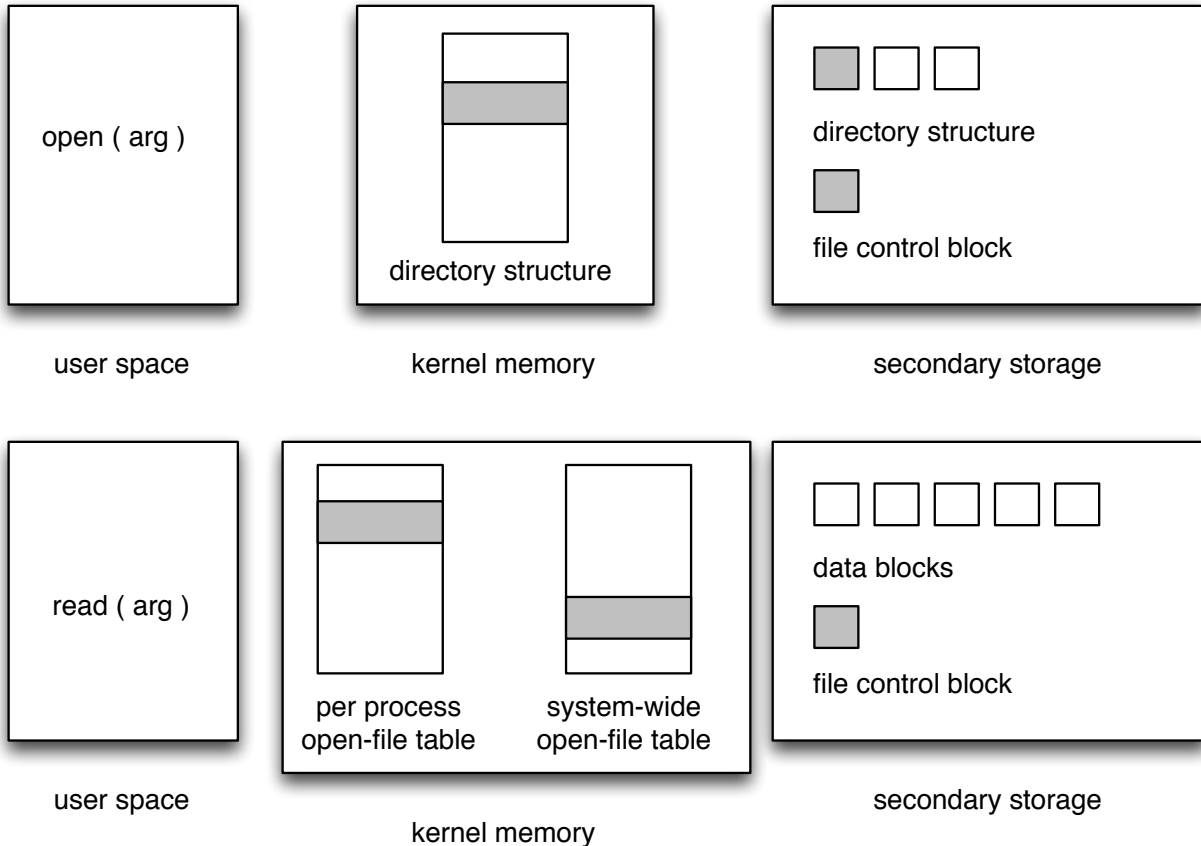


# CSCI 315 Operating Systems Design

## Activity 25

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1) Construct narratives to explain what the OS goes through when you use the system calls such **open(2)** and **read(2)**. Use the figure below to indicate any constructs that are created in user space, kernel memory, and secondary storage. Make sure to indicate how they might be connected to one another.



In your narrative, present the sequence of events that take place in the course of the system call, indicate the data types of the arguments passed in through their APIs, and explain how the values of these arguments facilitate the OS' operations in the data structures above.

2) Justify the need and/or the usefulness of two levels of open-file tables: **one for each process** and **one for the whole system**.

3) Justify the need for having directory structures both in memory and in secondary storage. Is that wasteful or necessary?