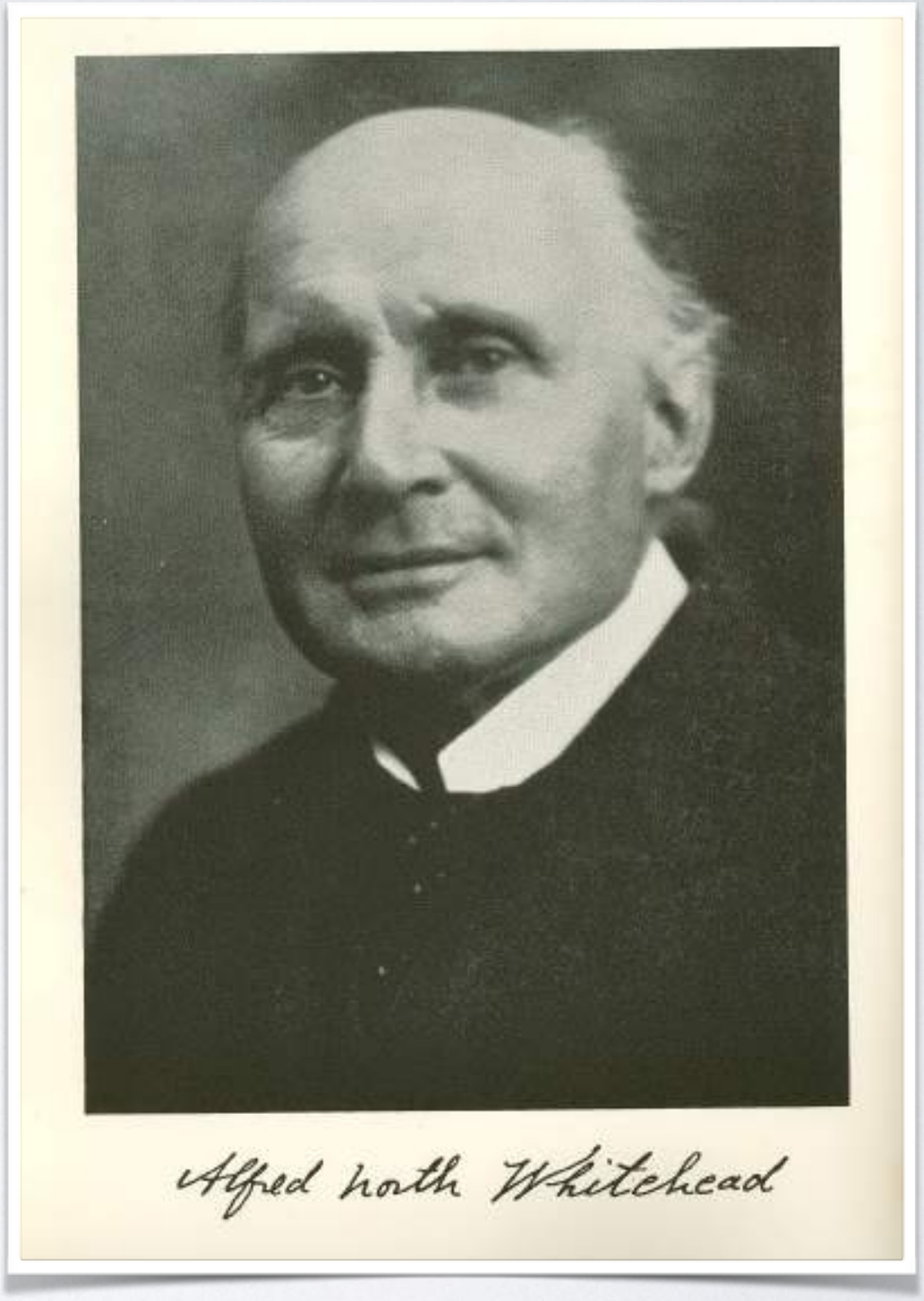
TESTING…

HOW TO EMERGE

Dave Thomas • The Pragmatic Bookshelf • [@+]pragdave

Almost all new ideas have a certain aspect of foolishness when they are first produced.

—Alfred North Whitehead



MY LATEST PROJECT

JavaScript

MY LATEST PROJECT

~~JavaScript~~ CoffeeScript

MY LATEST PROJECT

~~JavaScript~~ ~~CoffeeScript~~ ES6/Babel

MY LATEST PROJECT

~~JavaScript~~ ~~CoffeeScript~~ ES6/Babel

Bower

MY LATEST PROJECT

~~JavaScript~~ ~~CoffeeScript~~ ES6/Babel

~~Bower~~ npm

MY LATEST PROJECT

~~JavaScript~~ ~~CoffeeScript~~ ES6/Babel

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Grunt

MY LATEST PROJECT

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~~Bower~~ npm

~~Grunt~~ Gulp

MY LATEST PROJECT

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~~Bower~~ npm

~~Grunt~~ ~~Gulp~~ Browserify

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Gulp+Browserify

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Bower npm

~~Grunt~~ ~~Gulp~~ ~~Browserify~~

~~Gulp+Browserify~~ npm run+Browserify

MY LATEST PROJECT

JavaScript

CoffeeScript

ES6+Babel

Bower

npm

webpack

Grunt

Gulp

Browserify

Gulp+Browserify

npm run+Browserify

There Was an Old Lady Who Swallowed a Fly

WHY?

