

# Python

**David Arroyo Menéndez**  
**Abril 2018**



```
def dotwrite(ast):  
    nodename = getNodeLabel(ast[0]),ast[0])  
    label=symbol.symbol(nodename, label),  
    print ' %s [%s]' % (label, label),  
    if isinstance(ast[1], list):  
        if ast[1]:  
            print '['  
            else:  
                print '']  
        else:  
            print '[]';  
            children = []  
            for n, child in enumerate(ast[1:]):  
                children.append(dotwrite(child))  
            print ' %s -> %s' % (nodename, children),  
            for name in children:  
                print ' %s' % name,
```

python

# Top Most Popular Languages (2018)

Apr 2018	Apr 2017	Change	Programming Language	Ratings	Change
1	1		Java	15.777%	+0.21%
2	2		C	13.589%	+6.62%
3	3		C++	7.218%	+2.66%
4	5	▲	Python	5.803%	+2.35%
5	4	▼	C#	5.265%	+1.69%
6	7	▲	Visual Basic .NET	4.947%	+1.70%
7	6	▼	PHP	4.218%	+0.84%
8	8		JavaScript	3.492%	+0.64%
9	-	▲▲	SQL	2.650%	+2.65%
10	11	▲	Ruby	2.018%	-0.29%

# Top Most Popular Languages (2021)

May 2021	May 2020	Change	Programming Language	Ratings	Change
1	1		C	13.38%	-3.68%
2	3	⬆	Python	11.87%	+2.75%
3	2	⬇	Java	11.74%	-4.54%
4	4		C++	7.81%	+1.69%
5	5		C#	4.41%	+0.12%
6	6		Visual Basic	4.02%	-0.16%
7	7		JavaScript	2.45%	-0.23%
8	14	⬆	Assembly language	2.43%	+1.31%
9	8	⬇	PHP	1.86%	-0.63%
10	9	⬇	SQL	1.71%	-0.38%
11	15	⬆	Ruby	1.50%	+0.48%
12	17	⬆	Classic Visual Basic	1.41%	+0.53%
13	10	⬇	R	1.38%	-0.46%
14	38	⬆	Groovy	1.25%	+0.96%



# Deciding for a programming language

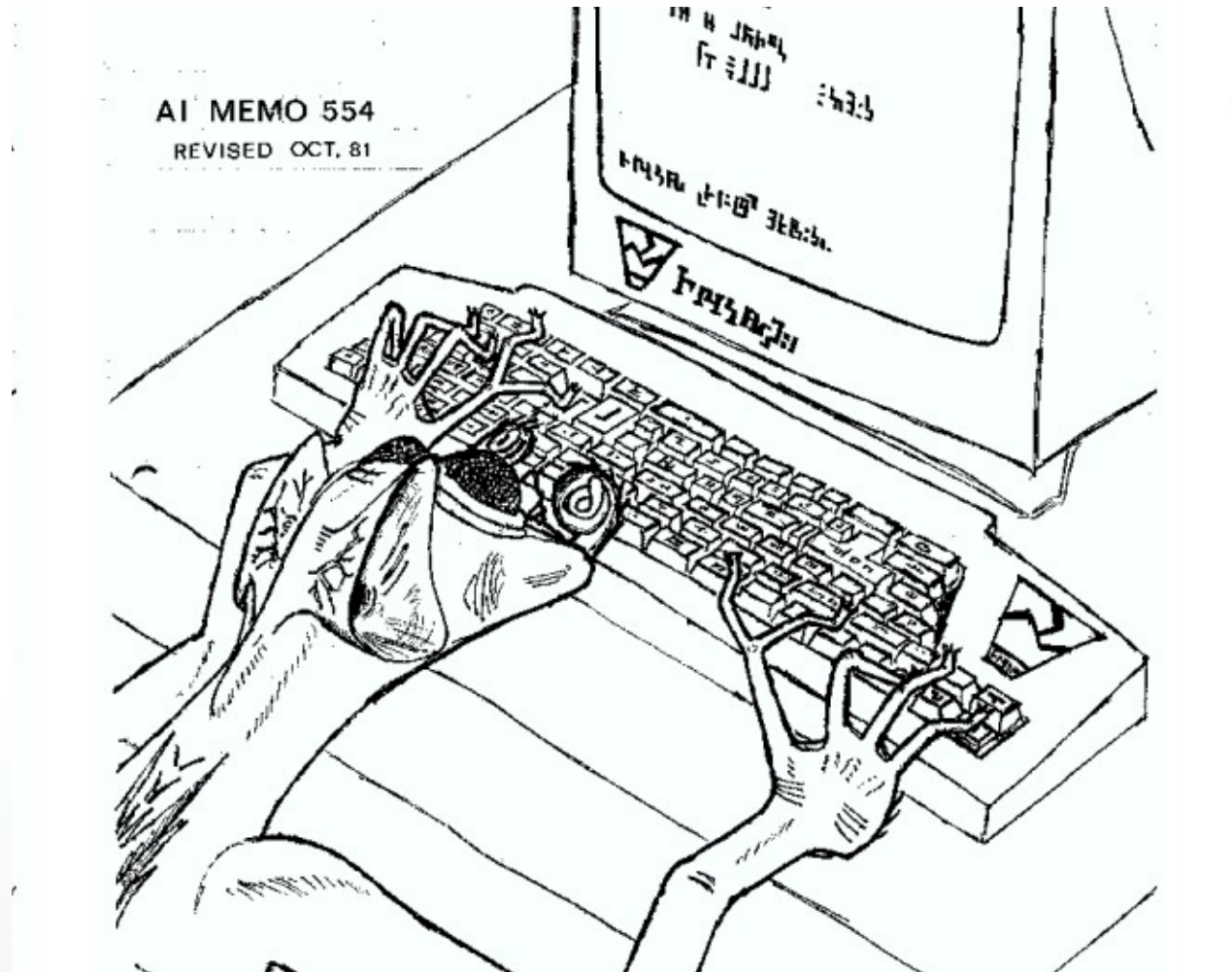
**Mathematical features:** poo, functional, imperative, ...

