Paper Reading Template

AI-For-NLP Course Group

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| Date | 2019.7.5 | |
| Title | Review of “COMPUTING MACHINERY AND INTELLIGENCE” | |
| Author | Qin Xiangjie | |
| Question/Task | Description | You Answer |
| 1. Classify this paper | Is this paper pragmatic or theoretical?  Is this paper on science or engineering? | This paper is theoretical and on science. |
| 2. Brief Summary | Using the as short as possible to summarize the paper content. | The paper described for us the important question of "whether machines can think" by discussing in case of “imitating the game “ |
| 3. Outline | Outlining the content as multiply parts.  For example, for one paper, you may outline the content as following:  1. Background  2. The other Researcher’s method  …  8. Future Planning  And explain how does these outlines work together to make this article completed. | 1. The Imitation Game 2. Critique of the New Problem   3. The Machines Concerned in the Game  4. Digital Computers  5. Universality of Digital Computers  6. Contrary Views on the Main Question  7. Learning Machines  As fist ,to answer the question whether machines can think,Turing structure   1. a game——”The Imitation Game” (Turing test) to answer the question "Can machines think?",and then through Critique of the New Problem to consider the value and significance of a "Thinking Robot".Then,Turing thinked than we should pay attention to consider that can we make such a machine on paper?he thinked with develop of mentdigital computer ,we can make it come true.Then,Turing refuted some people’s views that machines can not have intelligence.Then Turing Shared some views of Learning Machine,at last ,he thinked it still needs a long way to realize real Artificial Intelligence.(We can only see a short distance ahead,but we can see plenty there that needs to be done.) |
| 4. Mainly Issue | What is the issue that author want to solve? | What he really cares about is not the "function" (thinking) of the machine, but the "state" of the machine.He carefully divided the machine into two states: subcritical and supercritical.he wanted to solve a problem that can a machine be supercritical?What people care about is how to invent and design better algorithms.  They don't care what the essence of machine learning is,But Turing cared about Essence of AI,he always consider what AI can do and what AI cann’t do from the Creator's Perspective. |
| 5. Find the difficult or important words. | Find what words you are not understood and explain it by yourself.  Find important words in this article. | Store:  It means storage of information, corresponding to paper on which humans compute numbers.  Executive unit:  Perform operations involving one operation.  Control:  To ensure that instructions are obeyed correctly and in the right order.  important words:The Imitation Game,Digital Computers,Learning Machines |
| 6. Find the difficult sentences confusing you and explain what they mean. | 找出文中你不太懂的句子，试着解释他，最好用另外一种解释方法解释。 不要玩文字游戏。  例如， 《纯理性批判》里有一句话“除了实际存在的事物，没有任何东西能发生作用“。 如果你解释成“如果某个东西不存在，那么它就不能发生作用“，这就属于玩文字游戏。比较合理的解释一个例子是”只靠可能会下的雨，青草是不会生长的“或“只靠可能有的存款，一个人的账号是不可能增加的“。 | The digital computers considered in the last section may be classified amongst the  "discrete-state machines." These are the machines which move by sudden jumps or clicks  from one quite definite state to another.  解释：就像二进制的计算机一样，用0和1来代表两种状态，然后通过不同的状态组合来模拟更复杂的 状态，这样计算机基本上就可以基本模拟真实世界了。以后量子计算机发展起来，计算性能会更加的强大。 |
| 7. Find the main sentences author written. | Find out sentences which could express the intention of author mostly. | We can only see a short distance ahead, but we can see plenty there that needs to be done |
| 8. What have been solved and what not have been solved? | What problems or issues the author have solved?  What problems or issues the author haven’t solved? | Turing proclaimed the complex hierarchical relations between Man and Machine.  he wanted to solve a problem that can a machine be supercritical? |
| 9. Rethink of the paper | Can you explain the paper main content to others?  Can you explain the paper to your wife/husband?  Can you explain the paper to a kindergarten pupil?  This answer ***cannot be Yes/No simply.*** *Please write the explanation with integrity.* | Yes，I can.Many of my schoolmates are medical students. I can explain the current AI is machine learning which means that computer does Matrix Operations,and real AI is far from reality.  NO，I can’t,because I'm not married yet.  Maybe I can ,I can show mathematical arithmetic game on the computer and explain by means of analogy, etc. |
| 10. Which parts do you agree with the author?  Why do you agree with these? | Find out the opinions of author that you agree with.  Give the reason why do you agree with. | As I have explained, the problem is mainly one of programming. Advances in engineering will have to be made too, but it seems unlikely that these will not be for the requirements.  这句话讨论了软件和硬件的关系，当时硬件被关注得比较少，主要还是关注编程方面，如何编写出AI，但是图灵指出即使当时硬件不发达的情况下讨论AI也是有可能的，更多的是讨论AI的许多本质问题。 |
| 11. Which parts do you not agree with the author? | List the parts or opinions that you do not agree with author. | 1. It about Turing test(The Imitation Game   )。 |
| 12. Why do you not agree with? | Classify each answer of question 11 as following types:  1. uninformed: 信息不足，必要的信息没有给到；  2. Misinformed: 论点与实事相反或不切合；  3. Logic Error; 逻辑错误，例如马基雅维的《君主论》里边：  所有的政府，不论新或旧，主要的维持基础在法律，如果这个政府没有很好的武装力量，就不会有良好的法律，也就是说，只要政府有很好的武装力量，就会有好的法律。  里边的逻辑错误在于“ 政府有很好的武装力量“ 应该是”有好的法律的“ 必要不重复条件，依照所述的逻辑，如果有好的法律，那么肯定有好的”武装“，但是有好的”武装“并不一定有好的法律。  4. Uncompleted Analysis; | 第1点想不出，感觉没什么问题，信息都给得很全。  第2点是与实不符的例子是前段时间关注的一些新闻，说是谷歌AI通过了图灵测试，当时一看肯定觉得是有什么猫腻，媒体总喜欢搞个什么大新闻。后来顺便也就了解一些图灵测试。   1. 其实图灵测试是很不完善的，是有漏洞可循的。   被测试者超过30%的答复不能使测试人确认出哪个是人、哪个是机器的回答，机器就通过测试。但是实际上，可以采用很多技巧达成这一效果，比如说利用短的词语进行模棱两可的回答；比如采用反问策略，人问：你吃饭了吗？机器回答：你为什么不确定我吃饭了？这样的回答就很想人了，而且人的回答一般是吃了或者没吃，而且回答起来更像机器，这样判断人就非常容易误判了，这简直就是杀手锏，这种反问式策略最初是运用在心理咨询的治疗手段上，现在已经被运用在图灵测试上了。  第4点和第3点合并了吧。 |
| 13. Is this article helpful to you?  How can you use these knowledges in your life or in future? | 简述这篇文章是否对你有用，对你以后哪些场景下回使用到？ | 这篇文章对我的启发应该就是人工智能还有很长一段路要，可能还要一代或者两代人的发展，才能实现强人工智能，当前的人工智能只是一种机器学习，数学上的函数拟合，实现真正的智能，像科幻电影一样的AI还有很长的时间。  对于很多奇点临近的说法，我还是相信机器很难达到那样的状态，机器没有欲望，所有的一切是人的欲望的产物，未来也很难有什么有灵魂的计算机，未来的人工智能依然只是让人与人人与物更好的连接的科技手段。 |