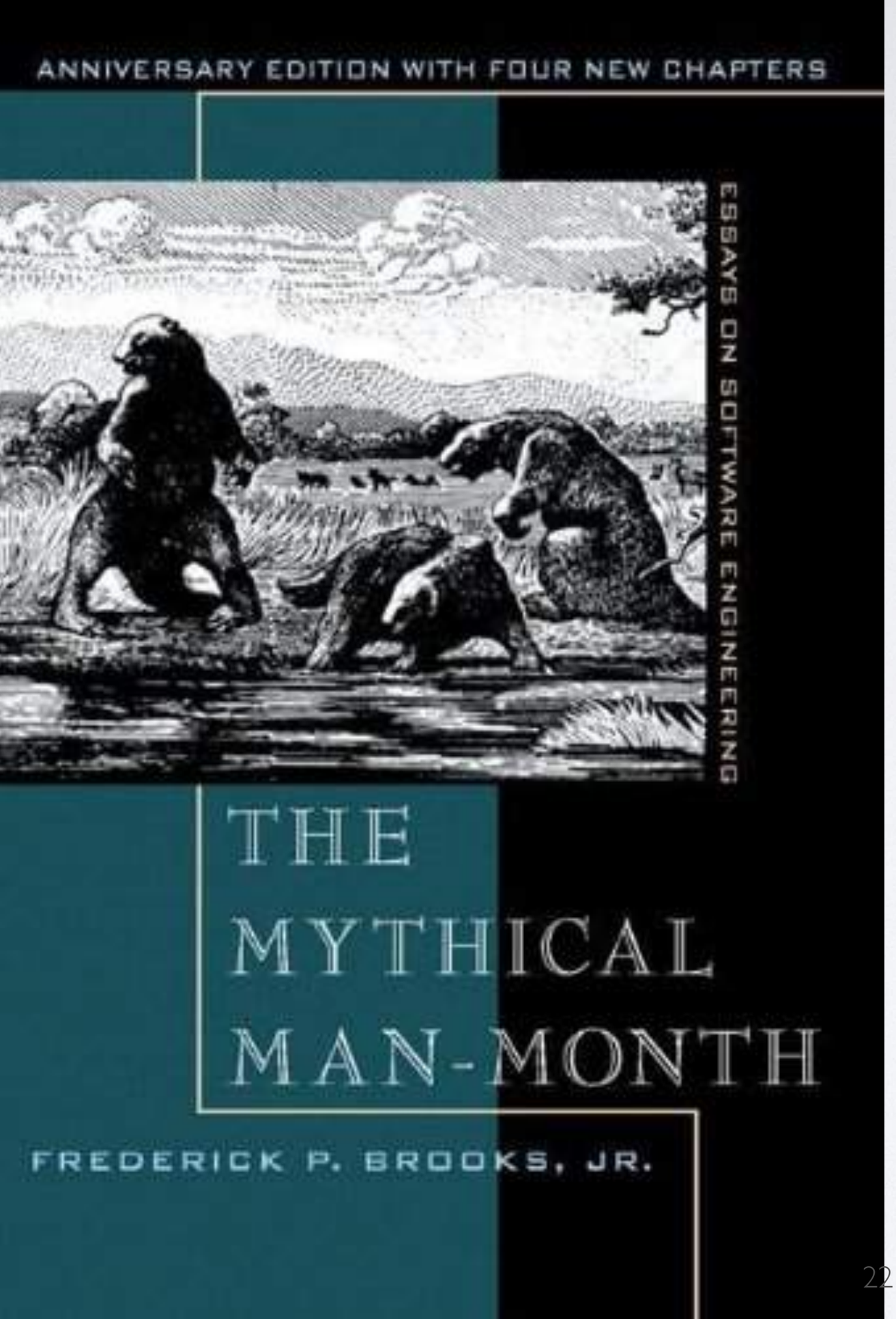
FEAR!

FEAR

of the unknown

of committing

of failure



"The programmer, like the poet, works only slightly removed from pure thought-stuff. He builds his castles in the air, from air, creating by exertion of the imagination. Few media of creation are so flexible, so easy to polish and rework, so readily capable of realizing grand conceptual structures."

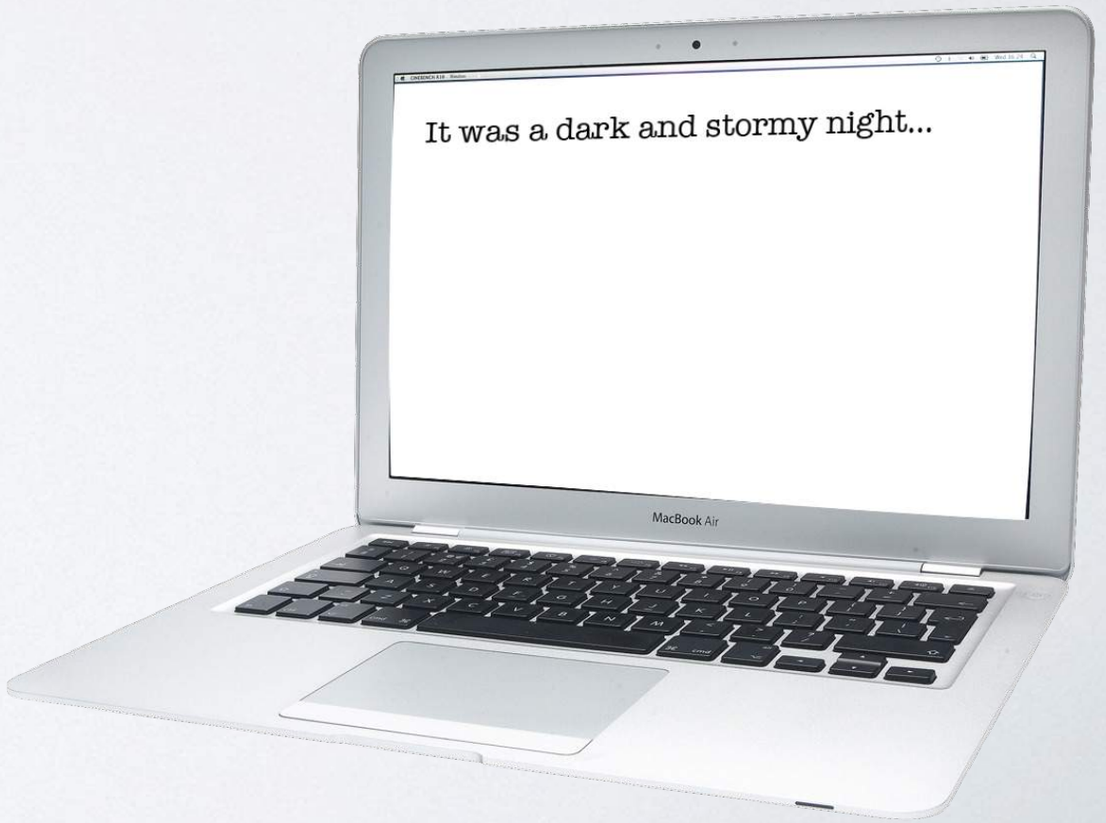
–Frederick P. Brooks Jr.
The Mythical Man Month

