

Multiple summaries as an aid to reading literary texts

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Good afternoon. I'm Dave Farkas, from the United States.

My doctoral study was in British literature—back in 1976.

But my academic career was in technical writing and information design.

One of my projects—QuikScan—was about the use of text formatting to improve workplace and professional documents. Now that I've transitioned to emeritus status, I've broadened my interest in QuikScan to include literary texts, thereby returning to my original area of interest.

The problem

How can we motivate young adults to read the difficult and perhaps “dull” classics of their national literatures?

How can we make the task less difficult?

This problem, I believe, is important to the IAIMTE/ARLE research community and particularly important to those participating in this symposium.

Stated in broader terms, how do we improve the reading experience of school age individuals who may not be strong readers and who may well be disinclined to read longer literary texts?

QuikScan

Is the solution multiple summaries—using the QuikScan multiple summary design approach?

I'm proposing a solution—the use of multiple summaries—specifically the QuikScan multiple-summary design. There is extensive research literature showing the benefits of QuikScan for professional texts—but not works of literature. But QuikScan, I think, can be very beneficial to students studying literature.

What is QuikScan?

- QuikScan is a design strategy that can take various forms
- There are always two defining elements:
 1. Multiple summaries
 2. Quick switching between summary statements and the corresponding text
- QuikScan can be implemented in print, PDF, and HTML
- There is a special “ActiveReading” version of QuikScan designed for use in schools

1.The summaries must be placed strategically within a text. QuikScan employs specific rules for doing this.

2.There are affordances that enable the reader to switch quickly from each summary statement to the corresponding location in the text (and back again)—as we’ll see.

These are the defining elements of QuikScan, but many other features can be added, depending on the genre of the text, the readers, etc.

The *ActiveReading* version of QuikScan embeds questions in the summaries, leaves some summaries incomplete, and disables certain display options. It is intended to motivate students to read the full text (rather than rely on the summaries) and to promote greater inferencing during the reading process.

The text is divided into sections, each with a title and a summary

Section title

Summaries are in gray boxes

Numbered statement

Corresponding location in text

↑ The limitations of monetary wealth. The nature of true wealth. Dec 5

- 1 The power over other men that is achieved by money is always imperfect. Furthermore, many of the joys of life cannot be bought with gold.
- 2 Moral power, "invisible gold," is just as real as bullion. Political scientists should take heed of this.
- 3 The authority conferred by wealth seems to be falling now in England. Servants, wanting their pay, disobey.
- 4 The true veins of wealth are the veins of men, and the true purpose of wealth is producing active, happy people—though modern wealth appears to work the other way.
- 5 Perhaps England will one day reject the doctrine of monetary wealth and declare that its people are the nation's jewels.

▲ 1 It has been shown that the chief value and virtue of money consists in its having power over human beings; that, without this power, large material possessions are useless, and to any person possessing such power, comparatively unnecessary. But power over human beings is attainable by other means than by money. As I said a few pages back, the money power is always imperfect and doubtful; there are many things which cannot be reached with it, others which cannot be retained by it. Many joys may be given to men which cannot be bought for gold, and many fidelities found in them which cannot be rewarded with it

▲ 2 Trite enough, —the reader thinks. Yes; but it is not so trite, —that in this moral power, quite inscrutable and immeasurable though it be, there is a monetary value just as real as that represented by more ponderous currencies. A man's hand may be full of invisible gold, and the wave of it, or the grasp, shall do more than another's with a shower of bullion. This invisible gold, also, does not necessarily diminish in spending. Political economists will do well some day to take heed of it, though they cannot take measure.

▲ 3 But farther. Since the essence of wealth consists in its authority over men, if the apparent or nominal wealth fail in this power, it fails in essence; in fact, ceases to be wealth at all. It does not appear lately in England, that our authority over men is absolute. The servants show

The author's text is divided into sections, with titles (similar to headings). If the author has already provided headings and subheadings (which may well happen in non-fiction), the author's headings and subheadings become titles. This is explained in detail in the journal article "QuikScan: Formatting documents for better comprehension and navigation," by Zhou and Farkas (*Technical Communication*, 2010), available on the **Research** page of the QuikScan.org website.

Each gray box in a QuikScan text summarizes a section of the text. This particular summary is divided into 5 numbered statements. Each statement summarizes a portion of this section of the text.

The green arrows in this slide show how statement 1 in the summary corresponds to the location in the text marked with "1" and a triangle. This is the paragraph in the text that's summarized in statement 1.

The red arrows show that the reader has moused over the second of the five summary statements (notice the hand pointer). The corresponding number highlights in blue so that the reader can more easily locate the portion of the text that corresponds to the second summary statement. This is one of the affordances that enables quick and easy

switching between summary statements and the corresponding text.