**Industries to be winner:** sys admins, web developers, science, operating systems, guis, ...

**Interpreter / Compiler**

**It must be useful to me**

# A tale about scripting languages







# Lisp says

I hate compile programs for the machine, I will invent the interpreter.

I will organize the the programming with classes and objects and we will invent the guis

I love the philosophy about the mind, I will invent the artificial intelligence



TCL said

The programming languages in the future will be scripting programming languages.

We will write TK to reach this objective.

<http://ieeexplore.ieee.org/abstract/document/660187/?reload=true>



# Stallman said

Why you should not use Tcl  
Richard Stallman, GNU Project

As interest builds in extensible application programs and tools, and some programmers are tempted to use Tcl, we should not forget the lessons learned from the first widely used extensible text editor--Emacs.

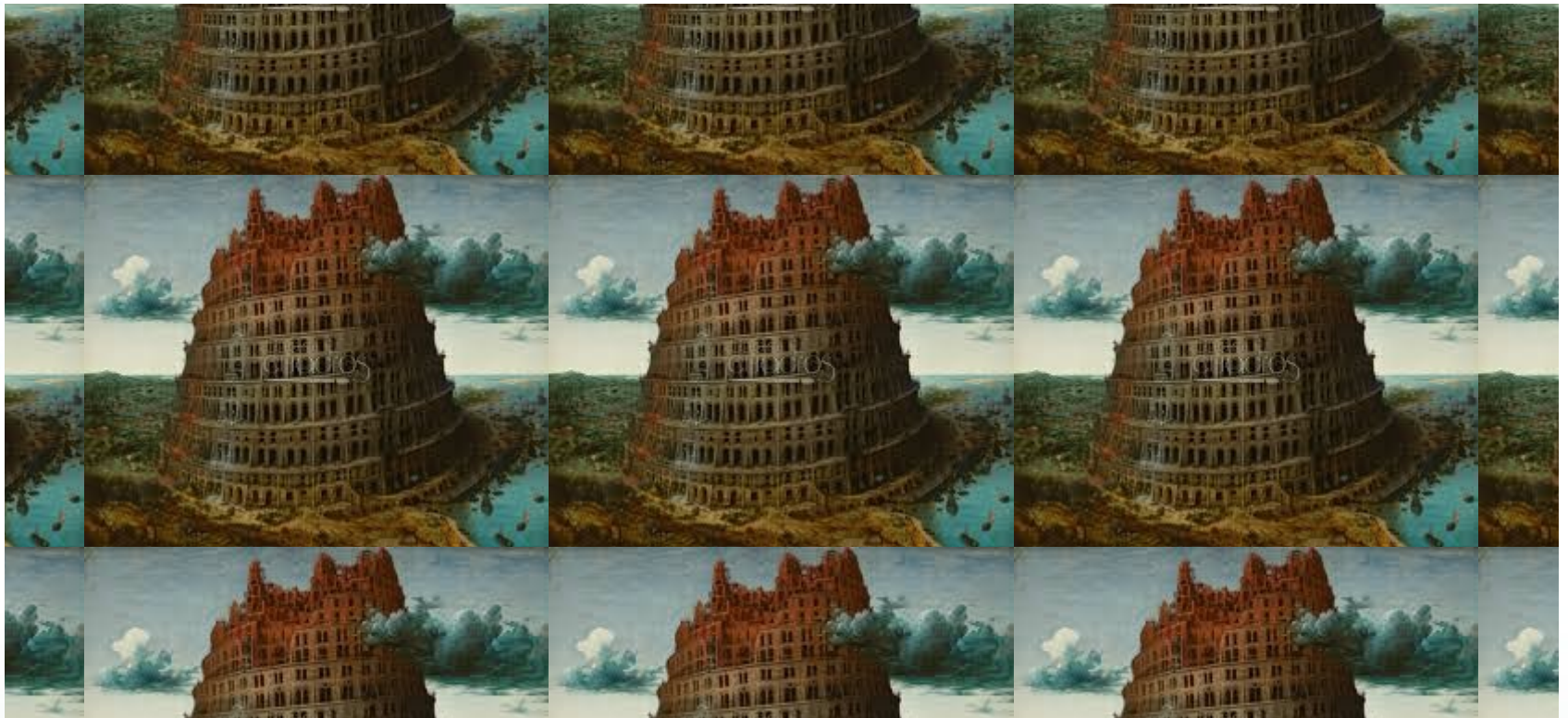
The principal lesson of Emacs is that a language for extensions should not be a mere "extension language". It should be a real programming language, designed for writing and maintaining substantial programs. Because people will want to do that!

