
A Plea for Clarity in IT Writing

Q. What is Not Clear, You Ask?

A. *Nearly everything I respond.*

In the last few years, I have found it more difficult to understand various aspects of IT in articles I read on an IT topic. This, you might say is age-related and therefore inevitable but, on reflection, I think there are other, significant factors involved in this brain 'fog'.

1. Woolly titles which seem to be an amalgam of many aspects of IT and do not attract the reader or shed much light of the content. Titles such as *ROI of Microservices in the Hybrid Cloud* give me indigestion and appear neither fish nor fowl, leaving me wondering what I might learn from the reading the article. They exude the message; '*Do Not Read: Boredom Ahead*'. Such stuff is tinkering around the great unexplained core IT knowledge, rather like telling you how to emulsion the walls of your house before you have learned how to build it.
2. Many articles are free of explanatory diagrams, particularly where they are meant to teach the reader about the topic; in the worst case, they are content-free as well. Some topics demand diagrams, for example, those on networks and networking topics cannot give a clear picture of what is going on without diagrams at some point. I no longer read network articles which have no diagrams.

Relying on words alone is often inadequate; sentences like '*The payload is vetted by the firewall before passing on to the router and thence to the intermediate server node, which is attached to the central server. After that the data goes to the backup server ...*' convey little to the learner and I suspect even the expert might struggle with creating a mental image of the situation. An annotated image is easier for the brain to store and retrieve than blocks of text.



Figure 1: Unexplained Picture

I have just read an article on the importance of endpoint security; diagram-free apart from an unexplained, 'candy floss', and therefore meaningless image (see Figure 1) from somewhere where other such byte-wasters dwell. Similar articles, on edge computing and exhibiting similar characteristics, appear in the IT press and, if any topic asks for a diagram with notes, it is this one.

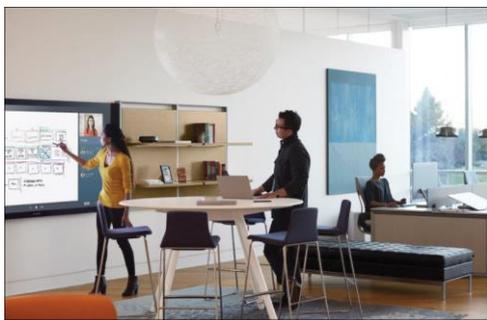


Figure 2: Useless Picture

Almost all the articles I come across today are peppered with byte-hungry pictures which have little or no relevance to the subject matter; witness the cybersecurity articles with a picture of a hooded hacker or the more general one with pictures of young, trendy actors pretending to be IT experts, clustered around a whiteboard, discussing a flowchart thereon.

Not a grey hair in sight, ergo, no experience even if they were real IT people.

A total waste of your time, storage space and internet bandwidth to download it.

Nobody has ever explained to me the value of these pictures, mainly I suspect because they have none. Remember; '*He who wastes my time, steals my life*'..... and internet bandwidth.

3. By contrast, another enemy of understanding is the complex diagram inserted in the text and which is then left unexplained, or only a very small part of it is.
Hint: highlight the piece you are covering and leave the rest to serve as context. Anyone reading this article will recognise this dilemma and for those who don't, some examples from real life are presented later. If you are not going to use a diagram or picture and explain it, don't put it in.

4. Webinars: what a topic. There are the good, the bad and the unbearable. The *good* are clear, with relevant visuals and collateral material, have a consistent and logical flow and don't feature big bearded geeks in striped jerseys hogging the whole pictureless event (the *unbearable*). The *bad* lie somewhere in between, and leave one with the feeling at the end of confusion, that one is an idiot and a zero increase in relevant knowledge of the subject matter.

I choose my webinars carefully now and prefer those that can be viewed retrospectively so I can exercise control over what I want to see and skip the dross, as one does with advertisements on a recorded TV programme.

5. Articles which are text only, looking like a novel without sub-headings and no **keywords** or *phrases* emphasised in some way. The best non-IT parallel to this form of literature are the recipe books of Elizabeth David, where ingredients and steps are rolled into other text and giving the appearance of a novel. This makes it virtually impossible to follow the recipe easily.

