

## A View on Building Advantaged Information Business

The rise of data and information in virtually every domain of society is revolutionizing work and personal life. This dynamic will only intensify in the future and turn every enterprise into an information enterprise, either by intent or by default. In this world of information explosion, enterprises that are imagined, led and operated as an “information product enterprise” are not just more likely to prosper, but face less existential risk by failing to exploit the data environment. The challenge for most enterprises revolves around what future to aspire, how to select the path, and determine the sequence and pace. The path is challenged by uncertainty of new technology, internal capabilities, customer adoption, economic volatility, regulations, government policy and growing political risks.

The path to take advantage of the transformative power of information is best rooted in the attributes of a competitively advantaged information product business. The attributes (Table 1) of an advantaged information business are themselves evolving in this fast paced, connected, transparent, multi-tasking and real-time world. Increased intelligence, interactivity, personalization and instant speed are changing the ways information products are innovated, delivered and used. Today, aggregation economics underpin many information and content creation and distribution businesses, which in the future, with easier access to more analyzable data, will face potential disruption. History indicates in such technology shifts, the limiting factor is the organization’s capacity to imagine new avenues to add value to customer and shareholders through products, business models, operations and organization.

### Information and Content Markets: Continual Evolution

Although past isn’t always prologue, reflecting on the way information business evolved may offer valuable clues for future.

The roots of the information and content businesses lie in printed newsletter and lists, which over time, evolved into other formats such as newspapers, magazines, newsletters and books. Successful publications began uncovering ways to convert published content into valuable proprietary data, allowing new business development opportunities. A decade ago, as the power of analytics emerged, data was seen as a commodity and business models evolved around advanced *analytics*. Overtime, recognition of the power of the *data* resurged as well as the advantage of integration of data, analytics, user tools and software. Software and tools aid users in reaping greater benefits through better outcomes from better decision-making and their own efficiency. Integrating tools both into user data and workflow processes creates user stickiness. Over time the integration makes it harder for users to extricate themselves by creating switching barriers. The integration into user data and workflow also provides insight into user behaviors valuable for future product innovation. Networking tools that let users connect, communicate

message and share information with each other adds to the product's stickiness. The convenience of being able to execute a transaction, through ecommerce, further binds the user to the platform. In many situations, the link between content and transaction reinforces the perception of the value of the content, creating a virtuous cycle. Transactions process also offer rich source of proprietary data and content.

The evolution of businesses in information markets continues to evolve along three dimensions: content, functionality and delivery, as described below:

1. **Content:** Content evolved from simply publisher-driven textual and numeric to also include video, audio, animation and interactive tools. Now user views, content, messages and outcomes of use are a rich source of data and additional insights. Connecting disparate content amplifies insights and intelligence.
2. **Functionality:** The boundary vastly expanded from "passive" to "active and engaging rich experience". This altered the source of value. Historically, interpretation by the user was the primary source of difference in the value captured; today, through tools users apply their creativity to discover intelligence that is unique to them. Networking and e-commerce continue to not only push the functional boundary but also shows the promise of generating and pushing the proprietary content boundary.
3. **Delivery:** New technologies add extraordinary, low cost computing power to make the devices engaging in presentation and use experience with integration of multiple forms.

#### Attributes of an Advantaged Information Business

Exceptional user benefit is pivotal to the success of an information product. The more the benefit is tangible, timely, demonstrable and measurable, the greater its relevance and value to the user. The value to the user emanates from making smarter decisions that generate better outcomes either in terms of rational benefits -- revenue, costs, time, capital risks - or emotional feeling and behaviors. In a sense businesses are driving to an asymptotic approach to fully personalized products and services, personalized not only to their user attributes but fit for specific use as well. The key will be maximum personalization within competitive cost and time.

The user benefit can be generated from the data, curated or edited content, analytics, user engagement software, convenience of conducting commerce, social networking or the link and integration of these components. The distinctiveness, in value that a user experiences, is what differentiates the product. Strong relevance and differentiation makes the product sticky. This stickiness adds ease of use for the user and creates pricing leverage, low selling costs, and generates recurring revenues for the company. Sticky product expands the avenues to tap into proprietary customer insights more quickly, innovate, and sell more products. Relevant, differentiated, and sticky products are the foundation of a successful information business.

In most information and content products, users only consume a fraction of its content, functionality and features. The more a user consumes and relies on the information product for their decision making the stickier it becomes. Service that supports and prompts the user to get the most out of the product in his work or personal activity has been an important growth lever. Mining user behaviors as a way to share learning across the user groups has proven to be another important lever.

At an enterprise level, scalability is a major driver of successful businesses. There are at least four inter-related sources of scale: client, product, data and operations. The breadth of coverage in terms of content area, users, uses, geography and the inter-connectivity across these elements produces a network effect that in turn further adds to business scale.

Technology is central to innovating, manufacturing and delivering an information product. Knowledge of user behavior – what they use, when and for what – is vital to supporting how users realize value and for the enterprise to gain insights critical for differentiated product innovation. Organization integration across technology, product, user support service and sales is essential for success. The organizational separation of independent “content creators” and “business” still remain important in content businesses. User generated content and the growing popularity of native content marketing and advertising adds a new dimension.

