In [2]:

```
%load_ext autoreload
%autoreload 2

%matplotlib inline
```

In [3]:

```
from transformers import GPT2LMHeadModel, GPT2TokenizerFast
from fastai2.text.all import *
```

In [4]:

```
pretrained_weights = 'gpt2'
tokenizer = GPT2TokenizerFast.from_pretrained(pretrained_weights)
model = GPT2LMHeadModel.from_pretrained(pretrained_weights)
```

In [5]:

```
df = pd.read_csv('data/parenting_subreddit.csv').sample(frac=1)
```

In [6]:

```
df.head()
```

Out[6]:

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In [7]:

```
msk = np.random.rand(len(df)) < 0.9
```

In [8]:

```
train, valid = df[msk], df[~msk]
```

In [9]:

```
len(train), len(valid)
```

Out[9]:

```
(16191, 1747)
```

In [10]:

```
train.head()
```

Out[10]:

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In [11]:

```python
all_texts = np.concatenate([train['FullText'].values, valid['FullText'].values])
```

In [12]:

```python
def tokenize(text):
    toks = tokenizer.tokenize(text)
    return tensor(tokenizer.convert_tokens_to_ids(toks))

tokenized = [tokenize(t) for t in progress_bar(all_texts)]
```

100.00% [17938/17938 00:07<00:00]

In [13]:

```python
class TransformersTokenizer(Transform):
    def __init__(self, tokenizer): self.tokenizer = tokenizer
    def encodes(self, x):
        return x if isinstance(x, Tensor) else tokenize(x)

    def decodes(self, x): return TitledStr(self.tokenizer.decode(x.cpu().numpy()))
```

In [14]:

```python
splits = [list(range_of(train)), list(range(len(train), len(all_texts)))]
```

In [15]:

```python
bs,sl = 8,1024
```

In [16]:

```python
tls = TfmdLists(tokenized, TransformersTokenizer(tokenizer), splits=splits, dl_type=LMDataLoader)
dls = tls.dataloaders(bs=bs, seq_len=sl)
```

In [17]:

```
tls.train[0],tls.valid[0]
```

Out[17]:

```
(tensor([   40,  4236,   351,   428,    13, 13349,   318,  8970,    2
87,  3294,
            1176, 12766,   290,   262,   604,   614,  1468,   318,    54
42,  2035,
             416,  1972,  4633,  3241,   393,  1630,   625,   262,    16
41,    13,
             220,   198,    40,   561,   910,  2245,  1642,   617,    74
45,   257,
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47,   247,
              82,  1016,   284,  4483,    13,  1892, 14720,    12,   128
76,    13,
            1649,   673,   447,   247,    82, 14720,  1568,   262,     9
76,  2057,
            2058,   503,   393,   673, 28364, 21502,  1306,  9799,    24
35,    13,
            1400, 25422,    11,  8788,   475,   285,  1689,   318,    10
16,   284,
             423,  5897,   640,    13,   314,   561,  4781,   262,   141
47,   477,
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36,   475,
            1560,   607,   262, 14147,   925,  2506,   572,  7269,
13,   632,
             447,   247,    82,  3750,    13,   220,   628,  3347,    15
95,   447,
             247,    83,   765,   284,   467,    12,  1949,   257,    11
78,  1661,
             286,   530,  2560, 10589,   351,   607,   475,   645,    27
12,    11,
             645, 10375,    13, 14026,   607,   345,  9658,  1363,     2
84,  1394,
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73,  1595,
             447,   247,    83,   765,   284,   475,   345,   389,     4
77,  1016,
              13,  3244,   618,   673, 12542,   257, 24246,  6582,    88
56,   607,
              12,   345,   290,  3956,   836,   447,   247,    83,     8
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             607,    11,   836,   447,   247,    83,  4123,   393,   307
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52,   564,
             250,    72,   766,   345,   389,  4203,  6507,    14,    99
37,    13,
             775,   460,  1561,   546,   340,   618,   345,  9480,     8
66,   475,
             407,   618,   345,   389, 37722,   588,   428,    13,     4
47,   247,
            3244,  1577,   645,  2252,  3241,    13,   843,   645,   118
10,   393,
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03,    13,
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41,  2035,
            13, 12068,  6948,   290,  6027, 15482,   815,  1037,    4
75,   612,
            481,   307,   257,  3236, 21935, 11173,    13]),
 tensor([ 1135,   423,   257,  4888,  5062,   357,   261,  7133,
11,   407,
          1654,   611, 19286,   423,  1997,  2092, 10091,   326,   33
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          1969,  2460,   389,   287,   290,   356,  1281,  5205,    2
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12,   611,
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           621,   257,  1277,  2420,   393,  3053,    13,  9175,
82,  2279,
           572,  1919,  2056,   475,   661,   356,  1337,   546,    3
89,  7981,
           290,   651, 13779,  5156, 27618,    13]))
```

In [18]:

```
tls.tfms(tls.train.items[0]).shape, tls.tfms(tls.valid.items[0]).shape
```

Out[18]:

```
(torch.Size([317]), torch.Size([76]))
```

In [19]:

```
show_at(tls.train, 0)
```

I agree with this. OP is locked in multiple power struggles and the
4 year old is winning either by getting negative attention or contro
l over the family.
I would say stop making some situations a struggle. Let her decide h
ow much she's going to eat. Not hungry- ok. When she's hungry later
the same food comes out or she waits til next mealtime. No nap, okay
but mama is going to have quiet time. I would remove the tablet all
together- not as punishment she can get back but tell her the tablet
made everyone off schedule. It's gone.

