# Looking back: Evaluation waves

- **Wave 0:** No human-subjects evaluation, some computational benchmarks
  - 1A: Human-subjects eval (quant)
  - 1B: Design studies
- **Wave 1:** Beyond quant
  - 2A: Human-subjects qual eval
  - 2B: Design studies
  - 2C: Rise of systematic reviews
- **Wave 2:** More sophisticated quant eval
  - 3A: Replication crisis / credibility revolution
    - More supplemental materials, experimental power, pre-registration, avoiding QRPs
  - 3B: Methods infusion from vision science

# Looking forward: Fine-grained contribution types

- General Contributions
  - Algorithms
  - Data Abstractions and Types
  - Datasets
  - Deployment
  - Methodologies
  - Application Motivated Visualization
  - Guidelines
  - Interaction Design
  - Process/Workflow Design
  - Software Architecture, Toolkit/Library, Language
  - Software Prototype
  - State-of-the-art Survey
  - Task Abstractions & Application Domains
  - Taxonomy, Models, Frameworks, Theory
  - Visual Representation Design
  - Other Contributions
- Evaluation Contributions
  - Computational Benchmark Studies
  - Human-Subjects Qualitative Studies
  - Human-Subjects Quantitative Studies

# Looking forward: Wish list

- **Wave 4:** More sophisticated qual
  - Deeper connection to social science & humanities frameworks
  - Interpretivism, intersectional feminism, ...
  - Abstractions common beyond design studies, also in technique papers
  - Design studies & application-driven vis stay vibrant & at forefront
- **Wave 5:** True mixed-methods approaches
  - Bridging the quant/qual divide
  - Benchmark datasets
  - Data, tasks too
  - Actual replication
  - Reflecting on past results: repudiation (less extreme than retraction)