



No Field of Dreams:

Eliminating the Waiting Game and Driving Network Uptake

by

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INTRODUCTION

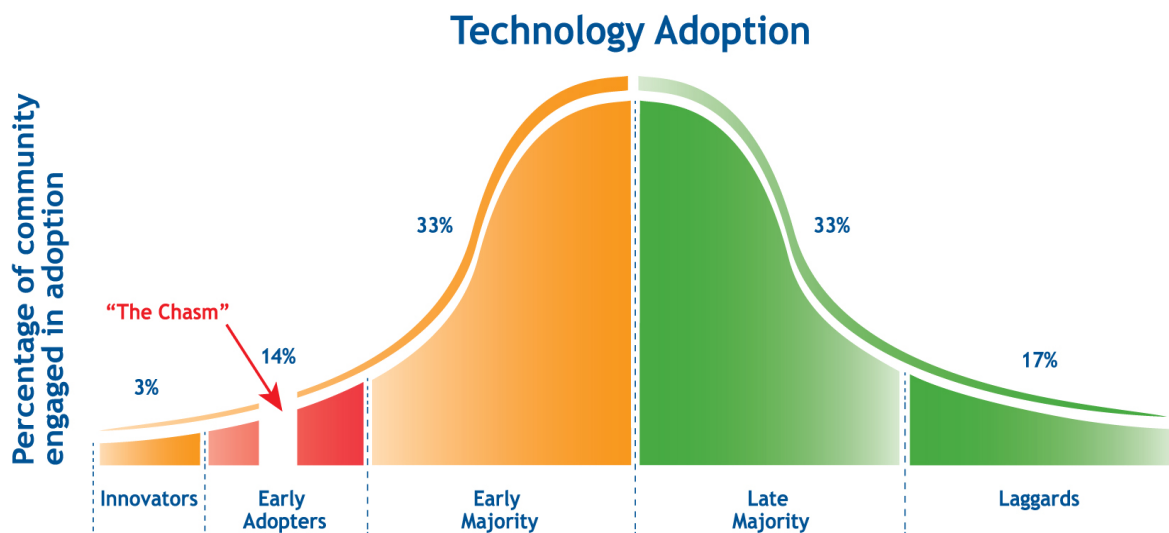
In working across the globe and working with multiple carriers deploying new, more robust broadband¹ networks, Strategic Networks Group (SNG) consistently comes up against the notion that once the network is built, adoption will naturally follow. “Build it and they will come” is a school of thought that expresses the great hope that potential subscribers will naturally adopt, however this notion goes against what we have always known about technology adoption.

Meanwhile, broadband is broadband for many consumers and businesses. Organizations like US Ignite are forming to promote “Next generation Applications,” specifically new applications in education, healthcare, clean energy, public safety, and workforce development, including advanced manufacturing. These require the ultra-fast broadband connectivity the networks being rolled out today provide. And before we get to “Next generation applications,” consider the bandwidth required to support online collaboration so critical to being competitive in a 21st century economy.

In the following white paper, SNG will apply its own experience and findings with accepted technology marketing theories to better explain why, when it comes to introducing ultra-fast broadband (e.g. fiber / FTTH²), “build it” is merely step one of gaining traction.

Technology 101: The History of the Technology Adoption Lifecycle

In 1957, the technology adoption lifecycle was introduced as a model by Joe M. Bohlen, George M. Beal and Everett M. Rogers of Iowa State University as a model to explain the adoption process (in their case, hybrid seed corn).



¹ Broadband – high-speed Internet

² FTTH – Fiber to the Home

The technology adoption curve shows the unique lifecycle of innovation, and the groups who tend to adopt along the way.

Adoption Groups	Technology Stage
Innovators	Bleeding Edge – Any technology that shows high potential but has not demonstrated its value
Early Adopters	Leading Edge – A technology that has proven itself in the marketplace but is still new enough that it may be difficult to find knowledgeable personnel to implement or support it
Early majority	State of the Art – Majority believes the technology is the “right” solution.
Late Majority	Dated – Still useful but a more effective version is available
Laggards	Obsolete – Maintained but no longer implemented technology.

