#6: Recognition rather than recall

- Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

#6: Recognition rather than recall

- A familiar stimulus triggers retrieval from long-term memory
- Recall forces users to
    - recreate chain of associations themselves, or
    - forcefully learn through *elaborative rehearsal*
- Recall will fail unless remembered actions are
    - Frequent
    - Recent
    - Strongly associated

#6: Recognition rather than recall

- **Direct manipulation**

(Animation example)

#6: Recognition rather than recall

- **Where does recall come up?**

- **Textual Commands**

```
[si-mwnewman-mbp:~ mwnewman$ cd ~
[si-mwnewman-mbp:~ mwnewman$ ls -ld .c*
drwx------  3 mwnewman   staff   102 Dec 18  2014 .cache
drwxr-xr-x  3 mwnewman   staff   102 Dec 18  2014 .conda
drwxr-xr-x+ 4 mwnewman   staff   136 Sep 23  2010 .config
drwxr-xr-x  2 mwnewman   staff    68 Dec 18  2014 .continuum
-rwxrwxr-x+ 1 mwnewman   staff   330 Jul 27  2010 .cshrc
drwx------+ 3 mwnewman   staff   102 Jul 28  2010 .cups
[si-mwnewman-mbp:~ mwnewman$ ps auxw | grep initd
mwnewman               700   0.0  0.1 2542152  19784   ??  S
ec/secinitd
```
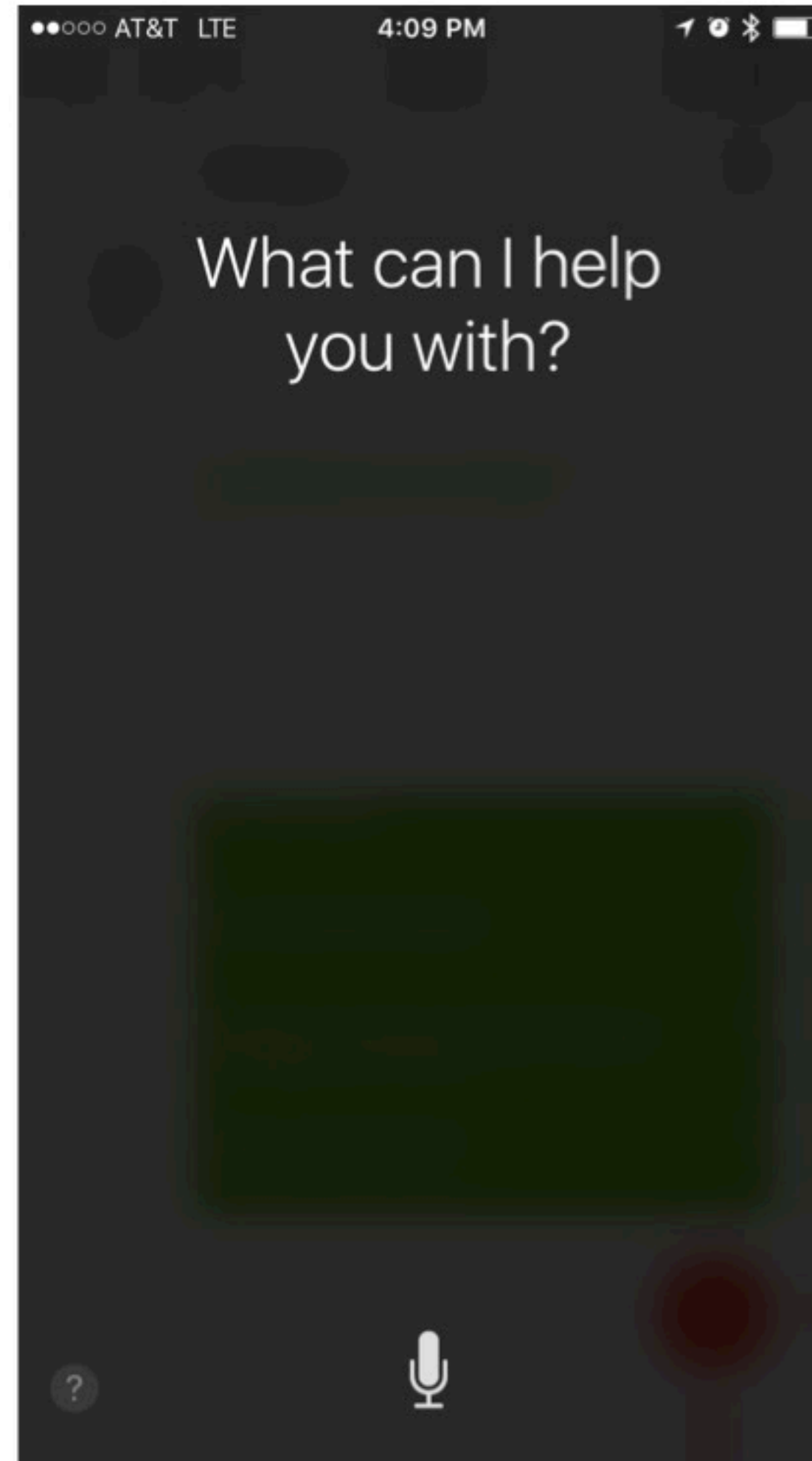
#6: Recognition rather than recall

