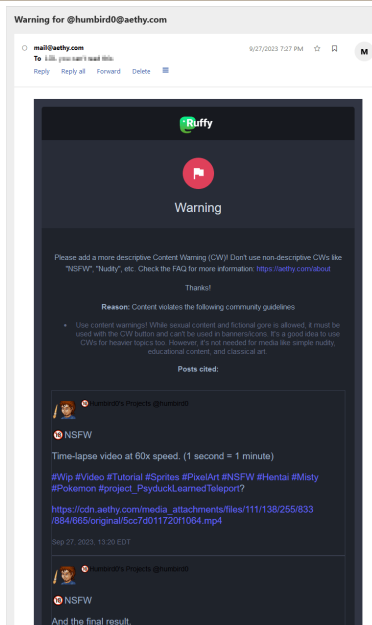


The Challenge

I recently noticed an old email I got from a mastodon server I'm on asking me to be more specific about the "NSFW" content-warnings I had on some of my posts, saying that they should be more specific to describe why each post is NSFW. I happen to agree. But is there a way to automate this? Challenge accepted!



The Pieces Emerge

... so I manually went back and added more details to all of my posts, but this whole thing has gotten me brainstorming about ways to try to automate adding a short but detailed ContentWarning description.

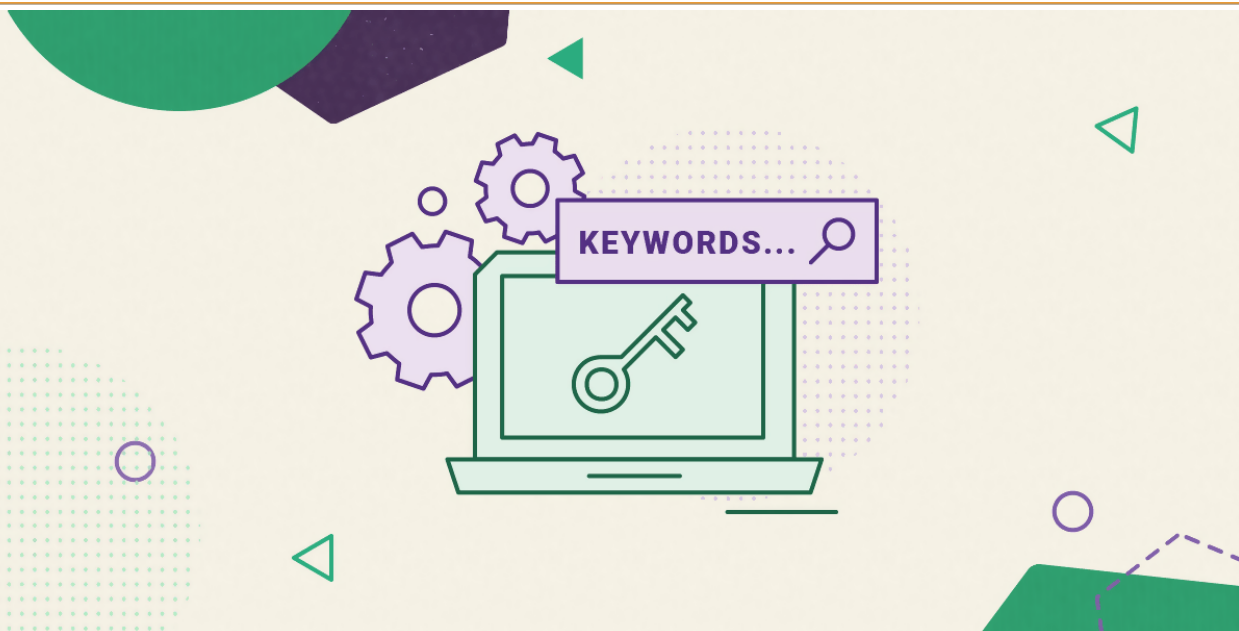


Going back and adding all the details manually has helped me figure out what descriptions I tend to need.

