Performance Evaluation on Human-Machine Teaming Approaches

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Abstract

Translation has been modeled as a multiple-phase process where pre-editing analyses guide meaning transfer and interlingual restructure. Present-day machine translation (MT) tools provide no means for source text analyses. Generative AI with Large language modeling (LLM), equipped with prompt engineering and fine-tuning capabilities, can enable augmented MT solutions by explicitly including AI or human generated analyses/instruction, humanand/or generated reference translation as preediting or interactive inputs. Using an English-to-Chinese translation piece that had been carefully studied during a translator slam event, Fourt types of translation outputs on 20 text segments evaluated: were human-generated translation, Google Translate MT, instruction-augmented MT using GPT4-LLM, and Human-Machine-Teaming (HMT)-augmented translation based on both human reference translation and instruction using GPT4-LLM. While human translation had the best performance, both augmented MT approaches performed better than unaugmented MT. The HMT-augmented MT performed better than instructionaugmented MT because it combined the guidance and knowledge provided by both human reference translation and style instruction. However, since it is unrealistic to generate sentence-by-sentence human translation as MT input, better approaches to HMT-augmented MT need to be invented. The evaluation showed that generative AI with LLM can enable new MT workflow facilitating pre-editing analyses and interactive restructuring and achieving better performance.

1 Introduction

The core of machine translation (MT) is the automation of the full translation process (Hutchins 2009). The degree of MT automation can vary: fully automatic machine translation, human-aided machine translation, or machineaided human translation (Sager 1994). Nearly all MT systems currently in use rely on the assistance of human operators. Human involvement can come in three different modes: (1) pre-editing the source text, (2) interaction between system and human operator, or (3) post-editing. The dominant MT work model at present days is to use human translators as post-editors (correction/revision) on MT output. Dominant MT tools (e.g., Google Translate, Bing Microsoft Translator, or DeepL) convert text from a source language into an equivalent passage in the target language, but they do not provide any pre-editing analysis results as

guiding instructions or any interaction mechanisms between the human and MT system.

Translation has been modeled as a multiplephase process where pre-editing analyses guide meaning transfer and interlingual restructure. There are many differing theories that conceptualize different phases of the translation process.

Nida's translation theory of dynamic equivalence (Nida 1964, 1974, 2006; Kim 2015) divides the translation process into three phases (illustrated in Figure): (1) analysis (based on the source language characteristics), (2) transfer (between the source and target language), and (3) restructuring (based on the target language characteristics). The analysis phase reflects the understanding and interpretation that can be used to guide the transfer and restructuring phases.

Present-day MT tools do not provide explicit



Figure 1: Nida's translation model with multiple phases: analysis, transfer, and restructuring.

means for users to analyze the source language, which would then be used to guide the transferring and restructuring process.

Another translation process model (Pym, 2011) also has three phases: (1) recognize the problem (how to say X in target language?), (2) generate many alternative solutions, (3) select one solution (out of many).

Present-day MT tools do not provide explicit alternative solutions and let users select a solution; nor do they provide explanations as to why the final output it provides is more accurate than the alternatives.

(Austermuhl, 2001) pointed out that a transfer architecture for MT included three separate stages: (1) analysis, (2) transfer, (3) synthesis/generation. In addition, it stated that pre-editing and interaction with the MT system before and during the MT process could be strategies to improve MT quality outside of post-editing.



Figure 2: The story was translated by a human translator, Google Translate (un-augmented MT), instruction-augmented, and HMT-augmented MT using LLM-GPT4.

Present-day MT tools do not provide mechanisms for pre-editing and human-machine interaction during the MT process.

In (Carl, 2011), the human translation process was studied using eye tracking. In the end, three phases were identified: (1) preparation phase during which initial document reading was performed and translation strategy was chosen. (2) drafting phase. (3) revision phase. Furthermore, different translators were found to have different styles: large versus small context planners (who read more or less content before they made strategy choices or started to translate), backtracker versus non-backtrackers (who did or did not frequently go back to revise), and various orientation styles: systematic, skimming, or head start without orientation.

Present-day MT tools do not provide mechanisms to support these translation style variations.

Following the post-editing only work model, since human experts cannot provide pre-editing and interactive guidance to MT system through the many mechanisms described above, achieving high-quality translations is challenging and timeconsuming, leading to inaccurate or unnatural results.

The solution to the aforementioned limiting factors could come in the form of Generative Large Language Models (LLM) such as GPT4, which could be the game changer that enables all or most mechanisms described above (Table 1).

GPT models can achieve very competitive highquality translations for high resource languages, even though they were not originally designed to be used as MT tools. One of the unique features of GPT models is the prompting engineering (Zhou, 2022), where precise and context-specific instructions or queries—known as prompts—can be crafted to elicit desired responses from language models. Prompts guide the model and help shape its behavior and output. In this study, we focus on evaluating the approach to provide pre-editing or interactive guidance to MT using prompting engineering. Unlike "traditional" MT tools, GPT4 based augmented MT can fully reflect pre-editing preparation, recognition, analyses, and humanmachine interaction by explicitly including AI and human-generated text analyses and humangenerated guidance or translation in the prompt.

