

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

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- **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]**