

## ***APC Forum: Harvesting Digital Data Streams***

**Madeline Weiss**, Program Director, SIM Advanced Practices Council<sup>1</sup>

The Advanced Practices Council (APC) of SIM commissioned two academic researchers (Gabe Piccoli and Federico Pigni) to help members learn how best to leverage the digital data streams being created every day, both inside and outside their firms, to provide greater value to customers and their firms. Piccoli and Pigni presented their findings at the May 2012 APC meeting. A key element of their presentation centered on five value creation archetypes for harvesting digital data streams (DDS): DDS generation, DDS aggregation, DDS-based service, efficiency and analytics. APC members left with a useful way to think about DDS as well as specific examples for doing so.

At the next APC meeting in October 2012, APC members shared their own examples of harvesting DDS, some of which came about directly from the presentation and discussion in May. In the following sections, we share some of those examples.

### **1. DDS Generation**

- A DDS with metadata associated with promotional messaging in sales presentations helped the firm better understand the key influencers in the sales process.
- A DDS that integrates information from twelve different banking transaction platforms provides real-time debit and credit balances for customers.
- A DDS of invoice-level data from major customers provided by third-party distributors creates insights into product movement to track customer inventory. The new DDS takes line items from invoices to provide clearer information on specific transactions.

### **2. DDS Aggregation**

- The aggregation of existing DDS of consumer purchases of off-the-shelf products helps a firm learn more about the behavior of its consumers.
- Existing financial and budget DDS are aggregated to distinguish between ongoing and investment spending. This will provide the basis for a predictive analytics capability for expenses.
- An aggregate DDS of construction starts from North America and Europe is used to provide recommendations for where to make bids for new work.



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<sup>1</sup> This is part of a series of columns from the SIM Advanced Practices Council, an exclusive forum for senior IT executives who value directing and applying pragmatic research; exploring emerging IT issues in depth; and learning different, global perspectives from colleagues in other industries.

- NASA aggregated and made available to the public DDS related to Venus' transit between the earth and the sun in June, enabling astronomers and other scientists to use this data to make their own observations and discoveries. The website received 500,000 hits in the first 24 hours.

### 3. **DDS-Based Service**

- Using information from DDS to identify which ads are visible to website users and what types of people are responding to them. Based on this knowledge, the firm advises its clients on where to remove ineffective ads and where to raise prices in effective ads.
- Reviewing DDS from Yelp to learn directly from consumers. Problems are directed to the appropriate department or business unit for resolution.

### 4. **Efficiency**

- Analyzes DDS connected to retail devices that distribute its products to learn about best product mix to stock in the devices, as well as the need for device repairs. Early results indicate that this has both increased sales by 25% and enabled machines to be repaired more quickly.

### 5. **Analytics**

- Analyzes internal and external DDS to predict fraudulent workers' compensation claims. This new ability to identify previously obscure patterns is helping the firm to build a differentiating capability.
- Applies analytics to project management DDS to predict if a project will succeed.
- Applies resource allocation and segmentation models to DDS to gain insights into its local markets, thereby providing an optimal resource mix.

These examples suggest that many other firms can also benefit from recognizing the potential of their existing internal DDS, the possibilities from generating additional ones, and the opportunities presented by external DDS.