She doesn't want to go- try a few times of one parent staying with h
er but no playing, no interaction. Tell her you stayed home to keep
her safe. Outside would be fun but since you stayed home you have to
work. She has to go- empathize and say you know she doesn't want to
but you are all going. Then when she throws a tantrum ignore her- yo
u and brother don't look at her, don't beg or plead, just have fun t
ogether. You can say once "i see you are feeling sad/mad. We can tal
k about it when you calm down but not when you are behaving like thi
s.' Then give no further attention. And no arguing or explaining- ju
st straight forward statements once or twice.
No punishment after but no rewards during either. Natural consequenc
es and planned ignoring should help but there will be a huge extinct
ion burst.

In [20]:

```
dls.show_batch(max_n=5)
```

text	text_
0 My first worry would be that they were actually going out to meet someone else. (I mean, I would be scared of a creep abducting them as well -- we live in South FL.) It just seems strange that they randomly decided to do this out of nowhere. Along with explaining the dangers of being out late at night alone as a young, unarmed female in general (I'm a grown adult and I carry mace when I walk anywhere alone at night at the very least), I'd also make sure she knows that going out to meet people you're talking to online is a great way to wind up being kidnapped and forced into prostitution or worse. I mean, it's a possibility they've been talking to some catfish online who's actually a 40 year old child rapist or something. I would make sure to address that possibility as well.I understand	first worry would be that they were actually going out to meet someone else. (I mean, I would be scared of a creep abducting them as well -- we live in South FL.) It just seems strange that they randomly decided to do this out of nowhere. Along with explaining the dangers of being out late at night alone as a young, unarmed female in general (I'm a grown adult and I carry mace when I walk anywhere alone at night at the very least), I'd also make sure she knows that going out to meet people you're talking to online is a great way to wind up being kidnapped and forced into prostitution or worse. I mean, it's a possibility they've been talking to some catfish online who's actually a 40 year old child rapist or something. I would make sure to address that possibility as well.I understand
1 thought about how all moms are super heroes and never put themselves first. \n\nThe kids and dads will survive, let us cry it out sometimes, and kick your feet up. Don't wait like my mom to start taking care of yourself.Your **post** or **comment** was removed for violating the rule "No Linking, Promotion, etc.".\n\nSomething can be considered promotional even if you are not asking for money or seeking monetary gain through the sharing of a link. If you were simply sharing a link from YouTube or another internet location the post or comment may be removed because moderators cannot verify the content of every link. (Example; you could link to NSFW material, radical, or generally inappropriate websites, videos, or images that are not appropriate or welcomed by the r/Parenting audience!) This includes but is not limited to sharing the names of YouTube channels, Instagram or Twitter handles, etc.\n\nLinks are	about how all moms are super heroes and never put themselves first. \n\nThe kids and dads will survive, let us cry it out sometimes, and kick your feet up. Don't wait like my mom to start taking care of yourself.Your **post** or **comment** was removed for violating the rule "No Linking, Promotion, etc.".\n\nSomething can be considered promotional even if you are not asking for money or seeking monetary gain through the sharing of a link. If you were simply sharing a link from YouTube or another internet location the post or comment may be removed because moderators cannot verify the content of every link. (Example; you could link to NSFW material, radical, or generally inappropriate websites, videos, or images that are not appropriate or welcomed by the r/Parenting audience!) This includes but is not limited to sharing the names of YouTube channels, Instagram or Twitter handles, etc.\n\nLinks are generally
2 #x200B;\n\nYou've got all the hugs from me. I hope things get better over time. If they don't, maybe periodically check up on whether you might have PTSD.What if your friend's baby had been the one to need the surgery? Would you not think your friend deserved care and support and every possible bit of help s/he could get? \n\nWould you harshly judge your friend like this? Or would you understand that your friend needed love and compassion? You need and deserve that now. Don't treat yourself harshly when you most need love and care.My personal opinion is that, if a parent can logistically avoid it (i.e. they are able to take leave), it's probably best to avoid daycare for absolute newborns, for safety reasons. But beyond that? Daycare is great! It's the precursor to school, and these days many daycares basically blur the line between care and preschool. If my	x200B;\n\nYou've got all the hugs from me. I hope things get better over time. If they don't, maybe periodically check up on whether you might have PTSD.What if your friend's baby had been the one to need the surgery? Would you not think your friend deserved care and support and every possible bit of help s/he could get? \n\nWould you harshly judge your friend like this? Or would you understand that your friend needed love and compassion? You need and deserve that now. Don't treat yourself harshly when you most need love and care.My personal opinion is that, if a parent can logistically avoid it (i.e. they are able to take leave), it's probably best to avoid daycare for absolute newborns, for safety reasons. But beyond that? Daycare is great! It's the precursor to school, and these days many daycares basically blur the line between care and preschool. If my

