



Swiss PGDay 2023

The Swiss Conference on PostgreSQL



29 + 30 June 2023



Closing Notes



History repeats itself!?



Summary of 35y of data model proposals:

1. Hierarchical (IMS): late 1960's and 1970's
2. Network (CODASYL): 1970's
3. Relational: 1970's and early 1980's
4. Entity-Relationship: 1970's
5. Extended Relational: 1980's
6. Semantic: late 1970's and 1980's
7. Object-oriented: late 1980's and early 1990's
- 8. Object-relational (OR): late 1980's and early 1990's**
9. Semi-structured (XML): late 1990's to the present

→ OR model "won". Maybe it is time to finish that effort

What Goes Around Comes Around

Michael Stonebraker
Joseph M. Hellerstein

Abstract

This paper provides a summary of 35 years of data model proposals, grouped into 9 different eras. We discuss the proposals of each era, and show that there are only a few basic data modeling ideas, and most have been around a long time. Later proposals inevitably bear a strong resemblance to certain earlier proposals. Hence, it is a worthwhile exercise to study previous proposals.

In addition, we present the lessons learned from the exploration of the proposals in each era. Most current researchers were not around for many of the previous eras, and have limited (if any) understanding of what was previously learned. There is an old adage that he who does not understand history is condemned to repeat it. By presenting "ancient history", we hope to allow future researchers to avoid replaying history.

Unfortunately, the main proposal in the current XML era bears a striking resemblance to the CODASYL proposal from the early 1970's, which failed because of its complexity. Hence, the current era is replaying history, and "what goes around comes around". Hopefully the next era will be smarter.

I Introduction

Data model proposals have been around since the late 1960's, when the first author "came on the scene". Proposals have continued with surprising regularity for the intervening 35 years. Moreover, many of the current day proposals have come from researchers too young to have learned from the discussion of earlier ones. Hence, the purpose of this paper is to summarize 35 years worth of "progress" and point out what should be learned from this lengthy exercise.

We present data model proposals in nine historical epochs:

Stonebraker, M., & Hellerstein, J. (2005). What goes around comes around. Readings in database systems, 4, 1

Speakers



- Speakers (1)
 - Send presentations to info@pgday.ch, to be published at pgday.ch
- We donated CHF 300.--
 - to Tree Nation
- Speakers (2)
 - Come to the front for a final group photo!
- Participants:
 - Send feedback as instructed by e-mail 😊!



What's next?



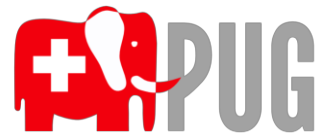
- PostgreSQL events, like PGConf.EU December 2023:
 - www.postgresql.org/about/events/
- 28 + 29 September 2023: Kurs PostGIS intro. OST (on-site, de)
 - https://giswiki.hsr.ch/Kurs_PostGIS
- **Swiss PGDay 2024...**
 - same place about same time, www.pgday.ch



Final words



- Give feedback
 - As instructed by e-mail from info@pgday.ch
 - #SwissPGDay on Twitter, Mastodon, LinkedIn and Meetup
- We have food left over from yesterday's social event
 - There is finger food and some warm portions near the info desk



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Goodbye and see you again!
(Elephants are good at remembering)