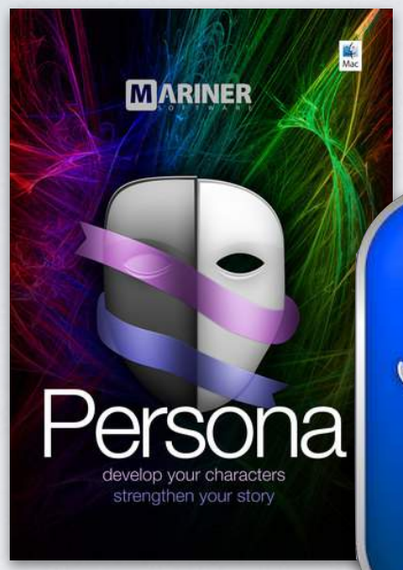
It was a dark
and stormy night ...

It was a dark and stormy night...

TM

DELL

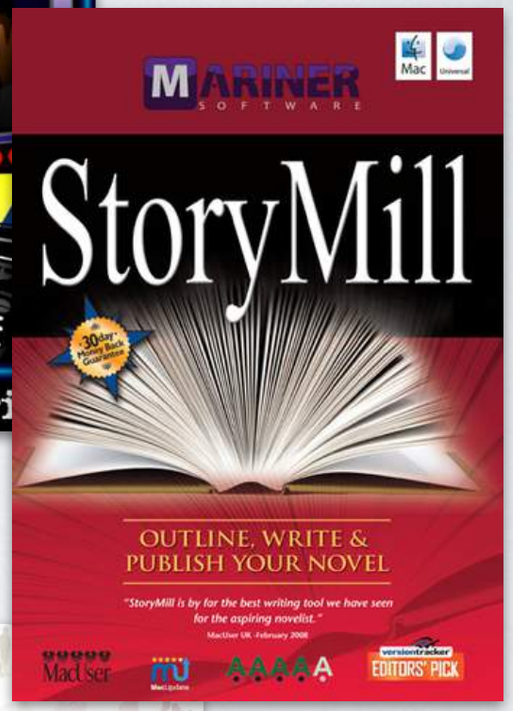

It was a dark and stormy night...
MacBook Air

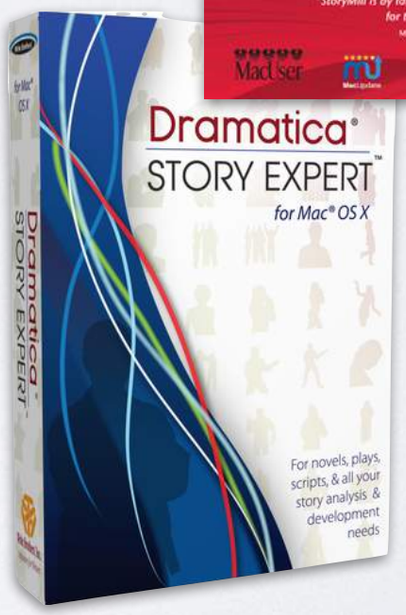

MARINER
Persona
develop your characters
strengthen your story

MasterWriter

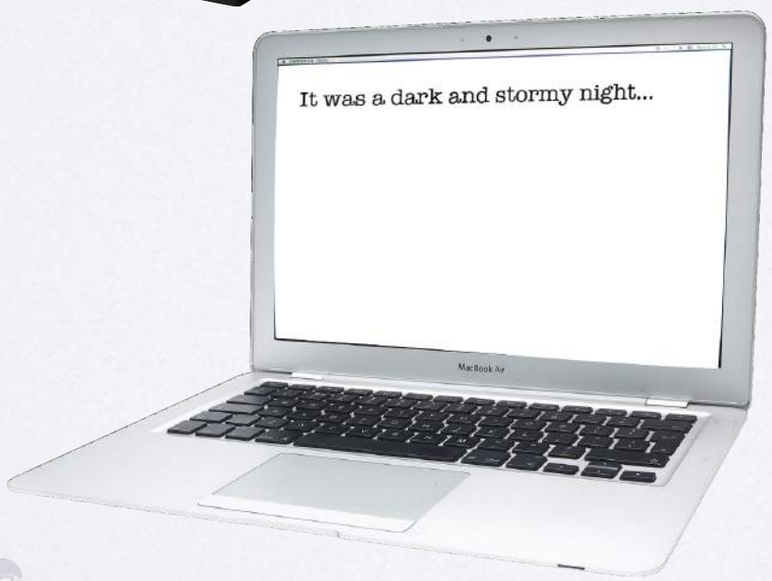
DRAGON
NaturallySpeaking

WordPower
Technologies
GREAT
DIALOGUE
software for wri


MARINER
SOFTWARE
Mac
Universal
StoryMill
30-day Money Back Guarantee
OUTLINE, WRITE &
PUBLISH YOUR NOVEL
"StoryMill is by far the best writing tool we have seen for the aspiring novelist."
MacUser UK, February 2008
MacUser
AAAAA
versiontracker
EDITORS' PICK


Dramatica®
STORY EXPERT™
for Mac® OS X
For novels, plays, scripts, & all your story analysis & development needs

It was a dark and stormy night...


