

The uses and abuses of online measurement

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Measurement is, amongst other things, a way for us to tell how things are going. The mother who measures the height of her child wants to make sure he's growing at a reasonable rate.

But that measurement is meaningless without a benchmark, something with which to compare the child's rate of growth. In other words, just what *is* a reasonable rate for the child to be growing at? And is he growing faster, or slower, than that rate?

Often, in the press releases of companies developing customer or supplier-facing online systems, one reads things like 'The service now has 150,000 users.' Or, 'There have been 72,000 applications for an account to date.' *Something* has been measured, but that measurement is meaningless unless we know what we should compare it with.

What were the company's objectives in launching the service? How have those objectives changed since launch? How many users did they expect to get? How many *did* they get? How many users do the service's competitors have? What did those users actually *do*? These questions begin to make the measurement meaningful. But, all too often, they appear after the fact, if at all.

Measurements are only useful if taken as answers to questions – questions about whether the objectives of an activity are being fulfilled. Measurement has a *purpose*.

The proximate goal of measurement is, of course, to pursue the truth – to find out how things are going. But most measurement activity has a

more far-reaching purpose too. Perhaps to prove a point, win an argument, or convince the Board.

There's nothing wrong with this, as long as the possibility that the point might *not* be proven, the argument lost, or the presentation to the Board postponed, is accepted. Too often, however, the political purpose of the research gets in the way of the pursuit of truth.

The temptation to pull the wool over the eyes of the client, or of the board, to fudge the figures to get the funding, is, I would suggest, particularly great in the world of online services. In the old days, I'm told, everyone did it – to get the technophobes to believe the dream. And it was easy to do. The raw data from an online application is more difficult to understand than that from other marketing activities. It's almost as if you can make up the rules as you go along.

How can we avoid this pitfall?

First, it's important to understand what data is available - what can be got at through research, what can be measured and analysed.

The taxonomy of measurables below shows that what we might call *online* data – application logs – are only part of the data available. Valuable research can be done in the real world, too. This is a Good Thing, since the misuse of online data has meant that, for many companies, it no longer has any credibility on its own. In fact, as I shall argue, to ignore other forms of offline research is to risk failing to understand your customer completely, to risk being deafened by the noise generated by the internet.

Fig. 1 Taxonomy of measurables with examples

Origin of data	Type of data		
	Observed	Interrogated	Inferred
Online	Application logs	Questionnaires	Customer data interpolation
Offline	Mystery shopping	Focus groups	Ethnography

The starting points for most online measurement are application logs, cookies, and the output of online forms and questionnaires. Inevitably, there will be vast quantities of this information.

In fact, there will always be too much data for the average manager to digest. Every user action on your web site or online application is logged in a huge file and, after a little crunching, that data could end up on the marketer's desk.

The trouble with that data is just that it is *data the marketer didn't ask for*. It answers questions she didn't even *ask*.

Presented with the output of many proprietary web analysis tools, a sane marketer should respond: 'how am I supposed to make sense of this?' The output can run to hundreds of spreadsheet pages, and can be littered with dozens of confusing pie charts and bar charts.

Another data glut comes from the inordinate fondness of many companies, often at the behest of one or another agency, for the instigation of 'user surveys': asking users of the site to fill in questionnaires about themselves, their attitude to their products, their opinions of the web site and God knows what else.

Unless you are clear about why these questions are being asked, unless there is a clear payoff for the customer and for you, and unless the data gathered is used in pursuit of an overarching strategy, such user surveys are pernicious, alienating for the user and useless.

How can this glut be cleared?

Decide what questions you want to ask before the data arrives. Try to forget about the fact that the communication is taking place through a machine, and frame the questions on your own terms, and in terms of your broader objectives.

Ask: how many people have used the service this month? And how many should it have been?

Don't ask: how many user sessions did we log this month?

Ask: are people finding it difficult to get in touch with us / use our service?

Don't ask: how many errors did the server return this month?

As your suite of online applications develops, you will find that the list of specific questions you want to ask will grow. How many people have written to us this month? What have they been saying? How many people have backed up their account? And so on.

Adopting this policy means that you will never be swamped with data. The information you get will always be useful, and relevant.

The wise online marketer will be aware that any online data she generates will be contaminated with interference.

Ever since the internet started to be used commercially, the ability of applications made available over it to 'see exactly what the customer is doing' at any time has been cited as a major benefit. Whole businesses have been built around the idea of 'One to One Marketing'. In part, this is because of the mass of observed data stored about a user's behaviour in the server log files. We have already established that, unless the marketer knows the right questions to put to it, this data is of limited utility. In this respect, the pioneers of online marketing have oversold and under-delivered. However, this is only part of the problem.

