The growth-model variable A represents an economy's ability to apply technological knowledge to its production process. Following the lead of Abramovitz, we can break A down into three components: (1) the amount of technological knowledge in existence, (2) the "access" of an economy to the existing stock technological knowledge, and (3) the ability of an economy to apply in production the technological knowledge to which it has access. (The latter is close to what Abramovitz called "social capability" and what others have termed "absorptive capacity.")

The models we will discuss in Romer's Chapter 3 treat A as a pure public good: New knowledge created by anyone is immediately and costlessly implemented by everyone.

1. Why does knowledge have at least some of the attributes of a public good: non-rivalry and nonexcludability?

2. What limitations are there on the "public-goodness" of knowledge?