Nature versus Nurture

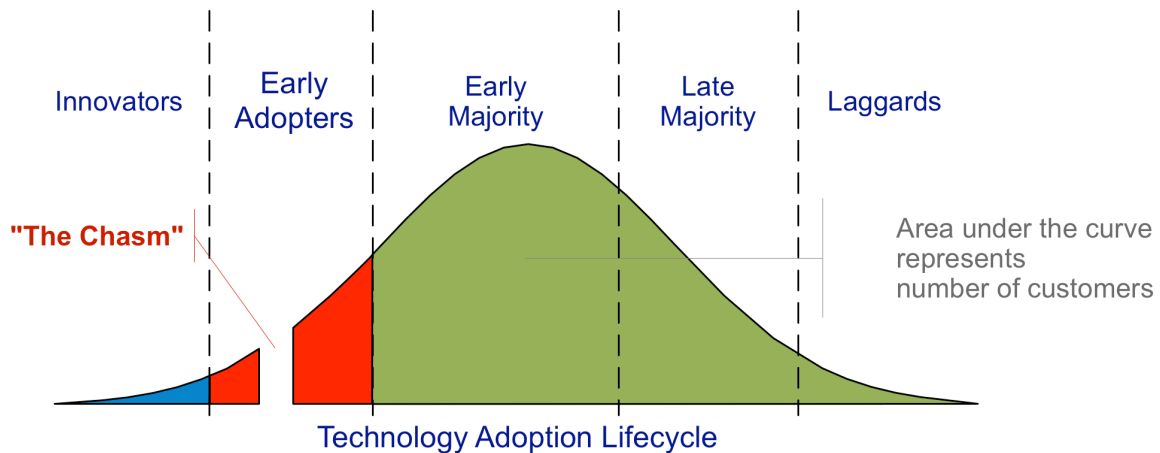
If we were to describe the technology lifecycle as the natural progression for technology products, or “nature,” then in 1962 Ohio State professor Everett Rogers introduced “nurture” to the equation. In his book *Diffusion of Innovations*, he lays out the four main elements that influence technology adoption, or movement along the technology curve:

- The innovation – The product, service, etc. and its characteristics.
- Communication channels – How the innovation is brought to the public.
- Time – The length of time required to get through the innovation-decision process. Individuals must through 5 stages of decision making...
 - Knowledge (The innovation is introduced)
 - Persuasion (Interest is established, information is sought/gathered)
 - Decision (weighing advantages/disadvantages)
 - Implementation (employing innovation)
 - Confirmation (using the technology to its fullest potential)
- Social System – Interrelated units that are engaged in joint problem solving to accomplish a common goal.

In SNG’s experience, ultra-fast broadband network developers focus on the “innovation” element of their network and remain with that focus, rather than moving on to also address the other elements of communication, time and social systems.

Crossing the Chasm So They Will Come

In 1991, Geoffrey A. Moore brought the technology lifecycle together with the diffusion of innovation theory in his book *Crossing the Chasm*. In it he explained how difficult it was to move a product from innovators/early adopters to a majority stage.



Moore calls the innovators “visionaries” and the group after the chasm the pragmatists. The key to a successful technology rollout is not getting the visionaries on board, but rather, **winning over the pragmatists**. Most technology requires a change or an action for adoption. And to get the masses to start adopting, there needs to be a compelling case to motivate action.

Benefits, not Features

Many great technologies fall flat when trying to cross the chasm because of a simple truism: people buy benefits, not features - think what happened to Betamax in the format war against VHS, as compared to how consumers bought the iPod and subsequently the iPhone not because it was new technology, but because it was convenient to carry 1000s of songs on one device while the iPhone enables productivity and mobility. So the challenge is there for technology to become much more than a “shiny object,” but as a vehicle for a better, more productive life.

