The OSI (Open Systems Interconnection) model and the TCP/IP (Transmission Control Protocol/Internet Protocol) model are two fundamental frameworks that define how network protocols work. Here are the primary differences:

1. **Number of Layers**:
   * OSI Model: The OSI model consists of seven layers, each with a specific function. These layers are Application, Presentation, Session, Transport, Network, Data Link, and Physical.
   * TCP/IP Model: The TCP/IP model, on the other hand, is a four-layer model. Its layers are Application, Transport, Internet, and Link.
2. **Standardization**:
   * OSI Model: OSI is more of a theoretical framework and was not widely adopted as a practical standard in networking. However, it helped conceptualize various protocols.
   * TCP/IP Model: TCP/IP is the foundation of the modern internet and is widely implemented in networking technologies, making it a practical and real-world standard.
3. **Layer Functions**:
   * OSI Model: The OSI model is more detailed in terms of layer functions, with each layer having a specific set of responsibilities.
   * TCP/IP Model: The TCP/IP model is more streamlined, with a focus on the essentials for networking. This makes it easier to implement and understand.
4. **Flexibility**:
   * OSI Model: The OSI model is more flexible and adaptable to different networking scenarios because of its detailed layering. It allows for a broader range of protocols and services.
   * TCP/IP Model: The TCP/IP model is more rigid in terms of layering, which can limit its adaptability but makes it more efficient for internet communication.
5. **Real-World Application**:
   * OSI Model: The OSI model is primarily used for educational and conceptual purposes, while practical networking typically follows the TCP/IP model.
6. **Historical Context**:
   * OSI Model: The OSI model was developed by the International Organization for Standardization (ISO) in the 1980s.
   * TCP/IP Model: The TCP/IP model was developed earlier, during the 1970s, as part of the ARPANET project, which laid the foundation for the modern internet.

In conclusion, both the OSI model and the TCP/IP model are valuable tools for understanding networking principles. While the OSI model provides a more comprehensive theoretical framework, the TCP/IP model is the de facto standard for real-world networking, especially on the internet.