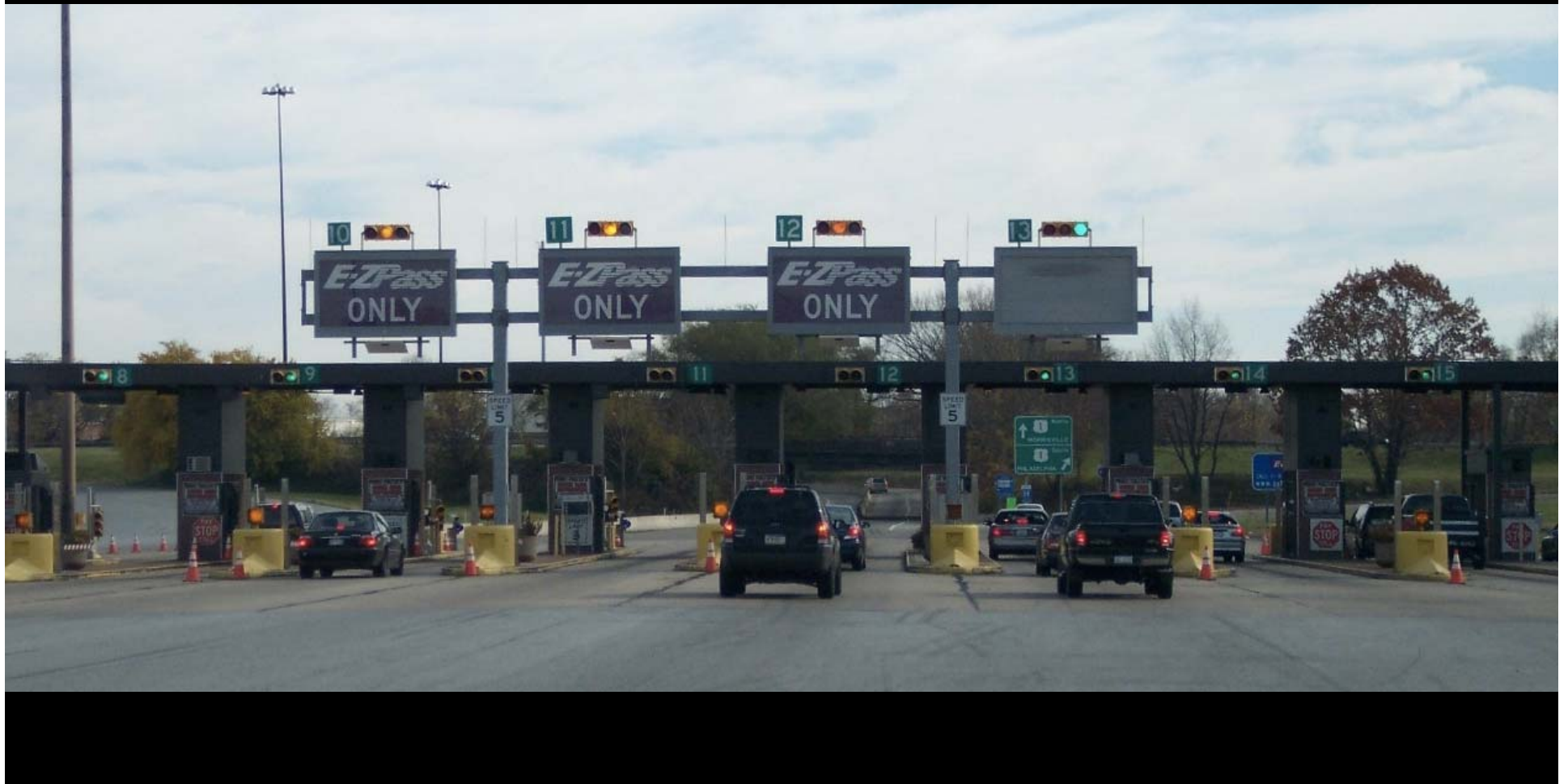


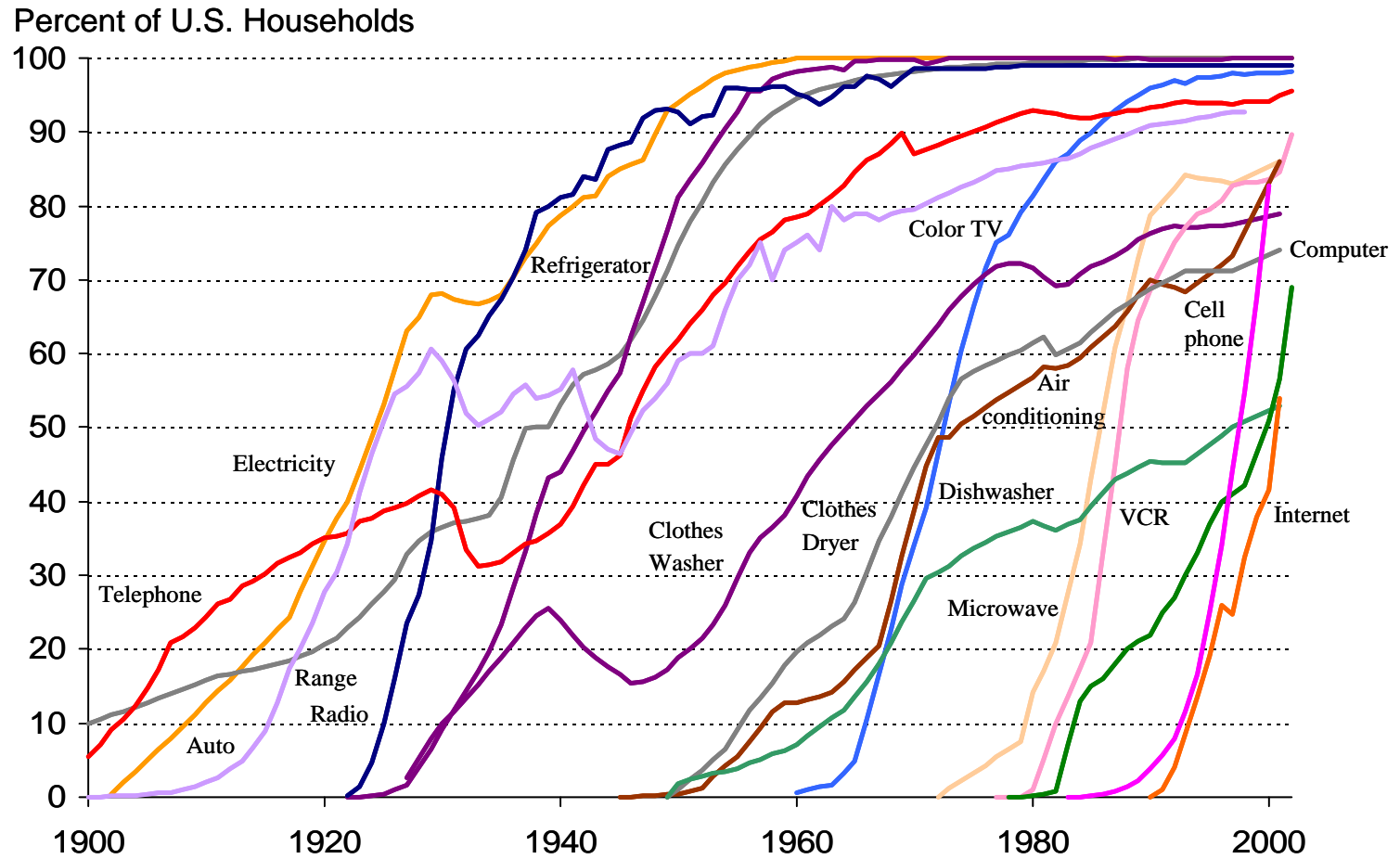
# DIFFUSION AND ADOPTION

