

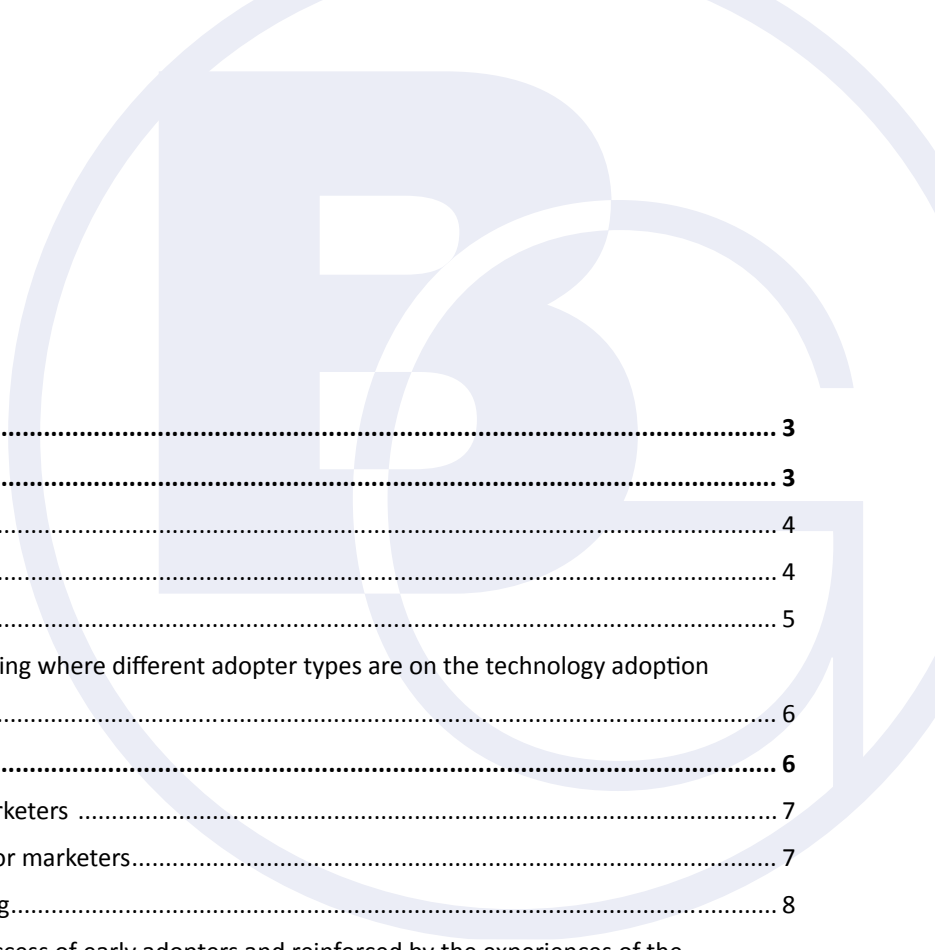


The **Bathwick** Group

# Introducing the Adoption Train:

A tool for controlling the hype cycle

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*The adoption train provides a way of modelling the way in which a new idea or technology is being adopted so that marketers can ensure that their efforts are focussed for maximum benefit.*

## Abstract

For nearly two decades, the technology industry has used the technology adoption lifecycle as a means to model and understand the way new technologies or products should be brought to market. We believe that the ways in which that model is used are flawed; this paper introduces a new way to view the technology adoption lifecycle, adding additional dimensions that enable:

- Marketers to more effectively target marketing spend, and
- Product managers to better manage the different communities and adoption styles – and the hype cycle – that accompany the introduction and adoption of a new technology product or service.

This paper builds upon established thinking about the adoption cycle by introducing the notion that different groups adopt new technologies at different rates and speeds and by providing a means by which these groups can be analysed, and their different needs and wants addressed.