Phases of Translation process models	Generative AI LLM features supporting pre-editing and human-machine interaction
Pre-editing \rightarrow Interaction	- Prompting engineering (e.g. OpenAI/GPT or Google
→Post-editing (Sager 1994)	Bard) can represent analysis results, transfer
Analysis → Transfer	guidelines/strategies using instructions and few-shot
→Restructure	examples.
(Nida 1964, 1974, 2006; Kim 2015)	- Multiple drafts that are distinct from each other can
Recognition→Generation	be generated to support multi-version selection and
\rightarrow Selection (Pym 2011)	HMT (e.g., Google BARD alternative drafts feature).
Analysis→Transfer	- LLM-based Chatbox (e.g. OpenAI/BARD) enables
→Synthesis/Generation	human-machine interaction.
(Austermuhl, 2001)	- Larger and complex context can be addressed
Preparation → Drafting	through LLM finetuning.
\rightarrow Revision (Carl 2011)	

Table 1: Phases in different translation process models can be implemented through pre-editing and interactive components that can be enabled by various features of generative AI LLMs.

Using an English-to-Chinese translation piece that had been carefully analyzed and discussed during a translator slam event, a Human-generated Chinese translation of an English story (https://www.thecut.com/2020/03/bookexcerpt-samantha-irbys-wow-no-thankyou.html) was compared with multiple Chinese translations generated using GPT4 and related plugin software (illustrated in Figure) following

- the steps below:
 Writing styles of the original English story were analyzed using GPT4 (ChatGPT Plus) and a GPT4 plugin (ChatGPT Plus Link Reader).
 - 2) The story was translated from English to Chinese with the additional writing style instructions (derived in step 1) using GPT4 (ChatGPT Plus). This MT version was named as the instruction-augmented MT.
 - 3) The story was translated from English to Chinese using both human-generated translation (as a reference translation) and using the additional writing style instructions (derived in step 1) in the prompt text using GPT4 (ChatGPT Plus). This MT version was named as the human-machine teaming (HMT) augmented MT.

Using 20 translation instances, two human translators assessed the pros and cons of the two augmented MT approaches using GPT4 over human-generated translation and an un-augmented MT using Google Translate.

2 Human Translation Slam Event

Translation slam events have been organized by the American Translators Associations (ATA) to have two translators go head-to-head to display their works on the same translation source text so the two translators have an opportunity to glimpse each other's work on the same content. Audiences can also hear their discussions and comments during the event.

In June 2023, an English-to-Chinese Translation Slam was hosted by ATA's Chinese Language Division (CLD) featuring two professional translators: Sijin Xian and Arthur Wan. They competed to translate a challenging English text into Chinese and compare notes on their techniques and choices during the discussion session (see the original English text and a compilation of the two translations in the appendix). Their comments on each other's work were recorded to discover how each translator analyzes, translates, and revises their translations. Based on the detailed discussion during the slam event, Sijin's translation focused User (Prompt)

Please read the story at https://www.thecut.com/2020/03/book-excerpt-samantha-irbys-wow-nothank-you.html and make a list of the author's writing style.

ChatGPT (Used Link Reader)

Based on the excerpt from Samantha Irby's essay collection "Wow, No Thank You.", here are some characteristics of her writing style:

1. Humorous and Self-deprecating: Irby often uses humor and self-deprecation to engage her readers. She makes fun of herself and her situations, which adds a light-hearted tone.

Conversational Tone: Her writing style is very conversational, feeling personal and relatable.
 Vivid Descriptions: Irby uses vivid and detailed descriptions to paint a clear picture of her

experiences. This helps to immerse the reader in her stories.

4. **Casual Language and Slang**: She uses casual language, slang, and colloquialisms, which contributes to the conversational and informal tone of her writing.

5. Honesty and Authenticity: Irby's writing is characterized by its honesty and authenticity. She doesn't shy away from discussing personal and sometimes uncomfortable topics.

6. Anecdotes: She uses anecdotes to illustrate points and make writing more relatable.

7. **Exaggeration for Effect**: Irby often uses exaggeration to emphasize her points.

8. Direct Address: She frequently addresses the reader directly, which helps to establish a connection between her and the reader.

9. Use of Rhetorical Questions: Irby often uses rhetorical questions to engage the reader and encourage them to think more deeply about the topics she's discussing.

10. Pop Culture References: She incorporates pop culture references into her writing, which can make her work feel more current and relatable to a wide audience.

Table 2: writing style analysis report generated by GPT4 Link Reader plug-in. The bolded entries are styles that were identified by both humans and GPT4 Link Reader plug-in.

The prompt for instruction-augmented MT	The prompt for HMT-augmented MT
Translate the following sentences to Chinese	Revise the following Chinese translation
reflecting the following writing styles (if	reflecting the following writing styles (if
applicable): humorous, self-deprecating,	applicable): humorous and self-deprecating,
conversational tone, vivid description, casual	conversational tone, vivid description,
language and slang, honesty and authenticity, use	casual language and slang, honesty and
of anecdotes, exaggeration for effect, direct	authenticity,
address, use of rhetorical questions, and pop	
culture reference.	Original English:
Original English:	Chinese translation (by the human
	translator) is:
The full translation to Chinese is:	
(GPT4 output)	The Revised Chinese translation is:
	(GPT4 output)

Table 3: Prompts for instruction-augmented and HMT-augmented MT using GPT4.

more on style transfer between languages while Arthur's translation focused more on word selection. We selected Sijin's version to represent human translation because the augmented MTs also orient towards style transfer through instruction and human inputs.