	text	text_
3	felt the appropriate time to make a dig at me about our non-religious ceremony was on my wedding day. My point with all of this is that your son needs to learn that there is a time and place to stand up for himself. When someone uses the word god as a turn of a phrase he needs to shut the fuck up and realize he's being a douchebag by attacking someone, but every once in a while someone that has a mightier than thou attitude is going to get in your face, at which point he should feel free to tell that person to eat a bag of dicks. The only other time he should feel free to put people in their place is when they are shoving their religion down his throat, which surprise surprise, rarely ever happens in the real world because most	the appropriate time to make a dig at me about our non-religious ceremony was on my wedding day. My point with all of this is that your son needs to learn that there is a time and place to stand up for himself. When someone uses the word god as a turn of a phrase he needs to shut the fuck up and realize he's being a douchebag by attacking someone, but every once in a while someone that has a mightier than thou attitude is going to get in your face, at which point he should feel free to tell that person to eat a bag of dicks. The only other time he should feel free to put people in their place is when they are shoving their religion down his throat, which surprise surprise, rarely ever happens in the real world because most people
4	parts of life, and learn how to do them for himself.\n\nIn the end, outsourcing household labor makes sense for many people, but it's also important to know how to do it for oneself and to have a sense of valuing how much effort and know-how is actually involved.I'm not sure 15-20 minutes of Mariotime or any game are enough to get enough sense of satisfaction as a leisurely activity. He will never go far enough to finish the game, so every single time he will be left with a feeling that he didn't accomplish anything. This is the case with any activity.\n\nI've been gaming since the mid 80's and I would go to the arcades for a couple of hours as a kid. \n\nI mean, If your boy loved reading, would you put a limit on it?No iep. He hasn't been deemed delayed enough to need that, and isn't	of life, and learn how to do them for himself.\n\nIn the end, outsourcing household labor makes sense for many people, but it's also important to know how to do it for oneself and to have a sense of valuing how much effort and know-how is actually involved.I'm not sure 15-20 minutes of Mariotime or any game are enough to get enough sense of satisfaction as a leisurely activity. He will never go far enough to finish the game, so every single time he will be left with a feeling that he didn't accomplish anything. This is the case with any activity.\n\nI've been gaming since the mid 80's and I would go to the arcades for a couple of hours as a kid. \n\nI mean, If your boy loved reading, would you put a limit on it?No iep. He hasn't been deemed delayed enough to need that, and isn't considered

In [21]:

```python
class DropOutput(Callback):
    def after_pred(self): self.learn.pred = self.pred[0]
```

In [22]:

```python
learn = Learner(dls, model, loss_func=CrossEntropyLossFlat(), cbs=[DropOutput],
metrics=Perplexity()).to_fp16()
```
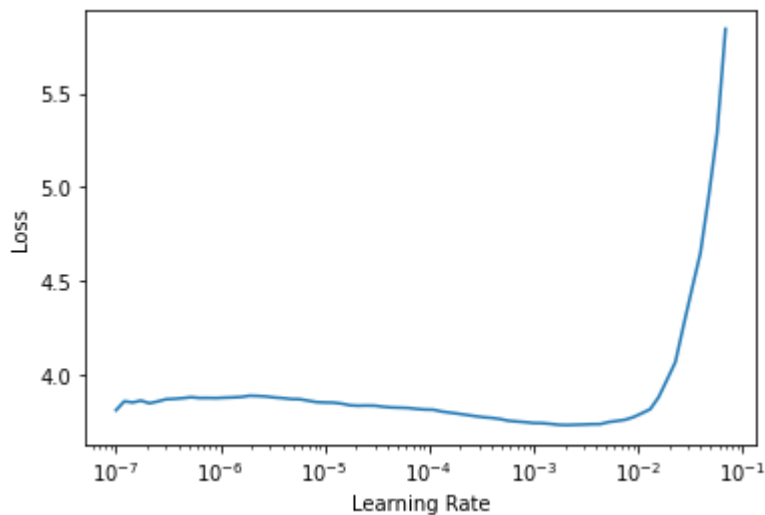
In [103]:

```python
learn.validate()
```

Out[103]:

```
(#2) [3.6359574794769287,37.93815994262695]
```

In [23]:

```
learn.lr_find()
```

Out[23]:

SuggestedLRs(lr_min=0.00831763744354248, lr_steep=0.069183096289634
7)

