So what does expected value even mean?

- Say we flip 1000 coins.
- The "expected" number of heads is 500.
- Does that mean we always get 500?
    - No
    - We wouldn't be surprised to get 499, or even 506 heads.
- Does it mean we are "close to" 500 (whatever that means)?
    - Yes
    - We would be really surprised to see 980 heads
    - (even though technically possible)