If the reader becomes interested in, say, the idea in summary statement 5, she clicks the statement. The statements are all hyperlinks, and so the reader jumps to the corresponding portion of the full text (as indicated by the purple arrow). Very often a summary statement summarizes more than one paragraph of the text—depending on how densely the text was written.

QuikScan in print

Switching via numbering system

The screenshot displays a document titled "QuikScan in print" with a section "Switching via numbering system". The document is divided into two main parts: "Defining troubleshooting procedures" and "Developing troubleshooting procedures".

Defining troubleshooting procedures

Sec 2

- 1) Standard procedures are task focused, assume a normally functioning system, and assume the user is consulting the procedure when she begins the task.
- 2) In contrast, TPs address a problem such as a bug, incompatibility, or component failure.
- 3) This distinction, however, needs some refinement. For example, sometimes the user's unfamiliarity with a normally functioning system is framed as a TP.
- 4) Sometimes a two-way dialog (phone support, forum, etc.) is better than KB content.

¶ Standard procedures are task-focused. They state a user goal ("Encrypting files") and provide the steps for achieving the goal [1]. They assume a normally functioning system and assume, not always correctly, that the user is consulting the procedure as she begins the task. ¶ In contrast, troubleshooting procedures articulate and try to solve a problem other than the user's lack of familiarity with the normal operation of the system. In most cases this problem is a bug, incompatibility, or component failure:

When I save SWF files, they save with meaningless file names and the file sizes are unusually large

EZGrab 3.0 freezes or closes unexpectedly

My computer no longer plays audio or produces any sound from the speakers or headset

¶ This distinction between troubleshooting procedures and standard procedures requires some refinement. First, some troubleshooting procedures (and other KB content) are written for situations in which the system is functioning normally. For example, a troubleshooting procedure may address an unexpected limitation of the product. A user cannot make something happen and thinks the

Developing troubleshooting procedures

Sec 3

- 1) The TP development process varies greatly according to such factors as the product, user assistance genre (KB, help, etc.), company, and problem.
- 2) This development effort is both (A) technical and (B) rhetorical.
- 3) It is best carried out by a range of professionals such as field reps, support technicians, developers, and writers.

Although generalizations are difficult given the size and diverse nature of the computer industry, a broad sketch of the development process provides necessary context for the analysis that follows. ¶ The development varies greatly according to such factors as the product or service, the user assistance genre (KB, help system, support bulletin, etc.), the company (size, budget, maturity of processes), the problem category and severity, and the range of users being served. One safe generalization is that when indications of a problem first reach a company, the problem must be analyzed, a plan must be devised for a troubleshooting procedure (and possibly other responses), and the content must be created and tested. ¶ This effort is in large part ¶ technical. For example, users who have upgraded to the newly released EZGrab 3.0—but not new purchasers of EZGrab 3.0—report that the

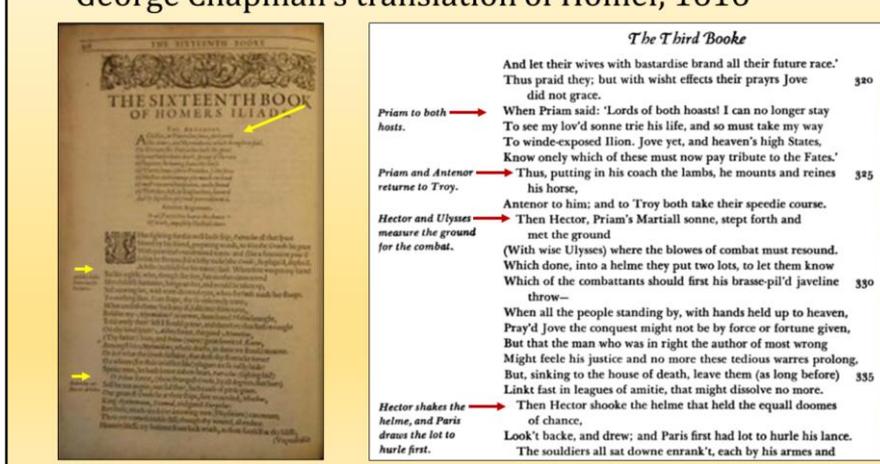
Here is an example of QuikScan intended for print. Readers switch between summary statements and the full text using the system of corresponding numbers (no hyperlinks). It's "low-tech" but works well.

When you're creating QuikScan texts for print and for PDF, you use MS Word (or another full-featured word processor). The formatting is not difficult. Hyperlinks can be added for PDF files intended to be read online.

This example is from a proceedings paper. QuikScan was originally developed for professional documents—workplace documents, academic papers, etc. But my focus now is literary texts.