This goes against how many technology firms operate as the champion of most new products, services, etc. was an engineer who (justifiably) is proud of and in love with the features of a product. They spent a great deal of time developing said features – but if they are not made into benefits (1000s of songs in your pocket), products like the iPod would die before ever crossing the chasm. The challenge is to take the engineers feature... and make it relevant – a benefit.

So what about ultra-fast broadband networks? How does it cross the chasm and go from an early adopter technology to reaching the masses? The survival of your network depends on the answer to this very question.

WHY AREN'T THEY COMING?

As the build phase of ultra-fast broadband network initiatives winds down, network operators are finding they have reached an impasse – there is this fantastic, wonderfully robust network that businesses, organizations, and individuals are not adopting.

Operators skilled at building and managing networks are faced with a new hurdle – crossing the chasm by making their faster, more reliable broadband network relevant to end-users, not only to achieve sustainable network utilization, but to drive the benefits from better broadband.

The problem is – “faster” is not a benefit. “A new world of possibilities” is too vague. Benefits are what the pragmatist looks for when making a change or adopting a technology. So is it any wonder that “faster,” a feature, is not driving the network uptake desired.

Benefits to users need to be front and center to compel behavior change. Significant adoption of advanced technologies only happens when the benefits of adoption are communicated and understood. Features are great (i.e. faster and more reliable), but benefits move the adoption needle. What does faster mean? What can we do now with faster? What opportunities await my organization?

No Field of Dreams

BVU (Bristol Virginia Utilities) is just one SNG partner with direct experience showing the flaw in the “Build it and They Will Come” strategy. BVU recently launched two separate areas in their footprint, one where they conducted outreach, one that they did not. With both areas being up and ready for service in February of 2012, the community that was marketed to now has an uptake rate of 45% (after less than 6 months) while the one with less awareness driving and marketing support is only at 18% take rate.



BVU found that the sooner you could start collecting reoccurring monthly revenue from the customers the faster the revenue grew and the payback model shortened. They also found that by aggressively marketing new ideas and applications that their ARPU grew and again the payback schedule was reduced.

GETTING “THEM” TO NOT ONLY COME, BUT BUY TICKETS...

Ultra-fast broadband networks are no different than the lifecycle of every technology service product since “high tech” was a wheel. It takes time - time that most networks just cannot afford.

For SNG, we have found the key to sustainability and eventually profitability (if that is a stated network goal) is to provide the tools to speed up the technology adoption lifecycle.

Getting past your network’s reliance on innovators and early adopters and across the chasm requires demonstrating value to the more pragmatic of technology adopters, the early and late majority, and move adoption of your network up the adoption curve.

One would be hard pressed to find anyone in 2012 who does not think broadband is a great thing. But the reality is, not enough people (leaders of businesses, organizations, and Community Anchor Institutions) truly understand all the benefits bigger broadband / ultra-fast broadband networks can bring. So this leaves fiber networks at a loss as to how to quickly drive uptake as businesses and organizations, for the most part, do not completely understand the extent of the economic benefits that can come from fiber.

Start with the BENEFITS (and not the features) of Ultra-Fast Broadband

For more than a decade, SNG has been collecting information about broadband utilization and its impact on economic development, for regions down to individual businesses and households. Most recently, in the past several years we have been taking the use of e-solutions and applying what we call a DEi (Digital Economy index) score to individual entities to reflect their broadband utilization. DEi is a proprietary SNG measure where scores range from 1 to 10 (10 being highest). The higher scores reflecting the greater the number, scope and sophistication of the Internet activities deployed in an organization.