In [104]:

```
learn.fit_one_cycle(5, 1e-5)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.600132	3.437207	31.099981	02:40
1	3.485461	3.345048	28.361942	02:41
2	3.434732	3.307560	27.318399	02:41
3	3.421830	3.296697	27.023237	02:41
4	3.412171	3.294561	26.965570	02:41

In [105]:

```
learn.fit_one_cycle(5, 1e-6)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.408087	3.294057	26.951977	02:41
1	3.396327	3.291512	26.883469	02:41
2	3.382238	3.289571	26.831339	02:41
3	3.400086	3.288387	26.799597	02:41
4	3.397118	3.288347	26.798523	02:41

In [106]:

```
learn.fit_one_cycle(5, 1e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.394835	3.288347	26.798536	02:40
1	3.397389	3.288331	26.798107	02:41
2	3.397750	3.288252	26.795986	02:41
3	3.398776	3.288177	26.793987	02:41
4	3.383459	3.288142	26.793036	02:41

In [107]:

```
learn.save('model-1');
```

In [108]:

```
learn.fit_one_cycle(10, 1e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.411339	3.288167	26.793699	02:40
1	3.391517	3.288191	26.794344	02:41
2	3.398345	3.288132	26.792767	02:41
3	3.399870	3.288058	26.790773	02:41
4	3.412702	3.287896	26.786444	02:41
5	3.402961	3.287914	26.786917	02:41
6	3.401292	3.287931	26.787382	02:41
7	3.391958	3.287849	26.785185	02:41
8	3.403345	3.287767	26.782982	02:41
9	3.382829	3.287745	26.782389	02:41

In [114]:

```
learn.save('model-2');
```

In [163]:

```
learn.fit_one_cycle(10, 1e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.396042	3.287773	26.783142	02:40
1	3.398403	3.287727	26.781921	02:41
2	3.401138	3.287692	26.780972	02:41
3	3.396570	3.287563	26.777517	02:41
4	3.412286	3.287485	26.775429	02:41
5	3.396644	3.287449	26.774466	02:41
6	3.383486	3.287395	26.773016	02:41
7	3.399561	3.287348	26.771759	02:41
8	3.403770	3.287378	26.772570	02:41
9	3.389529	3.287301	26.770508	02:41

In [164]:

```
learn.fit_one_cycle(10, 5e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.394590	3.287328	26.771223	02:41
1	3.401119	3.286988	26.762135	02:41
2	3.385468	3.285927	26.733744	02:41
3	3.399034	3.284932	26.707159	02:41
4	3.393752	3.283697	26.674215	02:41
5	3.378869	3.282984	26.655201	02:41
6	3.398879	3.282504	26.642410	02:41
7	3.382787	3.282175	26.633640	02:41
8	3.375844	3.281963	26.627983	02:41
9	3.387249	3.282005	26.629112	02:41

In [165]:

```
learn.fit_one_cycle(10, 7e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.397562	3.282029	26.629761	02:40
1	3.396747	3.281456	26.614494	02:41
2	3.380379	3.280000	26.575771	02:41
3	3.381429	3.278282	26.530153	02:41
4	3.385060	3.277199	26.501427	02:41
5	3.383425	3.276060	26.471273	02:41
6	3.365076	3.275433	26.454674	02:41
7	3.373005	3.274994	26.443058	02:41
8	3.376095	3.274879	26.440025	02:41
9	3.379245	3.274874	26.439894	02:41

In [167]:

```
learn.fit_one_cycle(10, 7e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.377869	3.274793	26.437763	02:40
1	3.347931	3.274266	26.423811	02:41
2	3.381707	3.273054	26.391827	02:41
3	3.371114	3.271635	26.354395	02:41
4	3.378345	3.270330	26.320034	02:41
5	3.375267	3.269411	26.295849	02:41
6	3.374763	3.268900	26.282423	02:41
7	3.361595	3.268501	26.271923	02:41
8	3.369839	3.268387	26.268923	02:41
9	3.366898	3.268427	26.269987	02:41

In [168]:

```
learn.save('model-3');
```

In [169]:

```
learn.fit_one_cycle(10, 8e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.361346	3.268528	26.272636	02:41
1	3.365715	3.267995	26.258629	02:42
2	3.359765	3.266341	26.215235	02:41
3	3.368698	3.265182	26.184864	02:41
4	3.348407	3.263826	26.149403	02:41
5	3.371707	3.262986	26.127430	02:41
6	3.347974	3.262457	26.113617	02:41
7	3.362590	3.262154	26.105717	02:41
8	3.360344	3.261947	26.100296	02:41
9	3.354629	3.261966	26.100794	02:41

In [170]:

```
learn.fit_one_cycle(10, 8e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.364626	3.261938	26.100073	02:41
1	3.348447	3.261571	26.090485	02:41
2	3.351034	3.260401	26.059998	02:41
3	3.340900	3.259234	26.029602	02:41
4	3.374264	3.258237	26.003643	02:41
5	3.360592	3.257432	25.982716	02:41
6	3.354672	3.256943	25.970037	02:41
7	3.351990	3.256697	25.963636	02:41
8	3.339177	3.256417	25.956369	02:42
9	3.353565	3.256381	25.955423	02:41