With increased regulations and risks, new independent “control” activity added into the organization to ensure quality, objectivity and integrity can add complexity and stifle creativity. The culture to foster innovation while balancing costs and risk takes a change in the mindset and behaviors and reinforcement through rewards. Broader and more expertise to manage, analyze and interpret data is essential. This requirement is evidenced by current great demand.

The advantaged information business builds a moat with proprietary content, user software that lets users be unique, and a profound understanding of user behavior by integration of content functionality and delivery.

Big data explosion bring new opportunity as well the risk of disruption to existing products and models. Easier access to more analyzable data, user generated content, and more powerful tools at the fingertip of the users at the point of use can disrupt traditional models. Aggregation economics and scale might not be sufficient in future to differentiate and compete successfully. Information and content businesses are at the crossroads of next generation opportunities and challenges. The potential for business step level promise is enormous; slow response to grasp and act on the principles of information inflection will certainly lead to competitive loss, or worse, a disruption to the business.

**Table 1: Information Business Attributes**

Business Challenge	Success Attributes
<b>Competitive Edge</b>	<p>Moat: Created by breadth of proprietary content, creativity of analytics and tools, integration into user workflow and network effect</p> <ul style="list-style-type: none"> <li>▪ <b>User Benefit:</b> Tangible and measurable in user’s top line performance, reduced costs, time, capital or risks</li> <li>▪ <b>Data:</b> Intelligence inherent in the data reservoir that comes from unique and proprietary, depth and breadth, and connection across the data</li> <li>▪ <b>Product:</b> Actionable information particularly for decisions central to a customer or user</li> <li>▪ <b>Platform:</b> Tools that enable a user to use the information in a way that is unique and differentiates them; comprehensive with access to third party data and analytics; seamless integration to user content</li> <li>▪ <b>Network Effect:</b> Connection across breadth of content, uses, users and geography creates virtuous demand generation</li> <li>▪ <b>Scalable:</b> Scale from data, product, operations and client raises productivity and competitive bar</li> <li>▪ <b>Content Branding:</b> Differentiate positioning and generate user “pull”</li> </ul>
<b>Product Value</b>	<ul style="list-style-type: none"> <li>▪ <b>Data:</b> Data uniqueness, traceability and granularity define the breadth and flexibility of how data is assembled and used</li> <li>▪ <b>Content/Analytics:</b> Three sources of value with varying levels of required investment and pricing leverage <ul style="list-style-type: none"> <li><u>Problem</u> <ul style="list-style-type: none"> <li>▪ Aware, Describe;</li> <li>▪ Alert;</li> <li>▪ Investigate, Explain;</li> <li>▪ Discover;</li> <li>▪ Predict;</li> <li>▪ Prescribe/Action</li> <li>▪ Communicate and Share</li> </ul> </li> <li><u>Use</u> <ul style="list-style-type: none"> <li>▪ News, Opinion;</li> <li>▪ Performance attribution;</li> <li>▪ Measurement/Benchmarking;</li> <li>▪ New business/ idea generation;</li> <li>▪ Risk;</li> <li>▪ Learning;</li> <li>▪ Productivity</li> </ul> </li> <li><u>Currency</u> <ul style="list-style-type: none"> <li>▪ Historical</li> <li>▪ Real-time</li> <li>▪ Predictive</li> </ul> </li> </ul> </li> <li>▪ <b>User:</b> Level of usage shown to be an important determinant of perception of value</li> <li>▪ <b>Integration:</b> Into users’ workflow solutions internally and with external customers</li> </ul>
<b>Operating Scale</b>	<ul style="list-style-type: none"> <li>▪ <b>Customer:</b> Level of presence determined by number of users and uses with in a customer</li> <li>▪ <b>Product:</b> Multi-use across breadth of uses, users and customers</li> <li>▪ <b>Data:</b> Number of data sets and sources</li> <li>▪ <b>Analytics:</b> Modular design and a library that enables re-use and multi-use</li> <li>▪ <b>Operations:</b> Similar and standard data, analytic and operating processes</li> </ul>
<b>Organization</b>	<ul style="list-style-type: none"> <li>▪ <b>Teams:</b> Tightly connected across Product, Sales, Customer Service and Technology</li> <li>▪ <b>People:</b> Expanded skills in data operation, analytical science, user interface design, and “fact” driven leadership</li> <li>▪ <b>Culture:</b> Data Driven Decision Making environment lead to greater transparency and decentralization</li> </ul>
<b>Risks</b>	<ul style="list-style-type: none"> <li>▪ <b>Regulations</b> -- Selective disclosure, Confidentiality, Conflict of Interest and implications on design product, service and pricing</li> <li>▪ <b>Cyber Security</b>, given the importance of the product to a customer</li> <li>▪ <b>Privacy</b> breach, particularly with vary regulations across global markets</li> <li>▪ <b>Legal</b> liability, from accuracy of data and disruption in service</li> <li>▪ <b>Quality and Reliability</b> of data is a corner stone of content businesses</li> </ul>