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Reflections on FHIR AuditEvent
and Provenance Resources

Provenance vs. AuditEvent

- Separation of Provenance and AuditEvent is sub-optimal
 - Prefer a single resource with clearly differentiated intent and outcome sections

Provenance Design

- The *proximal* focus of the provenance event is the creation of a version of a resource.
 - [Provenance when resource Created or Updated]
 - In W3C Provenance terms, the nature of the proximal event is fixed
- The *distal* focus – reason for creation of provenance resource – is what is coded in the provenance resource

Provenance Design, con't

- [May have] the design wrong in not catering for clarity in the separation of record and real event provenance.
 - It may be too late to fix this [in DSTU-2]
 - If so, we could add a DSTU note for implementers seeking comment on the issue
 - This would be a clear signal that change may be anticipated in a subsequent version (post-Connectathon experience)
- It may be that both `.agent` and `.entity` and `.entity.agent` are unnecessary

Provenance Overlaps

- When I did the base design, I had three fundamental choices:
 - 1) Provenance information in every resource
 - 2) Provenance information only in the provenance resource
 - 3) Standard provenance resource handles the provenance information, and selected denormalizations into other resources

Provenance Overlaps, con't

- The first option has several problems
 - Provenance generally applies to groups of resources
 - There are also some RESTful issues with this
 - So we didn't seriously consider it
- When evaluating the second option
 - My concern was that real world practice is that full provenance information can be quite considerable (multi-version, mutli-stage) and detailed
 - So it's often only available through a special operation, sometimes involving back to base procedures such as phone calls

Conclusions

- So both real world practice and my IT experience suggested to me that the full provenance information would easily be left behind
- Hence, as an operational matter, I believed that we should denormalise key provenance information into the individual resources

Conclusions, con't

- It would be reasonable to document this more explicitly than we do
 - To be explicit that the information SHOULD agree
 - To explicitly map overlapping denormalised elements in other resources back to the provenance resource design so that systems can enforce that they do agree
 - That might not be feasible this time around [in DSTU-2], but could be policy in the future