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Simplification: what is lost and what is gained?

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Abstract

This paper explores what is meant by the word 'simplification' in relation to documents. It starts with a discussion of some confusions that exist around the issue – for example, an assumption that simplification necessarily results in documents that are shorter or visually simpler, and that short or visually simple documents are always as clear as they look. Then it identifies and discusses a range of simplification strategies, under four headings: Reduction, Amplification, Stratification and Personalisation. The strategies are described, with observations about potential benefits and pitfalls of each.

1 Introduction

Information design has sometimes been marketed as 'simplification', particularly in the USA. Simplification is an attractive concept, and more quickly understood than 'information design', because it calls to mind not only an action (simplifying) but also a desirable outcome (simplicity).

For advocates of the term, simplification represents an important goal of the information designer: to make every reader's job easier, and particularly to make information accessible to people with functional literacy problems. However well educated we are, most of us sometimes struggle to understand information about finance, tax, health, and technical products. Politicians, journalists, consumer advocates and regulators make frequent calls for information to be simpler¹.

On the other hand, sceptics point out that simplicity can be a superficial quality of information: a document or web page can look simple, while actually being hard to understand. This may be because simplification has resulted in degradation – too much information has been omitted, and the essential message is lost, or readers' questions have not been anticipated and answered. Worse still, the reader may have felt patronised or infantilised by a 'dumbed-down' text.

Or, the simplicity may be only at the surface level, because the designer has valued a simple layout more than one that uses graphic techniques to articulate the information structure – in effect, the hard work of comprehension has been handed back to the reader. It is not just designers who deal only with the surface level – editors sometimes apply the principles of plain English (for example, common words, short sentences) without looking more deeply at the content, or at the document's role in a wider dialogue with the reader.

Moreover, the usual opposite of simplicity – complexity – is not in itself a bad thing. Complex systems are rich, powerful, and capable, while simple ones may be useless outside of the limited context for which they were designed. For example, a map of my

town is more complex and more confusing than the set of specific directions I give you to help you walk from the railway station to my house. But if you make a wrong turning, my simple directions quickly become useless. In many, perhaps even most, cases, the process of simplification does not reduce the underlying complexity and richness of content, but improves the user's ability to navigate it – it produces a simpler experience, or a simpler understanding.

This paper focuses on simplifying documents (which may be paper or electronic) that seem too complex or difficult for their users. It does not examine the concept of simplicity itself, nor the process of creating communications that are simple from the start.

I will first identify some confusions that exist around the issue of simplifying documents – for example, that simplification necessarily results in shorter documents, or that documents that look short or visually simple are correspondingly easy to use. Then I will explore some simplification strategies and their effects – reviewing what has been lost, and what has been gained.

Because it has been written for a conference where a limited number of pages has been allowed in the proceedings, the illustrations have been omitted from this version (they will be shown at the conference) – but a fuller illustrated version of the paper will be available online².

1.2 Simplified = changed?

Widdowson (1979, page 167) makes a distinction between 'simplified versions' and 'simple accounts'. The former are translations of existing documents, while the latter are documents that are originally planned, written and designed to be easy to understand. Most documents intended for children are simple accounts: both content and form are created from the outset with that audience in mind.

It is an important distinction, because it reflects a different dynamic of production. Simplified versions can seem relatively easy to produce, because they are modifications of existing documents. However, if badly done, simplification results in only superficial improvement, or can even make things worse. In many cases, the best solution is not to simplify the existing document, but to transform it – to take it apart and start again from first principles; in other words, to develop what Widdowson calls 'simple accounts' that may bear little relation to the original. Because it is radical, document transformation carries the risk that it will disrupt existing administrative processes, and within bureaucratic or system-driven organisations it can be hard to achieve. Simplification is often a much bigger task than organisations predict or budget for, and a number of publicly-declared programmes to clarify communications have been announced only to be quietly forgotten within a year or two.

Moreover, Bhatia (1983) points out that in some cases even simplified versions are inappropriate. His particular concern is legal text, and his challenge is to make the law student's task of understanding legal texts easier, without altering the texts themselves. He argues that the original texts cannot be changed without essential damage to their meaning and function, and he also wants to train law students in how to read such texts. So rather than simplify the texts, he instead uses what he calls 'easification' devices to make them easier to read while preserving them word for word.

1.3 Short = simple, or short = cryptic?

It is sometimes assumed that simplified documents, that provide easy reading experiences, will also be shorter documents. For example, when politicians from time

to time become interested in making government communications clearer, it is often the length of the communications that they highlight first.

As a result of this kind of criticism, the minister in charge of one major UK government department decreed that no form should be more than 12 pages long – a feat that required their forms writers and designers to combine questions (which often makes them less clear³), to separate supporting notes into supplementary booklets, to provide less space for answers, and to use less white space to separate key sections of the form. The error rates in forms from this department can be startlingly high – in one case, 80% of forms returned had errors that made them unprocessable. In an exercise to improve this form a huge reduction of errors was achieved by doing the opposite: disambiguating questions, integrating notes, and starting new sections on new pages. Errors went down from around 80% to around 25%, but the new form was double the length at 24 pages.

Bhatia provides a demonstration of the lengthening effect of simplification. He distinguishes between the simplification of content (which involves expanding the text to explain the meaning of legal concepts) and the simplification of form (which involves making more explicit cohesive links between propositions, and which expands the text to include exemplifications). He shows how, in the legal context, either kind of simplification inevitably leads to considerable expansion. In his demonstration, both of his simplifications are more than double the length of the original.

According to Bhatia, many legal texts are intentionally compact: he refers to the ‘normal legal practice of including maximum information into a single sentence, making it compound as well as complex’ (page 44). In effect, it is a carefully engineered construct, in a form that is economical and precise, but inevitably cryptic for those who do not share the right prior knowledge. So, any attempt to simplify a legal document (such as the terms and conditions that accompany insurance policies) by reducing its length is bound to damage its functionality.

Legal texts are a special case, but the question frequently arises: if simplification means shortening a document, what is being omitted, and what effect will that have on the user? Is the new document degraded in some way and of less value?

This introduction to *The Reader's Digest Bible*, by former Archbishop of Canterbury Donald Coggan, reflects this concern:

‘The last thing that the editors of Reader's Digest or the scholars who produced the original condensed edition of the RSV wanted to do was to replace the full biblical text, What they did want to do – and I shared this desire with them – was to put in the hands of the general reader a book which was less daunting in size than the whole Bible, was shorn of repetitions and such things as long genealogies, and which, just because of this, was more likely to convey the essence of what the Bible is really about. The result was not meant to be an “easy” version which eliminated the difficult passages. It was intended rather as a direct, honest, uncomplicated route straight to the spiritual heart of the greatest book mankind possesses. (Coggan 1990, page 11-12).

The Bible is an interesting case study in simplification, since as a sacred text it should not be tampered with. In contrast to the Reader's digest version, which omits content, most editions that are intended to be easy to read use one or more of three strategies. Firstly, they translate or paraphrase the content into an easier form of English (for example, the *Basic English Bible*, which uses a heavily restricted vocabulary, or the *Contemporary English Version*, which excludes theological terms, and is written to score well in readability tests, or *The Message*, which is heavily paraphrased into a conversational modern idiom): in Widdowson's terms these are simplified versions. Secondly, they surround the text with helps and access devices which are not in the

original text: chapter and verse divisions, headings, summaries, footnotes, side notes, glossaries, maps and diagrams: in Bhatia's terms, these are easified versions. Thirdly, and more rarely, some use layout as genre markers: single columns for poetry, instead of the usual double; smaller type, and three columns, for the relatively technical content of genealogies and books of the law.

Coggan sounds somewhat conflicted in his introduction: clearly, the editors did want to produce 'an "easy" version'. That is what the Reader's Digest is in business to do, and that is why they eliminated the genealogies and other things. But his unease over the word 'easy' exemplifies the subject expert's dilemma: to many of them, to simplify is to degrade the text, or to short-change the reader.

The government department mentioned earlier has a further problem: every time they are asked to clarify a particular aspect of a regulation, or to explain how it applies to a particular category of people, the document gets longer – and ironically appears less clear to the very people who have urged them to clarify the point. In one document, a simple question that asks for your bank account information (so they can pay you money) is supported by three full A4 pages of notes – they explain what a bank account is, the different kinds, the benefits of a bank account, and how to open one. The information is written in clear English, but it is possibly an example of what Olson (1985) calls an 'explicit text' (and elsewhere he calls it an 'autonomous text'): that is, unable to be sure of any prior knowledge among its readers about something as basic as a bank account, it provides such an explicit and lengthy explanation as to exclude the very readers it is trying to help.

1.4 Simplification, trust and risk

I once asked a conference audience of around 200 people how many of them routinely read the terms of business (another everyday example of an explicit text) you are required to accept when installing software. One person raised his hand.

A survey for the UK Department of Trade and Industry reflects the same attitude among financial services customers:

"People can't be bothered to devote the time they feel would be necessary to read the whole agreement and try to understand it. In some cases they feel some sense of protection in the fact that their bank would be fairly unlikely to treat them too badly."
MORI (2000, page xx)

Other comments from the same report evidenced trust in the government and in regulators. For example, in the UK, 'stakeholder pensions' are a basic pension scheme offered by private sector institutions within a government-initiated framework; some citizens think the connection with government represents a guarantee but it does not.

Not reading any of the information provided is a form of strategic reading, in which the strategy is to trust in common sense or to take a chance on the consequences of not reading the information.

This approach obviously carries an element of risk, and many of us will have been caught out at some time by small print that covers, for example, terminating a mobile phone contract, claiming on our insurance, or the precise dimensions of carry-on bags for air travel. Of course, even if we had read the small print, we may not have understood it, we may not have correctly assessed the risk, and we may not have retained it in memory.

The risk is not just for the customer, but also for the organisation they are dealing with. After all, reputable organisations do not want to end up in fights with their customers, in

which they may be accused of mis-selling or intentionally misleading. Many adopt a risk-based approach – highlighting those terms of business that are likely to cause misunderstandings if not understood – although this is more likely to be based on customer service experience rather than a formal risk assessment.

Examples of this selective highlighting include printing key terms in bold, repeating them in a separate section, and pointing to them in covering letters or marketing documents. For example, I was recently asked to sign a document where the declaration said ‘I have read the terms and conditions, especially section 10 which describes...’.

1.5 What are we simplifying?

We have identified an apparent contradiction between the idea that clear documents are simple on the surface (that is, short), and the idea that clarity is sometimes only achieved by elaborating or amplifying the original message. This contradiction can be resolved by asking the question ‘what is being simplified?’.

It may be *the document itself*: if this is the assumption, then the simplified version will tend to be shorter and to look less complex (that is, it will be less graphically complex, and visually more orderly, and will probably contain fewer elements) than the original. This certainly gives the user a better first impression, and it may lead to more people engaging with the document, but it can also lead to damaging consequences when information needs are not catered for, or when content has been made ambiguous by radical editing.

It may be that *the process or content* that the document describes needs simplification. This is the sense in which the term is often used in the government context. For example, the European Commission (2006) has identified 143 separate simplification initiatives – they address regulations, not documents. It is often the case that content needs to be simplified, and perhaps this is an ideal, but we cannot rely on this to be always achievable. Moreover, simplification may be in conflict with other valid goals, such as fairness – legislation is often made more complex through efforts to cater for special cases, or as a result of political compromise (a side effect of democracy).

Finally, *the reader’s experience* can be simplified – that is to say, made easier, faster, smoother, and more confident. In my view this is the first principle by which any others must be tested. But, Bhatia points out, this is as likely to mean amplifying (that is, lengthening) the document as it is to mean reducing it.

2 Simplification strategies

We can identify a number of strategies that are typically used, often in combination, when existing information has to be made clearer (Table 1).

Optimisation	Simplification			
	<i>Reduction</i>	<i>Amplification</i>	<i>Stratification</i>	<i>Personalisation</i>
Plain language editing	Omission	Learning helps	Layering	Customisation
Clear typographic design	Distillation	Glossing	Drill down	Helplines and advisors
Access structure	Abstraction	Diagramming	Routeing	

Table 1: Some common simplification strategies

The first thing to note is that Table 1 distinguishes *simplification* strategies from *optimisation* strategies, which take existing text and improve it with few or no changes in the structure or content. Optimisation strategies are hygiene factors: simple basic issues that should be resolved whenever words are written down and arranged on paper or screen. As a minimum intervention in a difficult document, the verbal content should be edited to improve readability – for example, using more common words, shorter sentences, and simpler sentence constructions. Good typographic design should ensure legibility, and articulate the content structure using space, colour and graphic emphasis. And sufficient aids to navigation should be provided in the form of access structures: informative titles, headings, and links. Because ‘content’ is not threatened, this is the easiest form of improvement to manage in an organisational context. The changes can be impressive, if superficial.

2.1 Reduction

Reduction strategies are self-explanatory – they simplify the reader’s task by presenting less information.

Simplification strategy	Description	What is gained or lost?
<p>Omission <i>Difficult or less important parts are simply omitted.</i></p>	<p>Omission perhaps does not need explanation – it is perhaps the easiest simplification strategy of all, so long as what is left behind is adequate for its purpose.</p> <p>In bureaucratic organisations, documents often accumulate content over a period of years in response to changes in products and policies, or sometimes because of well-meaning thoroughness. Because document owners are hard to trace, superfluous content can remain long after it has ceased to be relevant.</p>	<p><i>What is gained?</i> Done well, omission rids a document of unnecessary matter, reducing distractions and making the reader’s task easier.</p> <p><i>What is lost?</i> So long as the omitted material has been risk-assessed, nothing important is lost. If in doubt, then a related strategy, backgrounding, can be used instead.</p>
<p>Distillation <i>Information is rewritten, to contain only its essence, or gist.</i></p>	<p>Distillation is perhaps what the term ‘simplification’ first brings to mind, because the result is visibly shorter and easier to read than the original.</p> <p>Distillation produces the kernel or essence of a message, and it is typically used to give busy people a quick briefing on an important issue. Distillations are often components of other simplification strategies – for example, layering.</p>	<p><i>What is gained?</i> Distillation gains the reader’s attention, and can create a more predictable top-level understanding than if they have to create their own overview. Because readers do not have to use a selective reading strategy, you have a more reliable knowledge of what they have read.</p> <p><i>What is lost?</i> Distillation necessarily loses a large amount of detailed content that might prove important. It is not a wise approach used on its own for important topics.</p>
<p>Abstraction <i>A subset of essential information is re-packaged in an easily accessible form.</i></p>	<p>Technology products typically come with complex user guides, which go unread by customers who are impatient to get going. Many manufacturers now provide a Quick Start guide to help them, and the trend is to provide the full guide in electronic form only. This is not the same as distillation, as the repackaged information does not claim to represent the whole of the original version. One section is simply pulled out and used for a particular purpose for which it is relevant.</p>	<p><i>What is gained?</i> Abstraction of information required for defined purposes saves the reader the effort of searching, and ensures that key information is seen at the time it is needed. The existence of the full document, albeit in less accessible form than is the case in layering (see section 2.3), gives the information provider a degree of cover against legal challenge.</p> <p><i>What is lost?</i> Nothing is lost, so long as the reader can access the full set of information.</p>

2.2 Amplification

Amplification strategies includes techniques that help readers to understand the document, by adding extra notes, alternative versions (including diagrams) and a range of instructional design techniques that acknowledge that readers may need to learn new concepts.

Simplification strategy	Description	What is gained or lost?
<p>Learning helps <i>Instructional techniques are used, recognising that reading the document is a learning task for some readers.</i></p>	<p>Any communication created by experts for non-experts must recognise that reading about complicated products (for example, a mobile phone tariff, a pension plan, or a mortgage) is a learning experience: unfamiliar concepts may need to be explained, and technical processes, risk factors or legislation described. More significantly, there may be a need to establish the conditions for making valid inferences from the document – establishing appropriate mental schemata, for example. It is rare to find instructional design explicitly acknowledged in simplification, but document designers frequently draw on techniques developed by educational researchers and textbook writers – I have referred to them simply as 'learning helps' (since instructional design itself is a broader field). They include, for example, advance organisers (the term refers to a schema-creating preview or summary), stated objectives, case studies and self-assessment tests or checklists.</p>	<p><i>What is gained?</i> Instructional design techniques, it is claimed, help people build a deeper understanding of the topic, enabling them to apply its content more reliably to their own situation. They may also help memory of the document's content.</p> <p><i>What is lost?</i> Some instructional design techniques assume, perhaps unrealistically, that readers will read in a linear, cooperative way at key points in the narrative. And because they lengthen the document by adding new features, learning helps might put off readers who would potentially benefit.</p>
<p>Glossing <i>Explanatory notes are provided alongside the text, to define terms, explain exceptions or answer anticipated questions.</i></p>	<p>Glosses are a very old technique for making a document easier through amplification, while retaining the integrity of the original (a number of religious traditions use it to explicate sacred texts without changing them). They typically take the form of sidenotes, footnotes or popup boxes, and are particularly useful for repairing problems that are discovered after a document is approved (in response to feedback or errors), or where it cannot be changed for a legislative reason.</p>	<p><i>What is gained?</i> Notes help readers interpret difficult text, and give them a sense of a support.</p> <p><i>What is lost?</i> Notes may discourage readers from looking deeper into the content, which could be misleading.</p>
<p>Diagramming <i>A graphic representation is provided to give the reader an overview of the document's structure, or the structure of the process or system it describes.</i></p>	<p>Simplified documents often use diagrams to explain difficult concepts, or decision structures. Diagrams can also be used to explain the structure of the document itself, or the process it describes – for example, flowcharts are used at the top of pages (either paper or web) to show progress through the process.</p> <p>Page layout can also be treated diagrammatically – multi-column grids can be used to express conceptual relations or rhetorical structures.</p>	<p><i>What is gained?</i> Diagrams help readers see systematic structures in text content, or to orient themselves within a document or process.</p> <p><i>What is lost?</i> Diagrams can be imprecise, and may be read in unpredictable ways. There is no (or only an imprecise) equivalent to the grammatical, spelling and punctuation rules that can be applied to verbal text.</p>

2.2 Stratification

Stratification techniques distinguish between different layers or types of content, which may be foregrounded or backgrounded depending on their function or status. The layers may be readable as a set, or they may be accessed by drilling down from higher levels (a process sometimes called progressive revelation), or they may be reached by following a route defined by filter questions or instructions. Or they may remain parked in the small print and never accessed.

Simplification strategy	Description	What is gained or lost?
<p>Layering <i>Parallel explanations are provided, at different levels of detail or difficulty.</i></p>	<p>Any document in which the product is described in a range of parallel ways, using different formats and voices, is using a layered structure – layering is therefore signalled through typographic design and navigation features. In a typical financial services sales brochure, for example, layers might include a headline with bullet-pointed benefits on the cover, a summary, a technical description of the product, and the legal terms and conditions. They cover different aspects of the same content, but they are presented in a stratified way, anticipating different occasions of use, and different styles of reading. They may refer to each other explicitly, or through inference or repetition.</p> <p>In some respects, layering is similar to strategies previously described. Content may be omitted from the main narrative, but not literally omitted – just treated as a background layer. Or extra top-level layers, such as notes or summaries, may be developed as distillations or amplifications.</p> <p>Where information is removed to a background layer, it is sometimes described as 'black boxing': complex information (technical descriptions, terms of business, lists of eligibility criteria) is moved out of the main narrative into separate sections, panels, appendices, footnotes, or (in electronic documents) popup boxes. The remaining argument is then made clearer, with the reader taking the black-boxed information on trust until it is needed.</p>	<p><i>What is gained?</i> Layering, achieved through well-judged graphic design and navigation, can encourage and enable strategic reading.</p> <p><i>What is lost?</i> Little is lost, so long as navigation is adequate, but in some instances there can be confusing repetition of content at different layers.</p>
<p>Drill down <i>Top-level summaries link to progressively revealed detail.</i></p>	<p>Drill-down is a form of layering in which higher levels are directly descriptive of, or are linked to, lower ones, rather than just representing different levels of priority. It is a very common web design strategy, since each level of depth contains hyperlinks to a level below, but it is also used in paper documents.</p>	<p><i>What is gained?</i> Like layering, drill-down structures enable strategic reading. They give the reader greater control over the degree of detail they access.</p> <p><i>What is lost?</i> Little is lost, so long as navigation is adequate.</p>

Simplification strategy	Description	What is gained or lost?
Routeing	<p>Forms frequently use filter questions that send people through the document by different routes, depending on the response. Decision trees, ordinary-language algorithms and the equivalent online tools do the same thing but on a smaller scale, and are normally intended to walk customers through a decision process.</p> <p>And it is good practice on all information documents to make it clear at the outset who they are intended for (and even who they are not for).</p>	<p><i>What is gained?</i> Readers get only relevant information, designed for their use.</p> <p><i>What is lost?</i> Readers may miss information about other options, or may stray into other sections by mistake.</p>

2.4 Personalisation

Personalisation includes tailored documents or web pages, programmed to combine data from various sources (fixed text, variable messages, personal information) into customised documents for individual customers. And it includes personal contact with humans via helplines, offices or professional advisers. Phoning is a simplification strategy used by most of us from time to time, and it is important to recognise that it may be the only way to communicate about exceptional cases, or with people who find using documents difficult.

Simplification strategy	Description	What is gained or lost?
Customisation <i>Information is generated from a bank of separate message versions, using personal data about customers.</i>	<p>Personalised documents include financial documents, communications about tax and benefits, bills, and health information. They are generated from templates, in which pre-written messages are selected using logical rules, driven by individual data. Because every part of the document is potentially relevant to the customer, they do not have to be so strategic and problems associated with the understanding of conditionals are eliminated.</p> <p>The messages themselves can potentially be modified according to the customer segment – some organisations operate under a number of brand names in order to attract different types of customers, who can be addressed in an appropriate tone of voice.</p>	<p><i>What is gained?</i> Readers get only relevant information, designed for their use.</p> <p><i>What is lost?</i> Readers may miss information about other options, not chosen by the system for their personalised document. They have less control over the information they access.</p>
Helplines and advisors <i>Information is interpreted by human beings, at call centres, at branches, or in the home.</i>	<p>Documents that try to cater for every need can end up catering only for customers who are persistent and able enough to deal with the resulting complexity.</p> <p>All good interfaces have to be forgiving of error: helplines do this for complex documents.</p> <p>It is also important to remember that many documents are not designed to be self-sufficient. Instead, their purpose may be to support a conversation with a human advisor, or to support the memory of a conversation.</p>	<p><i>What is gained?</i> Problems can be quickly diagnosed, and explanations given at different levels of detail in response to immediate feedback.</p> <p><i>What is lost?</i> Although the organisation may record the conversation, the customer's memory of it soon fades.</p>

3 Conclusion

There is an appetite for simplification among document users, and among those who regulate or seek to influence information providers in sectors such as financial services, utilities, health, and government. Although it is tempting to see it just as a matter of common sense, there are good reasons to look more deeply at the issue. The purpose of this paper has been limited – to identify a range of simplification strategies that go beyond plain language. By identifying these strategies, we can look more deeply at them – at how they are graphically and linguistically signalled, at how they relate to the specific reading skills that are embodied in definitions of functional literacy, and at how they can be evaluated.

This work is presented as work in progress – it represents work we are doing to identify key issues for a new research centre we are developing at the University of Reading⁴ in the UK. Our next task is to collate research that is relevant to these strategies, and identify gaps to be filled.

Endnotes

1. Evidence of public interest in clear communications in the UK can be seen in a range of government or regulatory reports over the last several years. For example, National Audit Office (2003), Better Regulation Executive (2006), House of Commons (2007), Financial Services Authority (2007).
2. An illustrated version of this paper will be available at www.robwaller.org/writing/
3. One reason that combining questions tends to make them less clear, is because an 'or' conjunction often results. 'Or' can be inclusive ('are you unemployed or unable to work because of your health?') or exclusive ('are you male or female?').
4. The Simplification Centre at the University of Reading brings together a range of departments including Typography & Graphic Communication, Psychology, Applied Linguistics, Economics and Law. There is more information at www.reading.ac.uk/simplification.

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References

- Baker, L., & Brown, A.L. (1984). Metacognitive skills in reading. In P.D. Pearson (Ed.), *Handbook of reading research* (353-394). New York: Longman.
- Better Regulation Executive (2007). *Warning: too much information can harm*. London: Better Regulation Executive / National Consumer Council.
- Bhatia, V.K. (1983). 'Simplification v. easification – the case of legal texts', *Applied Linguistics*, 4, 42–54
- Coggan, D. (1990). Foreword, *The Reader's Digest Bible*, London: Reader's Digest Association Limited.

- European Commission, (2006). *First progress report on the strategy for the simplification of the regulatory environment*. Commission Working Document COM (2006) 690 final.
- Financial Services Authority (2007). *FSA Insurance Sector Briefing: Quality of post-sale communications in the life sector*. London: Financial Services Authority.
- Horn, R. E. with Nicol, E., Kleinman, J., and Grace, M. (1969). *Information Mapping for Learning and Reference*. Cambridge, Mass: I.R.I. (A.F. Systems Command Report ESD-TR-69-296).
- House of Commons Committee of Public Accounts (2007). *Department for Work and Pensions: Using leaflets to communicate with the public about services and entitlements*. Seventh Report of Session 2006–07. London: The Stationery Office.
- Mann, W.C., & Thompson, S.A. (1988). *Rhetorical Structure Theory: Toward a functional theory of text organization*. Text, 8 (3). 243-281.
- MORI, (2000). *Consumer Knowledge Survey*, London: Department of Trade & Industry.
- National Audit Office (2003) 'Difficult Forms: How government agencies interact with citizens', London: The Stationery Office.
- Olson, D.R., (1985) 'On the designing and understanding of written texts.' In T.M. Duffy, R. Waller (eds) *Designing Usable Texts*. Orlando: Academic Press.
- Paris, S., Wasik, B., & Turner, J. (1991). The development of strategic readers. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 609-640). White Plains, NY: Longman.
- Thomas, L.F., & Harri-Augstein, E.S. (1980). 'Learning-to-learn by reading: towards a conversational technology', in R Winterburn (ed) *Aspects of Educational Technology*, London: Kogan Page.
- Widdowson, H.G. (1979). *Explorations in Applied Linguistics*. London: OUP