Prime Number Theorem

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The Prime Number Theorem article in Mathworld.com states that the upper bound for the first equivalence of Pi(x) (the prime counting function) and Li(x) (the logarithmic integral − the "European" definition) is less than 10^371. Has any further progress been made on this upper bound?

Could someone explain why the finding the exact value of the first crossing is so computationally intractable in an era when computers are finding the 41st Mersenne prime? Would one have to have the complete list of primes less than the upper bound in order to solve this problem?

Barnaby