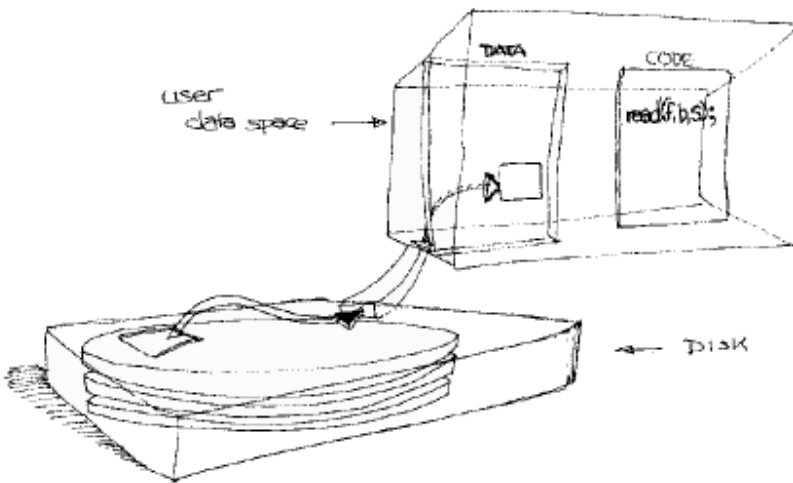
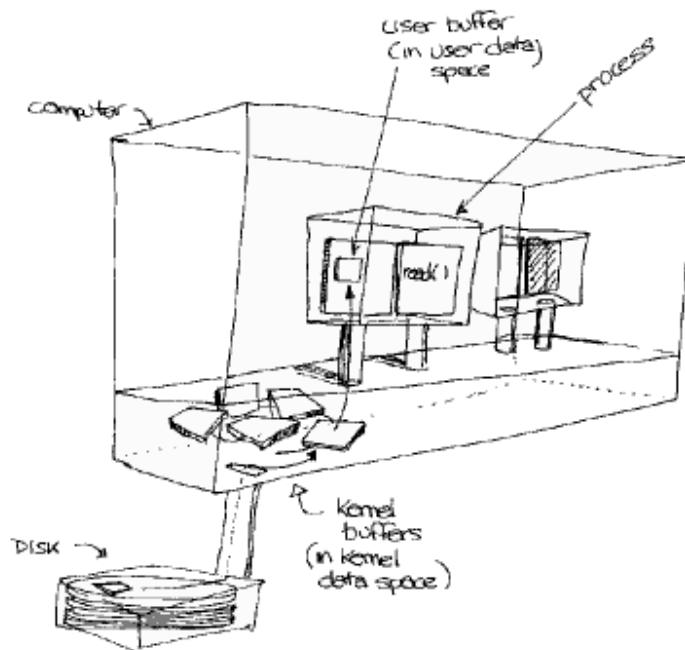


What `read()` appears to do



1. A process calls `read()`
2. The kernel copies a number of bytes from a file into an array in the calling process.



What really happens when you read from the disk

1. Your process places a `read()` request to the kernel.
2. The kernel checks its pool of buffers to see if the data you want are in a buffer in memory.
3. If not, the kernel arranges to copy the data from the device to a buffer.
4. When the information arrives the kernel copies data from the buffer in kernel memory to the array in the the process.