In [171]:

```
learn.save('model-4');
```

In [172]:

```
learn.fit_one_cycle(10, 9e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.359193	3.256419	25.956432	02:41
1	3.344488	3.255802	25.940420	02:42
2	3.353512	3.254923	25.917608	02:41
3	3.345103	3.253713	25.886288	02:41
4	3.361726	3.252815	25.863054	02:41
5	3.347702	3.252122	25.845129	02:41
6	3.331672	3.251516	25.829470	02:41
7	3.344803	3.251283	25.823462	02:41
8	3.332632	3.251211	25.821583	02:41
9	3.337630	3.251142	25.819817	02:41

In [173]:

```
learn.fit_one_cycle(20, 9e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.344004	3.251157	25.820198	02:41
1	3.344499	3.251052	25.817495	02:41
2	3.356210	3.250681	25.807907	02:42
3	3.330890	3.249985	25.789965	02:41
4	3.339331	3.248757	25.758299	02:41
5	3.338305	3.247748	25.732334	02:41
6	3.356620	3.247005	25.713219	02:41
7	3.331331	3.245817	25.682690	02:41
8	3.327583	3.244888	25.658825	02:41
9	3.340700	3.244294	25.643591	02:41
10	3.309745	3.243641	25.626858	02:41
11	3.331356	3.243159	25.614517	02:41
12	3.334727	3.242716	25.603155	02:41
13	3.329920	3.242305	25.592634	02:41
14	3.328145	3.242052	25.586161	02:41
15	3.319617	3.241902	25.582336	02:41
16	3.338701	3.241629	25.575340	02:41
17	3.319748	3.241656	25.576042	02:41
18	3.333304	3.241627	25.575298	02:41
19	3.307549	3.241679	25.576628	02:41

In [174]:

```
learn.fit_one_cycle(20, 9e-7)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.333453	3.241652	25.575951	02:41
1	3.323977	3.241526	25.572720	02:42
2	3.321050	3.241189	25.564087	02:41
3	3.307609	3.240703	25.551668	02:41
4	3.329492	3.239831	25.529419	02:41
5	3.330225	3.239002	25.508265	02:43
6	3.323936	3.237946	25.481337	02:41
7	3.321716	3.237305	25.464993	02:42
8	3.317372	3.236453	25.443310	02:42
9	3.324441	3.236135	25.435236	02:42
10	3.312362	3.235502	25.419123	02:42
11	3.299427	3.234892	25.403631	02:42
12	3.329351	3.234513	25.393997	02:41
13	3.313425	3.234173	25.385370	02:42
14	3.322552	3.234009	25.381207	02:42
15	3.316054	3.233941	25.379471	02:42
16	3.318429	3.233684	25.372948	02:42
17	3.306360	3.233713	25.373693	02:42
18	3.303777	3.233694	25.373209	02:42
19	3.314523	3.233645	25.371969	02:41

In [175]:

```
learn.fit_one_cycle(10, 1e-6)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.311002	3.233671	25.372627	02:41
1	3.321589	3.233398	25.365696	02:42
2	3.305095	3.232738	25.348963	02:42
3	3.307972	3.231675	25.322027	02:42
4	3.302513	3.231235	25.310892	02:42
5	3.308816	3.230557	25.293736	02:42
6	3.315048	3.230395	25.289646	02:42
7	3.297701	3.230154	25.283552	02:42
8	3.304740	3.230075	25.281549	02:42
9	3.279019	3.230107	25.282358	02:42

In [176]:

```
learn.save('model-4');
```

In [177]:

```
learn.fit_one_cycle(10, 1e-6)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.304709	3.230062	25.281237	02:41
1	3.310929	3.229739	25.273071	02:41
2	3.332237	3.229182	25.258982	02:41
3	3.294762	3.228581	25.243814	02:41
4	3.304763	3.227821	25.224623	02:41
5	3.281018	3.227238	25.209929	02:41
6	3.301240	3.227039	25.204918	02:41
7	3.294958	3.226861	25.200428	02:42
8	3.301734	3.226746	25.197533	02:42
9	3.300589	3.226821	25.199430	02:41

In [178]:

```
learn.fit_one_cycle(20, 1e-6)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.307213	3.226789	25.198614	02:41
1	3.285459	3.226677	25.195803	02:41
2	3.305506	3.226501	25.191370	02:41
3	3.278269	3.225940	25.177223	02:41
4	3.284155	3.225359	25.162617	02:41
5	3.288514	3.224879	25.150537	02:42
6	3.310183	3.224145	25.132082	02:41
7	3.289304	3.223611	25.118664	02:41
8	3.283574	3.222954	25.102152	02:41
9	3.285097	3.222373	25.087576	02:41
10	3.281993	3.222052	25.079521	02:42
11	3.292310	3.221684	25.070309	02:41
12	3.287553	3.221499	25.065664	02:41
13	3.298120	3.221189	25.057892	02:42
14	3.279768	3.221009	25.053387	02:41
15	3.271432	3.220974	25.052515	02:41
16	3.286272	3.220778	25.047594	02:42
17	3.287667	3.220834	25.048990	02:41
18	3.294921	3.220778	25.047594	02:41
19	3.250770	3.220708	25.045843	02:41