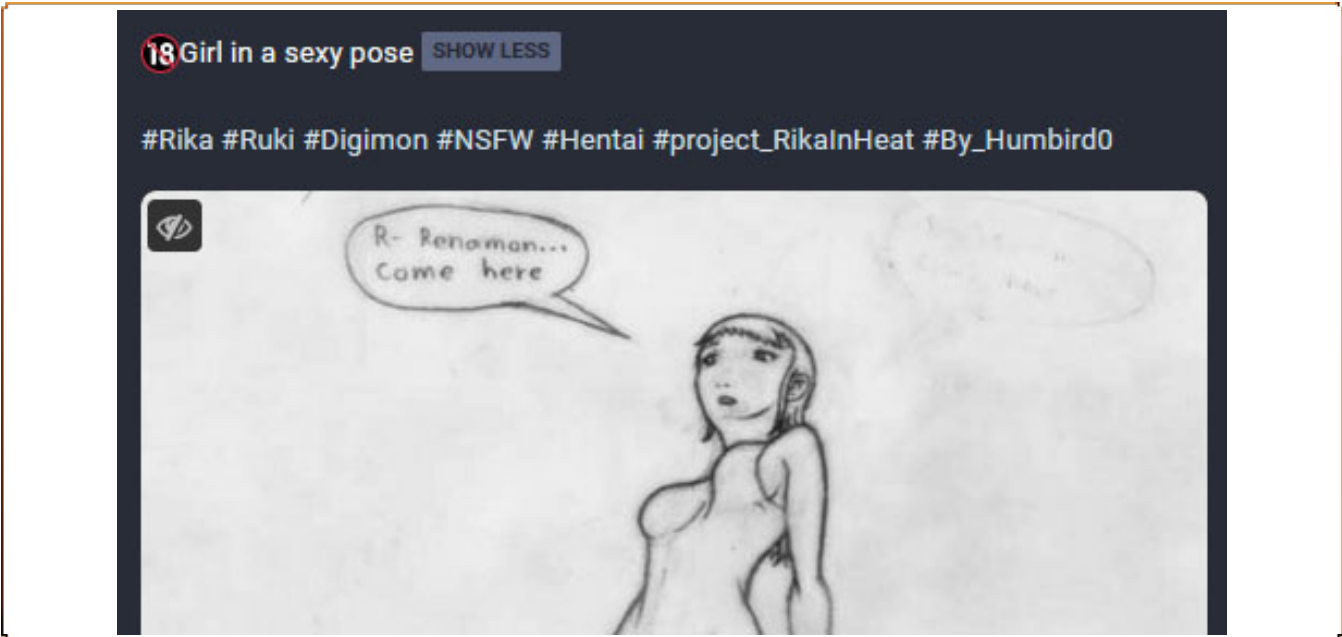
```
- Manually re-write descriptions on Mastodon to figure out the desired results
@Breasts: girl in a sexy outfit
@Girl in a sexy outfit
@Girl in a sexy pose
@Girl in a sexy pose, cum, :furryaffinity: Furry, [DubCon, bondage
@Lesbian sex with a girl
@Lesbian sex with a girl, :furryaffinity: Furry
@Lesbian sex with a girl, :furryaffinity: Furry, [DubCon
@Lesbian sex with a girl, Straight-shots, :furryaffinity: Furry
@Lesbian sex with a girl, :furryaffinity: Furry
@Lesbian sex with a girl, [DubCon
@Lesbian sex with women, :furryaffinity: Furry
@Lesbian sex with women, girl, AgeGap, :furryaffinity: Furry, [DubCon
@Lesbian sex, :furryaffinity: Furry
@Lesbian sex, Straight-shots, :furryaffinity: Furry, [DubCon
@Masturbating girl, :furryaffinity: Furry
@Masturbating woman
@Masturbating woman, :furryaffinity: Furry
@Nude females, sexy poses
@Nude females, sexy poses, :furryaffinity: Furry
@Nude girl
@Nude girl in a sexy pose, :furryaffinity: Furry
@Nude girl in a sexy pose, cum
@Nude girl in a sexy pose, :furryaffinity: Furry
@Nude girl in a sexy pose, [DubCon, bondage
@Nude girl, :furryaffinity: Furry, [DubCon
@Nude woman in a sexy pose
@Nude woman in a sexy pose, :furryaffinity: Furry
@Nude woman in a sexy pose, cum, :furryaffinity: Furry
@Partially nude girl in a sexy pose, :furryaffinity: Furry
@Partially nude woman in a sexy pose
@Sex with a girl, Lesbian sex with a girl, :furryaffinity: Furry, [DubCon
@Sex with a girl, Lesbian sex, Straight-shots, :furryaffinity: Furry, [DubCon
@Sex with a girl, Lesbian sex, :furryaffinity: Furry, [DubCon
@Sex with a girl, Straight-shots, Lesbians, :furryaffinity: Furry, [DubCon
@Sex with a girl, Straight-shots, :furryaffinity: Furry, [DubCon
@Sex with a girl, Werewolves, tentacles, lesbians, :furryaffinity: Furry, [DubCon
@Sex with a girl, :furryaffinity: Furry
@Sex with a girl, :furryaffinity: Furry, tentacles
@Sex with a girl, :furryaffinity: Furry, [DubCon
@Sex with a woman, girl, :furryaffinity: Furry, [DubCon
@Sex with a woman, :furryaffinity: Furry
@Sex with a woman, :furryaffinity: Furry, [DubCon
@Sex with woman, :furryaffinity: Furry, [DubCon, bondage
@Straight-shots
@Straight-shots, :furryaffinity: Furry
@Straight-shots, :furryaffinity: Furry, [DubCon
@Straight-shots, Boy being molested by girls, :furryaffinity: Furry, [DubCon
@Straight-shots, Lesbian sex with a girl
@Straight-shots, Lesbian sex with a girl, :furryaffinity: Furry
@Straight-shots, Lesbian sex with a woman
@Straight-shots, Lesbian sex, :furryaffinity: Furry, [DubCon
@Straight-shots, Sex with a girl, :furryaffinity: Furry
@Straight-shots, [DubCon
@Woman in a sexy outfit, :furryaffinity: Furry
@Woman in a sexy pose
```

The Theory

My hunch is that it should theoretically be possible for a program to accurately guess what the description should be based on the #hashtags. I might need to add a few new tags and a real-time preview of the description to ensure the keywords I've added are enough to adequately describe the post. The goal is to generate the description automatically without requiring extra work from me. I've already been adding keywords, so it's just a matter of adding the *right* ones.



More extreme descriptions should replace milder ones, so “suggestive content” should get replaced by “lesbian sex”. I would want to replace redundant descriptions anyway since screen space is limited.



Maybe a NSFW hashtag could just default to “sexual female nudity” as the description, and then just replace it if a more specific keyword is used? This approach is appealingly elegant, and would probably be adequate for the kind of stuff I post.