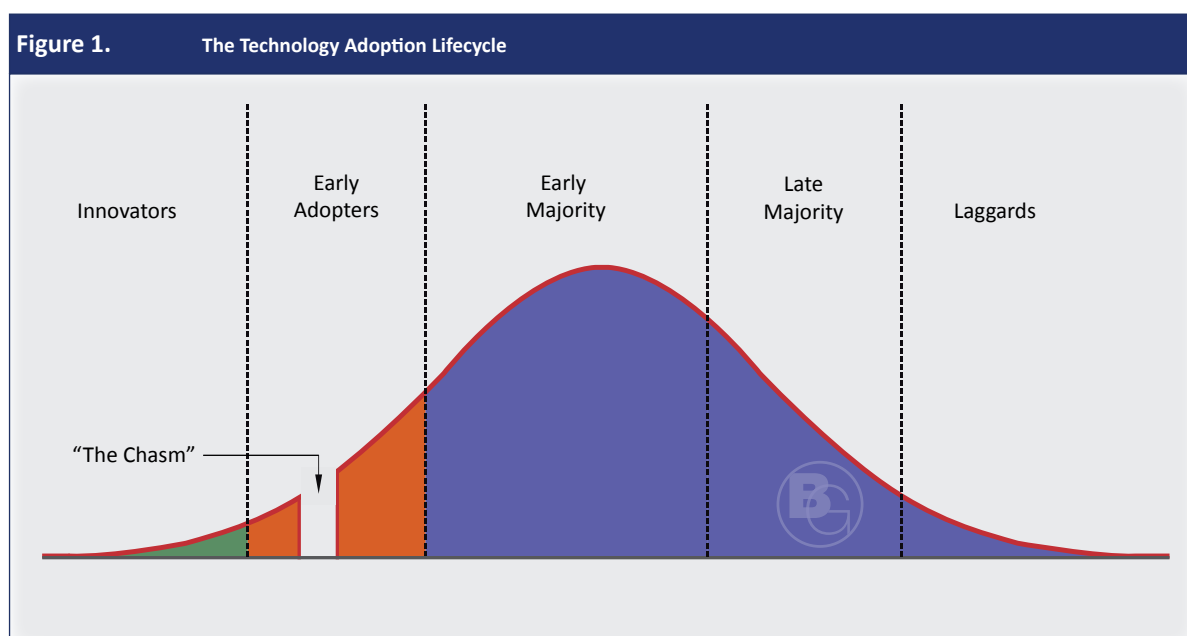
The Bathwick model addresses three key challenges that ICT companies face in making a success of bringing new technologies, products and services to market:

- Controlling the ‘heat’ around a new idea. Over marketing to the wrong community can result in a classic hype-realisation-disappointment cycle from which it is tough to recover
- Determining the ideal marketing mix to encourage/maintain/control momentum
- Managing the internal product management process (understanding what features to deliver next)

## Introduction

The technology adoption lifecycle (TAL) has been used extensively to understand and position the current adoption “state” of a technology or product, to aid marketers on the supply-side, and strategists on the buy-side, in their planning.

The TAL was originally developed in the 1950’s, but was made more relevant to the technology sector in the 1990’s by Geoffrey Moore (“Crossing the Chasm”). Since then, the TAL has been used (and misused) by many organisations. Many analyst firms, for example, have “models” that derive almost wholly from the standard TAL. In some cases they are little more than copies of the original, while in others there has been at least some attempt to extend the thinking behind the model.

