

# Compsci 101

## Dictionaries, Jotto

### Part 1 of 2

```
d = {}
```

```
d.keys()
```

```
d.values()
```

```
d[key]
```

```
d.get(key, dv)
```

```
d.items()
```

Susan Rodger  
March 23, 2021

**P** is for ...



- **Python**
  - Whatever you want it to be? Language!!!
- **Parameter**
  - When an argument becomes a variable
- **Power Cycle**
  - Not the last resort. But works
- **P2P**
  - From networking to collaboration

## Dictionary Metaphors

- Look up Duke Blue and get #001A57 or (0,26,87)
  - Key is name of color, value is hex or (r,g,b)
- Look up your address, your physical home
  - Key is address, value is the actual home
- Look up [www.cs.duke.edu](http://www.cs.duke.edu) and get 152.3.140.1
  - Key is URL, value is IP address, browsers

## Dictionary Syntax and Semantics

Syntax/Function	Meaning
<code>d = {}</code>	Initialize empty dictionary d
<code>d.keys()</code>	Collection of keys in dictionary
<code>d.values()</code>	Collection of values
<code>d[key]</code>	Value associated with key (error if key not in d)
<code>d.get(key, dv)</code>	Value associated with key (dv if key not in d, dv is optional)
<code>d.items()</code>	Collection of (key,value) tuples in d

## danah boyd

Dr. danah boyd is a Principal Researcher at [Microsoft Research](#), ... and a Visiting Professor at New York University. Her research is focused on addressing social and cultural inequities by understanding the relationship between technology and society.



*"If I have learned one thing from my research, it's this: social media services like Facebook and Twitter are providing teens with new opportunities to participate in public life, and this, more than anything else, is what concerns many anxious adults."*

## Compsci 101 Dictionaries, Jotto Part 2 of 2

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## Dictionary Iteration (unordered!)

- Iterate through keys:
  - for k in d:
  - for k in d.keys():
- Iterate through pairs:
  - for (k,v) in d.items():
  - for k,v in d.items():

## Sorting a list – sorted()

- Create a new list in alphabetic order

```
lst = ['plum', 'apple', 'kiwi']
```

```
x = sorted(lst)
```

- Using sets with sorted