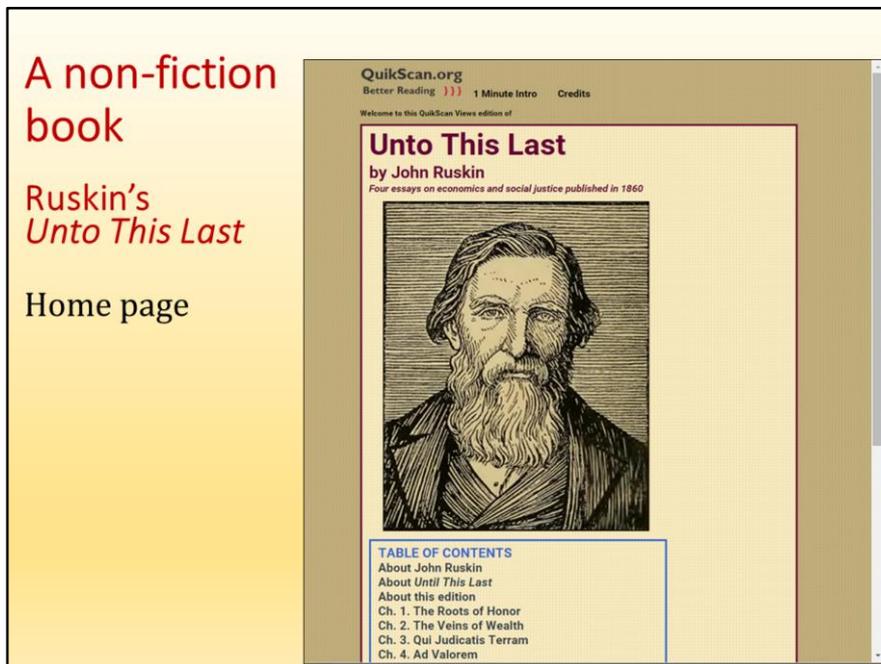
Multiple summaries in literary texts have a long history

George Chapman's translation of Homer, 1616



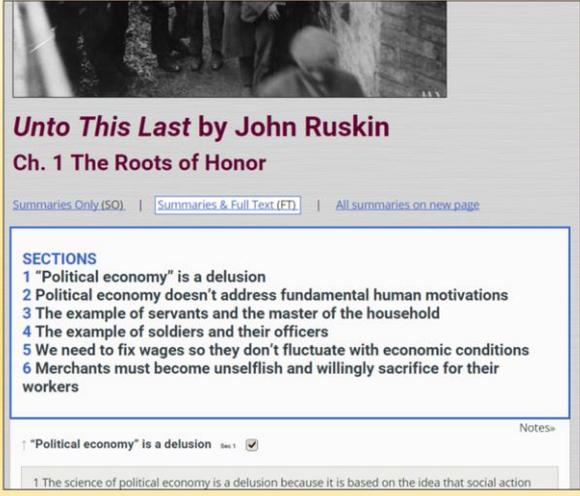
Multiple summaries in literary texts are not new. For example, John Milton added an “argument” (a summary) at the beginning of each book of *Paradise Lost*.

George Chapman includes “arguments” plus many brief embedded summaries, appearing in a separate column, all through his translations of the *Iliad* and *Odyssey*. (On the left is a page as originally published. On the right is a modern printing of a different page.) As you can see, you can quickly switch between one of Chapman's brief summaries and the corresponding lines of the poem, so QuikScan is not that different from Chapman's multiple-summary design. QuikScan, (or at least something similar to it) is 400 years old!



Here is the home page of a QuikSanned book, John Ruskin's *Unto This Last*. Ruskin was a social reformer in Victorian England who attacked uncontrolled industrialism and capitalist greed. *Unto This Last* was a hugely influential book—for example, it transformed the thinking of the young Mahatma Gandhi, and it influenced Martin Luther King. But it's a very uneven book. Parts are brilliant, exciting reading. Other parts are best left to scholars.

Book chapter with chapter-level table of contents



Unto This Last by John Ruskin
Ch. 1 The Roots of Honor

[Summaries Only \(SO\)](#) | [Summaries & Full Text \(FT\)](#) | [All summaries on new page](#)

SECTIONS

- 1 "Political economy" is a delusion
- 2 Political economy doesn't address fundamental human motivations
- 3 The example of servants and the master of the household
- 4 The example of soldiers and their officers
- 5 We need to fix wages so they don't fluctuate with economic conditions
- 6 Merchants must become unselfish and willingly sacrifice for their workers

Notes

↑ "Political economy" is a delusion Sec 1 ✓

1 The science of political economy is a delusion because it is based on the idea that social action

Now we look deeper into the book. This is the beginning of Chapter 1, “Roots of Honor.” Each chapter has its own table of contents, so that readers can navigate quickly to each of the sections.

To get a quick overview of the text that is far more detailed than a conventional abstract, the reader can display just the summaries in the Summaries Only view.