3 Writing style analysis by human experts and GPT4

During the translation slam event, the two human translators discussed the writing style of the English writer and their approaches to reflect related styles in their Chinese translations. In addition, ChatGPT plus's Link Reader plugin was used in the prompt text to generate a style analysis report for the original English story.

3.1 Writing styles recognized by human experts

During the slam event, the two human translators recognized the following writing style elements in the English version of the original story:

- Confessional writing style: more focus on shocking or even irritating the reader instead of presenting the facts objectively.
- (2) Informal colloquialisms, not afraid of using dirty words to express emotion.
- (3) Well-selected specific subtle details that trigger sympathetic responses from readers.
- (4) Reflective of the unique personality of the author (e.g., focus and amplify on small details).
- (5) The author also had worked as a professional narrator before; therefore, the conversational style is unique: with fast paced talking firing off phrases like a "machine gun".
- (6) ...

3.2 Writing styles recognized by GPT4

ChatGPT Plus' Link Reader plugin was used to generate a style analysis report on the story (Table 2). It can be seen that the styles detected by LLM-GPT4 included many entries that were detected by human translators as well: casual language and slang versus informal colloquialisms, vivid description versus unique effects achieved by well-selected subtle words/phrases, exaggeration for effect versus confessional writing style. The GPT4-generated report also includes several other writing styles that were not mentioned by human translators.

4 Comparison of Human Translation, Google Translate MT, Instruction-Augmented MT and HMT-Augmented MT

The purpose of this section is to compare translation results generated by:

- (1) MT by Google Translate.
- (2) a human translator.

(3) instruction-augmented MT using LLM-GPT4 prompt with style instruction.

(4) HMT-augmented MT using LLM-GPT4 prompts with style instruction and human-generated reference translation.

The discussion by the two human professional translators during the translation slam event indicated that while one of them focused more on style transfer between languages, the other focused more on word choice. The translation produced by the translator who had focused more on style transfer is chosen to represent human translation as described in (2) and to serve as the humangenerated reference translation as described in (4).

4.1 Prompts for augmented MT using GPT4

Table 3 lists the two prompts for augmented MT.

4.2 Evaluator qualifications and guidelines

Two evaluators were selected to evaluate the four versions of translation. Both evaluators are American Translators Association (ATA) certified translators who are native Chinese speakers, have 15-20 years of experience, hold translation degrees, and have worked on a wide variety of text types in the language pair. Detailed qualifications of the two evaluators can be found at http://www.wutrans.com/ and www.y17.us.

The evaluators were instructed to rate translation output using a 5-point Likert scale score: very satisfied (2), somewhat satisfied (1), neither satisfied nor dissatisfied (0), somewhat dissatisfied (-1), and very dissatisfied (-2). The evaluators were encouraged to provide the reasons for the ratings they gave.

Figure shows the rating scores given by the two evaluators using color scales. Human translation had the best performance based on evaluations. Conversely, GPT4 augmented translations using either style instruction or human input in the prompt performed better than MT without augmentation using Google



Figure 3: Color scaled rating scores by the two evaluators (4 columns are for Google Translate, human, instruction-augmented and HMT-augmented MT).

Translate. HMT-augmented MT performed better than instruction -augmented MT because it combined the guidance and knowledge provided by both human reference translation and style instruction.

Tables 4, 5, 6, and 7 show the ratings and the summarized reasons provided by the evaluators.

Table 4 shows the ratings and summarized reasons towards MT (Google Translate) results for all 20 instances. The main criticism was that MT did a lot direct (literal) translation, which led to mistranslation and awkwardness in the target language result.

Table shows the ratings and summarized reasons towards human translator results for all 20 instances. The main compliment was that the human translator uses more free translations to focus on conveying intended tone and meaning in target language.

Table shows the ratings and summarized reasons towards instruction-augmented MT (using LLM-GPT4) results for all 20 instances. The main criticism is on mistranslation and unnatural expressions.

Table shows the ratings and summarized reasons towards HMT-augmented MT (using LLM-GPT4) results for all 20 instances. The main criticism is still on mistranslation and unnatural expressions, but HMT-augmented MT demonstrates better performance than instruction -augmented MT because it has human-generated reference translation as an input. Therefore, in some instances, satisfactory free translations were generated.

Instances	Evaluators' ratings and reasons
1	(-1) direct translation does not
	sound natural to native ears.
	(0) N/A
2	(1) direct translation maintains the
	meaning.
	(0) N/A
3	(1) direct translation lacks intended
	tone the author aimed to convey.
	(0) N/A
4	(0) direct translation maintains the
	meaning
	(-1) N/A
5	(-2) incorrect translation
	(-2) wrong translation
6	(0) N/A
	(-2) wrong translation
7	(-1) direct translation lacks the
	intended tone in the original
	(-1) wrong target word selected
8 - 11	(0) N/A (1) N/A
12	(-1) incorrect translation; does not
	flow well
	(-2) Some words are mistranslated
13	(-2) incorrect translation
	(-2) incorrect translation
14	(-1) incorrect translation
	(0) N/A
15	(1) N/A
16	(-2) wrong translation
16	(0) N/A (0) N/A
17	(-1) incorrect translation
10	(-1) misleading
18	(-2) incorrect translation
10	(-2) mistranslation
19	(-1) does not sound natural
20	(-2) mistranslate multiple words
20	(-1) direct translation but incorrect
	meaning
	(1) N/A

