

Life, DNS, and BIND 10

Shane Kerr

Internet Systems Consortium
(ISC)



My Father

- My dad was a soldier¹...
- In the US ARMY, where...
- There are 3 ways of doing things:

The RIGHT way,
The WRONG way, and

The **ARMY** way!

1. A veterinarian (animal doctor), but still a soldier!

Military Presentations

- 1.SAY WHAT YOU WILL SAY.
- 2.SAY IT.
- 3.SAY WHAT YOU SAID.



What Will I Say?

- What is Important in Life?
- How to Have Great Ideas
- `#include <bind10-std>`
- Case Study: Zone Loader Output



What is Important in Life?

I won't tell you.
Yet. ;)



Shane's Big Secret

I am not a DNS Person.



Where I Came From...

- Studied Computer Science
- Worked for a telephony company
- Worked for ARIN... doing back-end database stuff
- Worked for RIPE NCC... doing WHOIS
- Worked for ISC... doing DHCPv6
- Worked for Afilias... doing DNS!

What *is* Important in Life?

It's not DNS.

It's people!

In technological fields – and especially in the DNS community – we often forget that the technology is not important, except when it can help people.

Example: Lameness

- Lameness is when an NS for a domain does not answer authoritatively for that domain.
- This causes problems.
- Registries *hate* lameness.



Lameness Study

- With cooperation from the RIPE NCC I did a study of lameness in reverse DNS:

<http://labs.ripe.net/content/lameness-analysis-measurement-and-estimation>
<http://www.ripe.net/ripe/meetings/ripe-59/presentations/kerr-trees.pdf>

- Summary: lameness in reverse causes very little user problem
- But... the DNS community still decided to spend resources fixing lameness

BIND 10 and People

- If we are doing something, we should ask *WHY?*
- The answer should always be that it helps some person in some way.
- BIND 10 is DNS software for people.

We'll have an example later!

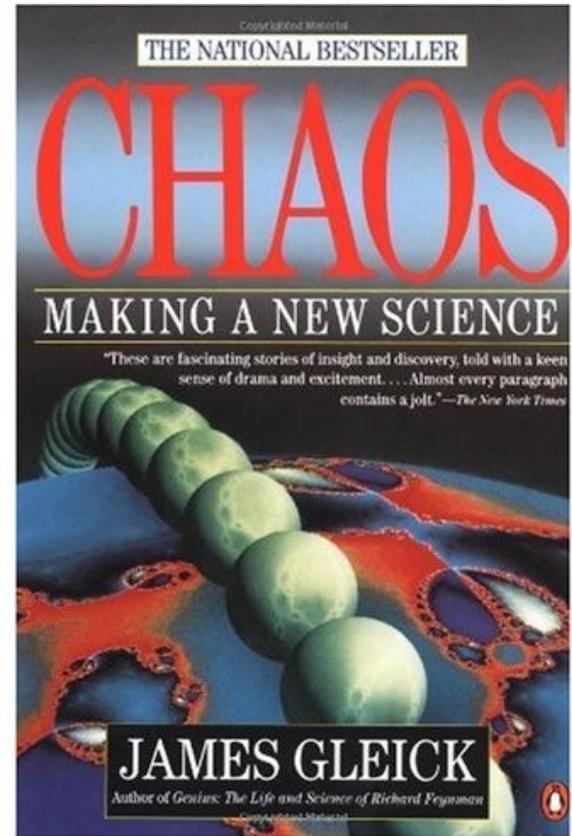
How to Have Great Ideas

I won't tell you.
Yet. ;)



Chaos

- In 1991 I read a book called *Chaos*. It was about Chaos theory. (I recommend it!!)
- I got a copy for my mother.

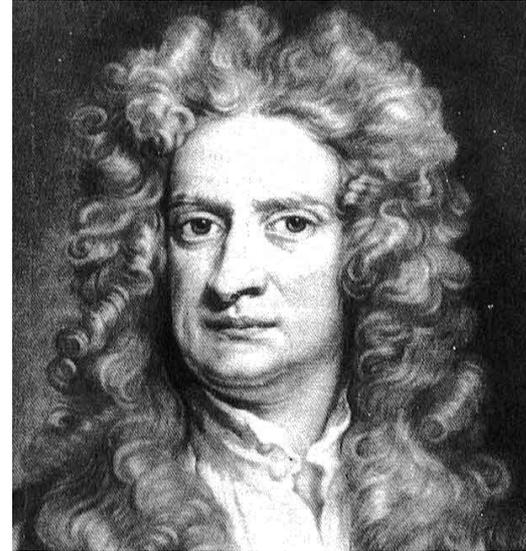


Chaos vs. My Mom

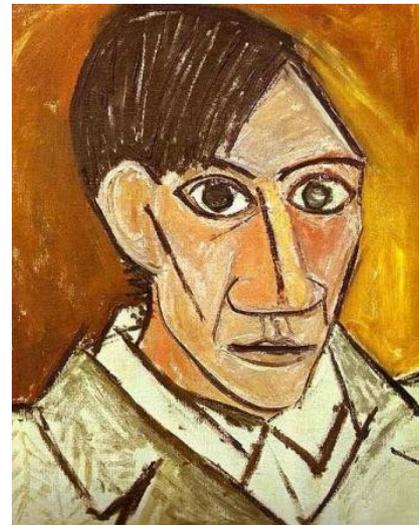
- My mom read the book.
- She could not believe that anyone could have such ideas.
- “How do they think of these?”
- But for the scientists, engineers, and mathematicians, each discovery was one small step.

Two Quotes

1. "If I have seen further it is by standing on the shoulders of Giants." *Isaac Newton*



2. "Good artists copy, great artists steal." *Picasso*



How to Have Great Ideas

- Review state-of-the-art practices and technology.
- Use and improve industry standard methodologies.
- In other words...

Steal them!!!



```
#include <bind10-std>
```



Case Study:

Zone Loader Output

- In BIND 10 there is a tool called b10-loadzone
- This tool takes a zone file and loads it into the *data store* (currently an SQLite3 database file).
- Pretty simple.

Running b10-loadzone

```
$ b10-loadzone time-travellers.org.zone  
$
```

Seems to work fine... use dig to check.



Running b10-loadzone

```
$ b10-loadzone nl.zone
```

Nothing happens. Is it working? Check “top”, look at database size, and so on...



What to do?

- Add verbose mode.
- Add updates as file is loading.

```
$ b10-loadzone example.db  
Using SQLite3 database file "/var/lib/bind10/test-sqlite.db"  
Zone name is "xn-fsqu00a.cn"  
5342 Resource Record(s) loaded in 2 second(s) (0.5% of file)
```

Simple, right?

- Need to check if going to TTY
- Need to change the code to have points in loading to output this
- Need to guess how far we are in loading (based on file size and position in it)
- Include statements in zone files make this... tricky (thanks Likun for spotting this!)

With BIND 10, *Yes We Can!*

- We have time to do it right.
- We want to make it *nice*.



What Did I Say?

- What is Important in Life?
- How to Have Great Ideas
- `#include <bind10-std>`
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Call for Support

- Normally the last slide is asking for new sponsors.
- Today... I want a new MASCOT!
<http://www.isc.org/software/bind10/mascot-contest-webform>

