3D Internet

User "surfs" the 3D Internet...

... and uses teleports to move between independent worlds/services
Development of Computer User Interface

- **Punch Cards**
  - 1890, IBM

- **Text**
  - 1950

- **2D graphics**
  - 1973, Xerox PARC
  - Desktop, WIMP

- **Networked 2D graphics**
  - 1990
  - WWW

- **Networked 3D graphics**
  - 2013
  - 3D Internet

---

**Center for Internet Excellence**

*Next step to internet*
realXtend

- Aims to speed up the standardization of the 3D Internet
- Started 2007
- BSD style open source
- several companies actively developing globally
- Used in many business cases
- Status:
  - Only 3D Internet technology adaptable to wide variety of use cases
  - Biggest 3D Internet open source project with client and server sw
Global 3D Internet cluster
*RealXtend based, Orchestrated from Oulu, Finland*

**Governance**
- 2010: Start
- 2011: Organization setup
- 2012-2013: Internationalization and networking

**Activities**
- 2011: 3D Designer training and education
- 2011: realXtend association & foundation
- 2011: 3D live earth open source effort

**Projects**
- 2011: Chiru: mobile 3D Internet
- 2011: Ahma: 3D shopping
- 2011: NIMO: Pervasive city game for youth
- 2011: Meri-City-Tunturi: Tourism
- 2011: Mobile 3D cognitive testing
- 2011: 3D Oulu++ business initiatives (Marketing, Shopping, Logistics)