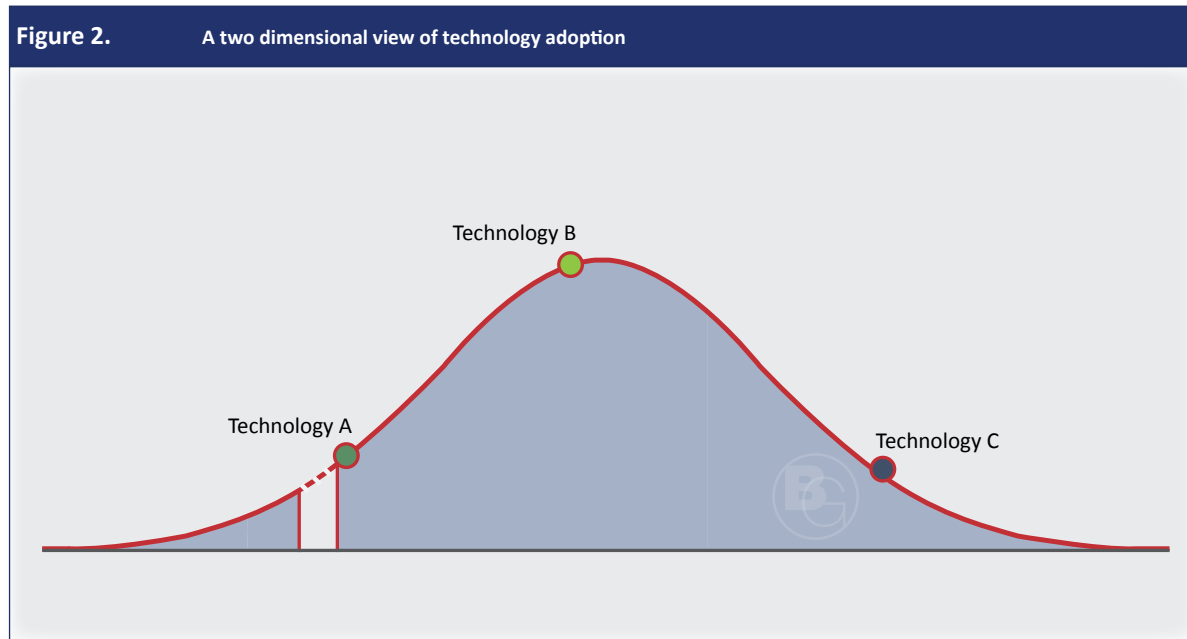


This paper outlines our thinking on how the TAL can be extended to provide technology marketers and adopters with a much keener insight into the way technologies are adopted over time.

### What's wrong with the existing model?

The primary issue with the current model is that it offers only a two-dimensional view of technology adoption. Theoretically, by placing technologies on the TAL as a single point, it is possible to represent overall where the given technologies are in terms of their overall lifecycle.

It is even possible to add some idea of velocity (using arrows for example); but from a selling and understanding point of view the existing approach grossly over-simplifies the actual market picture.



In figure two above, we have placed three hypothetical technologies on the curve – A, is notionally in the “early adopter” phase, B in the early majority phase, and C seems likely to enter the “Laggard” phase.

This does have some use, in as much as we can now make some assumptions about each of the technologies – Technology A is likely to be adopted by organisations that view technology as a differentiator, these organisations invest in understanding technology, and the sellers of technology A can assume that there will be lots of competition around feature and function. Technology B is likely to be regarded as a mainstream technology, with even technologically conservative organisations now taking it seriously, Technology C is likely to be (from a vendor perspective) in the “harvest mode” – and this helps buyers understand the long-term strategic issues that may surround its adoption.

But there are a number of key things that this graph does not tell us, and which are potentially crucial to sellers and buyers of technology.

### It's important to know “who” is adopting

While the graph appears to tell us that technology B is “early majority” it doesn't provide anything like enough insight into the composition of that apparent early majority. The position of technology B is a composite of the adoption behaviours of a wide range of different adopters – who transition through the TAL at different speeds, in different ways and for very different reasons.

The other problem with this graph is the vertical axis. Very few technology adoption curves show a scale, so what is it meant to measure? Is it a measure of “coolness” (in which case how does the “coolness” convert to cash), rates of adoption (in which case are the three technologies comparable in terms of volume?) or spend (again – are the three comparable in terms of dollar spend?)

Next, the model doesn't actually tell you how intrinsically good (as in "useful" or "viable") the technology is. The fact that a technology or product is in position B – it doesn't mean it's good or that it has a viable commercial future, it might actually be a failure, and actually only being adopted by a very small number of people.

## Different types of adopter

### *Thought-Leading Embracers*

This group typically consists of technology watchers, pundits and a small number of experimenters. These people tend to be visionary in their outlook, they will see the potential of a new technology or idea, and support it on that basis.

Thought-Leading embracers are very influential in creating momentum, but they very rarely do much more than "tinker" with the technology, and talk (often in a loud voice) about the technology's great potential.

Most importantly, this group spends a negligible amount of money.

### *Innovator adopters*

This next group consists primarily of very technically savvy early adopters. These are people who view technology as a key asset/differentiator in itself and are willing to take a degree of risk in order to gain an advantage. This group is typically quite small, but often quite vocal. These adopters are interested in the "gorp" the technical features and functions.

When selling to this group, the focus will tend to be on feature and function, and there's an important warning here – the fact that you're successfully selling to this group provides no guarantee that you'll be able to sell to other groups. Indeed, in most cases you don't have to sell the "concept", these people have worked that out for themselves.

These people spend relatively little in cash - but often invest a LOT in terms of time. They serve to drive consensus about what a technology "is" and "should be" in terms of feature function. But product marketers need to be very careful, this group will tend to value features over simplicity. If you allow this group to determine your product strategy you run the very real risk of producing a technology that is "unadoptable" by the mainstream because of its complexity.

This group typically accounts for around 20% of spend.

### *Early adopters*

We believe that early adopters represent the most important adopting group for most technologies – they are the bridge between the lab and the real world. These are technically savvy adopters, who see the link between tech function and business benefit, and who can (often) explain it in those terms. This is the first time that your sellers will be having a meaningful discussion about business benefit. This is important because while your sellers may not know how to pitch the technology in business terms, Early Adopters do – so they're an important source of insight into the business proposition for your technology.