Extensions are often large, complex programs in their own right, and the people who write them deserve the same facilities that other programmers rely on.  
The programming languages in the future will be scripting programming languages.

<https://wiki.tcl.tk/16730>

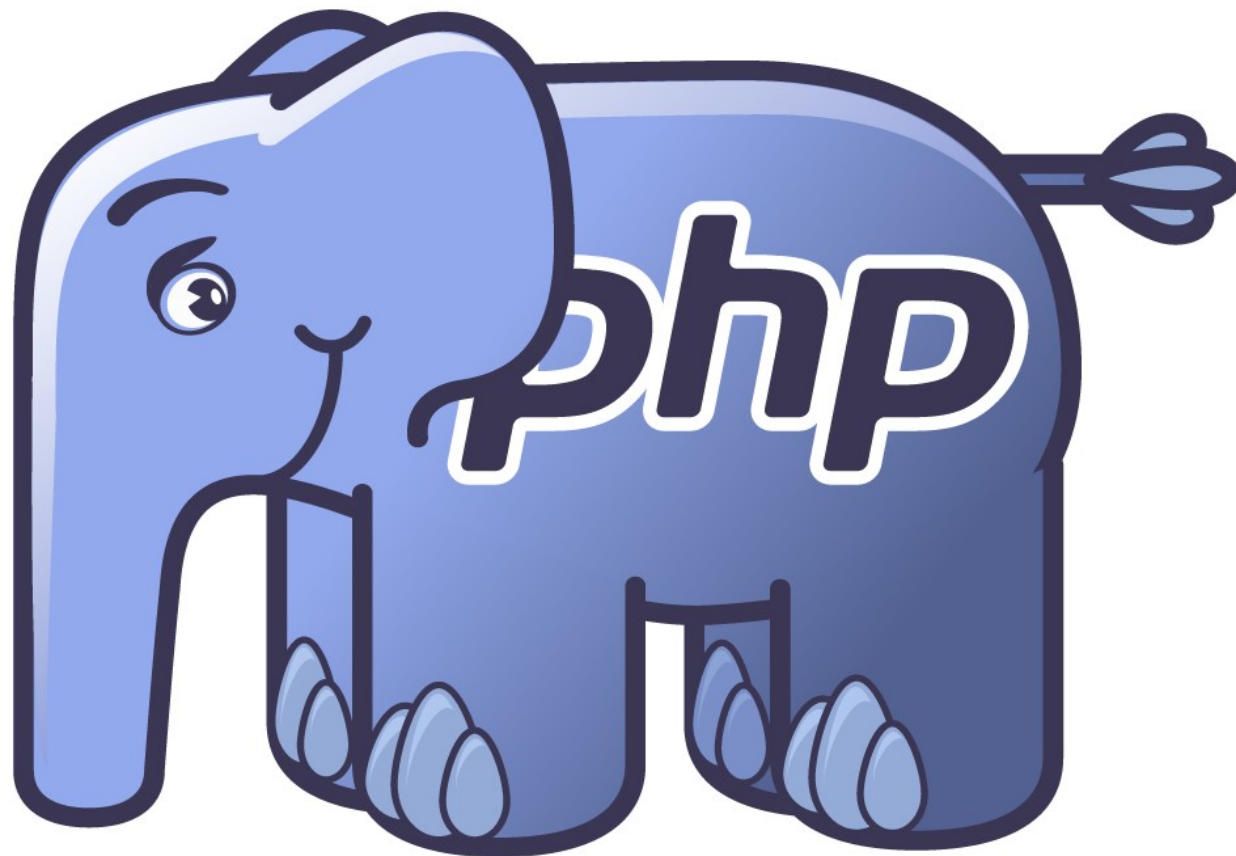


# The scripting programming languages wars is served



PHP said

I will be an elephant and  
I will govern in the web programming



# GNU Bash said

I will be a shell and  
I will automate small task  
for the system administrators



# GNU R said

I will be consonant (erre que erre) and  
I will be the language of the statistics



# Ruby said

I want earn all rubies in the world  
With my rails,  
I will earn the innovation in the web programming  
And later all world!!!







# Perl said

I want earn all perls in the world  
I will start administering unix systems,  
And later all world!!!



Perl





# Python said

I live in the desert I have poison against  
animals near to me



# Python is the most popular scripting programming language today



You can use google trends or other statistics  
to measure popularity in specific areas

# License



**Attribution 4.0 International (CC BY 4.0)**

Thanks for your attention  
© David Arroyo Menéndez. 2021