Notice the link to the Notes page for this chapter.

A section of the book

The example of servants and the master of the household

- 1 The master who works his servants as hard as he possibly can and pays as little as he can get away with—that's the economist's idea of the most productive relationship. This passes as "justice."
- 2 This model would work if the servant were some kind of machine, but the servant's Soul really determines how much gets done, and this totally disrupts the economist's calculations.
- 3 A master who is both competent and benevolent will—through mutual affection, not antagonism—get the most and best work from his servants.
- 4 Moreover, if a cynical master treats the servant kindly only to gain practical benefits, there will be no practical benefits.

▲ 1 We shall find the best and simplest illustration of the relations of master and operative in the position of domestic servants. (8)

We will suppose that the master of a household desires only to get as much work out of his servants as he can, at the rate of wages he gives. He never allows them to be idle; feeds them as poorly and lodges them as ill as they will endure, and in all things pushes his requirements to the exact point beyond which he cannot go without forcing the servant to leave him. In doing this, there is no violation on his part of what is commonly called "justice." He agrees with the domestic for his whole time and service, and takes them— the limits of hardship in treatment being fixed by the practice of other masters in his neighbourhood: that is to say, by the current rate of wages for domestic labour. If the servant can get a better place, he is free to take one, and the master can only tell what is the real market value of his labour, by requiring as much as he will give.

This is the politico-economical view of the case, according to the doctors of that science: who assert that by this procedure the greatest average of work will be obtained from the servant, and therefore the greatest benefit to the community, and through the community, by reversion, to the servant himself.

▲ 2 That, however, is not so. It would be so if the servant were an engine of which the motive power was steam, magnetism, gravitation, or any other agent of calculable force. But he being, on the contrary, an engine whose motive power is a Soul, the force of this very peculiar agent, as an unknown quantity, enters into all the political economist's equations, without his knowledge, and falsifies every one of their results. The largest quantity of work will not be done by this curious engine for pay, or under pressure, or by help of any kind of fuel which may be supplied by the caldron. It will be done only when the motive force, that is to say, the will or spirit of the creature, is brought to its greatest strength by its own proper fuel: namely, by the affections.

▲ 3 It may indeed happen, and does happen often, that if the master is a man of sense and energy, a large quantity of material work may be done under mechanical pressure, enforced by strong will and guided by wise method: also it may happen, and does happen often, that if the master is indolent and weak (however good-natured), a very small quantity of work, and that bad, may be produced by the servant's undirected strength, and contemptuous gratitude. But the universal law of the matter is that, assuming any given quantity of energy and sense in master and servant, the greatest material result obtainable by them will be, not through antagonism to each other, but through affection for each other: and that if the master, instead of endeavouring to get as much work as possible from the servant, seeks rather to render his appointed and necessary work beneficial to him, and to forward his interests in all just and wholesome ways, the real amount of work ultimately done, or of good rendered, by the person so cared for, will indeed be the greatest possible. (9)

Observe, I say, "of good rendered," for a servant's work is not necessarily or always the

Here is most of Chapter 1, Section 3. This excerpt conveys the QuikScan reading experience.

Viewing options

QuikScan.org QS Library 1 Minute Intro Viewing options

The High Contrast option is for people with impaired vision.

You can turn off the yellow highlighting of passages the editor suggests are important, and you can turn off the sepia (brown) coloring of passages the editor suggests you might want to skip.

Turn on Scholars' View to see unresolved editorial issues displayed in a red font. Contribute an answer if you can.

- High contrast is Off
- Yellow highlighting is Off
- Sepia text color is Off
- Scholars' View is Off

TABLE OF CONTENTS



Unto This Last by John Ruskin

This is the very top of Chapter 1. The Viewing Options dialog box (bright yellow box) is open. QuikScan uses bright yellow backgrounds to aid low-vision readers.

Below the dialog box is the Table of Contents menu that lets users navigate among the chapters.

Low-vision option

The bright yellow background provides high contrast for low-vision readers.

Both low-vision and blind readers greatly appreciate QuikScan.

QuikScan.org QS Library 1 Minute Intro Viewing options

The High Contrast option is for people with impaired vision.

You can turn off the yellow highlighting of passages the editor suggests are important, and you can turn off the sepia (brown) coloring of passages the editor suggests you might want to skip.

Turn on Scholars' View to see unresolved editorial issues displayed in a red font. Contribute an answer if you can.

High contrast is On
 Yellow highlighting is Off
 Sepia text color is Off
 Scholars' View is Off

TABLE OF CONTENTS

Unto This Last by John Ruskin

Here we see that a low-vision reader has turned on the high-contrast option to display a bright yellow background. They can also increase the text size with a browser setting.