Table 4: Ratings and summarized reasons on MT results (N/A: no reason provided).

nstances	Evaluators' ratings and reasons	Instances	Evaluators' ratings and reasons
1	(1) N/A	1	(0) direct translation but not
	(-1) wrong register level		appealing to readers
2	(-1) incoherent meaning		(1) N/A
	(1) N/A	2	(-1) incoherent meaning
3	(1) free translation captures the		(-1) awkward expression, not
	intended tone		natural
	(2) N/A	3	(-1) not natural
4	(1) free translation captures the		(0) N/A
	intended tone	4	(-2) direct translation sounds awful
	(2) N/A		(-2) does not make sense
5	(2) free translation captures the	5	(0) OK can be better
	intended tone		(-2) wrong translation
	(1) Good translation with the	6	(0) N/A
	sentences re-organized		(-2) wrong translation
6	(0) N/A	7 -11	(1) N/A (1) N/A
	(2) Good translation. Exactly what	12	(-1) incorrect translation and does
	means.		not flow well
7	(2) free translation captures the		(-2) some phrases were translated
	intended tone		incorrectly
	(2) Good translation. Exactly what	13	(-1) N/A
	it means.		(-1) a phrase was translated wrong
8	(1) N/A	14	(-2) incorrect translation
	(2) Good word choice		(-2) incorrect translation
9	(0) N/A (1) N/A	15	(-1) N/A
10	(1) free translation captures the		(-2) wrong translation
	intended tone	16	(-2) wrong translation
	(1) free translation selects a word		(-2) wrong translation
	that is different from the source,	17	(-1) wrong translation
	but is a smooth word that can be		(-1) misleading translation
	used here	18	(1) free translation and correct
11	(0) N/A (1) N/A		(1) correctly express the meaning of
12	(1) free translation captures the		the source text
	intended tone	19	(0) N/A
	(1) N/A		(-2) several mistranslated words
13-16	(-1) N/A (1) N/A	20	(-1) direct translation but wrong
17	(2) free translation is appealing		(0) N/A
	(2) N/A	T-1-1- (. D	
18	(1) free translation is appealing		Ratings and summarized reasons on
	(2) reflects true meaning and		ugmented results (N/A: no reason
	adopt a source word seamless into	provided).	
	the target		
19	(1) free translation is simplified	5 Concl	usion
	and appealing	C	AT
	(0) N/A		ve AI with Large language modeli
20	(-1) direct translation but incorrect		upped with prompt engineering a
	(2) smoother than other	0	capabilities, can enable augmented M
	translations	solutions b	y explicitly including AI or hum
	translations		

Table 5: Ratings and summarized reasons on human results (N/A: no reason provided).

reference translation as pre-editing or interactive inputs. Using the English-to-Chinese translation piece, we evaluated translation outputs on 20 text segments using human-generated translation,

Instances	Evaluators' ratings and reasons
1	(-1) direct translation, not natural
	(-1) misinterpret the circumstance
2	(-1) incoherent meaning
	(-2) "invent meaning" that does
	not exist in the source
3	(1) free translation captures the
	original tone
	(-1) too much transcreation
4	(1) free translation captures the
	right tone
	(1) N/A
5	(2) free translation captures the
	original tone
	(1) Good sentence reorganization
6	(0) N/A
	(-2) wrong translation
7	(-1) N/A
	(-1) mistranslation (general versus
	specific)
8	(1) N/A (2) N/A
9	(0) N/A
	(-1) register level (too strong a
	word is used)
10	(0) N/A (0) N/A
11	(1) N/A
	(-1) register level (formal versus
	casual)
12	(0) N/A
	(-1) some mistranslated words
13-16	(-1) N/A
	(-1) a chosen target word does not
	make sense
14	(0) N/A (1) N/A
15	(1) N/A
	(-2) wrong translation
16	(0) N/A (1) N/A
17	(-1) wrong translation
	(0) not clear
18	(-2) wrong translation
	(-1) literal translation does not
	make sense
19	(1) free translation that is
	appealing
	(-1) missing connective word
20	(-1) not natural
	(0) N/A

Table 7: Ratings and summarized reasons on HMT-augmented results (N/A: no reason provided).

Google Translate MT, instruction-augmented MT using GPT4-LLM, and Human-Machine-Teaming

(HMT) augmented translation based on both human reference translation and style instruction using GPT4-LLM.

The evaluation results show that while human translation had the best performance, both augmented MT approaches performed better than MT without augmentation. The HMT-augmented MT performed better than instruction-augmented MT because it combined the guidance and knowledge from both human reference translation and AI-generated style instruction. However, since it is unrealistic to generate sentence-by-sentence human translation as input to MT, better approaches to HMT-augmented MT need to be studied further. The evaluation showed that generative AI with LLM can enable new MT workflow facilitating pre-editing analyses and interactive restructuring and achieving better performance.