Data retrieved through the Internet is susceptible - more susceptible than most data, I would argue - to the problem of *noise*.

Noise comes about for two main reasons: technical faults on the internet or the application itself; and inefficient interfaces.

Application servers – and back-end systems - encounter problems, and these aren't always factored into the answers to the questions a marketer might ask. If there has been a fault on the server, or if there have been local outages on the internet which have made access to your services difficult, this needs to be factored out of your data. If it isn't, you'll be left with the impression that interest has tailed off massively for a few days, and you might waste time trying to find out why. All too often, it isn't, and you're left wondering what's going on. Before you can trust your data enough to send it to the Board, you need to get assurances that this kind of noise hasn't affected it. This is crucial at the trial stage, where ineffective or inaccurate measurement can kill research and development.

Clearing out this kind of noise allows you to see more clearly the impact of *all* of your communications activity on what is happening online. The

contribution a poster campaign makes to the number of new registrations, for example.

There is no such thing as a frictionless online interface, an open window onto the world of your company and your products and services. Online or off, people are built differently, behave differently, and make different assumptions and hypotheses. And for that reason, it is incredibly difficult to tell, just by looking at the evidence in the application log files, why they are doing it. If somebody has performed every possible action your online application supports, it could be that they are interested in trying everything out: in other words, they could be a power-user. Or it could just be that they're lost and can't find the one thing they are interested in doing: in other words, they may be experiencing extreme frustration with your interface. Looking at the data alone won't allow you to distinguish between these two cases.

The moral is that the observed data on the web site will tell you so much about your customers, but it won't tell you everything. And it will never tell you everything.

You can get closer to your customers, and reduce the friction created by your interface, only by physically observing them as they interact with your application. You have to let them *tell* you how difficult it is for them to do what they want to do, and you have to balance what they tell you by *looking* at the difficulty they seem to have with it. Customers typically blame themselves for not being able to do what they are trying to do, and say that the interface is marvellous. Finally, when you've finished observing and asking questions, you have to act to make things easy, to reduce the friction the interface generates.

It's easy to measure the performance of your application against non-financial objectives, as long as you are clear about what those non-financial objectives are. It's more difficult to measure the contribution of the application to the bottom line.

The biggest problem is one of *ownership*. Who owns the application? Is it a cost centre, like the web sites of most marketing departments? Or is it a profit centre, like a paid-for ringtones download service? The answer to these questions will affect the way you account for its contribution to your business.