These people will spend real money but they do expect an element of co-investment. They'll spend if you help with implementation. This group is also a good source of early case studies, although you need to be careful about the relevance of Early Adopter case studies to Mainstream adopters, as in many cases the Mainstream adopters will say "yes, it worked for them, but we'd never get that through our internal processes....".

This group can account for as much as 40% of spend on a technology.

### *Mainstream*

This group comprises people who need to understand the business benefits as well as the technical benefits. Mainstream adopters invest in technology rather than merely "buying it", they take longer to adopt and will typically remain with a technology for longer once they've embraced it.

Mainstream adopters take a much broader view – they are interested in risk, cost and flexibility. This class of adopter needs to see evidence of success – not in the lab, but in the real world.

This group wants to see the emergence of best practice, end-to-end case studies and detailed ROI calculations in order to satisfy themselves that they are not in danger of making promises that they cannot keep.

*Laggards*

Laggards represent the most conservative adopting group. Laggards are unlikely to buy unless something is essentially industry standard, and/or commoditised. Members of this group will be focused on cost.

This group is often overlooked by marketers, which is a shame because it can account for as much as 30% of overall spend on a given technology.

**The key to effective marketing lies in understanding where different adopter types are on the technology adoption curve**

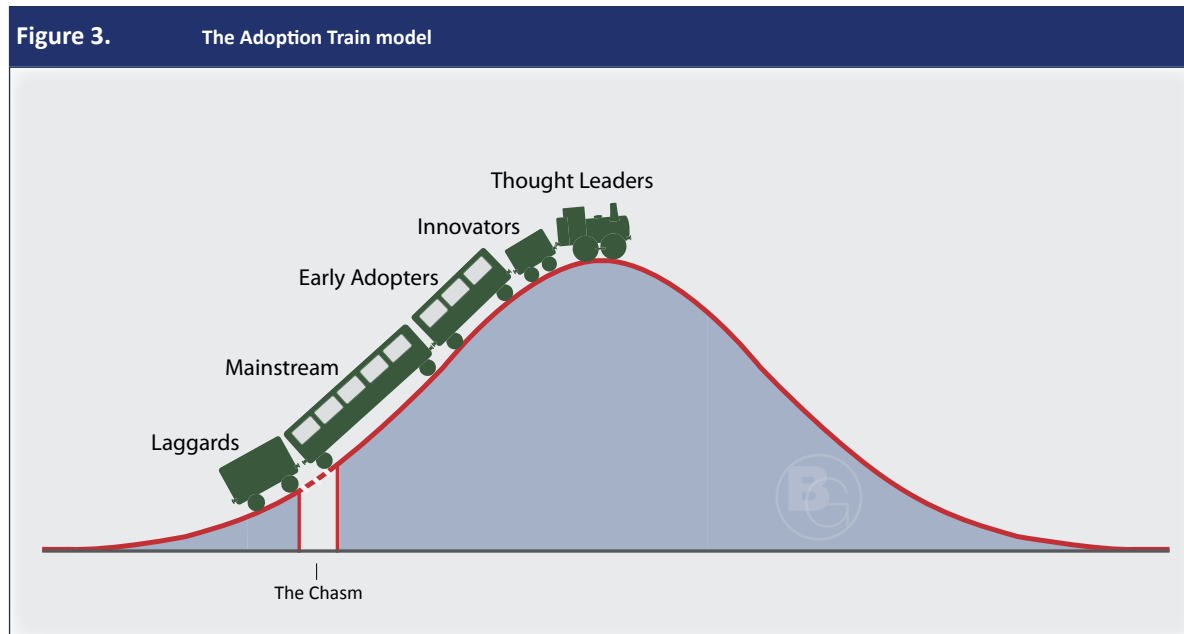
In order to properly market a technology, you need to understand the different needs and wants of these groups, their relationships to each other, and where each group is on the technology adoption lifecycle. The next step is to ensure that your marketing programmes and collateral are pitched at the correct audience.

For example – if the only case studies that are available relate to very niche, innovative projects you have to question their relevance to the mainstream audience, they’re proof that some people have made it work, but don’t necessarily address the fears of mainstreamers.

It is also important to understand the differences between these groups when managing products – vendors really enjoy interacting with early adopters, and they are definitely a really useful source of insight when it comes to product management – but there’s a real and present danger that product managers might start to believe that the features and benefits that drew the early adopters to the product will also draw mainstream adopters: this simply is not the case.