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Appendix

A segment-by-se translations to	egment compilat gether with the s	
Source	Translation	Translation
(English)	Version 1 (by Sijin Xian)	Version 2 (by Arthur Wan)
The Worst Friend Date I Ever Had	我 的"社 死"之 交	我 经历 的最糟 的朋友会面
An excerpt from Samantha Irby's new essay collection Wow, No	节选自萨曼莎· 尔比全新散 文集《哇, 不了谢谢》	节选 自萨曼莎- 艾比的新散 文集《哇, 不用了,谢 谢》。
Thank You. By Samantha	作者: 萨 曼莎· 尔 比	作者: 萨 曼莎- 艾比
Irby <u>https://www</u> .thecut.c om/2020/0 3/book- excerpt- samantha- irbys- wow-no- thank- you.html	https://www .thecut.c om/2020/0 3/book- excerpt- samantha- irbys- wow-no- thank- you.html	https://www .thecut.c om/2020/0 3/book- excerpt- samantha- irbys- wow-no- thank- you.html
You don't have to cry for me, but listen: trying to make new friends as an adult is the hardest thing I have ever	同情的服着, 们 们 们 们 们 们 们 们 们 们 们 们 们 们 们 们 们 们 们	你不心,作年 结 天子, 心,作年 结 是 过 中 为 但为,新所 罢 一
-	力做 过 的最 艰难 的事。	情中最痛苦 的。比多次

Harder than multiple colonoscopi es? Yes. Harder than listening to the dentist pry my tooth bone away from my jawbone while I lie there wide awake? Also yes!	有次 难 有医 睁 我我上 艰 一个人子,我是一个人子,我们的一个人子,我们的一个人子,我们的一个人子,我们的一个人子,我们的一个人子,我们的一个人子,我们的一个人,我们的一个人,我们的一个人,我们就是 这个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人, 我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就能帮助你。""我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是我们就是一个人,我们就是这个人,我们就是	结还的着听的新来答问。 新牙牙骨还案的,新牙牙骨上痛也是醒里我下下? 肯
When I moved	我从芝加哥搬	当我从芝加哥
to	来卡拉马祖	搬到卡拉马
Kalamazoo from	的时候,心	祖 时 ,我确
Chicago, I	想我肯定可	信我将会快
thought for	以惬意地宅	乐 地呆在家
sure that I	衣 医 急花花 在家里, 门	小 泡水 任家 里,再不出
was going to be happy	在家主,「 」 都不用出。	<u></u> , 丹中山 门。而且,
staying at	结 果,我大	一 了。 ^而 旦, 在大多数情
home and	右 未,我八 体上是挺 满	记八 <i>岁</i> <u></u>
never going outside.		元一, <u></u> 2, 元,
And, for the	足的。我可以捡差去到	可以在有公
most part, I	以趁着去外	共交通和埃
am. I get to travel and	地工作, 领	来父 過 相 埃 塞 俄 比 亚 食
work in	略有 发 达的	率
fancy cities	公共交通和	市旅行和工
with mass transit and	埃塞俄比亚	巾 派 1 加 工 作, 然 后 回
Ethiopian	菜的 华丽 都	下, 然后固 来 给 我的汽
food, then	市,然后回	
come back and pay	来付个一加	车 加 1.87 美
\$1.87 for a	仑 只要 1 刀	元一加 仑 的
gallon of	8 毛 7 的油	汽油, 在我
gas for the car that I can	钱,把车随	那 2000 英亩
park	便停在我家	的近乎免 费
anywhere	几乎白送的	的广袤土地
on my	2000 英亩的	上,我可以
sprawling 2,000 acres	辽阔 土地上	随意停车。
of land that	。好吧, 这	好吧, 我是
were	话 夸张了,	在夸大其 词
practically free. Okay,	但我的重点	,但我的意
I'm	是:去他 妈	思是:去他
exaggerating, but my point is FUCK	的大城市!	妈 的城市!

THE CITY.

