Interaction principles and interaction stiles

There exist different styles for the dialogue between user and the system:

- Question-answer dialogue
- Menus
- Command languages
- Fill in of forms
- Natural language
- Graphical, direct manipulated interfaces

All interactions have as a goal to bridge the gap between the user and the technical artefact. See Preece p. 273!

Question-answer dialogue

- Much used in the early history of computing. The user is supposed to answer a sequential set of questions.

- E.g.:

<table>
<thead>
<tr>
<th>Computer</th>
<th>User</th>
</tr>
</thead>
<tbody>
<tr>
<td>New person?</td>
<td>Yes</td>
</tr>
<tr>
<td>Give personal id</td>
<td>470527-5656</td>
</tr>
<tr>
<td>Give name</td>
<td>Kalle Anka</td>
</tr>
<tr>
<td>Give street address</td>
<td>Fiolgränd 18</td>
</tr>
<tr>
<td>Etc.…..</td>
<td></td>
</tr>
</tbody>
</table>
Menu control

• Can have different organisation, pull-down, pop-up etc.
• Menus are very common as components in all of today’s interfaces
• Menus are efficient as they require recognition instead of recall.

Command languages

• Command languages are formal languages, defined by it’s grammar.
• Can be used on an operative sytem level or inside an application system.
• Command languages are often very rich and efficient, but require a lot of training to use efficiently.
• Examples of command languages are MS/DOS or UNIX.

Examples:  - del 13-91
            - mov curs r23 u44
Forms

- Forms can be efficient if a set of data units are to be given as input to a system.
- Navigation between fields can be made through arrows, tabs etc.

E.g.:

```
Name       Id
Street     Postal code
Postal address
```

OK?

Natural language

The objective is to create a dialogue in our natural language, written or spoken.

This is today only possible to a very limited extent.
Graphical, direct manipulated

- Based on the early research at the laboratory (STAR-project) during the 1970s. Thereafter further developed by e.g. Apple, IBM and MicroSoft.
  - All has a graphical form, represented as pictures (icons, windows, buttons, scroll bars etc…..)
  - (WYSIWYG—what you see is what you get)
  - The user manipulates the objects by clicking or by short commands.
  - Based on recognition.
  - The dialogue should be event driven, i.e. the user is always in control of the interaction.