**An analogy : The Adoption Train**

If you imagine that each of the groups described above, adopts a technology more or less in order you can begin to use the analogy of a train.



In figure three above, the thought leaders are entering what would traditionally have been described as the “Late Majority” – in this context, there is broad agreement between thought leaders that this technology is

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no longer controversial - indeed some thought leaders will have already defected by this time in order to find a more “interesting” technology to promote.

At the same time as this technology is starting to appear passé to thought leaders – there are still some laggards who haven’t even heard of it.

There are a number of elements to the “train” that are meaningful, the first of which we’ve just alluded to – its length.

**A long adoption train creates a challenge for marketers**

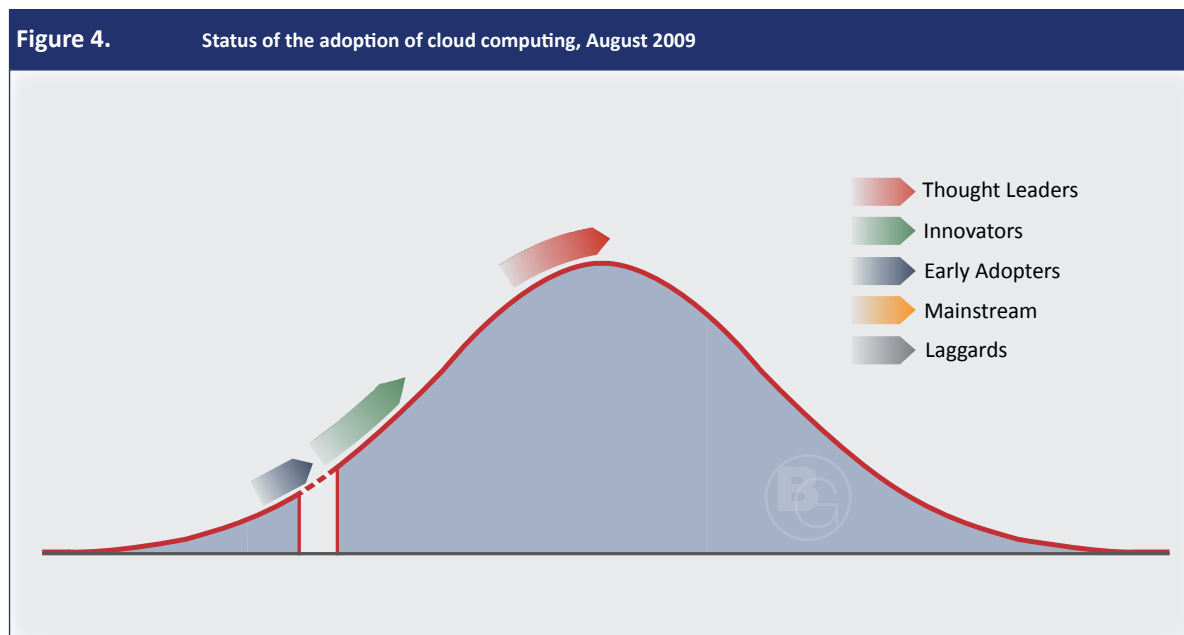
A long train creates a challenge for marketers, as they have to deliver marketing (messaging, evangelism and collateral) to a broader range of needs and wants. In the example above, the laggards are still asking “what is this?”, the mainstreamers are looking for real-world case studies and help with the business case, the early adopters want help understanding the technology, and the thought leaders need to be convinced that the technology isn’t becoming boring. We should point out that the different components of the adoption train will vary in length – some of the notional carriages will be longer than others – This gives us an indication of the size of each group.

**A fractured adoption train creates a nightmare for marketers**

There is also the idea that the links between the groups are important in ensuring that the momentum of the whole train isn’t disrupted – if the thought leaders get too far ahead of the innovators there’s a real danger that the coupling will break and the remainder of the train will simply lose momentum.

In this analogy the thought leaders are represented by the engine – but that isn’t to say that individual carriages can’t move ahead without the aid of thought leaders, they can have their own motive power. We simply felt that “the adoption electric tram” wasn’t a particularly nifty moniker for the model.

In the graphic below, we’ve simplified the icons somewhat, but we’ve maintained the concept that there are five groups of adopters, although in this case, only the first three actually appear on the TAL.



*This is an early draft of our cloud computing adoption model, it contains a number of warnings for vendors.*

## The cloud computing train is in danger of dividing

In the case of cloud computing, the thought leaders are far ahead of actual adopters in terms of their thinking about and discussion of cloud computing. Indeed our analysis suggests that some of the “thought leadership” that is taking place around cloud is actually alienating potential adopters, rather than encouraging them. The length of both the thought leader and innovator components also implies a warning – there is still a lot of disagreement within these groups about the role, purpose and ultimate direction of cloud computing.

