

Zen Conceptual Design

Four Perspectives

Studio Design in HCI

April 1, 2008

The Four Perspectives Contain:

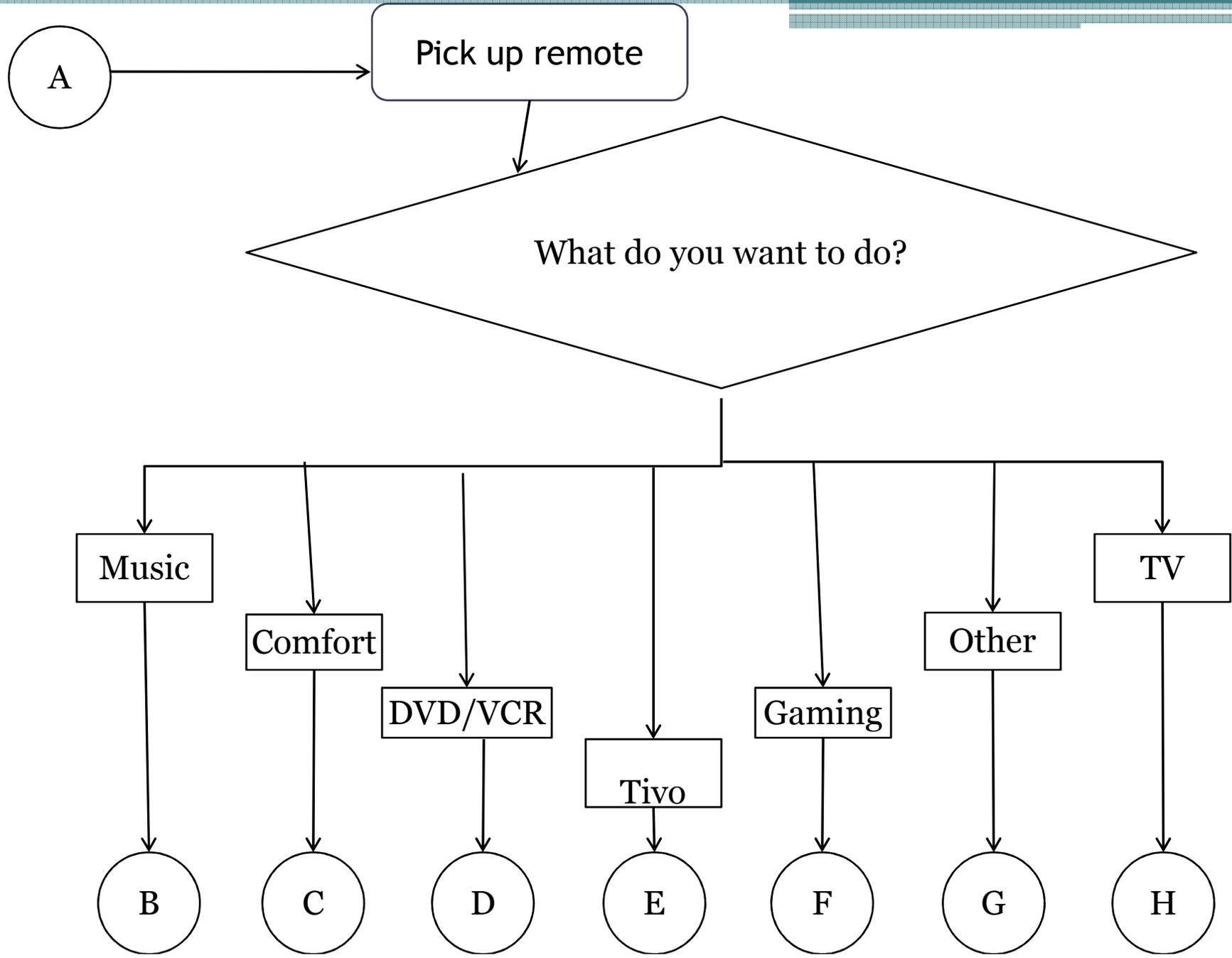
- Casey Addy (addyc@rpi.edu)
 - The computer guy
- Valerie Chaisson (chaisv2@rpi.edu)
 - The businesswoman
- Laurie Creasy (creasl@rpi.edu)
 - The liberal arts chick
- Nirit Nave-Peles (navepn@rpi.edu)
 - The engineer

