THE IMMIGRANT “ENGINEER” AS A MEANS OF TECHNOLOGY TRANSFER

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Technology, Science & Engineering

- Technology: Totality of means for producing & using objects necessary for human sustenance & comfort
- Engineering: Application of science & mathematics by which matter & energy in nature are made useful to humans in structures, machines, products, systems, & processes
Migration: An Anthropological Perspective

• Individuals, families, or groups
• Into uninhabited territory, replacing other groups, or mixing with other groups
• driven by environmental, economic, or social pressure
Migration in Modern Times

• Pushes:
  – lack of opportunity
  – persecution
  – political turmoil

• Pulls:
  – opportunity
  – family ties
Migration vs. Diffusion: The Broad Historical Perspective

- 300,000 BCE: FIRE
- 6000 BCE: AGRICULTURE
- 1200 BCE: IRON
- 17th C. CE: PRINTING
Examples of Recent (Electrical) Individuals

- Bell: UK to Canada [1870]
- Pupin: Austria-Hungary to US [1874]
- Tesla: Austria-Hungary to US [1888]
- Marconi: Italy to UK [1896]
- Zworykin: Russia to US [1919]
- Rüdenberg: Germany via UK to US [1936]
- Schwan: Germany to US [1947]