People that are passionate about cloud computing might be better off investing in a little more thought and a little less “leadership” at this point.

Looking at the next group, there are indeed some early innovators, but it is still early – vendors should be focussing on groups/clusters of potential adopters and engaging with them (either singly or – even better – as groups) to look at which elements of the cloud computing story chime most.

Very few mainstream organisations are even close to adopting cloud, and without a more coherent story at the front of the train, there’s a real danger that they will simply not make it across the chasm.

Consider a product a few years on from launch, the early embracers (typically analysts and web gurus) have already gone through the whole process, potentially got bored with it, and have moved on to the ‘next big thing’. The innovators have used it, deployed it, have got some apps or solutions working and are perhaps on their second or third revision of their solution. At this point, while many of the market-setting individuals and/or organisations are moving on, the majority have not yet bought or deployed, so the vendor has yet to capitalise on the market potential of their product.

## The bridge across the chasm is built from the success of early adopters and reinforced by the experiences of the mainstream

The “bridge” created by early adopters isn’t necessarily a strong one – and it’s likely that you will need to reinforce it with lessons learned as each adopter passes over it. In other words – revisit the chasm regularly and check that the bridge can support the next cluster of adopters.

## Failure states

There are a number of ways that a technology can fail, which could be summarised as:

- *Overhyped*
  - Where a technology gain becomes a huge media hit, is over-hyped to a level at which it can’t possibly deliver to expectations; disillusionment sets in, the market-makers move on before the technology has gained any real traction
  - The first DotCom boom is a classic example of a trend that was over hyped.
- *Over-extended*
  - The hype and early deployments have sprinted ahead, and changes/extensions are demanded; some early adopters dictate developments, and the apparent market presence encourages over-confidence. The vendor over-extends their ability to support all stages of adoption simultaneously
  - SOAP (the web-services technology) is an example of this.
- *Lost momentum*
  - Too much focus on delivering reality and gaining real customers, and too little attention to the market-makers. The product/technology never quite gets off the ground and the word moves on to the next solution. This product may carry on for years supported by a small (and getting smaller) band of solid supporters.

- Python (the scripting/programming language) is a classic example of a “superior” technology that was overtaken because of a lack of momentum. The “P” in LAMP (Linux-Apache-Mysql-PHP) might have stood for “Python” – Python is a richer, purer programming language than PHP, but a lack of attention to tooling and a tendency by promoters to over complicate things resulted in it being displaced by the simpler, more basic, PHP.
- *Taken for granted*
  - A once-successful product or service that is seen as having reached the laggard phase, and now regarded as a cash cow. Ignoring the opportunities to re-develop, re-position and re-energise, a perfectly good product or technology slowly dies through under-investment and eventually, lack of interest from the market.
  - IBM’s AS400 (now I-series) technology is a strong example here – IBM made a crucial mistake in the 1990’s in failing to re-brand the AS400 as a killer application server and the AS400 was overtaken by market enthusiasm for new Java-based platforms.

We could list many examples of technologies and products that represent the ‘fail’ states. Below we’re going to examine one of them in detail.