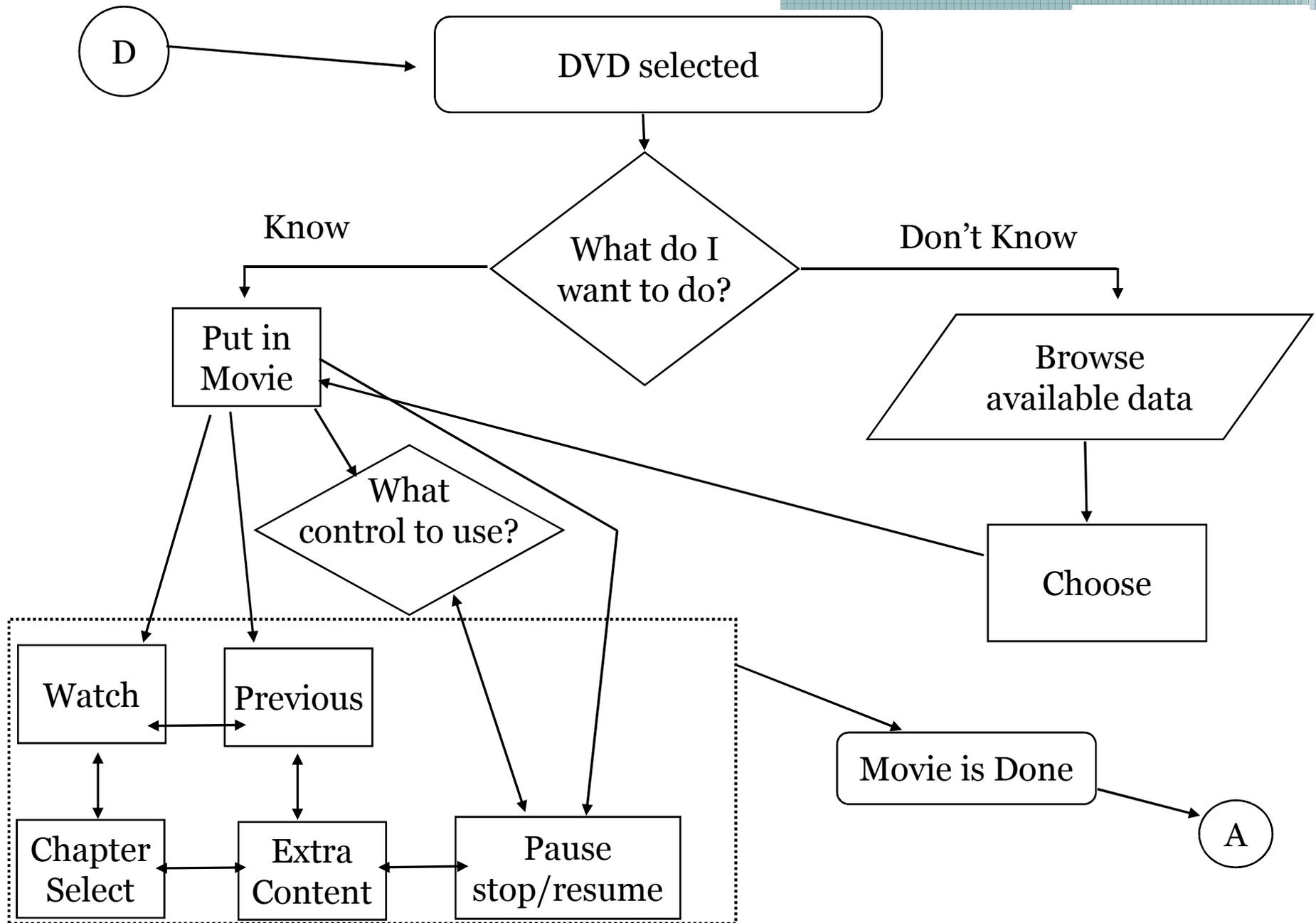
So What is the Zen Again?

- A remote, but much more
- Integration of latest technology with a staple electronic device
- Suited for not only techies, but also those with physical handicaps as well
- Able to make electronics more usable for everyone

The Zen Model

- Available for download
 - <http://addyc.stu.rpi.edu/sdhci/conceptdesign/ZenModelFlowcharts.pdf>
- The activity domain is quite large!
- Focusing on the how the Zen can operate the DVD player