I could always just have the option to manually write a description if the program’s guess is way off.

```

- APPROACH -
Add more specific keywords to allow a description to be auto-inferred about why something is NSFW.

- INTENDED RESULT -
Derive a description for each reason why your posts are NSFW.
These are needed for descriptive Content Warnings.
NSFW alone is too vague, so briefly describe HOW something is NSFW.

Refer to "NSFW types.txt" for all the versions that you need.
In general, more explicit types should override milder types.
Maybe the feed editor should guess the NSFW reason(s) each time you add relevant keywords.
If it cannot make a guess, then the keywords are not specific enough.

NSFW should default to "sexual female nudity". A good assumption since it's usually accurate.
But there are also some auto-overrides that should replace this default assumption.
- bestiality = "sex with female" instead.
- StraightShota = "straight sex" instead.
- lesbians = "lesbian sex" instead.

"straight sex" "lesbian sex" "sex with female" may need to be combined.

Show a real-time preview of the description, so I know if I added enough keywords.
This preview should be RED if there's not enough detail.

The answer isn't multiple different NSFW tags.
The solution is multiple keywords. Combined they should be able to describe the content. That's how keywords are supposed to work.

Maybe I can use slash-pairings to shrink the description.
f/f = lesbian sex
f/m = straight shota sex
animal/f = bestiality lolli girl
animal/f = bestiality woman
Shorter but less understood. Not plain english.
Better to sacrifice emoji's to save space instead.
But keep the lb emoji at the beginning, since it implies sexual content.

The description can replace the word "NSFW" since it would be redundant.
"lesbian sex" is inherently "NSFW" so no need to waste space.
BUT... I should keep the under-lb emoji at the beginning as a consistent visual shorthand.

I don't tend to invent new keywords very often so editing a separate master list, and then using spelling auto-correct while adding tags to a post seems ideal.

- KEYWORD RELATIONSHIPS -
parent-child keyword relationships. (renamon adds digimon)
replace keyword relationships. (boy replaces male)
(bestiality replaces male)

```



Then again, it is possible for a warning to be too detailed. After all, seeing the words “dog



too detailed. After all, seeing the words “dog fucking girl” would be shocking for a lot of people. So a milder yet still accurate phrase might be better? Maybe something like “sexual content, animal”

Besides, it might be useful to separate some words out of the description like that. I’ve already been using emoji’s to label some recurring concepts. I think it makes it faster and easier for people to recognize the themes without actually having to read all the words.

Icons also have another surprising benefit. They cross language barriers!

I have often said that every icon should have a text label because there’s no guarantee that people will know what an icon means by itself. But I’m starting to think the opposite is also true.

After all, if you saw this label in a content warning, what does it even mean?

性 獣姦

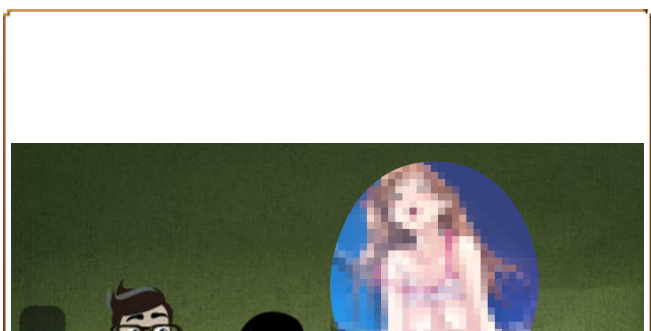
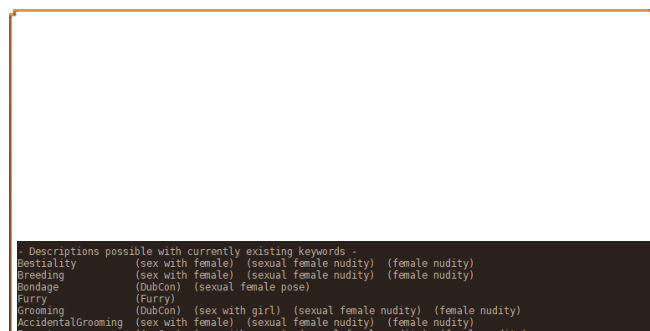
But what about now?

🔞 性 🐾 獣姦

Even if you can’t read the language, you know this has something to do with animals, and it’s naughty.

The Details Emerge

I intend to use my keywords in combination to describe things, but first I need to figure out what descriptions each one will generate individually.



```
Lesbians (lesbian sex) (sex with female) (sexual female nudity) (female nudity)
? Loli (sexually nude girl) OR (girl in sexy outfit)
? LolWithAdult (AgeGap) (sex with girl) (sexual female nudity) (female nudity)
Molest (DubCon) (sex with girl) (sexual female nudity) (female nudity)
StraightShota (AgeGap) (sex with woman) (straight sex) (sexual female nudity) (female nudity)
```



I realized I might need to add a few more keywords to indicate all the descriptions I want.

```
- Descriptions that cannot really be derived from current keywords -
(sexual female pose)
sexypose
(female masturbation)
masturbation
(female nudity)
nude
(female in sexy outfit)
sexyoutfit
(sexual male nudity)
nude male

- Possible new keywords -
sexypose
sexyoutfit
masturbation
male
nude
girl
woman
```



