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

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**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

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**Dictionary Syntax and Semantics**

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

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