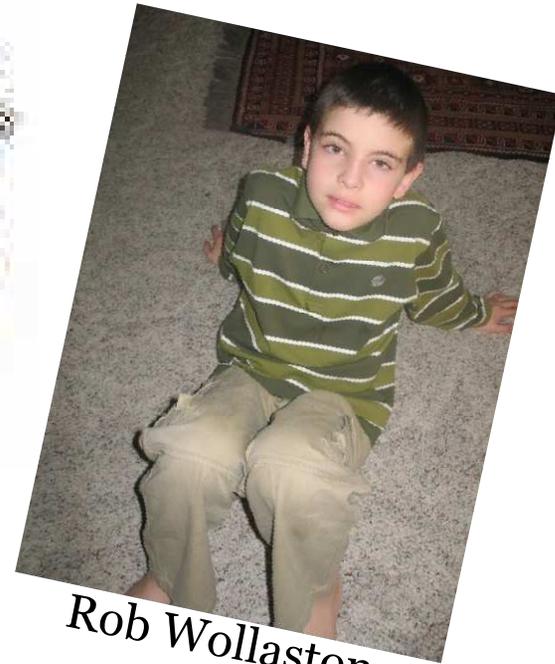
The Three Personas



Jean
Miller



Xavier Thomas



Rob Wollaston



Jean Miller

Gender: female

Age: 72

Physical problems: Severe osteoarthritis, essential tremor

Education: BS in accounting

“I’m a useless old lady now.”

Jean used to be very active, but due to her health problems her hands shake and it is hard for her to hold something. Her husband takes care of the housework and the laundry, and their son lives at home and does most of the other work, including cooking for all three.



How Jean Would Use the Zen

Jean Miller

- With its firm but soft case, Jean would be able to pick up the remote despite her tremors. The grooves in the back for the placement of the user's fingers would help her grasp it firmly without a tight squeeze.
- She could easily use the Zen's multitouch screen even if she rested the device on her knee or on the couch.
- Large click targets would allow her to compensate for the mobility problems posed by her arthritis and the tremor.
- Because the RFID technology would allow her to choose which devices were controlled by the remote, it would give her control over at least part of her life.



Xavier Thomas

Gender: male

Age: 25

Problems: Very stressed, asthma, OCD

Education: Doing post-doctoral research in HCI

“I like things that help me create order out of chaos.”

Xavier is a smart man. He entered college at 14, got his BS in three years, and has done research for the past eight years. His current project uses gaming to create classrooms of the future. He's becoming well known for his theories on gaming classrooms.

He plays hard and works harder.

When he is super stressed, he just needs to relax with a game or a good DVD.



Xavier Thomas

How Xavier Would Use the Zen

- When Xavier relaxes, his relaxation must be total, or he feels cheated. He likes to lie on his bed and use the Zen to turn on the TV and the game system.
- He likes to listen to music while he works and enjoys the Zen's multitouch interface and its advanced controls, which allow him to add any gadgets he wants to the controller.

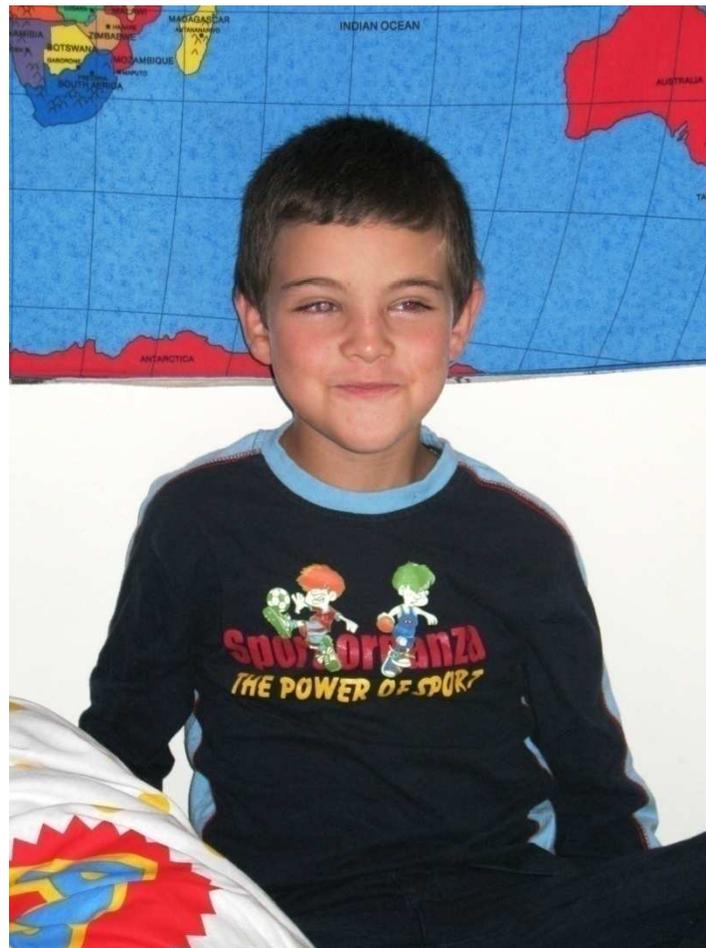
This is Rob Wollaston

He is a typical 8 year-old boy

“I like being able to do things by myself.”