Professor Karl T. Ulrich



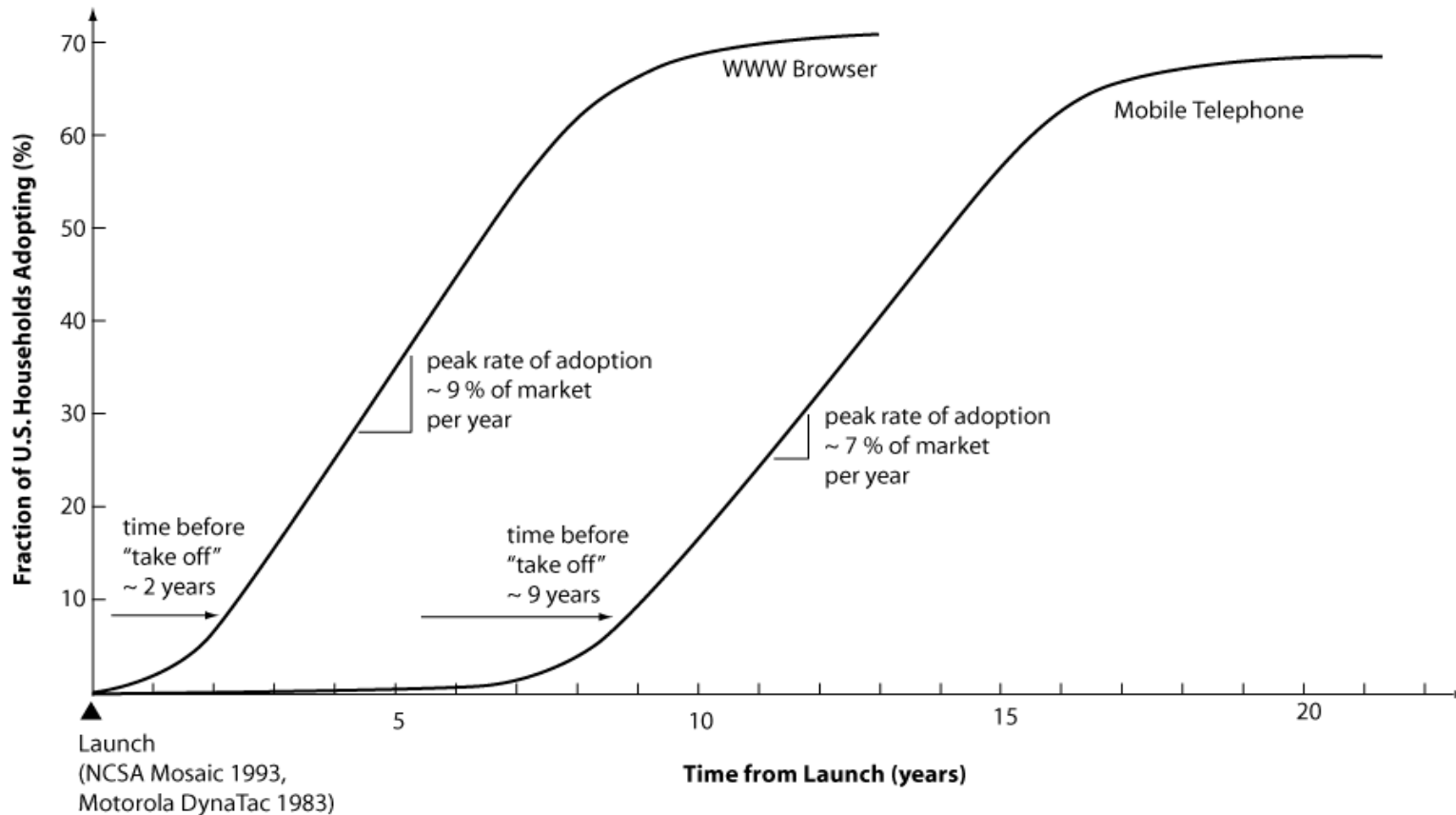


## Diffusion Rate of New-Category