6. Perhaps authors ought to give the reader/viewer the option of feedback on their output, suitably assessed for abuse etc. On a number of occasions, I have read articles where I know he/she is talking twaddle and felt frustrated at being unable to put the author right on things. *Mea culpa* except for one article.

Sometimes I have managed this feedback communication and received acknowledgment and thanks from the author; on other occasions - nothing. The former type of author is a good one, the latter, poor. In one particular situation, and when challenged, the author admitted he didn't really know what he was talking about.

Hints on Marketing Clarity

As I said above, this article contains some suggestions for writers of IT articles and marketing datasheets. The format of the sample at the end of this article is, I feel, unique in that it consists of a spoof datasheet, based very closely on a real one which will demonstrate what I am trying to say without actually saying it. It is from the fictitious *All Things to All Men* software company (ATTAM).

The material was extracted from that article, which appeared a few years ago. I have modified it slightly to present as a how-not-to-present something to emphasise part of what I have said. I have not provided samples of the hooded man or the trendy, with-it IT people on the grounds that such pictures are useless and waste resources in being so. See item 2. above.

There was little in the way of explaining the purpose, business benefits, obstacles it can overcome and the sphere of IT the software fits in. I have seen similar presentations, often given to the wrong audience. None of the features and functions was explained; it was simply a '*gee whiz, look at all this stuff we have*' exercise.

What is ATTAM Trying to Tell us?

I am not quite sure, apart from the fact they appear to have broad range of software that does an awful lot of things in such a way as to make it difficult for a reader only needing a subset of them to fathom out what on earth it means to their company.

What ATTAM has done it to throw their whole package at the reader, making understanding it akin to trying to get a drink of water from a fire hose. Big mistake and reminiscent of Elizabeth David.

What is the Way to Do It?

What I say here is not theory but lessons from my own and others' experience with learning from books and articles and, latterly, videos and webinars where the conclusion of each brush with that learning mode ranged from '*That was very informative*' to '*What was that all about?*' Let me try to simply spell out what I think an article should do (and let me know where any of mine fall short):

- Let me say upfront that the tight word and size limits often imposed by 'publishers' on writers often make it impossible to do justice to some topics, where the writer's options are to refuse to do it or emasculate the subject in '*death by a thousand cuts*'. To the publisher who is really interested in the reader; offer to split the long articles into two or, if it is quite long, publish it as an eBook or make it accessible via a link in the short version.

In this way, you will offer far more value to your readers and be the chosen destination for people who want quality, learned, satisfying articles.

The article below is submitted here as an example of a marketing article with a nonsensical picture for good measure.

<https://www.itpro.co.uk/hardware/357428/businesses-need-stability-and-performance>

Note: It is not included as a criticism of Intel products or the company.

In contrast, look at (read if you wish) the article in the link below. It contains one superfluous picture but also several clear and annotated ones.

A primer on DevOps pipeline: Continuous Integration & Continuous Delivery (CI/CD)

<https://www.redhat.com/architect/primer-devops>

Duty to IT Skills Shortage

Remember, there is a huge and growing shortage of IT skills, in both number and volatility and *the writers' and publishers' duty* is to help solve this issue not exacerbate it by obfuscation and all the 'sins' I have outlined thus far. Many people, especially academics, like to show their worth by citing the number of papers they publish. To me, that counts for little if few people actually learn anything tangible which they can build on, neither does a series of papers that rehash previous ones and thereby add little to the sum total of real IT learning. They also consume the reader's time for little return.

Such literature I describe as *flannel* and *content-free*. The latter feature of an article is the biggest and most unforgivable waste of a reader's time and delays the attack on the IT skills shortage problem. A few guiding factors;

- Decide who your audience is, that is, what is their level of understanding of your subject. There are rules for this, too big to lay out here but a few are: explain

acronyms on their first occurrence, use lists rather than burying facts in the text and make the text appealing in its appearance. Neat paragraphs, punctuated by lists, figures, indented quotations and other tricks which make the article demand the reader's attention simply by its appearance.

Deliver to the audience only what is needed to get your ideas across, refrain from introducing in passing other concepts the reader is unlikely understand and please don't show off your great knowledge unless diluted for the readers' consumption.

In other words, put yourself in their shoes and explain things as you would like them explained to you on an unfamiliar topic.

- If it is a new 'thing', explain what the predecessor was, where its deficiencies lay and where this new 'thing' fills in any holes in it. For example, imagine you are writing about containers or microservices for a general audience.

Don't dive in on the containers itself, talking about its use in DevOps (programme development) plus its other features as if it had appeared from nowhere. Tell the audience about the monolithic programming of the *old days*, the predecessor, and what drawbacks it had and how decomposing that environment offered features that mitigated these drawbacks.

In this way, you give a clearer picture of the subject, *alpha* to *omega*, especially if you use suitable FIGURES, LISTS, TABLES etc. This will almost certainly drain your 1000-word tank and then the decision is yours as to whether to go ahead or abort for the sake of clarity and educational value.

A highly compressed article on an important (to the reader) topic can cause more harm than good; better to *cancel* than *confuse*. This article is an adjunct to a blog and is a great way of getting the best of both worlds.

- DIAGRAMS; imagine trying to learn medical practice using a version of Gray's Anatomy without diagrams? Imagine being operated on by a clinician who had learned their trade via such a book, written *a la* Elizabeth David cookery books.
- Finally, a word to vendors who write or sponsor articles. I am happy to read an objective discussion by a vendor or its mouthpiece and the subsequent discussion of where their product(s) slots into this particular area of IT. I have seen and recommended some where the content had good value.

The thing I do not like is the slanted article which, for example, says that the key things to tackle in topic X are A, B and C and lo! their product was designed to do A, B and C very well, when in fact, the main things are A, D, E, G and S. This type of article is being 'economical with the truth', disingenuous and educationally dangerous.

Recently, I took exception to two articles on the same topic (digital transformation) in a reputable journal, where one writer claimed that the main entities to concentrate on were A, B, and C, the other D, E and F. Since this was a subject I was reasonably familiar with, I knew that both articles did more harm than good in diverting people from the true elements; J, K and L with an admixture of A, B, C etc.

This leads me to a bad writer's maxim which, when applied to an objective and unforgiving subject like computing, is misleading and can often be dangerous.

'When I say a thing, it means exactly what I want it to mean, no more, no less.' Humpty Dumpty.

Subjects Mandating Diagrams

By the word 'diagrams' in this section, I also include *tables*, *graphs* and other *visual* representations of ideas, complementing explanatory text.

This list is not exhaustive but is my view of which topics should be covered using diagrams plus normal text and diagram explanations; no 'unexplained' diagrams should be used. See Figures 1 and 2. It goes without saying that the superfluous, empty figures I railed against should be avoided.

Articles needing diagrams are any discussions of;

- Networks; nodes, lines, protocols, monitoring access points
- Microservices, containers and related topics such as Kubernetes
- Cloud; discussions of functionality, management and migrations thereto
- Normal IT configuration articles; storage, distributed systems, IoT etc.
- Migrations from system A to system B
- High availability and disaster recovery
- Cybersecurity writings; I have never seen one explaining the various malware entry points using a diagram
- Emphasising parts of a larger diagrams when those parts related to the current topic under discussion; fade the non-relevant, visible only as context.
- Other topics but each writer should think visual first, text later. It is easy for a guru writing about their subject to visualise the things they are talking about, but often the poor non-guru readers cannot. Know your audience before sharpening your pencil or battering the keyboard.
- Don't 'over-diagram' as ATTAM do in the sample flyer at the end.

If possible, the explanations should accompany the diagram but if the explanation is too large, the parts of the diagram should be labelled briefly (1, 2, A, B, ... CPU, node1, disk4, ..) and explained in text CLOSE to the diagram. Some diagrams can be explained within the diagram, as in the example below. Don't talk down to them, crouch and talk to them eye-to-eye, which is what you should do when talking to children.

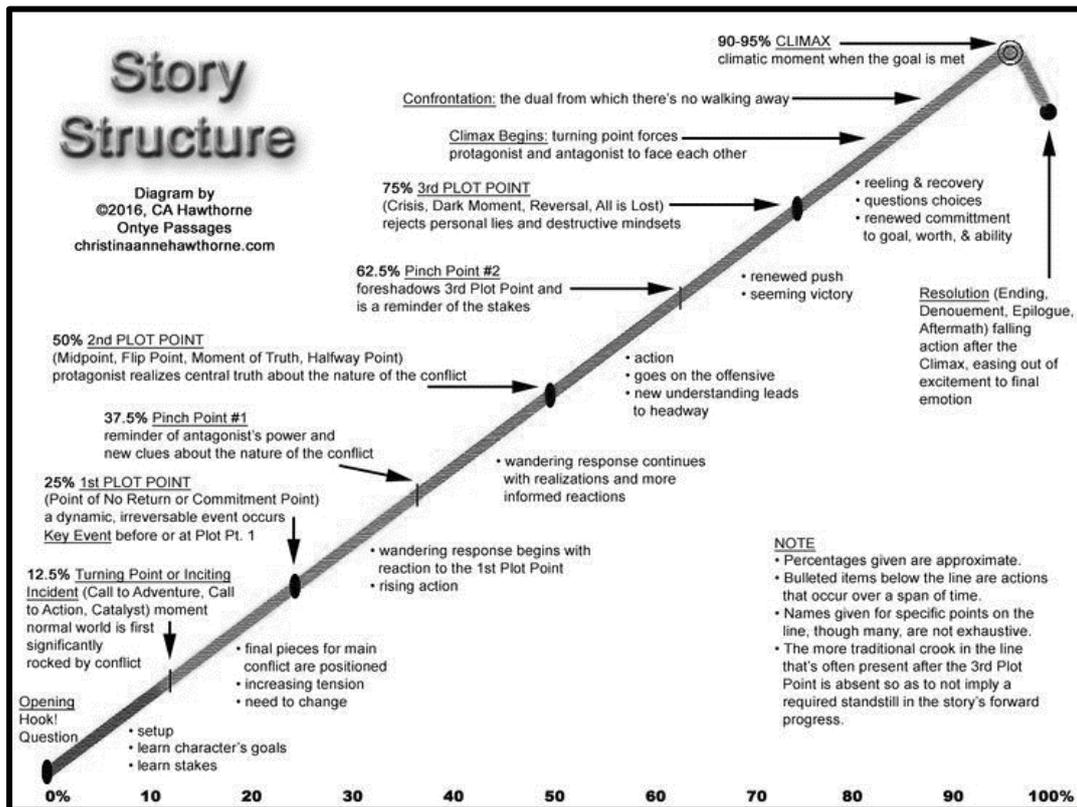


Figure 3 A Well Explained (in situ) Diagram

It looks more professional, gives the impression that the writer knows what they are talking about and it aids the reader in *subject retention* when good diagrams are present.

Remember: an informative picture is worth a thousand words.

Endnote

The essence of learning, living in and keeping up with the IT trade is:

- A basic underpinning IT education, followed, if necessary, by specialist training. Medical analogy; general medical school, followed by specialist work.
- Ongoing training if available; refreshers, trade shows, topic forums, talking and listening to others etc.
- Ongoing self-education as part of lifelong learning, a key part of which is 'literature' which here includes YouTube videos, webinars and the like as well as the written (and illustrated word).

This is probably a very good way to lifelong learning, providing the material obeys the *rules of clarity*, is *part visual*, has *objectivity*, is *succinct*, *accurate*, is *flannel-free* and thus does not subject the learner to an ever-increasing burden of ignorance, skewed understanding, inaccurate knowledge and confusion.

This places a responsibility on the author of an IT article (and other media) to impart relevant knowledge to the reader at the appropriate level, perhaps by providing two versions. One for the general learner, the other for the more advanced audience, but not a treatise aimed at different levels; that is the way to lose both types of reader in mid-stream

Message to Authors: Go ye forth and illuminate the world but dazzle it not, nor prolong its darkness.

The Author

Amazon Kindle

Modern IT Concepts and Technology: An IT Study Guide for Beginners and Practitioners Kindle Edition

https://www.amazon.co.uk/dp/B0826XN9L2/ref=sr_1_1

<https://www.amazon.co.uk/Modern-Concepts-Technology-Beginners-Practitioners-ebook/dp/B0826XN9L2>

High Availability IT Services

<https://www.crcpress.com/High-Availability-IT-Services/Critchley/9781482255904>

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plus numerous articles, some of which I am sure fail my own tests. I really must read this article myself!

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ATTAM Software That's Powerful, Flexible, Modular and Easy to Use

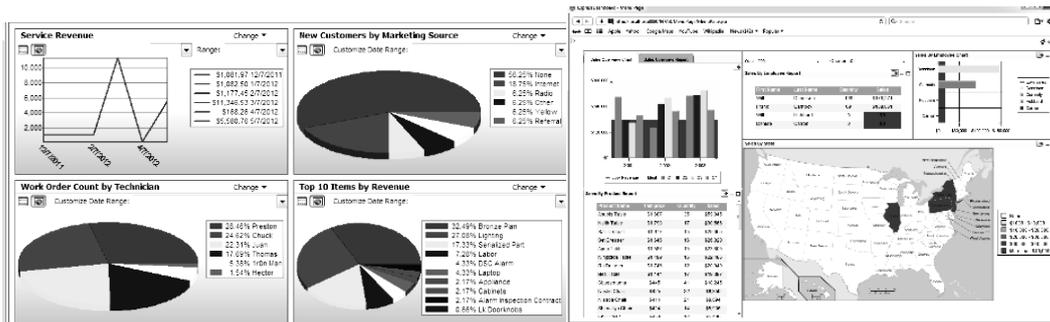
System Issues

Manage and monitor your system with unified visibility into performance, uptime and traffic.

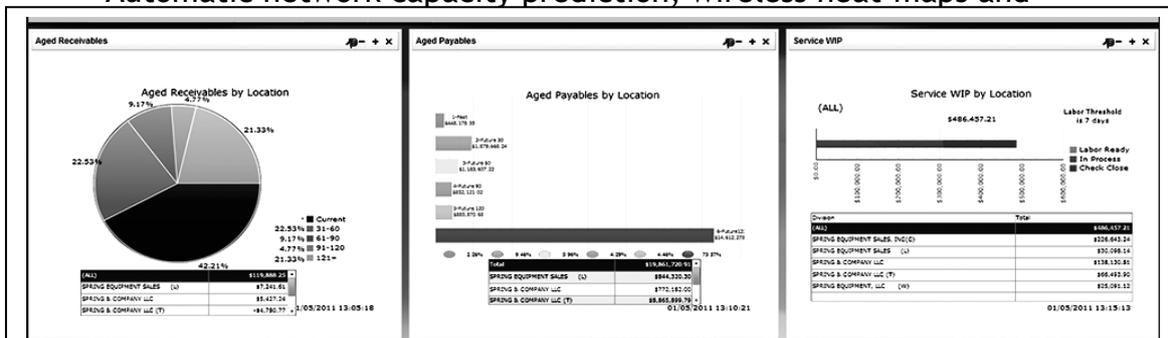
Security Issues

Round-the-clock security monitoring and action to head off threats while remaining compliant

OUR SOLUTION FOR MANAGEMENT ACROSS ALL THESE AREAS



- Enables troubleshooting, reduces downtime
- Gives detailed metrics for loads of applications like Linux, Apache etc.
- Monitor any application via the dashboard above
- Improves efficiency with tailorable dashboards like those above
- Automatic network capacity prediction, wireless heat-maps and



Network Alert Analyzer

- 1) Allows the viewing of historical trends in performance and traffic
- 2) Gets to the RCA (root cause analysis) of database bottlenecks quickly
- 3) Remote operations management, including from mobile devices
- 4) Supplied templates for performance and availability reporting
- 5) Advanced query feature for analysis of collected data across the board
- 6) Identify the worst response time delay culprits
- 7) Relates Database response time with virtualization metrics

About ATTAM: Attam software is a leading-edge, up-to-date software supplier of products which are modular, flexible easy to use and which enable modern computing to be carried out in an economical, effective, governance compliant manner.

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