In [179]:

```
learn.fit_one_cycle(20, 1e-6)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.280277	3.220751	25.046930	02:41
1	3.273198	3.220770	25.047409	02:42
2	3.266643	3.220542	25.041695	02:42
3	3.276887	3.220205	25.033247	02:41
4	3.291261	3.219739	25.021593	02:41
5	3.301517	3.219006	25.003256	02:41
6	3.293753	3.218244	24.984217	02:42
7	3.274562	3.218237	24.984032	02:41
8	3.293840	3.217404	24.963223	02:41
9	3.257061	3.217055	24.954517	02:41
10	3.265439	3.216530	24.941420	02:41
11	3.276407	3.216504	24.940777	02:42
12	3.274383	3.216157	24.932116	02:41
13	3.266241	3.215821	24.923746	02:41
14	3.265275	3.215747	24.921906	02:41
15	3.255025	3.215668	24.919926	02:41
16	3.278737	3.215675	24.920099	02:41
17	3.277075	3.215506	24.915886	02:41
18	3.276824	3.215491	24.915524	02:41
19	3.270650	3.215535	24.916622	02:41

In [180]:

```
learn.fit_one_cycle(20, 1e-6)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.279092	3.215609	24.918470	02:41
1	3.272398	3.215563	24.917318	02:41
2	3.277046	3.215478	24.915197	02:41
3	3.277986	3.214947	24.901966	02:41
4	3.278828	3.214545	24.891958	02:42
5	3.275084	3.214250	24.884617	02:41
6	3.274514	3.213481	24.865486	02:41
7	3.260326	3.213207	24.858692	02:42
8	3.250257	3.212706	24.846231	02:41
9	3.253856	3.212558	24.842560	02:42
10	3.262046	3.212024	24.829288	02:42
11	3.257358	3.211782	24.823294	02:41
12	3.252673	3.211566	24.817926	02:42
13	3.261263	3.211416	24.814211	02:41
14	3.271158	3.211371	24.813086	02:41
15	3.253533	3.211197	24.808756	02:41
16	3.273773	3.211118	24.806805	02:42
17	3.247699	3.211025	24.804485	02:42
18	3.235088	3.211016	24.804279	02:42
19	3.250561	3.211130	24.807106	02:41

In [181]:

```
learn.fit_one_cycle(20, 1e-6)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.253688	3.211121	24.806875	02:41
1	3.276537	3.211017	24.804296	02:42
2	3.237403	3.210890	24.801146	02:41
3	3.258771	3.210535	24.792341	02:42
4	3.245993	3.210101	24.781599	02:41
5	3.233248	3.209744	24.772755	02:42
6	3.265534	3.209281	24.761271	02:42
7	3.245251	3.208905	24.751974	02:41
8	3.253580	3.208458	24.740906	02:41
9	3.262667	3.208378	24.738930	02:41
10	3.241340	3.208077	24.731487	02:42
11	3.249311	3.207625	24.720310	02:42
12	3.254258	3.207338	24.713209	02:42
13	3.246428	3.207300	24.712278	02:41
14	3.244835	3.207199	24.709768	02:41
15	3.238720	3.207115	24.707695	02:41
16	3.244574	3.207064	24.706440	02:42
17	3.249265	3.207046	24.706003	02:41
18	3.253914	3.206996	24.704754	02:41
19	3.230625	3.206965	24.704000	02:41

In [ ]:

```
learn.fit_one_cycle(50, 1e-6)
```

40.00% [20/50 53:55<1:20:52]

epoch	train_loss	valid_loss	perplexity	time
0	3.251850	3.207045	24.705963	02:41
1	3.259125	3.206949	24.703606	02:42
2	3.260146	3.206988	24.704554	02:42
3	3.250089	3.207007	24.705032	02:42
4	3.249824	3.206880	24.701893	02:42
5	3.245622	3.206746	24.698595	02:42
6	3.233870	3.206560	24.693985	02:42
7	3.241349	3.206227	24.685778	02:42
8	3.241021	3.206107	24.682806	02:41
9	3.251788	3.205506	24.667986	02:41
10	3.262246	3.205277	24.662323	02:41
11	3.252139	3.204947	24.654200	02:41
12	3.250283	3.204536	24.644056	02:41
13	3.221692	3.204332	24.639044	02:41
14	3.239469	3.203869	24.627626	02:41
15	3.223647	3.203420	24.616568	02:42
16	3.241687	3.203063	24.607794	02:41
17	3.220830	3.202740	24.599852	02:41
18	3.237867	3.202475	24.593313	02:41
19	3.245492	3.201863	24.578272	02:41

81.16% [280/345 02:06<00:29 3.2491]

In [193]:

```python
learn.fit_one_cycle(50, 1e-6)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.221420	3.198558	24.497183	02:41
1	3.221988	3.198457	24.494694	02:41
2	3.221648	3.198438	24.494232	02:41
3	3.221699	3.198463	24.494846	02:41
4	3.219608	3.198393	24.493141	02:41
5	3.203325	3.198288	24.490572	02:41
6	3.234057	3.198076	24.485369	02:41
7	3.227002	3.198183	24.488003	02:41
8	3.217392	3.197776	24.478033	02:41
9	3.210645	3.197471	24.470564	02:41
10	3.220142	3.197042	24.460070	02:41
11	3.221480	3.196952	24.457878	02:41
12	3.203570	3.196735	24.452560	02:41
13	3.218466	3.196360	24.443403	02:41
14	3.219149	3.195964	24.433725	02:41
15	3.215327	3.195659	24.426264	02:41
16	3.221392	3.195589	24.424557	02:41
17	3.221973	3.195375	24.419334	02:41
18	3.220426	3.194899	24.407705	02:41
19	3.217264	3.194832	24.406069	02:41
20	3.212384	3.194566	24.399588	02:41
21	3.216383	3.194093	24.388044	02:41
22	3.222887	3.194039	24.386717	02:42
23	3.206660	3.193858	24.382305	02:41
24	3.203459	3.193669	24.377707	02:41
25	3.218594	3.193464	24.372715	02:41
26	3.198786	3.193329	24.369421	02:41
27	3.193951	3.193143	24.364883	02:41
28	3.201790	3.192931	24.359732	02:41
29	3.214892	3.192803	24.356607	02:41
30	3.201589	3.192819	24.357002	02:42
31	3.188651	3.192445	24.347881	02:41
32	3.206092	3.192458	24.348200	02:41
33	3.211416	3.192256	24.343294	02:41
34	3.204124	3.192123	24.340038	02:41
35	3.199606	3.192256	24.343288	02:41
36	3.197774	3.192116	24.339876	02:41
37	3.193405	3.192040	24.338020	02:41
38	3.200753	3.191997	24.336975	02:41

epoch	train_loss	valid_loss	perplexity	time
39	3.201795	3.191894	24.334480	02:41
40	3.186685	3.191951	24.335855	02:41
41	3.205967	3.191905	24.334730	02:41
42	3.201546	3.191829	24.332891	02:41
43	3.208277	3.191861	24.333668	02:41
44	3.208116	3.191929	24.335316	02:41
45	3.214564	3.191866	24.333790	02:41
46	3.215283	3.191847	24.333332	02:41
47	3.211462	3.191847	24.333326	02:41
48	3.193266	3.191839	24.333134	02:41
49	3.187358	3.191836	24.333059	02:41

In [194]:

```
learn.fit_one_cycle(50, 1e-6)
```

epoch	train_loss	valid_loss	perplexity	time
0	3.203010	3.191864	24.333750	02:40
1	3.203974	3.191899	24.334597	02:41
2	3.194906	3.191874	24.333982	02:41
3	3.191975	3.191796	24.332079	02:41
4	3.195989	3.191788	24.331905	02:41
5	3.205439	3.191722	24.330286	02:41
6	3.211607	3.191658	24.328737	02:41
7	3.193810	3.191383	24.322044	02:41
8	3.196232	3.191276	24.319435	02:41
9	3.212830	3.191178	24.317064	02:41
10	3.200950	3.190899	24.310270	02:41
11	3.193713	3.190710	24.305679	02:41
12	3.206602	3.190359	24.297140	02:41
13	3.202214	3.190224	24.293867	02:41
14	3.189250	3.189985	24.288071	02:41
15	3.176677	3.189722	24.281677	02:41
16	3.174729	3.189545	24.277388	02:41
17	3.193599	3.189404	24.273968	02:41
18	3.196981	3.189066	24.265751	02:41
19	3.186703	3.189084	24.266186	02:41
20	3.211815	3.188887	24.261400	02:41
21	3.197862	3.188378	24.249060	02:41
22	3.183334	3.188437	24.250494	02:41
23	3.201367	3.188619	24.254900	02:41
24	3.160768	3.187884	24.237083	02:41
25	3.178176	3.187851	24.236292	02:41
26	3.204988	3.187711	24.232883	02:41
27	3.191888	3.187652	24.231457	02:41
28	3.189553	3.187351	24.224184	02:41
29	3.194831	3.187566	24.229387	02:41
30	3.179550	3.187315	24.223301	02:41
31	3.184203	3.187094	24.217958	02:41
32	3.166022	3.187087	24.217779	02:41
33	3.176715	3.187052	24.216936	02:41
34	3.192569	3.186890	24.213011	02:41
35	3.178200	3.186868	24.212486	02:41
36	3.189891	3.186976	24.215090	02:41
37	3.181038	3.186853	24.212122	02:41
38	3.183332	3.186916	24.213629	02:41

