HOW TO USE (NOT ABUSE) INFORMATION TECHNOLOGY

Stephen P. Dolha

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How to Use (not Abuse) Information Technology

Information technology (IT) - that is, the use of computers and telecommunications for storing, retrieving, and sending information - is a very broad and complex subject, so specific recommendations for the use of such technology will depend on the unique needs of each business. For example the specific information technology needs of a Video production company are very different than those of a Manufacturing company. There is however a set of key characteristics that apply to the effective use of information technology in all businesses. These characteristics are value generation, alignment, scale, quality and privacy & security. This article will discuss why each of these characteristics is important to you as a business owner when applying information technology to your business.

Value Generation

First and foremost, information technology is here to provide value to people and business. Ask yourself, "What is the business value proposition that a technology brings to my business?" Information and communication technology for instance, unlock the value of time. Unlocking the value of time allows time-consuming tasks to be completed more efficiently, allowing your company to undertake other activities that can add more business value. Information technology helps businesses - among other things -

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keep track of transactions, historical records and documentation. Information technology generates value when it automates parts of key business processes or performs important calculations, and in doing so, enables your people to focus on their highest value contributions, including things that technology can't do, like innovation and creative output.

Consider those areas of your business where the application of information technology can provide value by; improving reliability, predictability, interoperability, security, ease of use, cost-effectiveness, risk and liability reduction or simplicity. And express this value in business terms so that you can quantify and measure the value you actually achieve.

Alignment

Alignment in this context describes how well the design of a technology aligns to your business to maximize its value. Does the technology align to the way that your people and processes are designed to operate in an optimal manner? Is it designed to maximize the value that you are trying to achieve? Is the technology a fit for the maturity and financial means of your organization?

With any technological solution, look for a strong alignment between the features of the technology you choose and the people and business processes they support. *User experience matters a lot.* Watch out for information technology which does not actually address the root business problem and in fact makes your business situation worse.

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Does your bookkeeper spend more time than they should accurately entering and reconciling your books, because the accounting software is poorly designed for this purpose? And is the result that you are missing timely financial reporting you need.

Or do your employees consistently expend significant manual effort moving data from one system to another because there is no automated way that supports error free integration of that data?

Both of these are examples of your technology being out of alignment with your business. And both of these examples can be fixed using a correct design. Before committing to any specific technological solution, determine if the technology is overkill for the size, maturity and scope of your business at this point in time.

Engage skilled professionals who can provide business analysis and design as part of the technology project and ensure that they are able to articulate requirements for alignment in clear, non-technical language. Finally, ensure that the people who will use the technology - no matter how simple that technology is - are involved in designing, testing and integrating the technology into your business to maximize its alignment with their jobs and its successful adoption.

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Scale

Scale is the ability of a technology solution to handle the volume and complexity of your business processes and transactions. Ask yourself; is the solution capable of handling the volumes of work thrown at it? At what point will the solution fail to meet your business needs*?* Is it worth the effort to extend the period before the solution fails, with some additional investment in the initial solution? Or would it be more efficient to choose a longer term solution? Managing scale involves striking a balance between the cost of the technological solution and the risk of that solution failing because of growth or sudden spikes in volume or complexity.

For example, a system that runs on a single on-premise server could adequately support a small local group of employees. But in the future will it be able to support a larger and more geographically dispersed user based, including supporting your vendors and customers? Websites which crash because they've gone viral can mean you miss business opportunity and leave your key markets with lasting impressions that cost you future business. Spreadsheets are a great way to support a handful of users, but do they not scale to a large and dispersed user community. Cloud based solutions are designed to scale in a cost effective and timely manner, but you must ensure that you are able to protect and integrate the data you store in the cloud.

In short, when it comes to dealing with scale, ensure you clearly understand the all the options and your expected needs before assuming that any particular technology is the right solution.

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Quality

Do you have a clear understanding of the quality and reliability of the technology solution? Ask technology vendors to describe in detail the quality processes they follow to ensure that their information technology is reliable and will perform to your expectations. Ask them to demonstrate the quality of their information technology and how they address issues that do arise. Set clear and measurable expectations of the quality and performance you want from all of your technology vendors.

Quality issues with information technology can manifest themselves in many ways. For example, is the low quality of information on which you are basing your critical business decisions, a result of limited checks on that data when it is entered into a system. Are your employees spending a lot of time having to deal with technology that crashes or fails to function as expected? Is the solution causing more manual effort because it does not correctly support business functions? What impressions do your customers get when they interact with your business through technology that fails to work to their expectations?

Be sure to conduct independent tests to ensure that the technology meets your quality expectations before you rely on it in your business. The importance of this principle *cannot* be understated in any business, but it is especially critical in those where human safety is a risk.

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And be leery of "sliver bullet" claims from technology vendors. These are claims that sound too good to be true. "Our technology is simple to implement and will result in overnight business success with very little effort." While technology can certainly provide massive benefits to your business, it is never without some level of risk or effort that such benefits are achieved. So take the time to understand those risks and the true impact the technology will have to your business.

Privacy & Security

What privacy and security considerations are required to protect the data that is stored and manipulated by the technology solution you select? Have you articulated those considerations in clearly communicated policies to your employees?

We've seen some very high profile data breaches in recent times, which in some cases have brought businesses to the brink of failure - and even companies like Amazon and Target are not immune from this - 2014 was an especially big year for this (see http://www.forbes.com/sites/moneybuilder/2015/01/13/the-big-data-breaches-of-2014/) and 2015 followed close behind (see http://www.crn.com/slide-shows/security/300077563/the-10-biggest-data-breaches-of-2015-so-far.htm). This is an area where I believe it is essential to engage an IT security expert who is versed in the strategies and policies that need to be in place. Your goal is to minimize the threats to data security and ensure that your business is compliant with the latest privacy laws and is capable of implementing them in any technological solution.

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In Closing…

Take the time to reflect on your requirements in each of these key areas and articulate the principles that drive your technology decisions. Doing so will provide you with a solid framework for all of your technology decisions going forward. In this age of consumer driven choice and connectivity, one cannot escape from the fact that technology is an integral part of the success of any business. No matter how small or large your technology decisions are, considering the characteristics I've described here will position your business to take full advantage of the benefits of technology in a safe and business friendly manner.

TELL ME MORE ABOUT YOUR EXPERIENCES WITH INFORMATION TECHNOLOGY AT WWW.SOLGISTIC.COM.

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