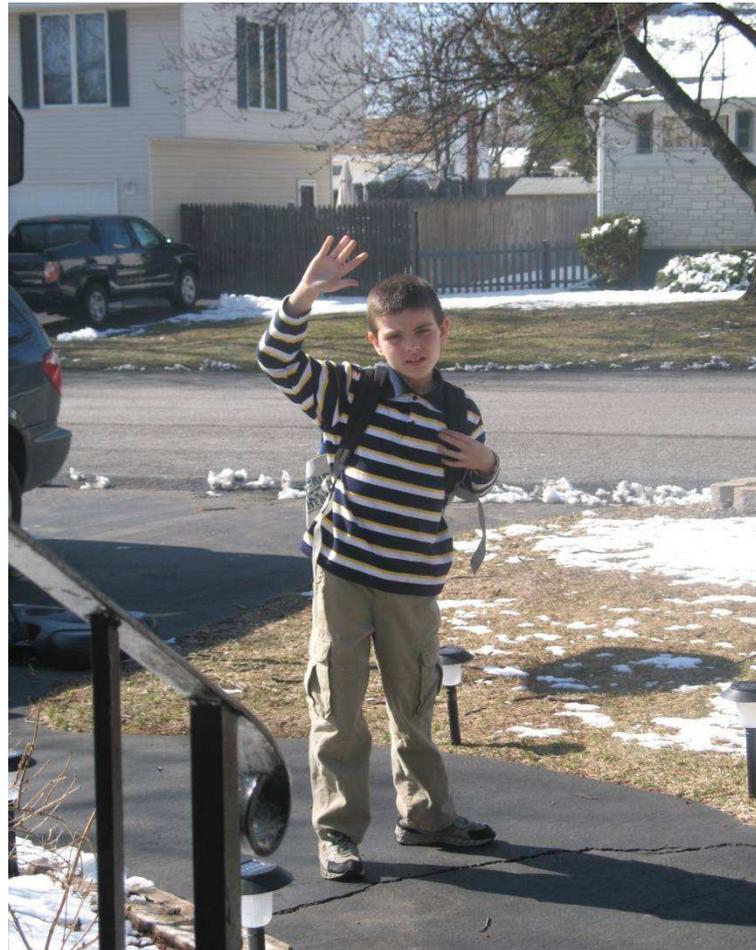
He gets up in the morning



Dresses up, doesn't forget to brush his teeth



and goes to school,



Where he does very well.

Test A

Complete the subtraction sentences.

1. 6 tens - 4 tens = 2 tens
2. 60 - 40 = 20
3. 5 tens - 2 tens = 3 tens
4. 50 - 20 = 30

Round each number to the nearest ten. Estimate the difference. Circle the answer.

← 20 25 30 35 40 45 50 →

5. 54 - 22
40
30
6. 47 - 34
20
10
7. 49 - 23
40
30
8. 21 - 11
20
10

Decide if you need to regroup. Circle Yes or No.

9. 45 - 18
Yes
10. 49 - 28
No
11. 50 - 12
Yes
12. 42 - 20
No

Go on →

He enjoys the company of his best friends,
Ryan and Jack



and the outdoor activities.



