

An Overview of Human Computation and Its Applications

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“Human Computation” represents a new paradigm of computer applications that outsources certain steps of the computational process to humans. The human computation problems are the problems that computers are not good at solving but are trivial for humans. By exploiting “human cycles” in computation, human computation has shown promise in solving a wide variety of problems, such as image annotation and commonsense reasoning, which computer computation has been unable to resolve completely thus far.

In this talk, I will first introduce human computation and present a number of popular human computation systems. Next, I will discuss how to apply human computation to real-world problems, and how to make human computation more efficient. Then, I will present our recent results on human computation research, including puzzle selection strategies for GWAP systems, Chinese CAPTCHA/reCAPTCHA, and the open-source implementations. Finally, I will present some open issues of human computation and conclude the talk.