Reflexive Modernization

Key Concepts

Tension between flexibility & control

- designing IIs to be flexible
- designing IIs to be controlled and to control

Reflexivity

Changes to a system feedback to the behaviour of the system in unpredictable ways

Positive and **negative** feedback mechanisms

Consequences of the reflexive nature of infrastructures

• The number of actors shaping the infrastructure is so high – it is possible for any of them to overlook the actions of others – which makes changes in the network unpredictable

• Impossible for individuals “to understand” the whole system, it is quite possible for changes that are implemented to have unintended consequences

• The side effects of known and unknown actions make the network change in unpredictable ways

• One change, including the side effects of other changes, trigger new changes => increased risk

Adapting to Globalization and modernity

- More complex and tightly integrated systems
- More (integrated) systems => unpredictability & risk
- Changes to IIs feedback on the IIs unpredictably
- Exploding complexity!

Challenges

- **Lock-ins** - a technology or product is chosen because of its large self-reinforcing installed base, and not because it is the best one -
  Ex: QWERTY

  Reasons: economic, strategic etc.

- **Path dependency** - the set of decisions one faces for any given circumstance is limited by the decisions one has made in the past, even though past circumstances may no longer be relevant.

  Ex: VHS vs BetaMax

Group assignment

Try to find other examples of lock-ins and path dependence.

Project work

How can the theories of reflexive modernization be relevant to your project?