

TRAGEDY OF THE COMMONS

Graham Oakes sees some classic problems in the IT integration market.



Graham Oakes: people can't find services to do what they want

Imagine a field. Now put a sheep on it. A little grass gets eaten, but the field recovers. Now let everyone in the village put a dozen sheep on it. All the grass gets eaten. The field turns to mud. The sheep die.

This is the so-called 'tragedy of the commons' – a phrase coined by American biologist Garrett Hardin who argued that common property will always be destroyed. The tragedy is: everyone wants sheep and no-one wants to tend the grass.

Likewise, imagine a nice, clean new enterprise service bus (ESB). Put a business project on it. The project busily consumes services – but it rarely has the budget to tend those services or add back to the infrastructure. And so the commons degrades.

Managing SOA seems to present a similar problem. Project sponsors are happy to use services provided by the infrastructure – but they're rarely happy to invest their budget in creating infrastructure for other people, at least if they can achieve their immediate goals more cheaply by creating one-offs. Many SOA initiatives struggle with this problem. Often they look for a central pot of money to build and tend the common infrastructure.

However, I wonder if we've identified the only tragedy in this picture? When I talk to project teams, I often see something different: lots of services being developed – but few being consumed. People can't find services to do what they want. They don't fully trust the ones they can find. It's easier to build stuff yourself than to address these things. It's certainly more fun to build stuff yourself.

To me, the tragedy of the commons in this picture is service discovery. Every time you add a service without classifying it – what it does, what service guarantees it offers, etc – you consume the time of people searching for services. Add more services and that search time degrades, until people give up and start to build it themselves. Silos re-emerge. Even after some initial success, when the believers are keen to find and re-use services, many SOA initiatives are heading for this sad truth as they scale.

The infrastructure which supports this isn't about buses and integration tools. It's not even about service description languages and directories (although these have rightly been recognised as important from the outset of web services). It's about service taxonomies and classification methods.

Creating a good taxonomy is hard. You have to think about it, and gather the input from a large range of stakeholders, and then think about it some more. The answer is never cut and dried – there are always trade-offs.

So perhaps we have two commons to tend. We need the integration infrastructure, but we can only fully use it when we have the intellectual infrastructure that helps us navigate it.

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