From EXIF to SPDX: How Persistent Metadata is Changing the World

Open Source Leadership Summit 2017
YOU SHOULD JOIN GOOGLE+!
WHAT IS IT?
NOT FACEBOOK!
WHAT'S IT LIKE?
FACEBOOK!

OH, WHAT THE HELL.
I GUESS THAT'S ALL
I REALLY WANTED.
AS YOU CAN CLEARLY SEE IN SLIDE 397...

GAAAAH!

"POWERPOINT" POISONING.
We know the marginal cost of copying a digital work approaches zero.
What's the difference between an original and its copy?
What's the difference between an original and its copy?

The copy is different from the original in that the copy lacks the presence in time and space that make up the original.

Provenance
Provenance
Metadata
Metacrap
What does Metadata look like?
What does Metadata look like?

Expressing rights with metadata: state of the art standards - Commons Machinery (2013)
Metacrap
People lie
People lie
People are lazy
People lie
People are lazy
People are stupid
People lie
People are lazy
People are stupid
People lie
People are lazy
People are stupid
Metadata is transient
Commons Machinery (intro) from Jonas Öberg on Vimeo.
What about source code?

```c
SYSCALL_DEFINE3(silly_copy,
    unsigned long *, src,
    unsigned long *, dst,
    unsigned long, len)
{
    unsigned long buf[64]; /* Buffer for chunks */
    unsigned long lenleft = len; /* Remaining size */
    unsigned long chunklen = sizeof(buf); /* Initial chunk length */

    /* Loop handling chunk sizes */
    while (lenleft > 0) {
        /* Change chunk length on last chunk */
        if (lenleft < chunklen) chunklen = lenleft;

        /* copy src(user) to buf(kernel) then dst(user) */
        if (copy_from_user(buf, src, chunklen)) return -EFAULT;
        if (copy_to_user(dst, buf, chunklen)) return -EFAULT;

        /* Adjust pointers and remaining size */
        lenleft -= chunklen;
    }
}
```
What do we need?
Ability to express metadata
Ability to express metadata

Ability to associate data with metadata
Ability to express metadata
Ability to associate data with metadata
Incentives to avoid metacrap
Ability to express metadata
Ability to associate data with metadata
Incentives to avoid metacrap
Tooling to facilitate use
Ability to express metadata
Ability to associate data with metadata
Incentives to avoid metacrap
Tooling to facilitate use
Community engagement
Ability to express metadata
Ability to associate data with metadata
Incentives to avoid metacrap
Tooling to facilitate use
Community engagement
Platform initiative
EXIF → ccREL → SPDX
Crap
$$\text{Crap}$$
Reduce redundant work in determining software license information and to facilitate compliance.
SPDX is what turns our crappy source code into valuable contributions. It's the language we need to talk about authorship and licensing through all stages of the supply chain.
Simplicity