~					
But, how does	可是,一个人	但是,一个人	by a factor	就十倍加分	好十倍(对
one make	在这种情况	如果不去 办	of ten if it	(不好意思	不起 —— 我
friends	下要上哪儿	公室,又怎	happens to	啊,我是个	是个自大狂
without an office to go			be one I wrote (I'm	自大狂)。	
to? Or a club	交朋友呢?	么交友呢?	sorry — I	百八江)。	0
to	我一不在 办	如果不去俱	am an		
participate	公室上班,	乐 部呢?如	egomaniac).		
in? Or	二不参加俱	果也不去各	-		
various PTA	乐 部,三不	种家长教师	Have you ever considered	你有没有思考	你有没有想过
meetings to			what a	过友情是什	什么是友 谊
grimace at	去各种家委	联谊 会的会	friendship	么,或者你	? 或者你目
each other	会上和人 挤	议上互相挤	is, or what	目前的友谊	前的朋友是
through?	眉弄眼暗送	眉弄眼呢?	any of your	都是些什么	
Are you just supposed to	嘲 讽 。我 难	难 道你就指	current		怎 样 的?并
walk up to	不成要在大	望在大街上	friendships	情况?你有	考 虑 如何向
an			are, and	没有想过要	潜在的新朋
interesting-	街上直接走	走到一个看	thought	怎么把 这 些	友呈 现这 些
looking	到一个貌似	起来很有趣	about how	向你的求友	?就像你最
person on	有趣的人跟	的人面前,	to present that to a		
the street	前, 让 人家	要求其成 为	prospective	对象交代?	终要给他们
and ask	当我朋友?	你的朋友?	new friend?	你懂的,比	发 送你在眼
them to be			You know,	如你怎么跟	科医生等候
your friend? I don't	不知道 这 是	我不知道 这	like how	人 说 ,等你	室里 试 戴 12
know if this	不是一种褒	是否是某种	you are	们混熟了,	副相似又略
is some kind	义 的以貌取	逆向分析,	going to		
of reverse	人,反正我	但我通常可	eventually	你会在眼科	不同的眼 镜
profiling,	通常扫一眼	以瞥见一个	be sending them selfies	医生的等候	的自拍照时
but I can			of you	室里一边等	你的垃圾保
usually	就立 马 能知	人后, 第一	trying on 12	你那垃圾保	险 正在 处 理
glance at a	道我和一个	眼就知道我	similar-yet-	险 走程序,	中那样吗?
person and know at first	人大概会合	们 可能会相	slightly-		
sight that	得来。我倒	处 得很好。	different	一边发你试	你如何说服
we're	没得出什么	我没把它 归	pairs of	戴 12 副大同	一个你肯定
probably	科学体系(glasses in	小异的眼 镜	会在其
going to get		结为一门科	your ophthalmol	的自拍?既	Gmail.com
along. I	大哥,我才	学(哥 们 ,	ogist's	然你明明会	上胡 说 八道
don't have it	不会 费这 破	我不是在做	waiting	往人家的	留言的陌生
down to a	劲 儿去做研	什么狗屁研	room while		人、 让他给
science (I'm not	究呢),但	究),但 这	your	Gmail 邮箱	
researching	吃准了几点	里有某种致	garbage	乱塞没 头 没	你真的 电 子
shit, dude),			insurance is	脑的废话,	邮件呢?
but here are	特征:这人	命信号:这	being	那 还 怎么 说	
some dead	通常有 别 致	人有有趣的	processed? How do you	服一个陌生	
giveaways:	、另 类 、酷	、另 类 的、"	convince a		
they have	范儿十足的	酷哥/ 靓 妹 "	stranger to	人把真正的	
interesting,	发 型,傻里		give you	邮箱地址给	
alternative,		的头发,帅	their real	你?	
"cool	傻气的 纹 身	气的 纹 身,	email when		
person"	,或是拿着	或者拿本 书	you are		
hair, dumb	- 本 书	,如果它碰	going to litter their		
tattoos, or are carrying	要是 还刚 好	巧是我写的	gmail.com		
a book,	是我写的,	,那就要更	Sman.com		
multiplied		,加加加女义			
•					

with dumb			approximate	拿上一个一	。因 为 我是