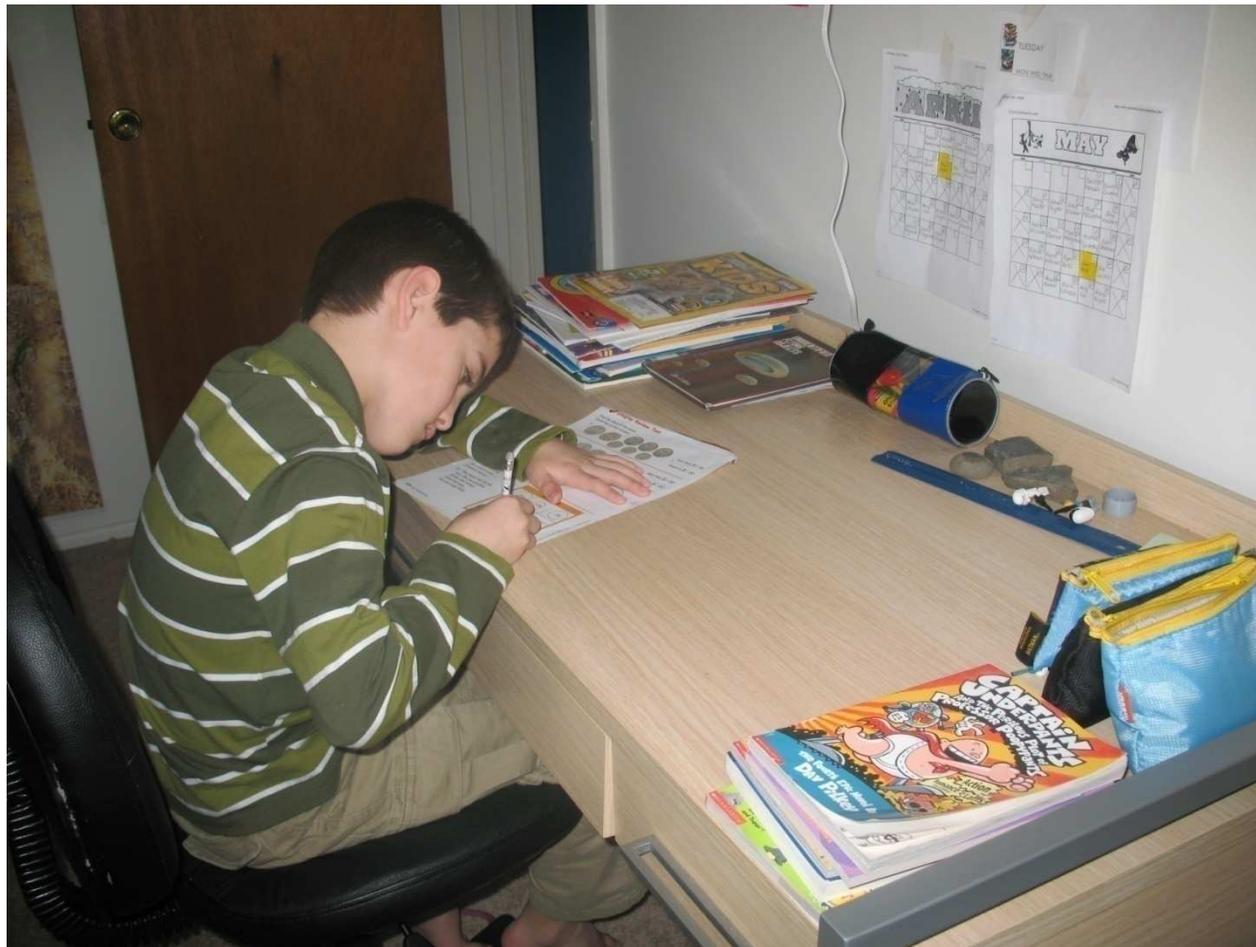
Can you spot him dancing?



When he comes home, his mother allots him an hour of fun



before he must do his homework.



He especially likes to watch over and over again his favorite animated movies



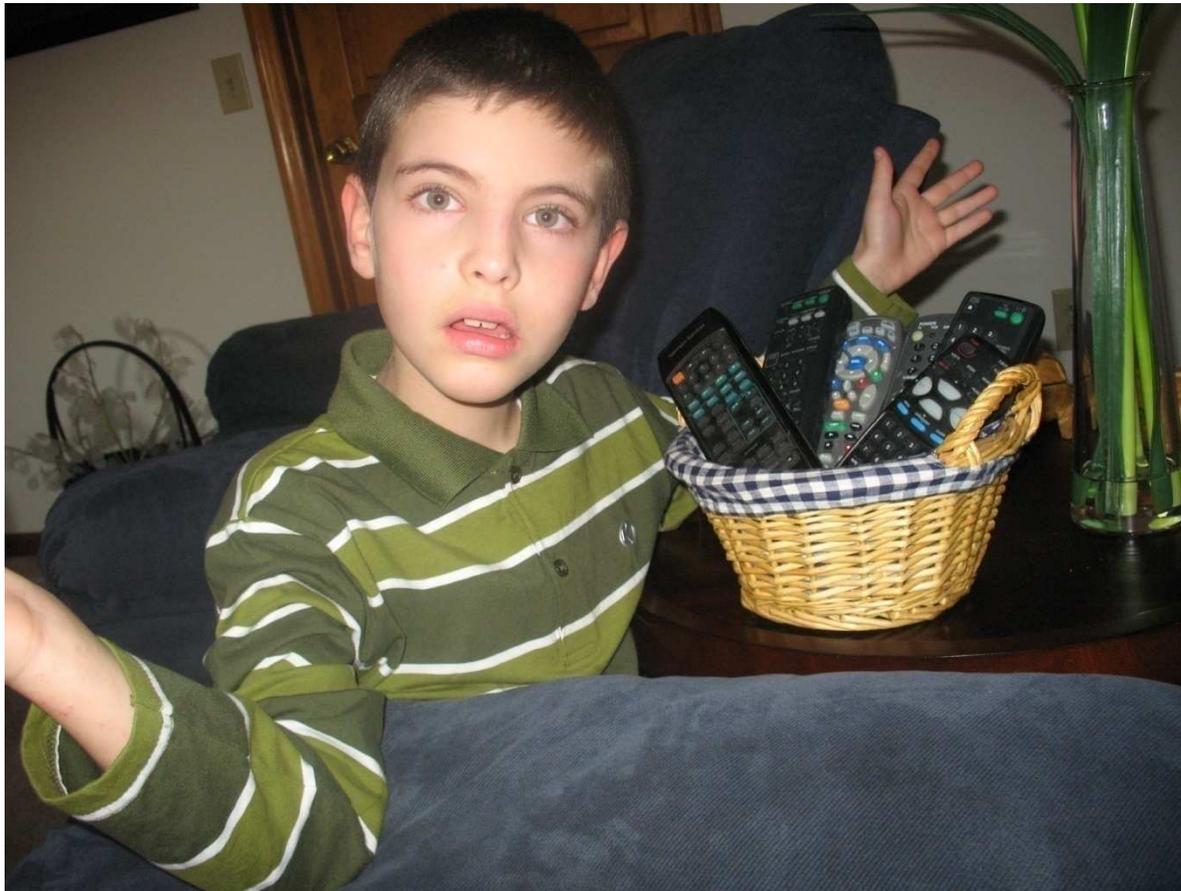
like “Flushed Away”.