Blind readers use text-to-speech software such as JAWS, and they must deal with the very bothersome “skippability problem.” They listen impatiently to unwanted content because, unlike sighted readers, they cannot easily scan ahead to content they *are* interested in. One reason why blind readers appreciate QuikScan is that it effectively addresses their skippability problem. A blind reader was involved in the early design of QuikScan.

There is ongoing research on the use of QuikScan by people with impaired vision. This work, funded by the EU, is led by professor Hans van der Meij of the University of Twente, in the Netherlands.

Reading suggestions options

The editor can indicate recommended and “skippable” portions of the text.



The screenshot shows the QuikScan.org interface for the text "Unto This Last" by John Ruskin. The page has a yellow background. At the top, there are navigation links: "QuikScan.org", "QS Library", "1 Minute Intro", and "Viewing options". Below these links, there is a yellow box containing the following text: "The High Contrast option is for people with impaired vision. You can turn off the yellow highlighting of passages the editor suggests are important, and you can turn off the sepia (brown) coloring of passages the editor suggests you might want to skip. Turn on Scholars' View to see unresolved editorial issues displayed in a red font. Contribute an answer if you can." Below this text are four checkboxes: "High contrast is Off", "Yellow highlighting is On", "Sepia text color is On", and "Scholars' View is Off". The "Yellow highlighting is On" and "Sepia text color is On" options are checked. A red double-headed arrow points to the "Yellow highlighting is On" checkbox. Below the checkboxes is a blue button labeled "TABLE OF CONTENTS". Below the button is a black and white photograph of a group of men in a narrow street. Below the photograph is the title "Unto This Last by John Ruskin" in a purple font.

The Yellow highlighting option adds a pale yellow background behind the very important (“Don’t miss!”) passages. (Note: This is different from the bright yellow background that low-vision readers can choose.)

The Sepia (brown) option changes text color to sepia if the editor has decided that this text can be skipped by mainstream readers.

Reading Suggestions can be turned off by the reader—or not implemented

Highly recommended text (pale yellow)

Skippable text (sepia)

Summaries Only (50%) | Summaries & Full Text (21%) | All Summaries on this page

SECTIONS

- 1 "Political economy" is a delusion
- 2 Political economy doesn't address fundamental human motivations
- 3 The example of servants and the master of the household
- 4 The example of soldiers and their officers
- 5 We need to fix wages so they don't fluctuate with economic conditions
- 6 Merchants must become unselfish and give up profits for the common good

(Click to jump to this section of document. Click heading to return.)

"Political economy" is a delusion — — —

Science of political economy is a delusion because it is based on the idea that social action does not need to consider "social affection" (the ability of human beings to care about one another).

- 1 Like other delusions, the root idea is plausible. Social affection, says the economist, is unpredictable, while greed is a constant. Therefore, it's best for economists to consider the human being as a "loveless machine." Each individual can then think what they live about social affection.
- 2 This idea fails, however, because social affections can't just be added into our calculations about economic science. Rather the social affections deeply disrupt political economy.
- 3 Political economy, then, is simply irrelevant to real life, like a science of gymnastics that assumed that people had no skeletons.

▲ 1 Among the delusions which at different periods have possessed themselves of the minds of large masses of the human race, perhaps the most odious—certainly the least creditable—is the modern and least science of political economy, based on the idea that an advantageous code of social action may be determined irrespective of the influence of social affection. (1)

▲ 2 Of course, as in the instances of alchemy, astrology, witchcraft, and other such popular creeds, political economy, has a plausible idea at the root of it. "The social affection," says the economist, "are accidental and disturbing elements in human nature; but avarice and the desire of progress are constant elements. Let us eliminate the inconstants, and, considering the human being merely as a covetous machine, examine by what laws of labour, purchase, and sale, the greatest accumulative result to wealth is obtainable.