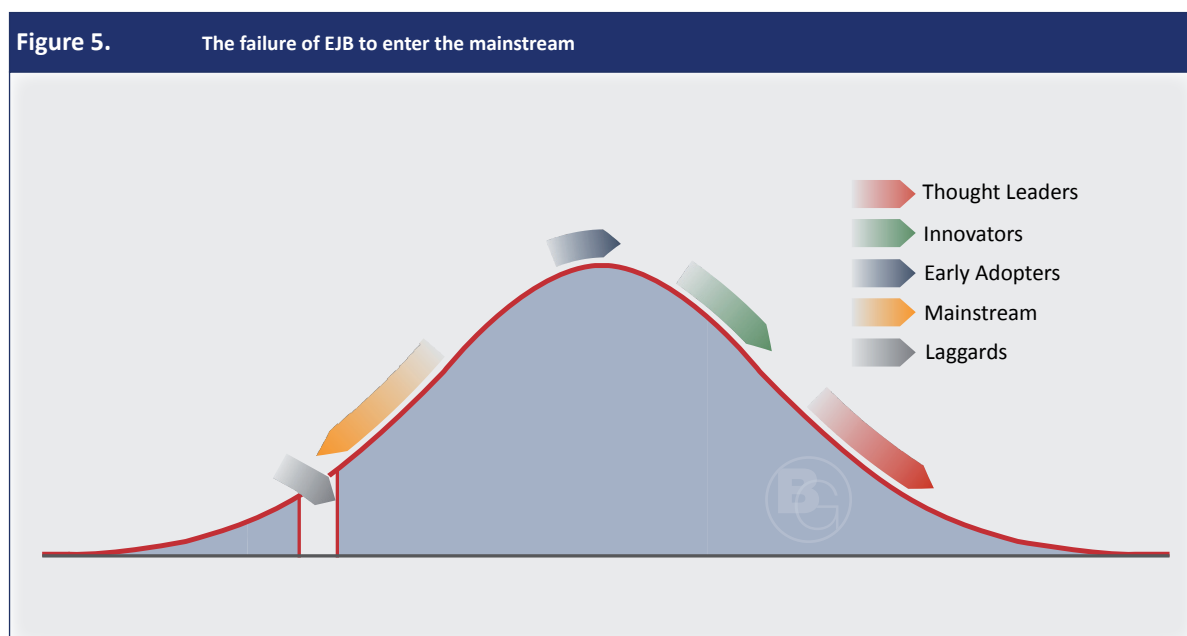
## Enterprise JavaBeans(EJB)

While Java and the EJB framework have both been incredibly influential and a great source of revenue for a number of vendors, it hasn’t been a complete success across the board.

In the case of EJB, for example, it has failed as a mainstream technology – in that it is little used outside the development groups of software vendors. EJB has failed abjectly to keep the promises made on its behalf by early evangelists who assured the world that EJB would become the de-facto standard component model for distributed applications.

EJB’s failure was a result of too little attention being paid to early adopters, and potential mainstream adopters, and far too much attention being paid to thought leaders and innovators. The result was a fracture in the train – EJB was too complex, risky and expensive for the mainstream, the result is that mainstreamers either shied away, or those that did dip their toes in the water soon consigned EJB to the bottom of the chasm.

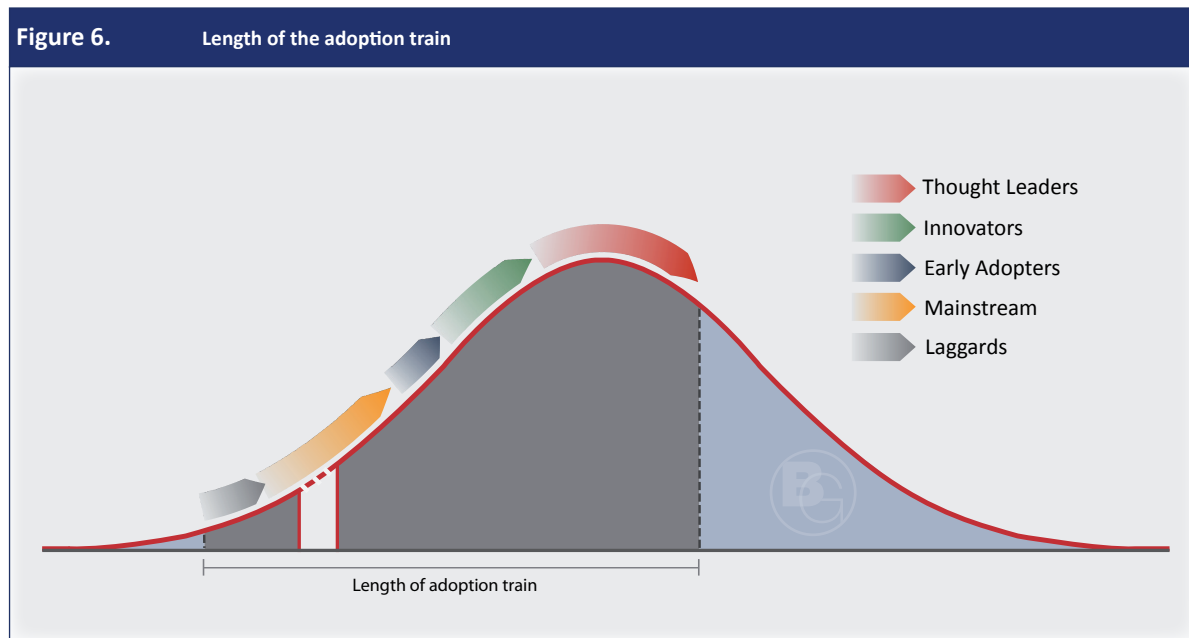
The result is that thought leaders have effectively “moved on” and are now expounding lighter frameworks and even alternative programming languages/frameworks (like RUBY).