Sometimes he has trouble finding the remotes at all



But usually he has difficulty finding the right remote control



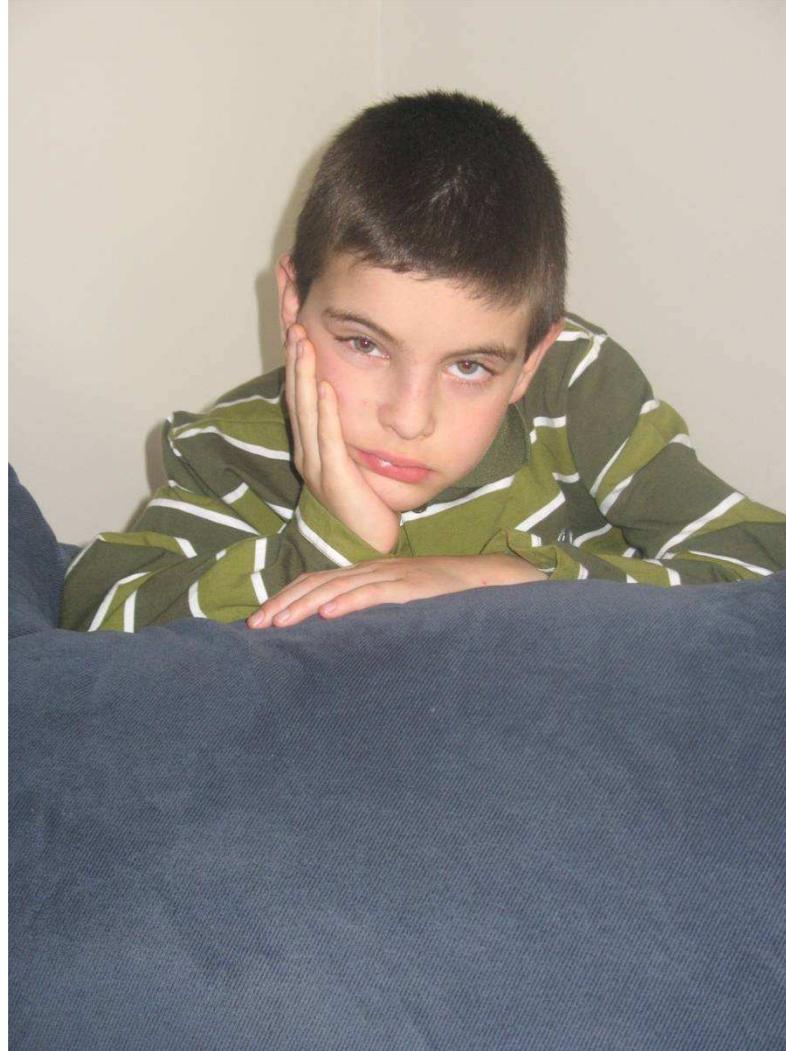
among the half dozen in the house.



and has no patience trying to find the right button to start the movie.



This frustrates him



and he often finds himself angry.



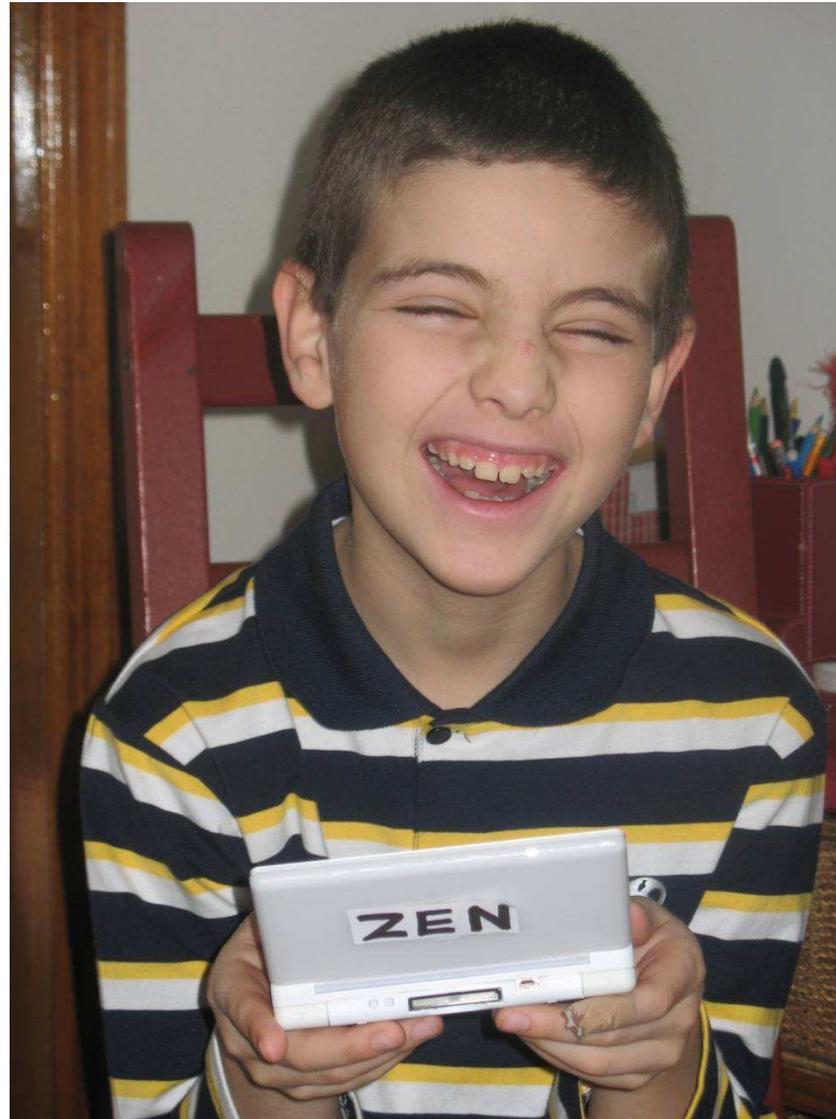
He is an independent boy and he doesn't like to ask for his mom's help.



Now, all he needs to do is pick up the Zen, look for the letters DVD, and touch the screen.



“That is awesome!”



“I no longer have to wait for mom or find the right remote and press the right buttons.”

