

- $\mathbb{R}(1 \text{ gbit})$

- ∞ cbits

- 1 gbit

- 1 ebit + 2 cbits = "Teleportation"

(need to describe 2 real
4's of Bloch sphere)

Strategy

1. A & B start with $|\psi\rangle_{A_1} |\beta_{00}\rangle_{A_2 B}$ (1 ebit)
 state to send \downarrow
 ebit shared \swarrow
2. Alice measures A_1 and A_2 (this destroys entanglement)
 using Bell Basis
3. Alice sends outcome of measurement to Bob (2 cbits)
4. Bob applies a unitary to his system B based
 on Alice's cbits

New skill: what happens when only part of system is measured?

Recall: If both measured, effective measurement is
 $M_A \otimes M_B$