The technologies provide different bus speeds. And often things such as cpu clock and motherboard FSB are overlooked.

For example, my shitty rig has a 1.5Ghz athlon processor running on a 266mhz bus. My memory is 333mhz (pc2700). My motherboard is a 400mhz bus. With all three of these things working together, my system is running at 266 and physically cannot go faster than that because of the weakest link. My CPU is a bottleneck - and a crappy one at that. Soon I plan on upgrading to a 2.2Ghz 333fsb cpu, which will in turn make more use out of my motherboard and RAM.

Going back to the examples given, DDR is definitely better than any SDRAM you'll find megabyte -to- megabyte. I think the last SDRAM I used was pc133, and DDR is pc2100/2700 (right around there). Huge difference in speed. But unfortunately you will be restricted based on the capacity (slots) of your motherboard. So max out with what you have and try to keep your memory in equal pairs if possible.