It was a dark and stormy night...
MacBook Air

It was a dark and stormy night...
It was a dark and stormy
WordPower Technologies
software
MARINER SOFTWARE
StoryM
OUTLINE, WRITE & PUBLISH YOUR NOVEL
MasterW
DRAGON
Naturally Speaking
DELL

wallpapersbuzz

It was a dark
and stormy night ...

TOOLS DO NOT

MAKE THE WRITER.

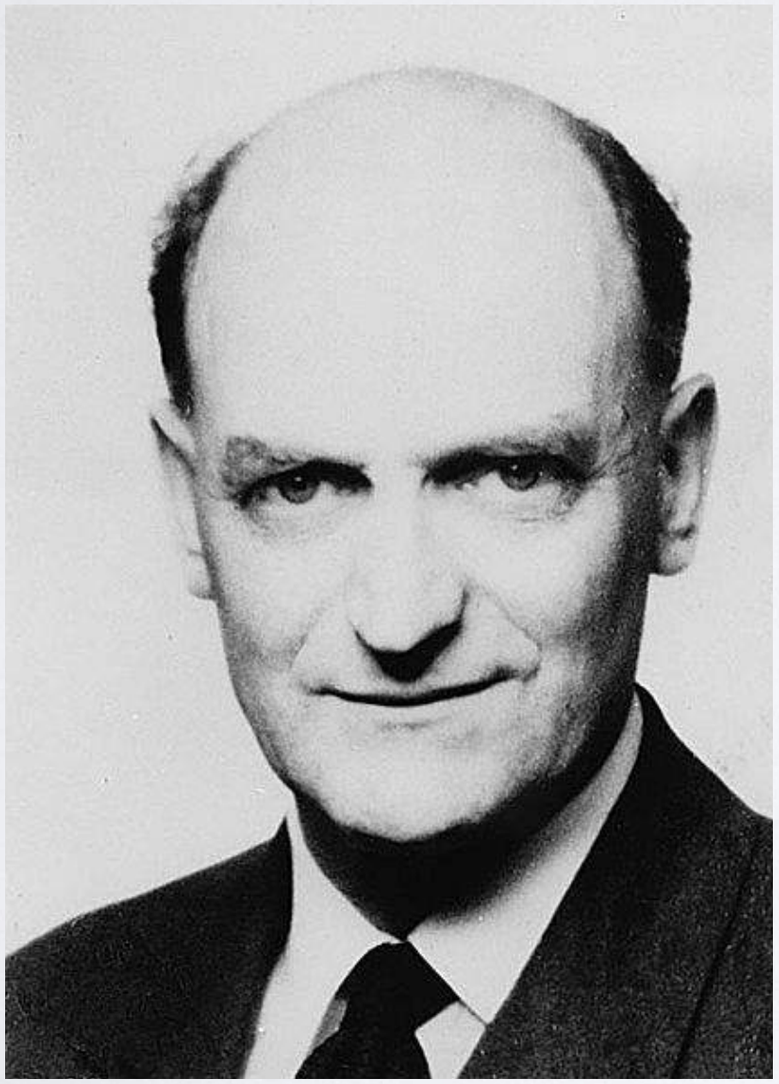
THE WRITER IS ALREADY THERE.

JUST WAITING TO *EMERGE*.

