

Thoughts on Attributes of Sustainable Brokering Software and the implications for a business model

BASED ON THE WORK OF SOFTWARE SUSTAINABILITY INSTITUTE (UK)



Offering Context for Manifold Definition of Sustainability

- What does Sustainability mean in the context of software?
 - **Sustainability** is the ability to continue a **defined** behavior indefinitely.
 - A "defined" behavior could be
 - A service or set of services, technical capability, the social context for a community, or all of these
- What are the principle drivers that shape define behavior
 - Clearly stated need and the impact that would result if that needs is met
 - The availability of human and financial resources that can be effectively applied
 - Competencies within a community (from developers to marketers) to create, modify and sustain the technology
 - A community of users who can be engaged using proven techniques
- What are the factors influencing the longevity of software sustainability efforts
 - Alternative approaches and new technology offer better solutions
 - User needs evolve in directions that are not well matched to the architecture of the software being sustained

Givens and Assumptions

■ Givens

- The software of interest is data brokering software
 - Represents a class of software not an individual software package
 - The software is being widely used and has maturity
- The stakeholders with representation in the Research Data Alliance
 - Primary stakeholders are academia and governments
 - Secondary stakeholders NGOs and industry

■ Assumptions

- Data Brokering Software is sufficiently mature that sustainable support requirements are mostly known (the attributes required to maintain sustainable software)
- Business models are not likely to address the all the support requirement (attributes) equally well
- Mapping the different sustainability attributes on to business models will yield insight that will help guide the discussion of an appropriate business model

Attributes Required to Sustain Software

These are attributes that are required to sustain Brokering Software. They all require some level of resources financial and human.



Anticipating outcomes effected by different business models

- What are the anticipated responses to different business models?
 - Alternative models will stimulate different communities
 - The levels of participation might depend on the business model (see variants of software as a service as an example)
- Who are the stakeholders?
 - Bifurcation between politically driven and commercially driven?
- Who are your Partner?
 - The choice of partners could help, but might hinder?
- How important is innovation?
 - Some models are better suited to foster innovation than others
- Other thoughts?

Mapping Attributes on Business Models

Attributes / Business Models	Information and Ad sales	Product (document sales)	Corporate Support	Software as a Service" (SaaS)	Government Funding	Other possible business models?
Support Contributions (non-financial)						
Community Engagement						
Product Management						
Funding/Efforts (seeking funding & other outreach efforts)						
Market Development						
Software Engineering						

Effective
 Possibly effective
 Effectiveness uncertain
 Effective in partnership