Products



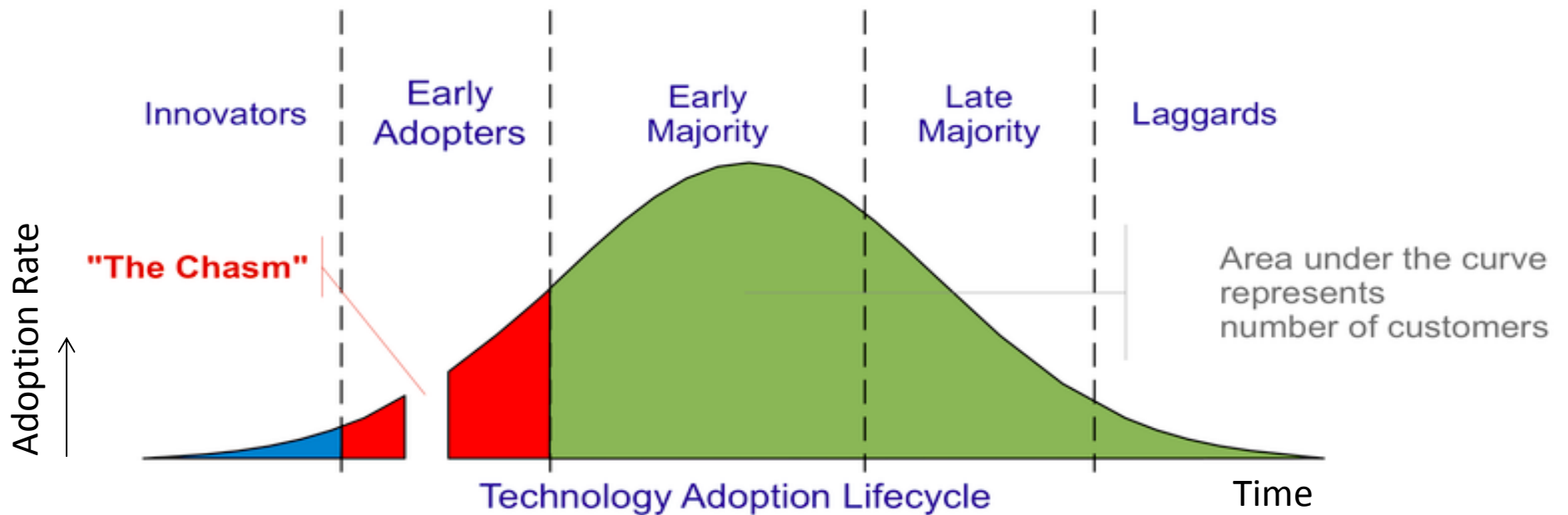
Source: W. Michael Cox, Federal Reserve Bank of Dallas