http://imgkid.com/butterflies-transparent-tumblr.shtml

TACIT KNOWLEDGE

Two Thinkers

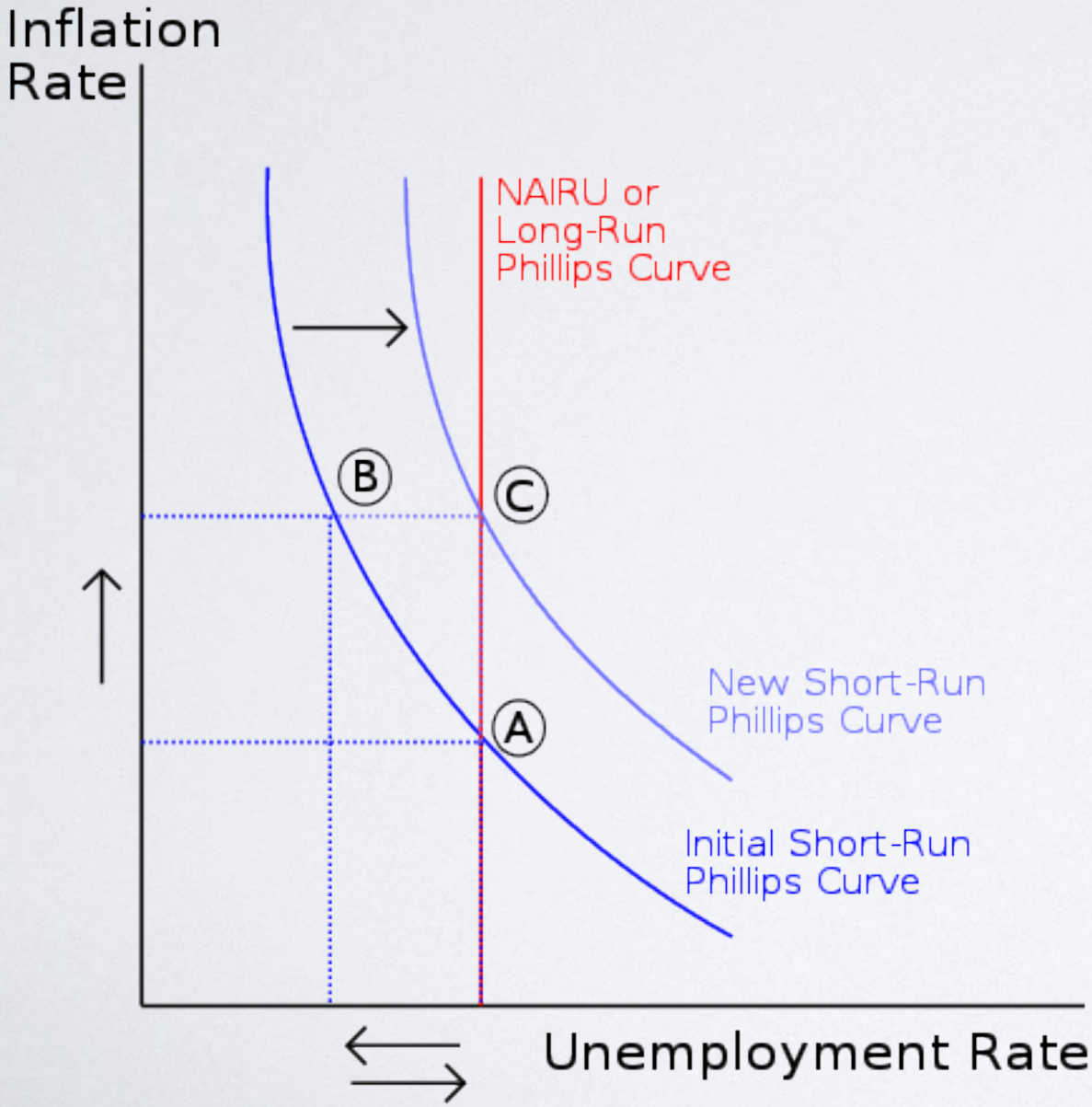


William (BILL) Phillips

- 1914-1975

http://en.wikipedia.org/wiki/File:Professor_A.W.H_(Bill)_Phillips.jpg

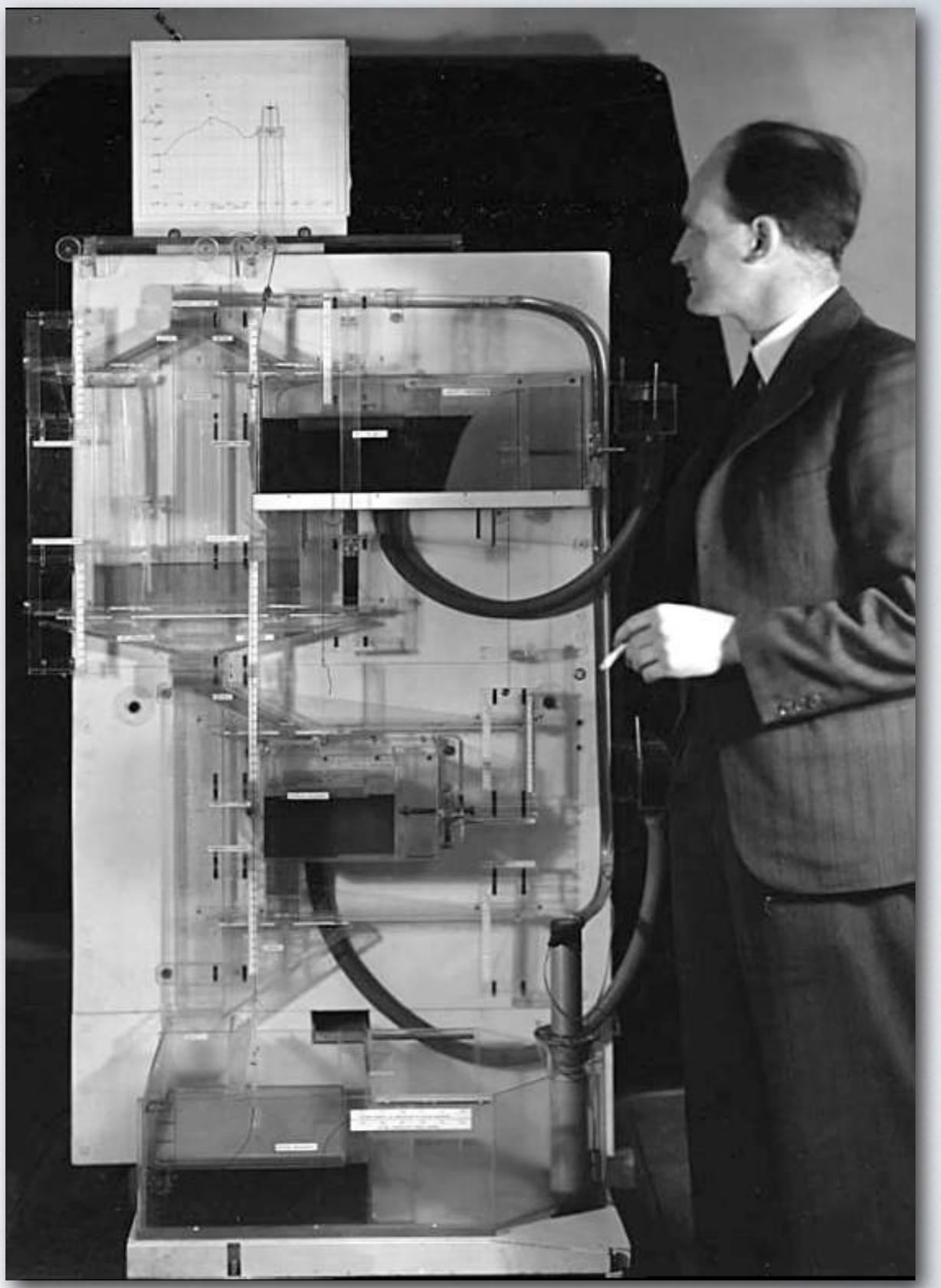
William (BILL) Phillips



http://en.wikipedia.org/wiki/File:Professor_A.W.H_(Bill)_Phillips.jpg

Money Flows Like Water

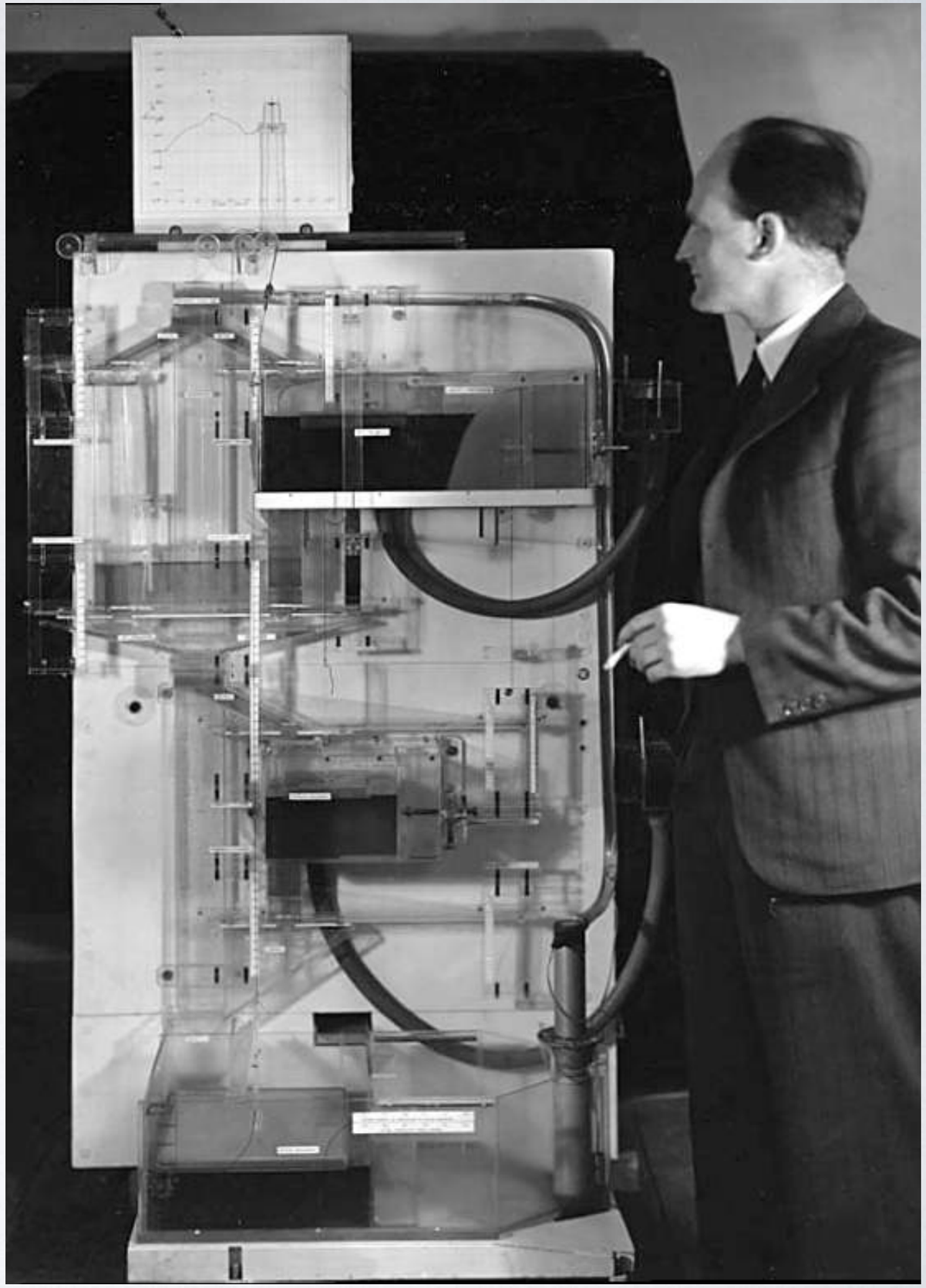