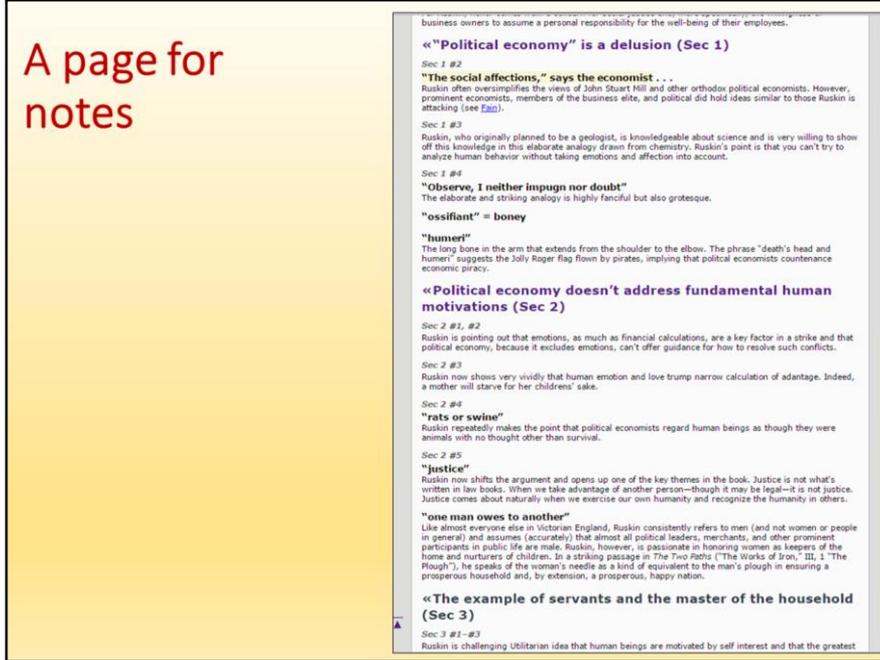
Those laws once determined, it will be for each individual afterwards to introduce as much of the disturbing affectionate element as he chooses, and to determine for himself the result on the new conditions supposed."

▲ 3 There would be a perfectly logical and successful method of analysis, if the accidental afterwards to be introduced were of the same nature as the powers first examined. Supporting a body in motion to be influenced by constant and inconstant forces, it is usually the simple way of examining its course to trace it first under the persistent conditions, and afterwards introduce the causes of variation. But the disturbing elements in the social problem are not of the same nature as the constant ones: they alter

Here you see some "Don't Miss!" text that is highlighted in pale yellow. You also see sepia text marked for skipping.

There are obvious benefits to pointing out the most and least important portions of a text both for general readers and in the schools. In schools, we may want to shorten reading assignments. Also, some parts of a text may be especially difficult, as well as less valuable.

However, providing this level of guidance can be problematical in the schools, and so instructors may choose to disable these viewing options. The *ActiveReading* version of QuikScan, discussed later, more broadly addresses the issue of providing too much guidance for students.



This is the notes page for Chapter 1. Some of the notes are Ruskin’s own notes. Some are the editor’s notes (my notes). Some of Ruskin’s notes are highlighted in pale yellow because they are important (Don’t miss!) notes.

Later we’ll see the QuikScan edition of a lengthy poem, John Skelton’s “Philip Sparrow.” It has some different features, and a different way to display notes.

Poems are QuikScanned differently

Skelton's
Philip Sparrow



The screenshot shows a web browser window with the QuikScan.org website. The page features a portrait of John Skelton, a man with a beard and a cap, wearing a dark jacket over a brown vest. Below the portrait, the text reads: "JOHN SKELTON Poet laureate to King Henry the Eighth." The main heading of the page is "Welcome to this QuikScan Views edition of *Philip Sparrow* by John Skelton (1460-1529)". There are two tabs: "Summaries Only (SO)" and "Summaries & Full Text (FT)". A blue button labeled "TABLE OF CONTENTS" is visible at the bottom of the page.

John Skelton lived between Chaucer and Shakespeare. He's a fascinating and very enjoyable poet. *Philip Sparrow* is a profound but also very sexy poem. It's about a young woman's sexual awakening. Perfect for teenagers. Lot's of opportunity for discussion.

However, Skelton's archaic English is difficult, there are many obscure allusions, and there are passages in Latin that need to be translated. Also, Skelton follows the Medieval habit of including long digressions and extreme repetition (amplification). Modern readers may want to read this long poem selectively. Instructors may well want to invite students to skip parts of this long poem.