So what now?

The Adoption Train model helps visually describe the current state of a technology’s adoption, the key in using the model lies in doing the necessary analysis in order to model the shape and size of the adoption train, and then in understanding what you should do with this graphical description.

By establishing the composition of the adoption train, you can determine the current state, and relative size of the different types of adopter. Once you’ve done this, you can begin to market effectively to the adoption train.



In the example above, it’s clear that the train is relatively long – This means that marketers have to maintain the interest of the thought leaders, while driving the mainstream further up the adoption curve.

The thought leaders need to see that the technology is alive and kicking, with plenty of innovation in store. The mainstream adopters are beginning to be aware of the technology, but adoption is slow.

Looking at the groups individually, marketers can begin to establish what their specific needs and wants are, and then map their marketing plans (specific marketing initiatives, investment levels etc) onto this model.

Group	State of adoption	Typical marketing activity	Typical % marketing spend
Thought Leaders	Nearing Peak	Ongoing dialog via social media (twitter/blogs) Provide exclusive access to internal gurus	10 %
Innovators	Some strong Innovator case studies, still vocal about features/functions	Engage as part of long-term product management/ planning. Actively recruit as evangelists. Look for case studies that might be useful for early adopters	20%
Early Adopters	Starting to adopt	Work closely with pathfinders – as these will provide more relevant case studies. Focus on helping these adopters make the internal case	40%
Mainstream	Just across the chasm – acceptance among some that the technology has “wings”	Offer applicable/relevant case studies. Offer tools to explain business benefit.	25%
Laggards	Still unconvinced/unaware	Awareness raising with an emphasis on the declining risk associated with the technology as it is adopted	5%

## How can Bathwick help?

As the originators of the Adoption Train model, we've naturally done a lot of thinking about it, not least around how it can be applied to help our clients better control the hype-cycle.

We've developed an approach that uses the adoption train as a tool to determine the effectiveness of an organisation's current marketing strategy, and to identify improvements that could be made to it.

## What are the benefits of applying the Adoption Train model to your marketing strategy?

We believe that by looking at adoption in these terms, you'll be able to derive the following benefits:

- A better understanding of the way in which your technology is being adopted
- A clearer understanding of the types of marketing you should be directing at the different components of the adoption train
- A marketing strategy that focuses marketing spend much more closely on revenue generating constituencies
- A better mapping between your marketing collateral/programs and the audiences for them

## Our approach

In order to conduct a marketing strategy assessment we would begin the process by modelling the current state of adoption – to produce the “current” adoption train.

We can then look at the extent to which your existing marketing strategy addresses the needs and wants of each group within the train.

In our experience, this exercise will quickly identify areas that are over-invested and others that are under-invested. We can then use this insight to create a strategic marketing matrix, which looks at each group and identifies what initiatives and collateral are required. The matrix will also help to prioritise and plan marketing spend by adoption group.

The next step is to conduct a full review of your existing strategy and collateral – in order to establish where there are gaps (and there will be gaps) in the strategy.

At this point you will have a clear idea of the current state of adoption, and a positive indication of where you should be focussing your marketing effort and spend.

It goes without saying that we'd be delighted to help you in the next steps as well – in refining your marketing strategy and messaging and in creating marketing programmes and collateral.

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## About The Bathwick Group

The Bathwick Group researches how businesses actually buy and apply IT to their business, how they innovate using technology, and how IT is supporting changes in market and organisational models. Specific areas of focus include dynamic infrastructure, IT services, smart information, collaboration and sustainability.

Much of Bathwick's insight is based on extensive up-to-the-minute data from end users, which results from online benchmarking and IT assessment activities. All such activity is based on Bathwick's own componentised applications and hosted web services, and provides an ever-growing feed of customer data from most leading countries around the world. We combine that data and primary research activity with economic and contextual analysis in enterprise, mid-market and small business sectors to give us unique insights into how an ICT-enabled world is developing.

We offer ICT vendor clients a range of products including research models, sales-enablement tools, market analysis, and strategic planning consultancy, and works with clients in both private and public sectors that are planning for technology-driven change.

The Bathwick Group also includes:

- **Bathwick Press LLP**, which publishes books designed to help business leaders gain insight into how IT can help to change and drive value in their organisations
- **The ThinkAgain Partnership LLP**, global collaborative research network, which brings together academics, writers, business and political leaders to generate new insights into business productivity and performance, geo-political and environmental issues



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