Now let's try re-creating the old descriptions for my projects. Which set of keywords would theoretically create those descriptions? With the new keywords added, this mostly looks possible.

```
Lesbians (lesbian sex) (sex with female) (sexual female nudity) (female nudity)
? Loli (sexually nude girl) OR (girl in sexy outfit)
? LolWithAdult (AgeGap) (sex with girl) (sexual female nudity) (female nudity)
Molest (DubCon) (sex with girl) (sexual female nudity) (female nudity)
StraightShota (AgeGap) (sex with woman) (straight sex) (sexual female nudity) (female nudity)

- Descriptions that cannot really be derived from current keywords -
(sexual female pose)
sexypose
(female masturbation)
masturbation
(female nudity)
nude
(female in sexy outfit)
sexyoutfit
(sexual male nudity)
nude male

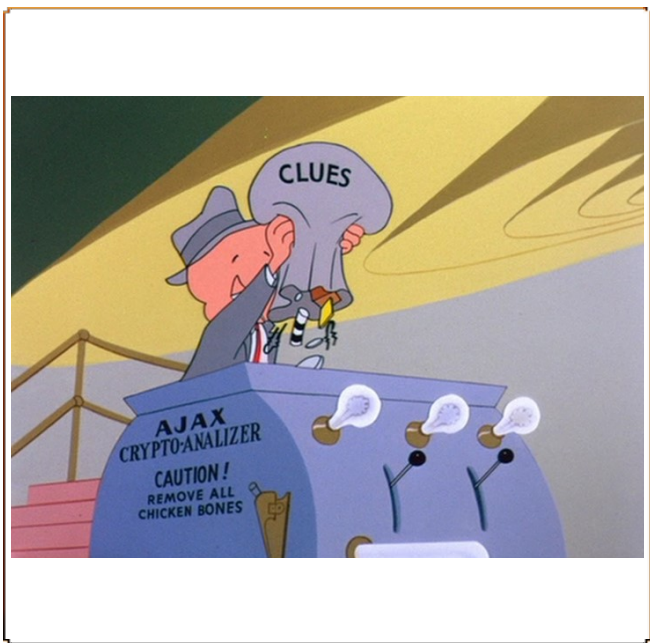
- Possible new keywords -
sexypose
sexyoutfit
masturbation
male
nude
girl
woman
```




```

1 Most likely keyword combinations -
2 girl, bestiality
3 girl, bestiality, dubcon/bondage/hypnosis/molest/grooming
4 girl, bestiality, lesbians, straightshota, dubcon/bondage/hypnosis/molest/grooming
5 girl, lesbians, bestiality, dubcon/bondage/hypnosis/molest/grooming
6 girl, lesbians, dubcon/bondage/hypnosis/molest/grooming
7 girl, sexworkfit
8 girl, sexworkfit, nude
9 girl, sexworkfit
10 girl, sexworkfit, bestiality, dubcon/bondage/hypnosis/molest/grooming
11 girl, straightshota, bestiality, dubcon/bondage/hypnosis/molest/grooming
12 lesbians
13 lesbians, girl
14 lesbians, girl
15 lesbians, girl, bestiality
16 lesbians, girl, bestiality, dubcon/bondage/hypnosis/molest/grooming
17 lesbians, girl, dubcon/bondage/hypnosis/molest/grooming
18 lesbians, girl, dubcon/bondage/hypnosis/molest/grooming
19 lesbians, girl, straightshota
20 lesbians, girl, straightshota, bestiality, dubcon/bondage/hypnosis/molest/grooming
21 lesbians, straightshota, dubcon/bondage/hypnosis/molest/grooming
22 lesbians, woman
23 masturbation, girl
24 masturbation, woman
25 nude, girl
26 nude, girl, bestiality, dubcon/bondage/hypnosis/molest/grooming
27 nude, girl, sexworkfit
28 nude, girl, sexworkfit, bestiality
29 nude, girl, sexworkfit, dubcon/bondage/hypnosis/molest/grooming
30 nude, sexworkfit, girl, sexworkfit
31 nude, sexworkfit, woman, sexworkfit
32 nude, sexworkfit
33 nude, woman, sexworkfit
34 straightshota
35 straightshota, dubcon/bondage/hypnosis/molest/grooming
36 straightshota, girl, bestiality
37 straightshota, lesbians, dubcon/bondage/hypnosis/molest/grooming
38 straightshota, lesbians, girl
39 straightshota, lesbians, woman
40 straightshota, molest
41 woman, bestiality
42 woman, bestiality, bondage
43 woman, bestiality, dubcon/bondage/hypnosis/molest/grooming
44 woman, sexworkfit
45 woman, sexworkfit
46 woman, sexworkfit
47
48 Required keywords -
49 bestiality
50 dubcon/bondage/hypnosis/molest/grooming
51 girl
52 lesbians
53 masturbation
54 nude
55 sexworkfit
56 sexworkfit (Needed to indicate sexual nudity instead of tasteful nudity)
57 straightshota
58 woman

```



Now to plan the actual behavior of my program. Let's list every keyword combination I think I need, the replacement behavior, and which tags should trigger a content warning.