Notes with the text

Short notes

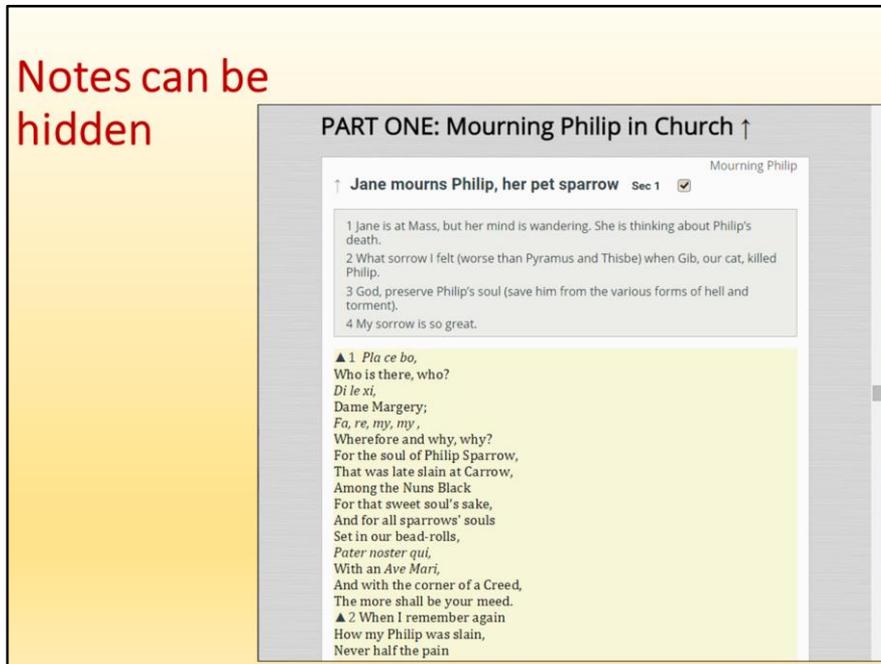
Longer notes

The screenshot shows a digital edition of the poem "Philip Sparrow" by Thomas Skelton. The title is "PART ONE: Mourning Philip in Church ↑". Below the title is the section "Jane mourns Philip, her pet sparrow" with a "Sec 1" indicator. The poem text is displayed in a light blue font, and several lines are highlighted in pale yellow. Annotations in blue font are placed next to the text. Red arrows point from the labels "Short notes" and "Longer notes" to these annotations. The annotations include: "Head nun of the convent where Jane attends school" pointing to "Dame Margery"; "Name of the convent" pointing to "Nuns of the Benedictine Order"; "A list of people to be specially prayed for" pointing to "Pater noster qui, Ave Maria ('Hail Mary')"; and "corner of a Creed: portion of the Nicene Creed (meed: reward (have, a spiritual reward))" pointing to "And with the corner of a Creed, The more shall be your meed." Footnote numbers 1, 2, and 3 are placed at the end of lines. A list of footnotes is located at the bottom of the page, including: "1 Placebo Domino in regione vivorum. I will please the Lord in the land of the living. Psalm 114: 9 (The poem's Biblical quotations are from the Vulgate Bible and use Vulgate numbering. Vulgate numbering differs by one or two numbers from most English bibles). The beginning of the Vespers of the Office of the Dead. Skelton breaks up the words (as he does elsewhere) to indicate that this is this is the congregation's response (plainsong) to the choir. Phrases from the Office appear throughout the poem."; "2 Dilixi quoniam audies Domine vocem deprecationis meae. I have loved; therefore, the Lord will heed the voice of my prayer. Psalm 114: 1"; and "3 Syllables that represent notes on the musical scale. Something like Do, Re, Mi." The page number "50" is visible at the bottom left.

In this QuikScan edition of *Philip Sparrow*, brief definitions of archaic words and brief explanations appear alongside the relevant line of the poem (in a blue font). Longer notes, such as explanations and translations of the Latin, appear in footnotes located close by (also in blue). Note the footnote numbers.

You can also see that this part of the poem (the beginning of the poem) is highlighted in pale yellow as “Don’t Miss!” content.

Notes can be hidden



Someone who knows the poem may prefer an uncluttered view, without all the footnotes. If you narrow the browser, the notes disappear. (We use the HTML media queries feature.)

The systematic summarization of each section makes the reader much less reliant on the footnotes. A first-time reader who chooses to hide the notes will have a pretty good reading experience using only the summaries as an aid to understanding the text.

You can see that QuikScan can be used with poetry as well as prose. My broader point is that different kinds of literary works require somewhat different features.

Later we will look at one more QuikScanned text, Hans Christian Andersen's "The Little Mermaid." This literary work is QuikScanned with the ActiveReading version of QuikScan, designed for use in schools.

Scholars' View

The QuikScan editor can query the community of scholars

↑ Merry thoughts about her kirtle. My pen cannot do her justice. Sec 3 Commendations

1 I dare not write or speak of the pleasures that lie under her kirtle. But any man is allowed to think a merry thought.
2 I wish I had the polished style of Cicero to praise Jane.
3 But I'm too rude and dull to praise a girl with as chaste as Diana, as beautiful as Venus, and as wise as the goddess of Wisdom.

▲ 1 Her kirtle so goodly laced.
And under that is braced
Such pleasures that I may
Neither write nor say.

kirtle: an undergarment I am unclear as to what kind of undergarment a kirtle is.

Wherefore hold me excused
If I have not well perused
Mine English half abused,
Though it be refused,
In worth I shall it take,
And fewer words make. I am unsure of the meaning of this passage.

There is one more viewing option that hasn't been discussed.

Because there are unresolved editorial issues in *Philip Sparrow*, we added a special "Scholars' view" so that editors can display (in red) passages about which they'd like help. They can also write queries (red and boldface) to explain their problem. So, with Scholars' View editorial work can be crowdsourced.

Benefits of QuikScan

Here we point out the major benefits of QuikScan. We omit the certain specialized features such as Scholars' View.

