# Esperanto, Polyglot, or Babel The Future of Design Languages

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### **Bicycle Evolution**



Drasine 1820



Penny-farthing 1870



Velocipede/Boneshaker 1860



Safety Bicycle 1880

#### State of the Art in 1887











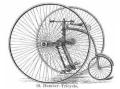


















#### The 1970s



# 2000: Rear-Suspension Bikes



## Hardware Description Languages

Reed 1960s

| M          |         |          |               |
|------------|---------|----------|---------------|
| CDL        |         |          |               |
| DDL        |         |          |               |
| ISP        |         |          |               |
| PMS        |         |          |               |
| AHPL       |         |          |               |
| HILO       |         |          |               |
| ELLA       |         |          |               |
| ISPS       |         |          |               |
| KARL       |         | Vera     |               |
| ZEUS       |         | Lava     |               |
| UDL/I      |         | SpecC    |               |
| SPICE      |         | Esterel  | e             |
| CONLAN     | VHDL    | SystemC  | PSL           |
| DACAPO III | Verilog | Bluespec | SystemVerilog |
| 1970s      | 1980s   | 1990s    | 2000s         |
|            |         |          |               |

#### **Panelists**

- Arvind MIT Inventor of Bluespec
- Gael Clave Texas Instruments, Nice
   Helped to develop TI's OMAP platform, avid Esterel user
- Rainer Doemer University of California, Irvine Worked on SpecC (with Gajski)
- Michael Kishinevsky Intel
   Helped to develop Esterel V7 (with Berry)
- Karen Pieper Tabula
   Chair, IEEE P1800 SystemVerilog Working Group
- Klaus Schneider University of Kaiserslautern
   Developer of the Quartz synchronous language
- Satnam Singh Microsoft Research, Cambridge Developed Lava (with Sheeran and Claessen)