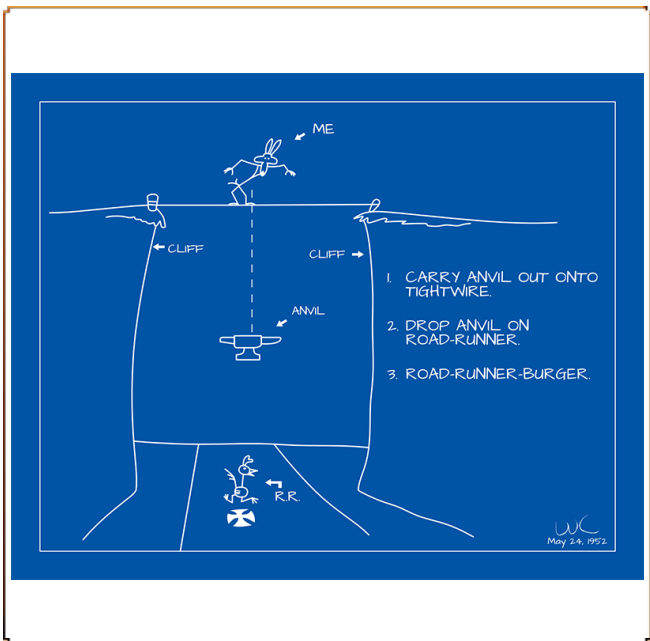
```

1. Description Combos -
lebian, girl
lebian, woman
lebian
girl, sexyoutfit
woman, sexyoutfit
sexyoutfit
girl, sexpose
woman, sexpose
girl, bestiality
woman, bestiality
bestiality
masturbation, girl
masturbation, woman
masturbation
nude, girl
nude, woman
nude
nude, sexpose
sexpose
girl, sexpose
nude, sexyoutfit
nude, sexyoutfit, girl
nude, sexyoutfit, sexpose
nude, sexyoutfit, girl, sexpose
nude, sexyoutfit, lebian
nude, sexyoutfit, bestiality
lebian, girl, bestiality

2. Description replacement priorities
lebian sex with a girl
sex with a girl
sex with a woman
partially nude girl
girl in a sexy outfit
woman in a sexy outfit
girl in a sexy pose
nude girl
nude woman

3. Keyword combos for replaceable descriptions (probably not relevant)
lebian sex with a girl lebian, girl
sex with a girl bestiality, girl
sex with a woman bestiality
partially nude girl nude, sexyoutfit, girl
girl in a sexy pose nude, sexyoutfit, girl
girl in a sexy outfit sexyoutfit, girl
woman in a sexy outfit sexyoutfit
nude girl nude, girl
nude woman nude
girl
girl
woman

```



An optional adjective like “nude”, then the action, followed by “female” or “girl”
And maybe start thinking about how to store this information.

—

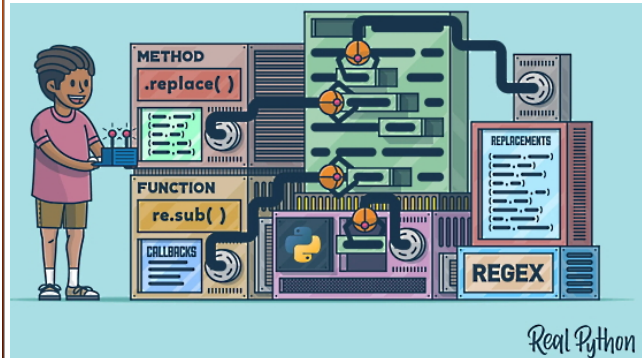
technically be adequate, but let's try to combine or replace things to make it read better.

```
- Template
(description), furry, bestiality, dubcon

- Description template
(partially/nude/masturbating lesbian sex)(female)(pose/outfit)

- Sex template
(lesbian sex)(with a female)
(sex)(with a female)
(partially nude/nude)(masturbating)(female)

- Storing these behaviors
Store keyword combos
Store description priorities
Store which tags trigger NSFW content warning
```



By Jove I've Solved It!



I took a break to pick up some groceries, and while walking I had a brilliant idea. Simple text replacement!

Multiple replacements happening in-series.

I could store a list of rules in the settings and have the program apply them in order. Each rule checks for certain keywords and makes adjustments to the description. This works because each rule is simple and only needs to be aware of its own changes. By doing multiple text-replacements, their effects can combine together. Priority is just a matter of what order these replacement-rules get applied.

```
- I took a walk, and came up with an idea for a string-replacement technique to accomplish all of this.
{
  hasKeywords: [ "word", "word", "word" ],
  replaceText: "",
  withText: ""
}
```

```
* A list of these are stored in the settings and applied in-order. Higher priority items simply occur after low-priority items.
* The result of a previous rule, can be processed by the next rule, so vague descriptions can be replaced with specific descriptions.
* Replace "woman" with "girl" at the end.
* Keep everything lowercase during this process.
```

```
* When "replaceText" is empty, the new string is simply appended to the end.
* !word excludes keywords.
* If output text already exists, and input text is "" empty, then ignore that rule and make no changes.
```

The idea is each rule checks for a set of tags. If they're all present, then the rule applies, which means it searches for a piece of text in the description, and then replaces it with different text.

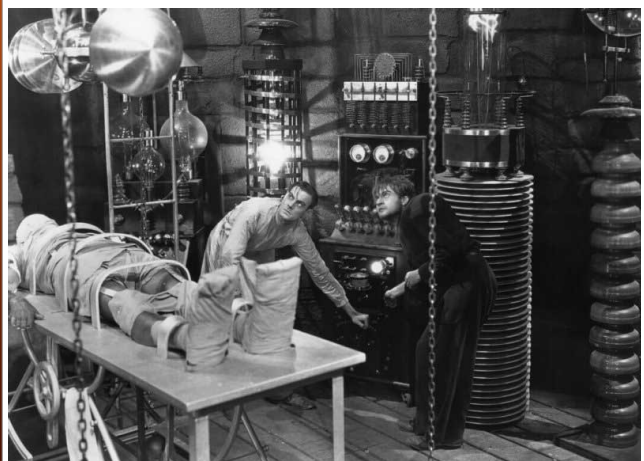
So for example, with the tags “nude, girl, lesbians” ...

1. “lesbians” adds the text “lesbian sex with a woman”
 2. “nude” replaces “woman” with “nude woman”
 3. “girl” replaces “woman” with “girl”
- ... and the result is “lesbian sex with a nude girl”

If there is no text to search for, the rule simply adds text at the end of the description. If that text already exists it won't be added again.

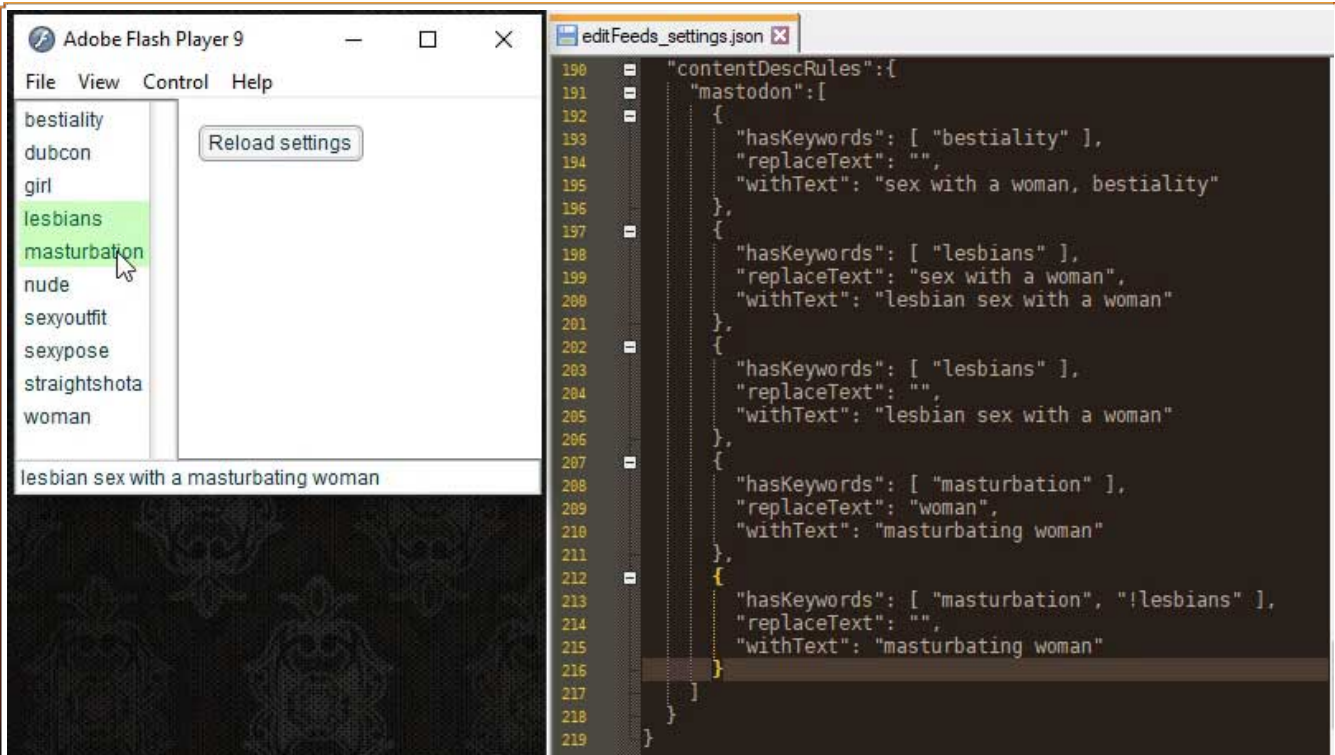
A keyword can be excluded using **!keyword**, meaning a rule only applies if that keyword is *not* being used. This helps prevent two similar descriptions from both being added, and allows some rules to be mutually exclusive. (one rule or the other rule applies, but never both)

You can also make adjustments to the grammar by not requiring any particular keywords, and just looking for certain bits of text to replace.

[illegible]

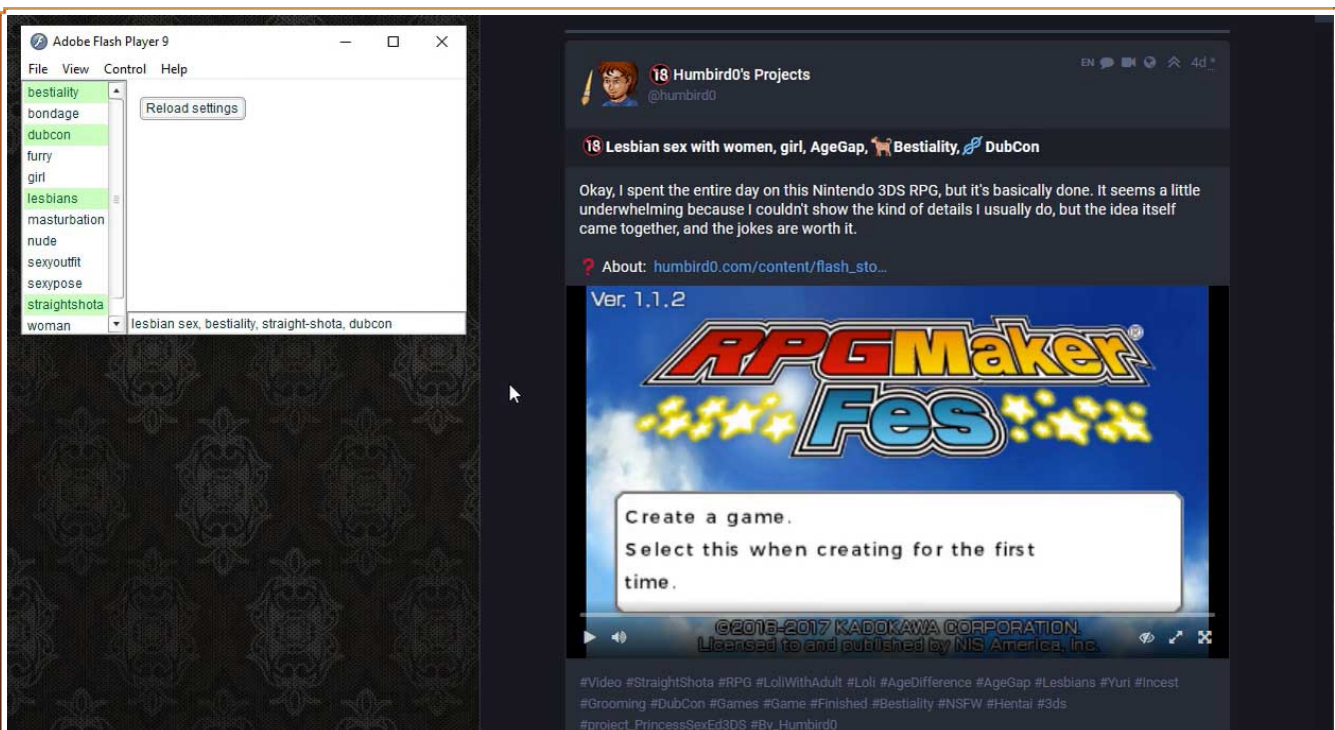
It Lives!!

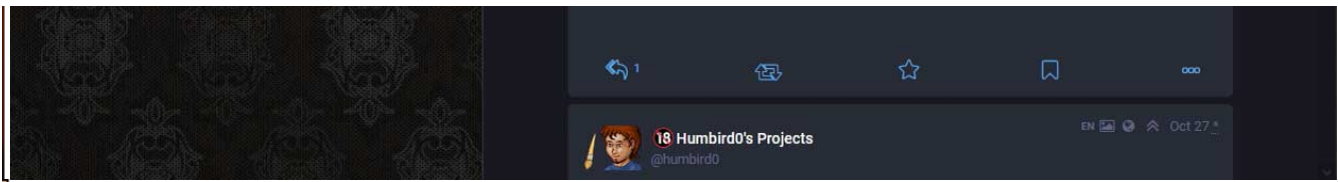
I put together a prototype program to test my idea for an automatic NSFW description writer. And it works!



And the final test. I looked at my existing posts and tried to generate the right descriptions for them using this program. Each one only needed a few keywords. Not all of them were perfect but most of them were.