Water Flows Like Money



http://www.academia.edu/745496/The_Economy_Machine_The_Moniac_

Moniac

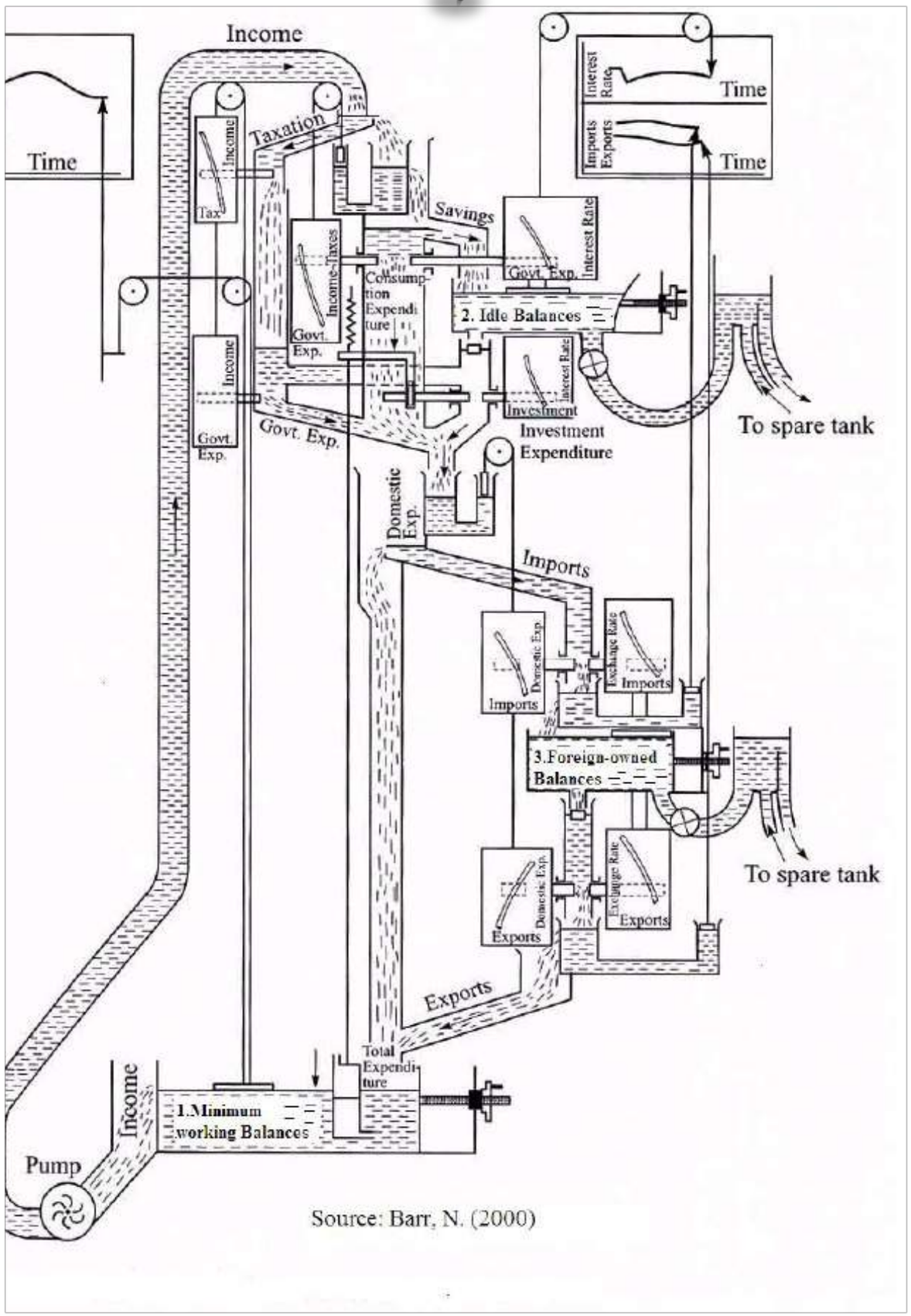
Hydraulic
macroeconomics



http://www.academia.edu/745496/The_Economy_Machine_The_Moniac_

Moniac

Solves nine simultaneous differential equations
Accurate to 2%



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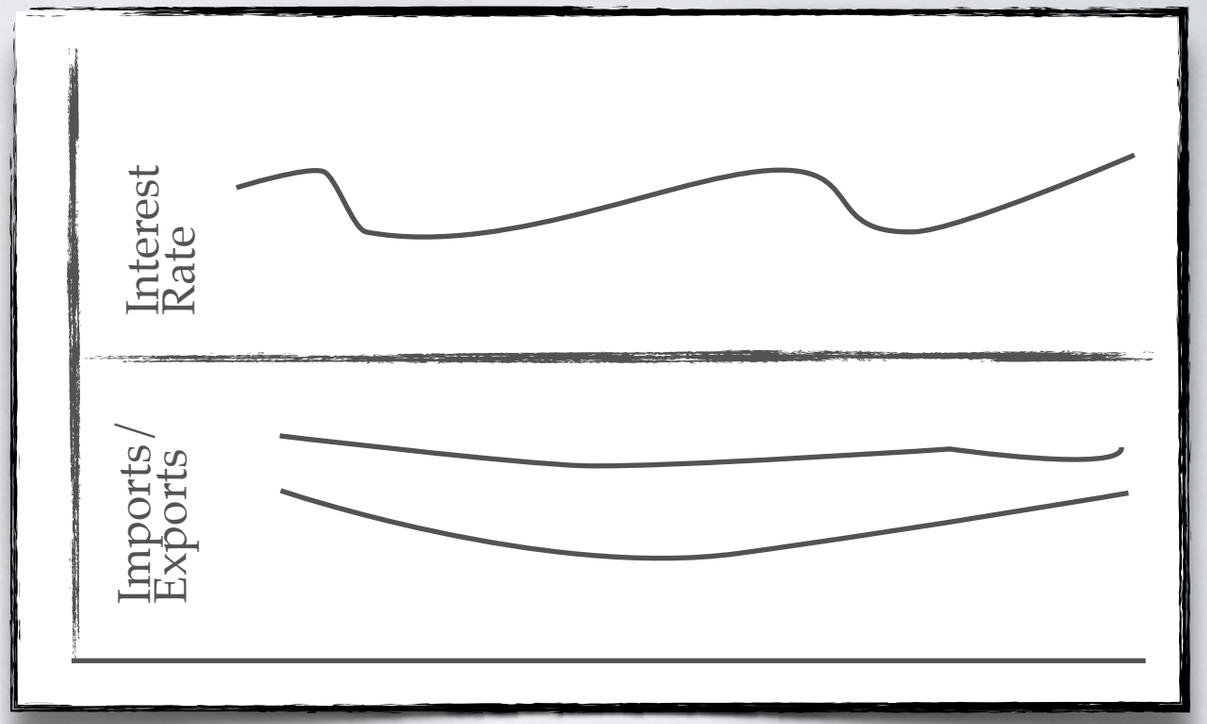
ACCURATE TO 2%!



- But cannot say "why"
- Often produces different results given same inputs.
- Unexpected answers:
  - is it wrong?
  - or clever?

ACCURATE TO 2%!

- But cannot say "why"
- Often produces different results given same inputs.
- Unexpected answers:
  - is it wrong?
  - or clever?

JUST

LIKE AN

EXPERT

MICHAEL POLANYI

- 1891–1976
- Physical chemist
- Sociologist
- Economist
- Philosopher

“WE KNOW MORE THAN WE CAN TELL.”