## Adoption Dynamics: Diffusion



**Source:** Terwiesch and Ulrich, Innovation Tournaments, Chapter 8.

## Rogers and Moore Adopter Categories

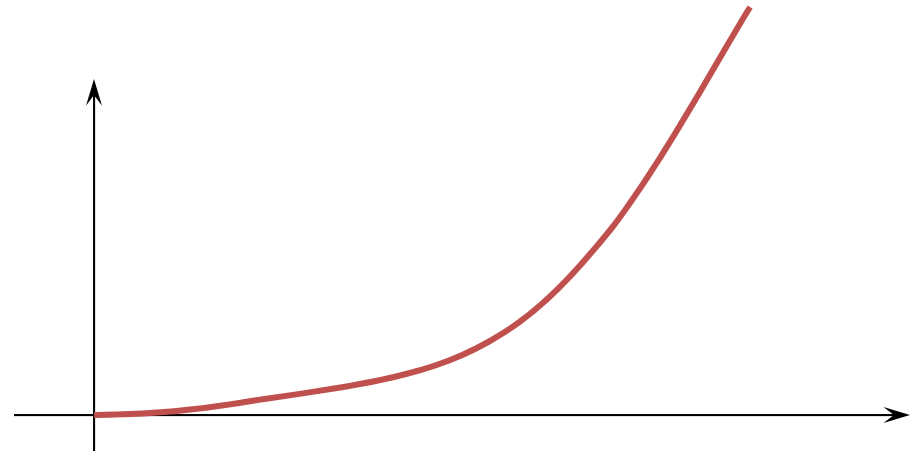


**Source:** Image from Wikipedia, based on categories of Everett Rogers, with addition of "chasm" by Geoffrey Moore.

## Explaining Diffusion Rates

Rogers' Five Factors (Intrinsic Attributes of Innovation)

1. Relative advantage
2. Visibility
3. Trialability
4. Simplicity
5. Compatibility



Everett M. Rogers, *Diffusion of Innovations*, Fourth Edition, Free Press, New York, 1995.

	<b>EZ Pass Auto Toll System</b>	<b>Web Browser</b>	<b>Mobile Phone</b>	<b>Segway Personal Transporter</b>
<b>Relative Advantage</b>	• • • • • no waiting at toll booths	• • • • • free, instant information	• • • • • wireless calling, but initially expensive	• better than walking?
<b>Visibility</b>	• • • • • obvious to all users	• not very visible	• • • • • visible in public	• • • • • highly visible
<b>Trialability</b>	• • must enroll to try	• • • • • free download	• • contract required	• \$10k commitment
<b>Simplicity</b>	• • • How does payment work? Who installs?	• • • • • click and view	• • “send” button? reception, coverage?	• • How does that thing work? What powers it?
<b>Compatibility</b>	• • • • • all vehicles	• • • • • all PCs	• • • • • fits in pocket or bag	• • Storage? Locking? Where to ride? Charging?
<b>Predicted Relative Rate</b>	Fast	very fast	moderate	very slow
<b>Years to “Take Off”</b>	~3	~2	~9	15 and counting...

**Source:** Terwiesch and Ulrich, *Innovation Tournaments*, Chapter 8.

## Key Insights

- Time to “take off” much longer than you expect for new category products.
- Intrinsic attributes of the innovation strongly influence diffusion rates.
- You can modify some of those attributes (e.g., trialability) through design choices.
- Be realistic in assessing time to take off.
- Some innovations will never take off.