

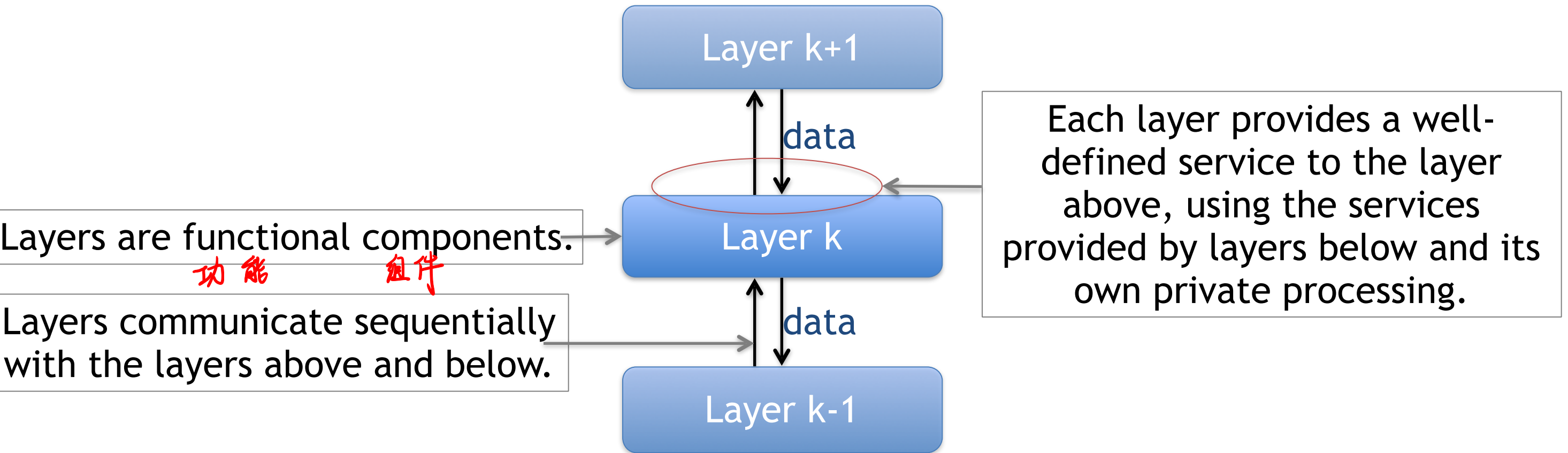
An Introduction to Computer Networks

Principle: Layering

原则



Layering

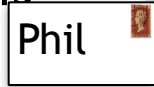


Layering in the postal service



From: Nick

Phil Levis
Stanford, Phil



From: Nick

Phil Levis
Stanford, Phil



Layering in a computer system



edit

```
... ..  
printf("Hello world.\n");  
... ..
```

Source code

compile

Lexical analysis
Parsing
Preprocessing
Code generation and optimization

Object code

link

Link compiled object files and libraries

Executable

execute

Run!



Layering in a computer system



edit

```
... ..  
printf("Hello world.\n");  
... ..
```

Source code

compile

Lexical analysis
Parsing
Preprocessing
Code generation and optimization

Object code

link

Link compiled object files and libraries

Executable

execute

Run!



Reasons for layering

1. **Modularity**
2. **Well defined service**
3. **Reuse**
4. **Separation of concerns**
5. **Continuous improvement**
6. **Peer-to-peer communications**