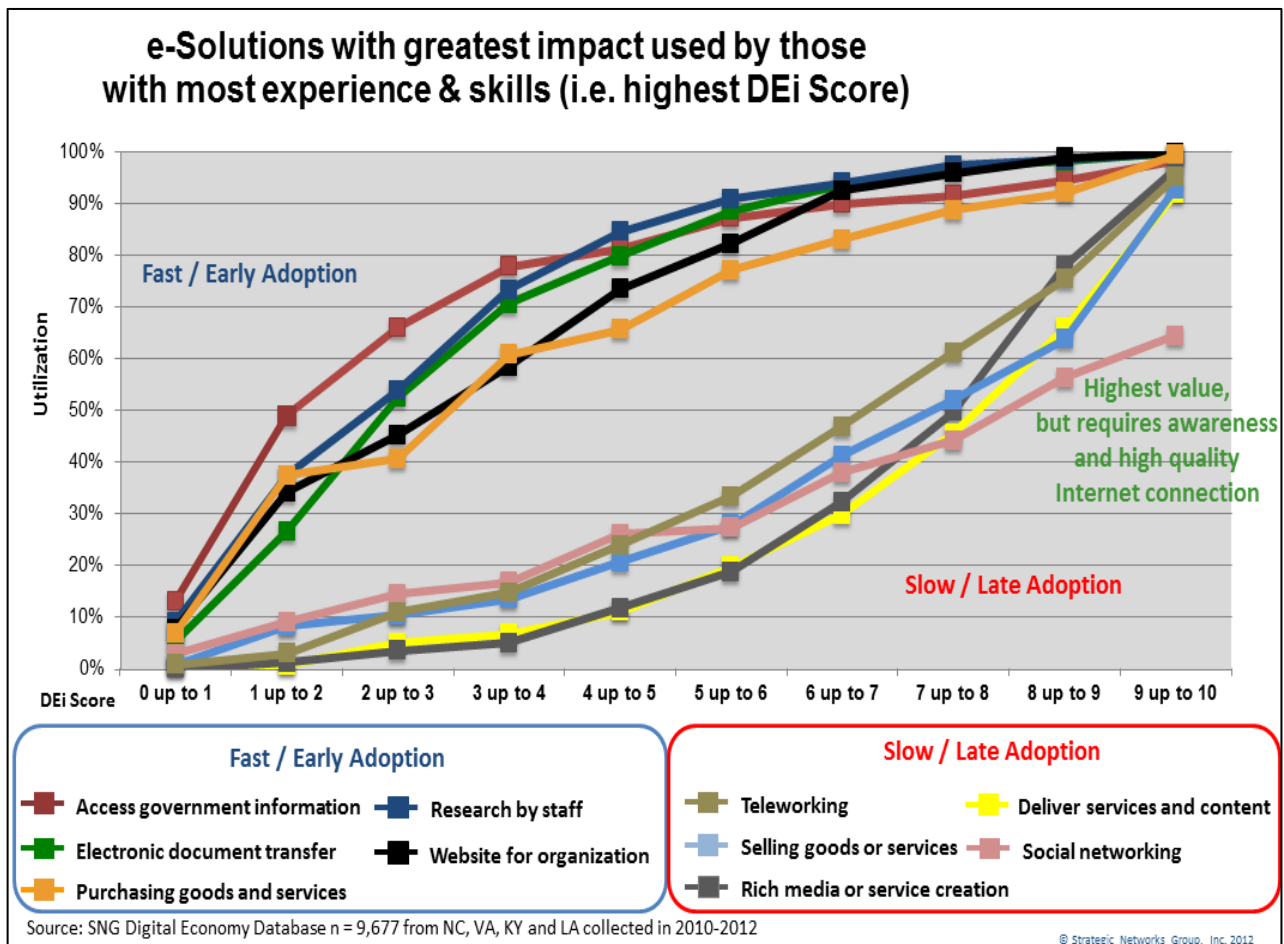
With tens of thousands of households, businesses, and organizations in our unique, one-of-a-kind database of Internet utilization and impacts, we are able to ascertain the e-solutions that are easiest to adopt, the low hanging fruit of Internet applications... and the ones that are more difficult to find resonance and with it... adoption.

e-Solutions Adoption Rates for “Average” Organizations (with DEi of 6)

Quick to Adopt	Slow to Adopt
Access government information	Teleworking
Electronic document transfer	Rich media or service creation
Purchasing goods and services	Selling goods or services
Online research	Deliver services or content
Website	Social networking

Unfortunately, the “slow to adopt” e-solutions are better served with ultra-fast broadband... so carriers are dealing with two challenges: 1) making the e-solutions relevant; and, 2) driving uptake so that individuals and organizations can realize these benefits.