nonsense?			with my	半已经熔化	个特大号儿
A few years	几年前,我和	几年前(在我	mom's	了的 铲 子,	子,所以大
ago (before	我老婆去了	搬到密歇根	tattered old		
I moved to			robe, a half- melted	再来一 顶 她	家都以 为 我
Michigan	她一个朋友	并加入我妻	spatula, and	把 头发 拉直	穿着我的 烂
and joined	的婚礼。(子的后院堆	the satin cap	烫 卷后的 头	睡衣去了学
my wife's community	那时我还没	肥者和旅行	she slept in	几天晚上会	校。
of backyard	有追随我家	足球司机圈	the nights	戴着睡 觉 的	
composters	夫人搬来密	子之前),	after a fresh press 'n'	缎 面帽,就	
and travel-	歇根州,加	我娘子和我	curl.		
soccer	入她那在后	去参加她朋	Because I	八九不离十	
chauffeurs), my lady and	院堆肥和开	友的礼服婚	was a Very	了。由于我	
I went to her	车 接送孩子	礼,然而 —	Large Son,	的"大 块头 儿	
friend's	-	—— 我知道	everyone	子"形象,大	
costume	去各地踢足		just thought I had worn	家只是以 为	
wedding	球的圈子。	你懂的,但	my shitty	我穿着 烂 不	
and — I know you) 婚礼是 变	让我告诉新	pajamas to	啦 叽 的睡衣	
already	装主 题 的—	来的或心中	school.	去了学校。	
know this,	—我知道你	尚有一 <u>丝</u> 希		ムリナ化。	
but let me	已 经 有数了	望的人 ——	Anyway, my	再扯回婚礼的	总 之,我和我
just say it	, 但容我 对	我没穿礼服	wife and I were at this	事。 现场 我	妻子参加了
for anyone who is new	新来的或心	。我最后一	wedding	认识 的人不	这个婚礼,
or still has a	里还存有一	次穿万圣 节	where I	多,而且只	我 认识 那儿
shred of		服装是 1986	knew a few	熟到能 说 声"	的几个人,
hopefulness	丝希望的读	年在林肯小	people well enough to	嗨",还 没熟	可以跟他们
in their heart — I did not	者 说 :我并	学二年级的	say "Hi" but	啊, <i>上</i> 反然 到能叫出" 嗨	打招呼 说" 你
wear a	没有扮角色		not well		
costume.	。我上一次	服装游行中	enough to	, 某某某"来	好", 但 还
The last time I	万圣 节变 装	(加油,海	say "Hi, ," and	。我们在晚	没熟到 说" xx
wore a	, 还 是 在	豚),我唯	as we're	宴的指定座	,你好"的程
Halloween	1986 年林肯	一能想到的	sitting in our	位坐下后,	度。当我 们
costume was in the	小学的二年	服装是"家	assigned	我 环顾 房 间	坐在指定的
second-	级变 装游行	庭主 妇" —	dinner seats	,消化着眼	晚餐座位上
grade	上(不免俗	— 一个我那	I'm looking	前的一切,	时,我环顾
costume	上 () 2 II 地喊个口号	时还 不能充	around the room,	寻 思着可以"	房 间 ,一切
parade at		分理解的概	taking it all	勾搭"上 谁	尽收眼底,
Lincoln Elementary	:海豚 队 加	念,但我 认	in,	,好在正式	
School in	油)。那 时	志, 直, 以 , 为 我可以用	wondering	,	脑子里想着
1986 (go,	我唯一能想		who I can latch on to	搬来卡拉马	一旦我正式
dolphins),	到的装扮就	我 妈妈 的破	in the hopes	祖之后 发 展	搬到卡拉马
and the only costume I	是"家庭主 妇	旧长袍、半	of a	一段还算地	祖, 我可以
costume I could come	",虽然 对这	融化的 锅铲	semiperman	久天 长 的友	抓住 谁 才能
up with was	个概念一知	和她在新压	ent relationship	谊 。自助餐	建立半永久
"housewife," a	半解,但我	卷 发 后的晚	relationship once I	还没准备就	的关系。在
concept I	想着穿上我	上睡觉用过	officially	绪 ,不夸张	我 们 等待自
didn't fully	<u></u> 破得抽条	的缎面帽子	moved to	地说 ,我完	助餐的时候
understand		来扮个大概	Kalamazoo.		
but thought	的旧袍子,		A dude named Ike	全是奔着 这	
I could			named IKC		