epoch	train_loss	valid_loss	perplexity	time
39	3.190716	3.186692	24.208220	02:41
40	3.168664	3.186747	24.209536	02:41
41	3.181713	3.186731	24.209148	02:41
42	3.188032	3.186658	24.207394	02:41
43	3.181243	3.186683	24.207989	02:41
44	3.178967	3.186619	24.206448	02:41
45	3.183472	3.186639	24.206938	02:41
46	3.190197	3.186683	24.208006	02:41
47	3.201732	3.186731	24.209154	02:41
48	3.187662	3.186760	24.209854	02:41
49	3.167676	3.186688	24.208122	02:41

In [195]:

```
learn.save('model-5');
```

In [23]:

```
learn.load('model-5');
```

In [24]:

```
learn.validate()
```

Out[24]:

```
(#2) [3.127723455429077,22.821964263916016]
```

In [109]:

```
valid.head(1)
```

Out[109]:

	Link	FullText	Date
10675	/r/Parenting/comments/ck4yaz/teens_and_hate_speech/evk8mnk/	15 is a great age to have the talk about expectations and peer pressure, because he is or will be starting to see himself as an adult.\n\nOthers may be doing something, but you expect him to do better. He shouldn't do something wrong just because his friends also do it. If anything, he should have the capacity to speak up and let his friends know it's not ok.\n\n"You're growing up, and you need to be your own man."	2019-07-31

In [25]:

```
prompt = "kids are"
```

In [41]:

```python
def generate_texts(prompt):
    prompt_ids = tokenizer.encode(prompt)
    inp = tensor(prompt_ids)[None].cuda()
    inp.shape
    preds = learn.model.generate(inp, max_length=100, repetition_penalty=10)
    return tokenizer.decode(preds[0].cpu().numpy())
```

In [42]:

```python
generate_texts(prompt)
```

Using pad_token, but it is not set yet.
Setting `pad_token_id` to 50256 (first `eos_token_id`) to generate s
equence

Out[42]:

'kids are not allowed to be in the room. \n\nI would also suggest th
at you talk with your husband about how he feels and what his feelin
gs will look like when they come up for discussion, especially if it
\'s a family situation or something else related than just being ups
et at him (like having an issue). If this is happening again then I
\'d say "you need some time off" so as long she doesn\'t get angry/c
ry over things don't happen anymore...but maybe'

In [43]:

```python
generate_texts("family is")
```

Using pad_token, but it is not set yet.
Setting `pad_token_id` to 50256 (first `eos_token_id`) to generate s
equence

Out[43]:

'family is a big deal. \n\nI\'m not saying you should be ashamed of
your child, but I think it\'s important to talk about the feelings t
hat come with being an adult and how they can impact others in ways
we don\'t yet understand or have control over (like when someone tel
ls us "you\'re going to die" because our parents told them). It soun
ds like she may feel more comfortable talking openly than hiding her
emotions from me as well - so maybe this will help?My daughter'

In [44]:

```
generate_texts("reddit is")
```

Using pad_token, but it is not set yet.
Setting `pad_token_id` to 50256 (first `eos_token_id`) to generate s
equence

Out[44]:

'reddit is a place for people to vent their frustrations and concern
s. If you feel your post/comment does not meet the removal criteriaa
nd was removed in error, please check out r /r/"Parenting."\n\nModer
ators rely on users of this community to help illuminate posts & com
ments that do NOT comply with our code standards — see how we can im
prove! (Discuss posts specifically looking at humor!) This includes
but isn\'t limited TO: • Post seeking contributions from YouTube sub
scribers;\n"'

In [45]:

```
generate_texts("my child is")
```

Using pad_token, but it is not set yet.
Setting `pad_token_id` to 50256 (first `eos_token_id`) to generate s
equence

Out[45]:

'my child is a little older than me and I\'m not sure how to help he
r. \n\nI would say that you should talk with your husband about what
he thinks of the situation, but also make it clear why this happened
(and if there\'s any other reason for him or his wife being upset).
If she feels like they\'re getting away from their son because someo
ne else has done something wrong then maybe try talking directly bac
k at them instead? Maybe even tell yourself "if my kid wasnt'

In [46]:

```
generate_texts("parents are")
```

Using pad_token, but it is not set yet.
Setting `pad_token_id` to 50256 (first `eos_token_id`) to generate s
equence

Out[46]:

'parents are not allowed to have a child with them. \n\nI would also
suggest that you talk about your concerns and how they relate, as we
ll the consequences of having one in their life (and possibly even m
ore so if it\'s an accident). If she is going through this right now
or has been around for awhile then I think there should be some sort
"parenting" thing done at all times before any kind parent can come
into contact again - but don\'t make her feel like someone else'

In [ ]: