

Let's Code Blacksburg!

Volunteering and Teaching

Tweeks

Krichey

LCBB Vision

“Fostering the growth of the technology community in the New River Valley by providing not-for-profit education and events.”

Who We Target

- Kids
- Learners
- Pros

Previous Sessions

- Intro to C++
- Intro to Go
- Intro to Python
- Python Threading
- Intro Android / iPhone App Dev
- Intro to Arduino Programming
- Intermediate Arduino Programming
- Arduino Drawing Robotic Arm
- IT-Pro: Intro to Unit Testing
- Kids: Controlling Your World w/Arduino
- Intro to Programming with PyGame

Intro to Game Programming with



by Kevin Richey

Why?



Kids are smart, quick, want to play



Introductions



Learning Styles

- Visual
- Auditory
- Kinesthetic

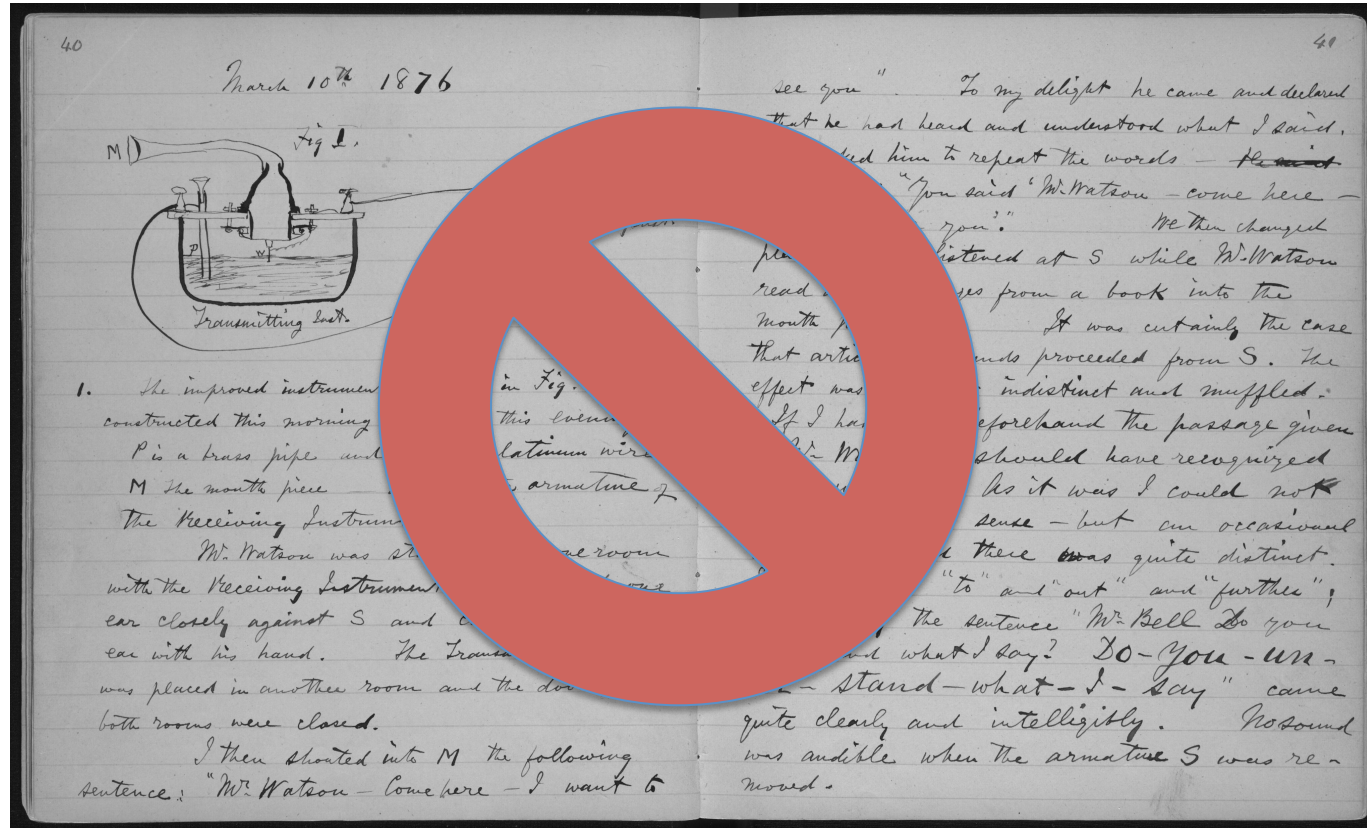


Picture stolen from <http://identityandtype.wordpress.com/2012/02/05/your-mental-identity-how-do-you-learn-and-how-do-you-use-this-knowledge/>

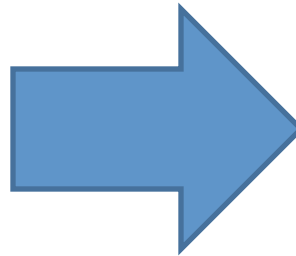
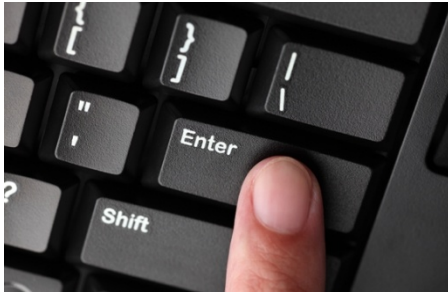
EDGE

- Explain
- Demonstrate
- Guide
- Enable

PowerPoint Advice

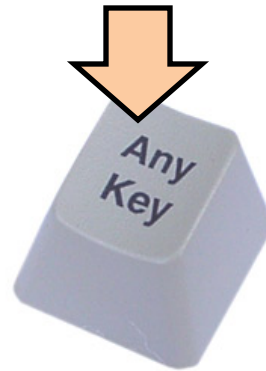


5. User Input

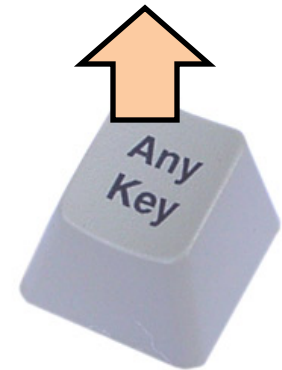


```
MyGame.py (~\...oPyGame) - GVIM1
File Edit Tools Syntax Buffers Window Kevin Help
16 ##### User Input #####
17 # End the game when player clo
18 event = pygame.event.poll()
19 if event.type == pygame.QUIT:
20     running = False
21
17,1 53%
```

QUIT



KEYDOWN



KEYUP

Game Loop

User Input

Game Rules

Draw

Shutdown

```
pygame.display.set_mode((800,600))
screen_rect = screen.get_rect()

##### Game Pieces #####

##### Play Loop #####
running = True
while running:

    # Run 60 frames per second
    clock.tick(60)

    ##### User Input #####
    # End the game when player closes the window.
    event = pygame.event.poll()
    if event.type == pygame.QUIT:
        running = False

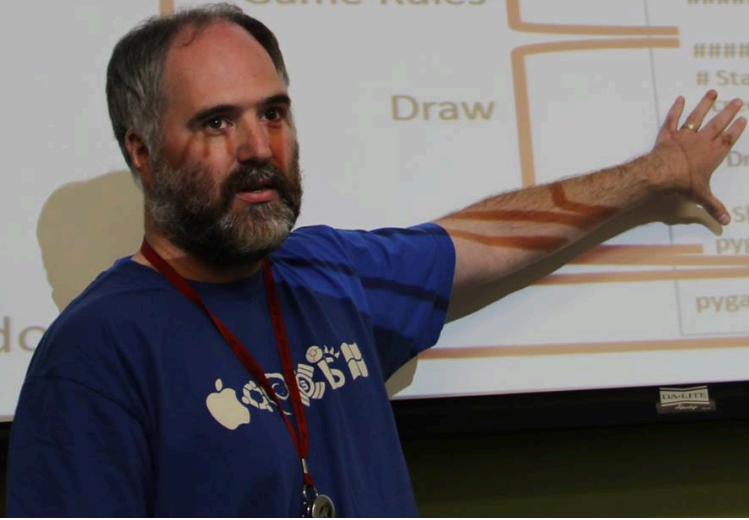
    ##### Game Rules #####

    ##### Draw the Screen #####
    # Start with a blank screen, before drawing anything else.
    screen.fill(pygame.Color("black"))

    Draw game graphics here...

    Show the screen. This must come last.
    pygame.display.flip()

pygame.quit()
```



```
#### Game Pieces #####  
box = pygame.Rect(10, 200, 200, 100)  
color = pygame.Color("yellow")  
box_speed = 0
```

```
#### User Input #####  
# End the game when player closes the window.  
event = pygame.event.poll()  
if event.type == pygame.QUIT:  
    running = False  
elif event.type == pygame.KEYDOWN:  
    box_speed = 3  
elif event.type == pygame.KEYUP:  
    box_speed = 0
```