- **Where does recall come up?**

- **Textual Commands**
- **Passwords**

Test Your Password		Minimum Requirements

Password:	•••••••	⚬ Minimum 8 characters in length
		⚬ Contains 3/4 of the following items:
		   - Uppercase Letters
		   - Lowercase Letters
		   - Numbers
		   - Symbols

Hide:	☑	
Score:	9%	
Complexity:	Very Weak	

#6: Recognition rather than recall

• **Where does recall come up?**

• **Textual Commands**
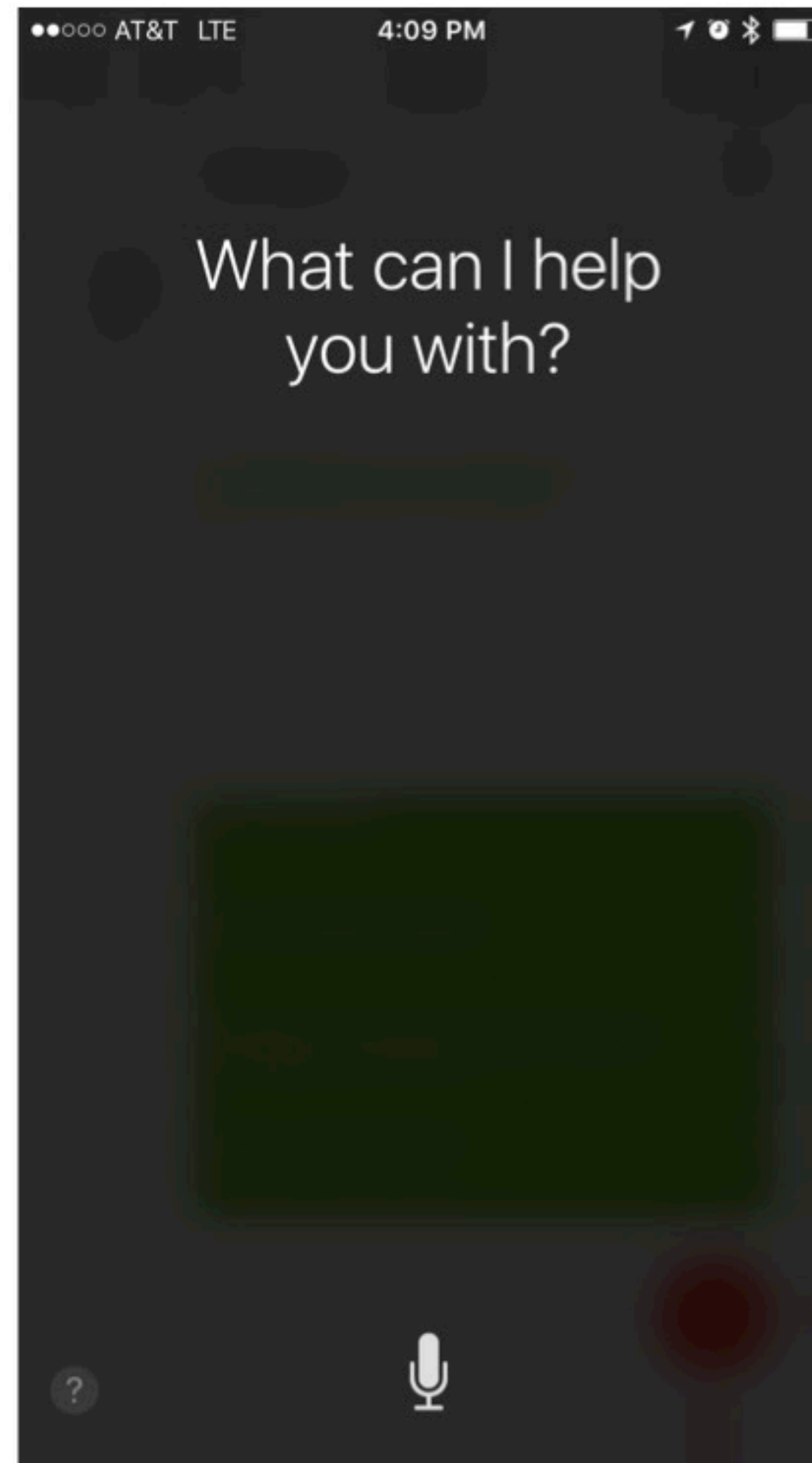
• **Passwords**

• **Speech UIs**

#6: Recognition rather than recall

- **Where does recall come up?**

- **Textual Commands**
- **Passwords**
- **Speech UIs**

#6: Recognition rather than recall

- **Use recognition, not recall wherever possible**
- **If recall is required**
  - Is it realistic to expect users to remember?
  - Are cues provided if recall fails?