

Industrialization of Services
Anatole Gershman
Kishore Swaminathan
Accenture Technology Labs

Arguably, services are as old as human civilization itself - there is archeological evidence that “fire keeper” was a full time job in pre-historic societies. What’s new today is the *industrialization* of services – the infusion of repeatability, measurability and mass customization into what have traditionally been one-off processes with high variability. What’s the impetus behind this development?

A look back at history shows that the industrial revolution in manufacturing was enabled by three technological developments: cheap energy, cheap transportation, and standardized parts. Cheap and controllable energy from steam engines powered the mills and the locomotives; railroads created cheap and reliable supply and distribution systems and made assembly from components economically feasible; this in turn led to the standardization of components and to a dramatic increase in the complexity and versatility of manufactured products. Over time, the manufacturing revolution led to an entire ecosystem consisting of educational systems to produce new specialists; safety and regulatory systems - both governmental and non-governmental - to ensure occupational and consumer safety; R&D institutions; professional and trade journals; and the list goes on.

We think that a similar impetus for the industrialization of services exists today. The Internet and the worldwide network for digital communication provide the transportation backbone over which supply and distribution chains for services are being built. Computing power is the modern analog of energy that powers services. Increasingly, highly standardized processes with predictable performance are becoming the standard components from which services are assembled.

In many service industries, mass customization of services from standard parts is already the norm. Today, travel services - with or without human assistance - can create custom travel packages that include air and ground transportation, room and board, entertainment, guide services, and so forth - assembled from discrete services from different providers. In eCommerce, we see sophisticated services that combine product selection, order taking, payment processing, order fulfillment and delivery provided by distinct service providers into a seamlessly integrated whole.

Industrialization of services continues with the emergence of industrial-strength *processes* for the assembly of complex services. These processes are made possible by loosely coupled service-oriented architectures such as SOA. Certification and assessment systems such as eSCM (e-sourcing capability model) may be seen as early attempts to systematize measurement and standardize large scale service processes.

Many ingredients of industrialized services ecology are yet to emerge: the service analogs of the sophisticated supply and distribution chains; the new business models and organizational structures; the educational disciplines that provide the workers and specialists for the new service economy; the R&D disciplines and professional journals that further the field; the legal frameworks and the regulatory agencies that bring order to services sourced across state and national boundaries.

Industrialization of services is still in its early days – perhaps when we see new service production philosophies such as Kaizen or Underwriters Laboratories for services, we'll know that services have come of age.