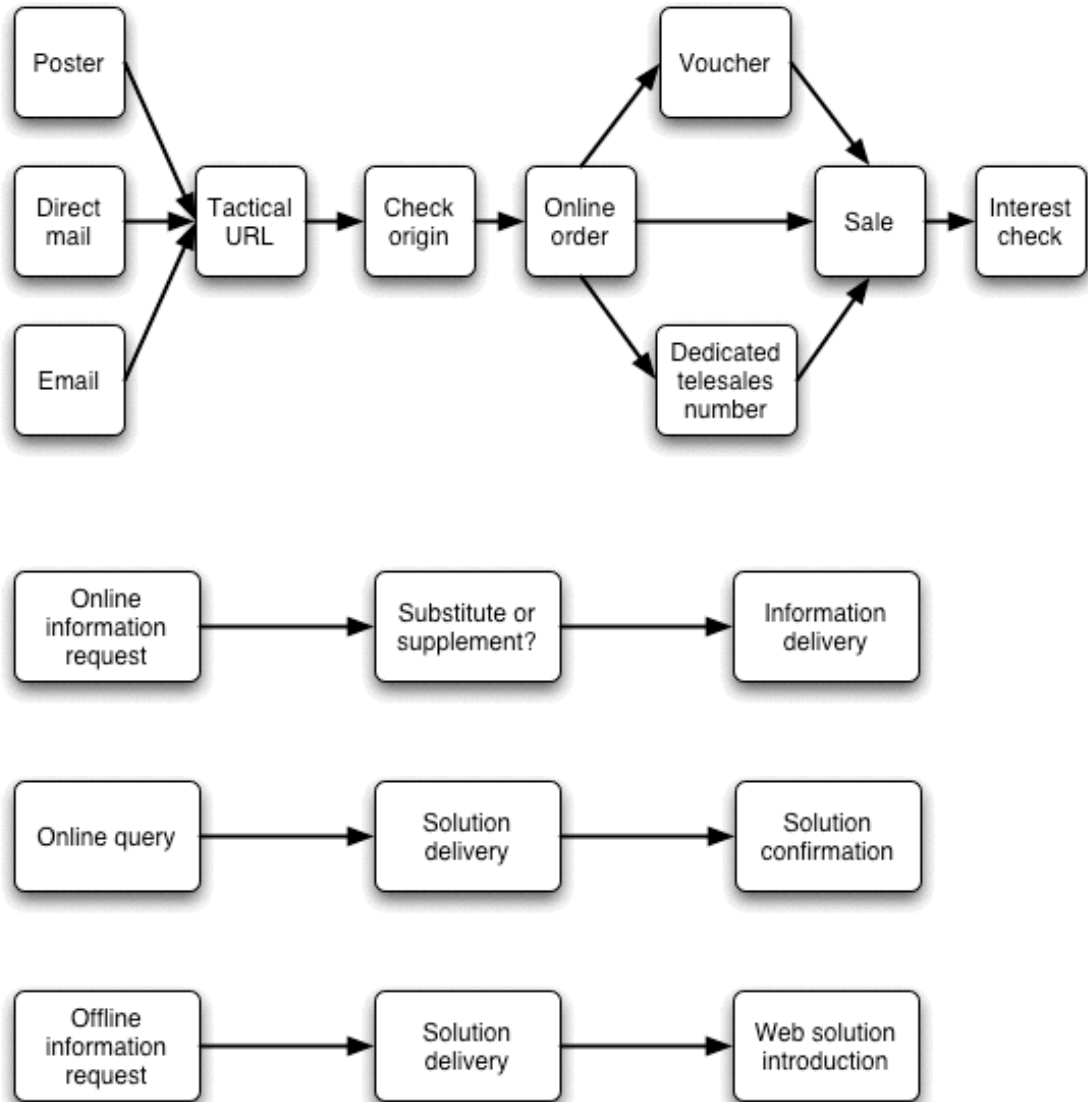
Consider the following unfortunate scenario.

Company X builds a simple web site which, whilst it doesn't allow online ordering, carries a beautiful product portfolio, news archive and an online version of the annual report. Traffic to the site builds steadily as a result of offline promotion of the web address, and the site is kept up to date with changes in the product portfolio. Apart from the log files and an email form to the webmaster, there is no other way for the customer to get in touch with the company.

After a year, the CEO asks the marketing director about the site's contribution to the bottom line. The marketing director can only tell him what it has cost, not what it has made. He has no way of recovering the contribution the site has made to sales.

Developing audit trails to capture every possible contribution to the bottom line is the most important thing you will be able to do for yourself and your web site (see fig. 2).

Fig 2. Audit trails on a multi-stakeholder web site



To calculate the contribution of a web site – or any online application - to the bottom line, you have to track every sale through the site, every sales lead originating on the site to its fulfilment, and every substitutional cost saving. If there is no way of developing a direct measurement, you will have to generate a hypothesis based on assumptions that *are agreed across all implicated business units*. Next, you have to agree the distribution of costs and sales across functions. Only then can you calculate your ROI.

This glosses over what is in fact a tricky political process, which has a number of crucial prerequisites. First, you have to *establish ownership* of the relevant cost and profit centres. Then you have to *communicate* the audit process you have developed. Finally, you have to get everyone involved to *sign up to it*.

Considered as a whole, this is likely to be one of the most significant and far-reaching change management processes most marketing managers will ever tackle. To succeed, it requires the demonstration of early success once the vision has been sold in. Early success is crucial to securing further investment. The best strategy is, as ever, to under-promise and over-deliver. This recalls the point I made earlier that no measurement is wholly neutral. Measurement and research is always an *intervention* into a predefined political milieu. Make your research work for you by understanding the political context into which it is introduced. Mastery of this process, and of the politics surrounding it, is likely to be the 'killer app' for the digital media manager of the 21st century.

In conclusion:

- 1) Measurement is no substitute for a clear, up-front strategy
- 2) Decide what you need to know before you decide what to measure
- 3) Don't collect data unless you can use it, and use it to the customer's benefit
- 4) Absolute measurements are meaningless without benchmarking
- 5) Don't overdo it: choose simple, clear, unquestionable measurements that will be familiar to the rest of the business

- 6) Use benchmarked, cross-functionally agreed measurements to demonstrate financial payback for yourself *and for the Board*