came and	顿饭 ,才硬	,一个叫艾	(NEUTRAL	丝·贝 德·金	·金斯伯格的
sat next to	着 头 皮直面	克) came over	斯伯格的装	服装(不好
me as we			to introduce	扮(不加不	不坏)。我
waited for	这一屋子正	(Ike)的老兄	herself to		
the buffet to	儿八 经 打扮	走过来坐在	me. We got on like a	扣)。我 们	们 一拍即合
be set up, literally the	成托 尔 金笔	我旁 边,这	house on	一 见 如故,	。几分 钟 后
only reason	下的魔幻角		fire. After a	打得火 热 。	, 我开始手
I braved a	色的人。等	简直就是我	few	几分钟后,	心出汗,我
room full of		面 对 一屋子	minutes, my	光为 叶 冶, 我的手心开	估摸着,从
people	待时,一个	人不 伦 不 类	palms		
unironically	叫艾克的哥	地打扮成托	started to	始冒汗,因	愉快的介 绍
dressed as	们 儿 过 来坐	尔 金怪人的	sweat in	为 要想 锁 定	性 谈话 ,到
Tolkien characters.	在了我旁 边	-	anticipation of what	这 份未来的	我可以 获 得
He was	,他一身科	唯一原因。	would	友 谊 ,我得	她的 联 系方
wearing a	, 23, 11 学教徒制服	他穿着科学	surely be an		式以 锁 定未
Scientology		教的制服作	awkward	从这初识的	
uniform as	的扮相, 让	为 服装道具	transition	愉快浅聊,	来友 谊 的方
his costume,	我一 见倾 心	, 我立刻深	from a	进 展到 设 法	法, 肯定是
and I	。我和他聊	深 爱 上了他	pleasant	取得她的 联	个尴尬的过
immediately	了一会儿,	<i>《</i> 夏 王 〕 他 。我和艾克	introductory	系方式,但	渡。
fell deeply in love. I	用永久性记		conversatio n to the	这个过渡必	
talked to Ike	用示八 口 号笔在心里	聊了一会儿	method by		
for a while,		,把他的名	which I	定会是 尴 尬	
writing his	的新朋友 备	字用永久 标	could secure	的。	
name in	选 名单上写	记写在我心	her contact		
permanent	下他的名字	中的潜在新	information		
marker on the Potential	0		to lock		
New	·	朋友名单上	down a future		
			Iuture		
Friends list		0	friendship.		
friends list in my mind.		o	friendship.		
in my mind. After he	后来他抛下我	。 在他离开我去	friendship.		
in my mind. After he abandoned	后来他抛下我 ,端着 盘 子		friendship.		
in my mind. After he abandoned me to go fill	,端着 盘 子	在他离开我去	friendship.		
in my mind. After he abandoned	,端着 盘 子 到 热 食区去	在他离开我去 自助餐台, 在 盘 子里堆	friendship.		
in my mind. After he abandoned me to go fill up his plate	, 端着 盘 子 到 热 食区去 狂拿公共的	在他离开我去 自助餐台, 在 盘 子里堆 满 公共素食	friendship.		
in my mind. After he abandoned me to go fill up his plate with	,端着 盘 子 到 热 食区去 狂拿公共的 纯 素 焗 墨西	在他离开我去 自助餐台, 在 盘 子里堆 满 公共素食 墨西哥卷 饼	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas	,端着盘子 到 热 食区去 狂拿公共的 纯素焗墨 西 哥卷 饼 去了	在他离开我去 自助餐台, 在 盘 子里堆 满 公共素食 墨西哥卷 饼 的 时 候,一	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot	,端着 盘 子 到 热 食区去 狂拿公共的 纯 素 焗 墨西	在他离开我去 自助餐台, 在 盘 子里堆 满 公共素食 墨西哥卷 饼	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool-	,端着盘子 到 热 食区去 狂拿公共的 纯素焗墨 西 哥卷 饼 去了	在他离开我去 自助餐台, 在 盘 子里堆 满 公共素食 墨西哥卷 饼 的 时 候,一	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot	,端着盘子 到 <u>热</u> 食区去 狂拿公共的 纯素 焗 墨西 哥卷饼去了 。 这时 ,一	在他离开我去 自助子子 在盘子里堆 满金子素卷 子 大素 で 所 の 行 和 記 来 代 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool- looking woman with shiny bangs	,端着盘子 到热食区去 狂拿公共的 纯素 焗 墨西 哥卷 饼 去了 。 这时 ,一 个酷炫女人	在他离开餐台, 在 動 盘 子 共 哥 好	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool- looking woman with shiny bangs and	,端着盘子 到熱拿公共的 纯素// 新 新 卷 饼 去 了 。 这 时 , 一 个 酷 炫 文 和 之 、 、 、 一 、 一 、 一 、 一 、 一 、 一 、 一 、 一	在他离开我台, 百年 一个 一个 一个 一个 一个 一个 一个 一个 一个 一个 一个 一个 一个	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool- looking woman with shiny bangs	,端着盘子 到狂拿太子 在大学 子 去 物 中 石 大 四 四 四 四 四 四 四 四 四 四 四 四 四 四 四 四 四 四	在他自在满墨的个酷 过绍 的助盘公西时看的来自开餐子共哥候起女向天自子,我会,来性我的来自己,我自己,我自己,我自己,	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool- looking woman with shiny bangs and interesting glasses (PRO)	, 端着盘子 狂 禁 之 如 子 去 的 西 子 去 的 西 子 志 の た 走 介 定 始 、 の た 走 の の た 之 の た 之 の に の の の の の の の の の の の の の の の の の	在 自在满墨的个酷过绍有刘离助盘公西时看的来自着海开餐子共哥候起女向己闪和我台里素卷,来性我,亮有去,堆食饼一很走介她的意	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool- looking woman with shiny bangs and interesting glasses (PRO) carrying a	, 端着 盘 至 在 、 到 狂 拿 素 卷 这 酷 过 绍 她 刘 的 数 的 西 、 个 走 介 。 、 の 志 、 約 。 二 、 二 、 二 。 二 。 二 。 二 。 二 。 二 。 二 。 二	在自在满墨的个酷过绍有刘思离助盘公西时看的来自着海的开餐子共哥候起女向己闪和眼我台里素卷,来性我,亮有镜去,堆食饼一很走介她的意(friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool- looking woman with shiny bangs and interesting glasses (PRO) carrying a tiny crying	, 到狂 纯 哥。 个走介。 的 致加 新倉 案卷 这 酷 过 绍 她 刘 的 资 加 好 时 炫 来 了 有 海 眼) 加 行 人 我 己 亮 别 (抱	在 自在 满墨的个酷 过绍有刘思优的 的 盘公 西时看的来自着海的的别 盘公 西时看的来自着海的点开餐子共哥候起女向己 闪和眼)我台里素卷,来性我,亮有镜,夫,堆食饼一很走介她的意(抱	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool- looking woman with shiny bangs and interesting glasses (PRO) carrying a tiny crying baby (CON)	,到狂纯哥。个走介。的致加着着食公焗饼时炫来了有声眼)的分一个走方。的致加着一个大学的人员的分子。 计算法 人名法 化分子 计算法 化分子子 计分子 计分子 计分子 计分子 计分子 计分子 化分子子	在	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool- looking woman with shiny bangs and interesting glasses (PRO) carrying a tiny crying baby (CON) and wearing a Ruth	,到狂 纯 哥。个走介。的致加着的、到狂拿素卷 这 酷 过绍 她刘的分一小、大学、"你们的一个一个大学的一个。""我们的一个吗?""我们的一个我一个的。""我们的一个吗?""我们的一个吗?""你说了	在	friendship.		
in my mind. After he abandoned me to go fill up his plate with communal vegan enchiladas from the hot bar, a cool- looking woman with shiny bangs and interesting glasses (PRO) carrying a tiny crying baby (CON) and wearing a Ruth Bader	,到狂纯哥。个走介。的致加着的扣端热拿素卷这酷过绍她刘的分一小分量区共墨去,女向自闪和镜,哭儿,一人我己亮别(抱嚎(一	在他自在满墨的个酷 过绍 有刘思 优 着的缺他自在满墨的个酷 过绍 有刘思 优 着的缺离助盘公西时看的来自着海的点一小点开餐子共哥候起女向己闪和眼)个宝)我台里素卷,来性我,亮有镜,哭宝,去,堆食饼一很走介她的意(抱泣(穿	friendship.		
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