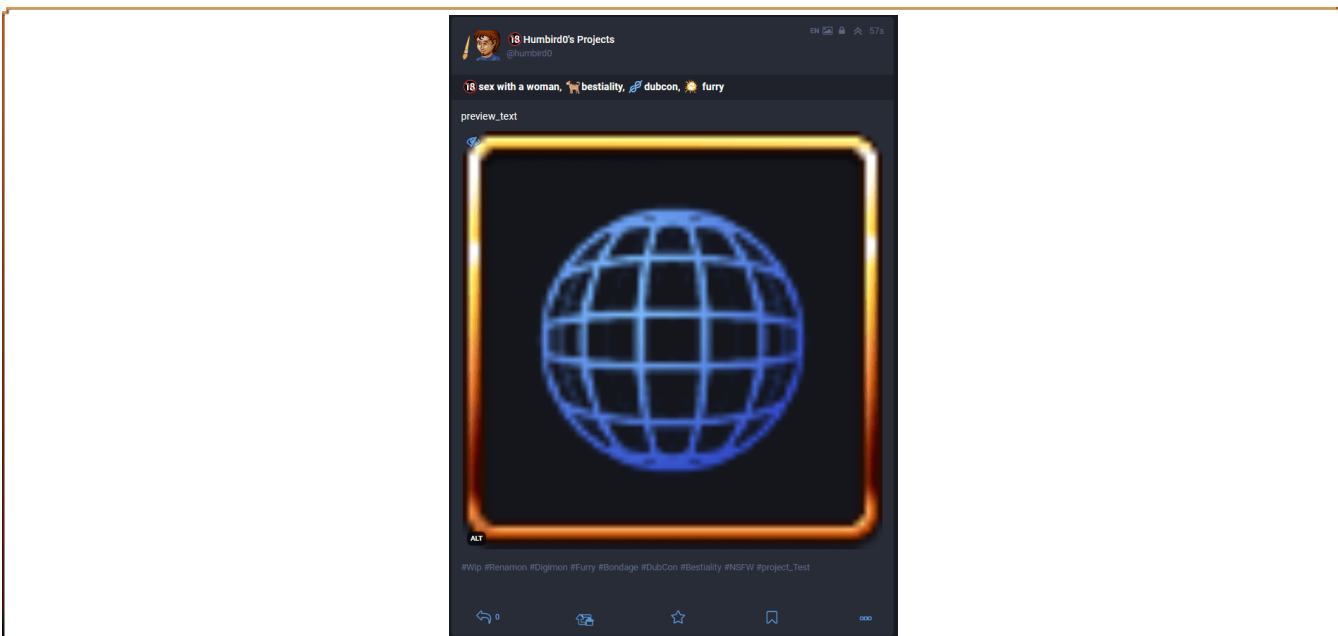
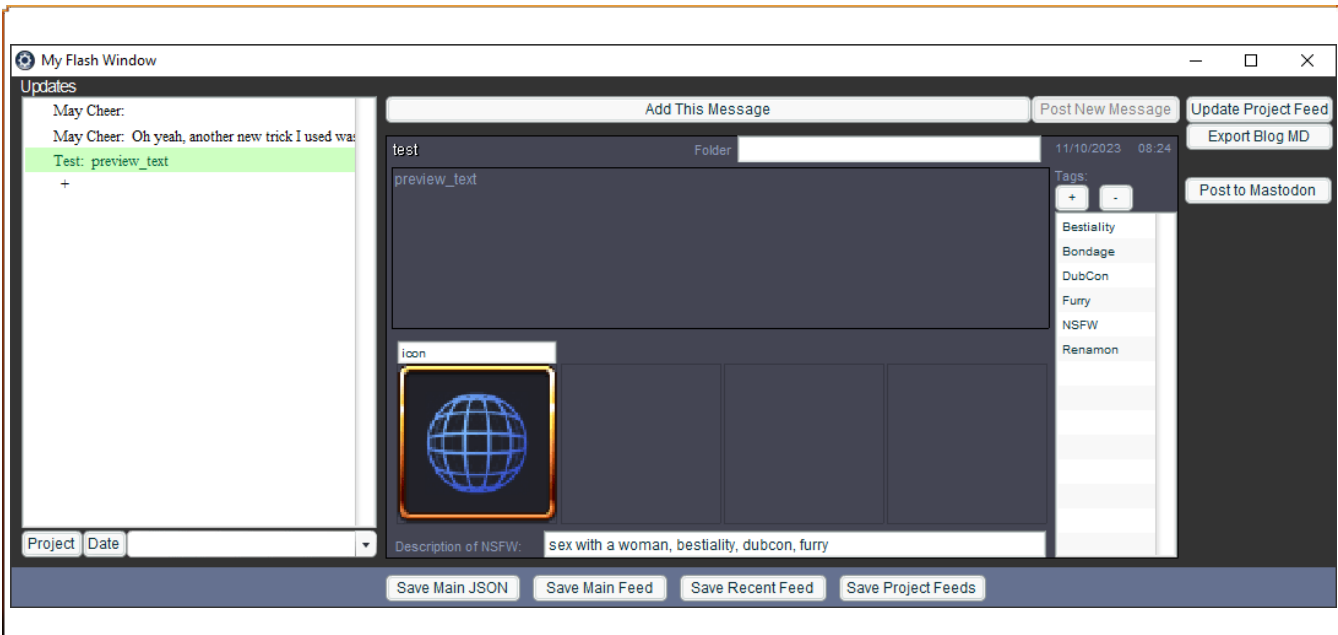
I'd call this a success!





... aaaaaaand done!

Automatic NSFW descriptions added automatically with no extra work. It only took, like, a week of work. Ah the joys of being a programmer.



I probably won't be using this on my website because its custom pairing icons are compact and already have detailed descriptions.



Download JavaScript Code

```

/*
VERSION: 1.1
AUTHOR: Humbird0
LICENSE: Public Domain

DESCRIPTION:
  Creates a human-readable description based on a set of keywords.

USAGE:
  // read selected keywords_ary, and store each item in an object-list {"key1":true,
  "key2":true, "key3":true}
  var tags_obj = {};
  for(var i=0; i<keywords_ary.length; i++){
    tags_obj[ keywords_ary[ i ] ] = true;
  }
  // generate a description
  var description_txt = getDescriptionFromKeywords( tags_obj, rules_ary );
  // display this description
  console.log( description_txt );
*/

/**
 * Creates a human-readable description based on a set of keywords.
 *
 * @param keywords an object-list of keywords to evaluate {key1:true, key2:true,
 * key3:true}
 * @param rules an array of rules that generate and modify the description
 * [{hasKeywords:["key1","key2"], replaceText:"", withText:""}]

```

Here's a live demonstration:

Rules (You can edit this JSON)

[,

```
{
  "hasKeywords": [ "lesbians" ],
  "replaceText": "",
  "withText": "lesbian sex with a woman"
},
{
  "hasKeywords": [ "masturbation" ],
  "replaceText": "woman",
  "withText": "masturbating woman"
},
{
  "hasKeywords": [ "masturbation", "!lesbians" ],
  "replaceText": "",
  "withText": "masturbating woman"
},
{
  "hasKeywords": [ "girl" ],
  "replaceText": "woman",
  "withText": "dwarf"
}
}
```

Tags (Hold CTRL to select multiple items)

lesbians
masturbation
girl

Description

lesbian sex with a masturbating woman

Errors

Download this demonstration

[Download](#)