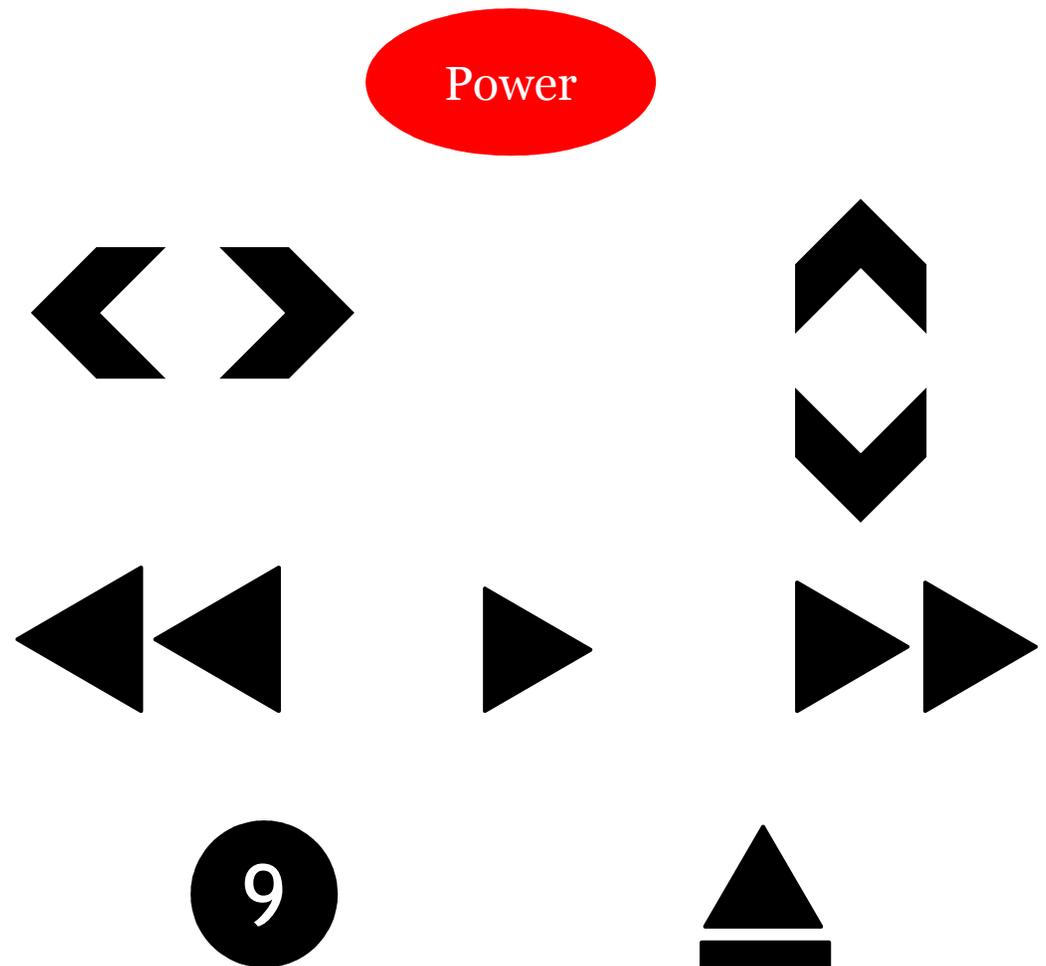


Now, cheerfully he goes to school.



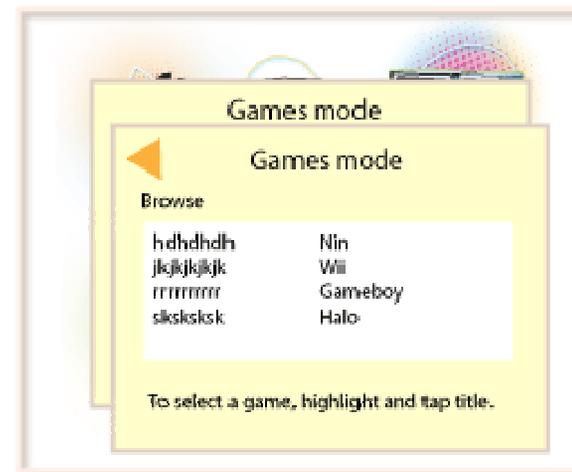
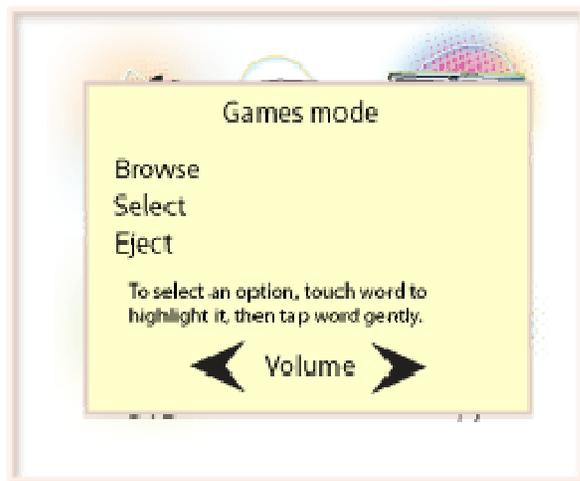
The Zen's Inherited Features

- Power
- Volume
- Channel
- Play
- Rewind
- Fast Forward
- 0-9 Numbers
- Eject



Zen's Next-Gen Features

- View Current Device
- Swap
- Interactive Touch-Screen
- “High-level” View



Zen Specifications

- Power button located on top
- Size: 7" long, 3" wide, .5" deep
- Screen: as large as possible
- Has adjustable wrist strap
- Shock-resistant
- Has a rubbery/comfortable grip with insets for fingers and weighs less than a pound
- Metallic finish; LCD can show colors of user choice
- Scanning Feature
- It comes with a dock for charging and locating
- Full interface customization (with helpful defaults)



Q&A Time

- Any questions from the floor?