The Tacit Dimension. © 1966

Stimulus

Stimulus

Sensed Effect

Tacit Knowledge of Stimuli

Brain by _DJ_ via Creative Commons http://www.flickr.com/photos/flamephoenix1991

Stimulus	Observed Effect
Particular words	Electric shock

Subjects aware of shocks
Not aware of words that trigger them
But still recoil, before shock, when those words are heard

Stimulus	Observed Effect
Physical features	Recognize Person

We can recognize people by their walk, their hands, their voice, their faces
But we can't describe how

TACIT KNOWLEDGE

Integration of experience

We do it without thinking

We use it without thinking

CUMULATIVE

Explicit	Tacit
Sounds	
Words	
Phrases	
•••	

TACIT == AUTOPILOT

Not conscious of using lower levels

Lose effectiveness of higher levels
if you think about lower levels.

TRY IT!

- Think about each muscle contracting and relaxing when you walk

- Concentrate only on the sounds of syllables when you talk

- Focus on the machine's execution of your program the next time you code

THE WRITER IS ALREADY THERE.

JUST WAITING TO *EMERGE*.

http://imgkid.com/butterflies-transparent-tumblr.shtml

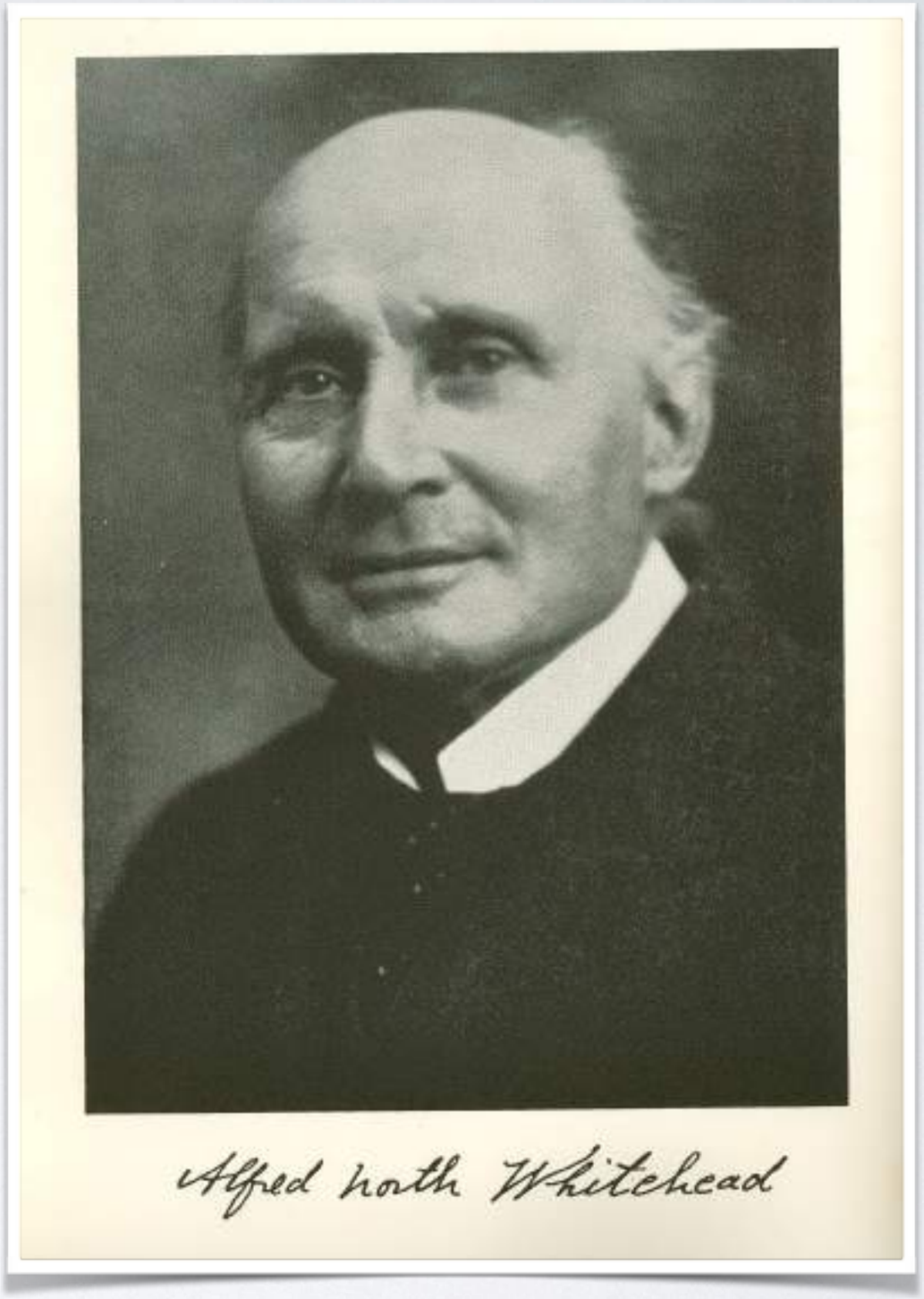
TACIT KNOWLEDGE

FUELS EMERGENCE

http://imgkid.com/butterflies-transparent-tumblr.shtml

Civilization advances by extending the number of important operations which we can perform without thinking about them.

—Alfred North Whitehead



HOW DO WE BUILD

TACIT KNOWLEDGE

THE HARD WAY

THE ONLY WAY

THE ONLY WAY

EXPERIENCE

PLANNED, DIRECTED

EXPERIENCE

PLANNED, DIRECTED

EXPERIENCE

WITH LOTS OF MISTAKES

PHILLY ETE 2015

Takeaway:

New Things to Do

PHILLY ETE 2015

Takeaway:

New Things to Do

PHILLY ETE 2015

Takeaway:

New Mistakes to Make

“Take chances,
make mistakes,
get messy!

Ms Frizzle

Take chances,
make mistakes,
get messy!

Because then you, not your tools, are in control

Take chances,
make mistakes,
get messy!

And then the really cool stuff emerges