Additionally, the slow to adopt e-solutions are the ones that are the most beneficial to your network’s prospects, the ones that drive the greatest economic impact for end-users.



The value of ultra-fast broadband networks needs to be personalized to the needs of individual businesses, organizations and households. It is critical that this personalization demonstrates benefits and clearly lays out the value of better broadband. Businesses, for example, will need to know the return on investment (ROI) for adopting your network. This is where we look back at basic marketing principles to solve the problem of “once it has been built, why aren’t they coming?”

Until FTTH vendors figure out how to personalize the value of FTTH to end-users, adoption and meaningful use will continue to be an issue – and they will not be seeing the uptake by end-users that can justify their investment in FTTH networks.

Putting Their Money Where Our Mouth Is

So how do we take the feature of faster and turn it into a benefit so we can create uptake? For SNG and its clients, we go through a “self-assessment” process by businesses and organizations in a given network’s footprint, and then compare the Internet applications they are undertaking versus those that they are not. Alongside the applications not being used (we call them e-solutions), we include what their benefit COULD BE, in dollars and cents, should they adopt said e-solutions. We actually provide ROI by comparing the organization’s size, industry, etc. with their peers in our expansive database and the benefits they receive.

Whether we like it or not, driving adoption of ultra-fast broadband networks is a two-step process:

1. Education – driving understanding of the benefits of ultra-fast broadband, and
2. Close – getting the household, company, organization to actually signup for the service.

Only by creating an understanding of the benefits will you ever get your network to “majority” position as per the Technology Adoption Lifecycle.

Looking back at nature versus nurture and the *Diffusion of Innovations* theory, we are impacting movement along the tech curve and driving uptake in the four areas of diffusion by...

