

PANEL

What Can We Do to Strengthen the Connection Between Theory and System Builders

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Panelists:

Arnon Rosenthal, the MITRE Corp., Chair
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The perception, and perhaps reality, is that database theory too rarely aids system-builders, and hence is a bad place to invest resources. While theoretical paradigms from mathematics receive priority, implementation efforts suffer from a lack of adequate, relevant theoretical models. Simultaneously, young theoreticians are being pushed unwillingly into jobs that don't utilize their academic skills. Support will increase only if more database theory is seen to impact real systems.

We will seek *constructive* suggestions that do not require that theoreticians change their stripes, or that system-builders become contemplative. We do not expect the following to change:

Re researchers' preferred involvement in technology transfer:

"In a bacon and egg breakfast, the chicken is involved, but only the pig is committed."

Re dependence on better educated end users and systems developers

"We will improve Georgia's prisons when we get a better class of people in them" ... Gov. Lester Maddox

Re dependence on theoreticians who are better aware of practice:

<< See previous quote >>

We will describe experiences in applying theory, and briefly discuss measures to improve communications and provide appropriate incentives. In addition, we will examine how the theoretical researchers' paradigms might be expanded, identifying generic *theoretical* questions whose answers system-builders can too rarely find in the literature. For example, tool builders would like the developers of new database design algorithms to examine how the algorithm will behave if users should supply erroneous or incomplete input.