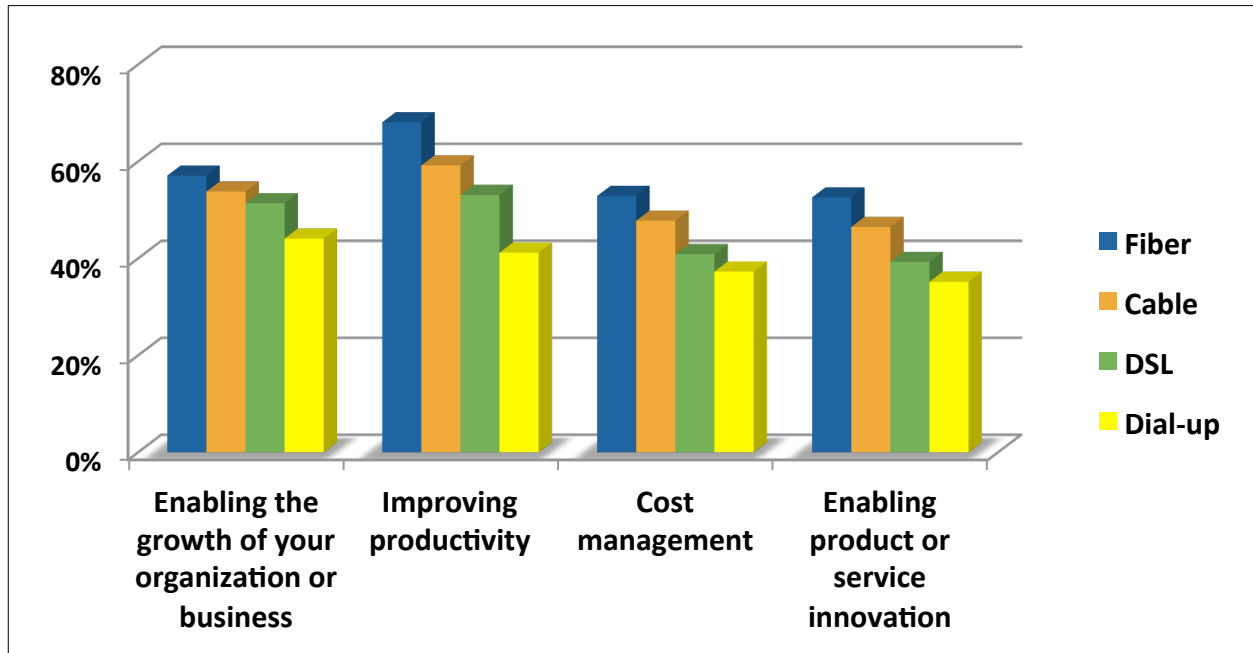
- **The innovation** – Better broadband (ultra-fast and more reliable), distinguishing effective utilization from basic Internet usage.
- **Communication channels** – One-to-one communication of the benefits of e-solutions and the ultra-fast broadband needed for full utilization.
- **Time** – By delivering the ROI that ultra-fast broadband and its e-solutions bring, prospects are faster to adopt so they can realize efficiencies.
 - Knowledge (what are the e-solutions not being utilized that should be)
 - Persuasion (the ROI of adopting ultra-fast broadband and e-solutions)
 - Decision (weighing advantages/disadvantages – what is the cost of not adopting?)
 - Implementation (employing ultra-fast broadband... signing up for your network)
 - Confirmation (utilization of ultra-fast broadband and driving economic benefits)
- **Social system** – Leveraging industry leaders’ utilization of ultra-fast broadband and e-solutions to persuade adoption.

The Good News: Once They Come, They Are Not Leaving

SNG's research shows that, once customers get through the understanding of why ultra-fast broadband is important (once they adopt), the benefits they realize are not only greater, but end-users recognize the value and accompanying benefits. The chart below clearly demonstrates that users of ultra-fast broadband networks, in this case fiber (FTTH) are seeing greater value.

Internet benefits vary by speed and quality of connection

Sample: Fiber 737; Cable 1,257; DSL 1,892; Dial-up 102



Just as significantly, the level of customer satisfaction among fiber customers is off the charts when compared to the traditional cable, DSL, etc.) Fiber has proven its reliability where other access types did not.

In other words, once you have a customer, you are most likely keeping that customer.



n=9,773

CONCLUSION

Build it and the will come is not only a flawed theory, it goes against the basic laws of technology marketing. Theories developed over the past 50 years have continued to be borne out to be true – that technology adoption is slow and sometimes does not come at all unless you make smart, strategic efforts to cross the chasm and drive usage.

And make no mistake, ultra-fast broadband is NOT a utility – it is a technology, what many will see as a luxury that needs to be sold by touting not the feature of fast, but the benefits of ultra-fast broadband and its accompanying e-solutions.

Individual organizations and businesses want and need to become more productive and competitive – we can show them how to do that through meaningful use of the Internet and e-solutions. With a roadmap to tangible benefits from broadband, they can then see that ultra-fast broadband is a key to their individual and community's future success.

Are you doing what it takes to drive uptake... or is your plan to wait?

About the writers

Doug Adams oversees SNG's Communications efforts, which includes serving as the editor for our monthly *Bandwidth* newsletter.

Doug has a long track record of success developing marketing strategies and positioning for entrepreneurial organizations in a variety of industries, including technology, market research, and publishing.

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Michael Curri has supporting broadband initiatives across the globe for more than fifteen years. As a renowned world leading broadband economist, Curri has a proven track record in targeting opportunities for economic development through broadband. He and his firm (SNG) are able to quantify the economic impacts of broadband and provide actionable intelligence for growth, at a macro and micro level.

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