Increased retention

- When readers read *both* the summaries and the full text, retention increases dramatically—with no significant increase in reading time
- The QuikScan.org website provides citations of empirical studies

Even though a QuikScanned text is about 15% longer than the same text with standard formatting, the reading time is not statistically different. The summaries enable the reader to build a mental model of the text that makes reading more efficient. In other words, the extra retention comes without the cost of extra reading time.

Increased comprehension

- When a text is too hard for readers, the summaries scaffold comprehension
- The summaries indicate the main ideas in the upcoming section
- The summaries are written with modern (vs. archaic) vocabulary and modern style and syntax
- Systematic summarization is more effective than conventional explanatory notes

When a text is too hard for readers, the summaries scaffold comprehension. The summaries are written in contemporary (rather than archaic) language, and they spotlight the main ideas in the upcoming section of the author's text.

In most literary texts, explanatory notes serve many purposes. Most address particular stumbling blocks, such as an unfamiliar word or allusion or especially difficult syntax. Sometimes a brief portion of the text is paraphrased. As you have seen, traditional explanatory notes can be used with QuikScan, but systematic summarization is probably more valuable to readers than explanatory notes.

Extra structure and enhanced navigation

- Dividing the text into titled sections adds structure
- Adding numbered summaries adds structure and target numbers in body text add structure
- Corresponding numbers and (in some implementations) hyperlinking greatly enhance within-text navigation
- However, by adding structure, QuikScan is less faithful to the original text

QuikScan inherently adds structure and this helps both comprehension and navigation. However, a QuikScan edition is less faithful to the original text than standard editions. Ruskin, for example, does not use headings and subheadings in the chapters of *Unto This Last*. The division of each chapter into titled sections (akin to headings) is very helpful to readers—but it's an editorial addition.

Enhanced navigation supports intensive reading and knowledge work. For example, if a reader encounters an element in a text that has an interesting relationship to an earlier element, ample navigation affordances (including the search feature in digital editions) make it feasible for the reader to locate that earlier element.

Well received by readers

- Readers learn QuikScan very easily
- Satisfaction ranges from neutral or positive to great enthusiasm
- *As noted above:* Both low-vision and blind readers have expressed great enthusiasm for QuikScan

If you were about to read a long or difficult text, would you welcome a QuikScan edition?

In one usability text, most respondents indicated that they would pay significantly more for a QuikScan edition of a professional book they needed to read.

Supports selective reading

- Readers can choose to read a summary of a section rather than the full text
- The summaries are sufficiently informative that readers do not experience a significant loss of context when they bypass a section of the text
- Support for selective reading is almost always welcomed in workplace texts, but is problematical in school texts

If a reader reads selectively within a standard (unsummarized) text, they bypassing content that might prove necessary for a good understanding of later parts of the work. This is the “loss of context problem.” However, if readers read the of sections they are bypassing, the loss of context problem is reduced. Extensive experience with QuikScan has shown us that QuikScan summaries are sufficiently informative to eliminate or nearly eliminate the loss of context problem.

The *ActiveReading* version of QuikScan discourages selective reading (reading summaries and not the full text) and is a good option for instructors for whom QuikScan’s support for selective reading is problematical.

Makes possible very specific reading assignments

- Sample assignments:

Read Chapter 1. Read all summaries. Read all the author's text, except for the sepia text, which you can skip.

Read Chapter 1. Read all summaries. In the author's text you can skip Section 3. In Section 4, you can read just the highlighted text.

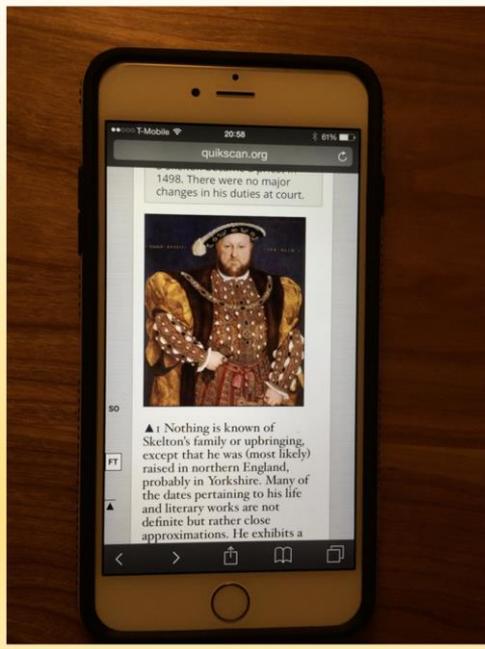
- Because of the summaries, skipping sections doesn't create a "lost context" problem. The summaries provide prerequisite information for later sections.

As noted above, in the case of literary classics there are often less relevant passages that students would do well to skip. But indicating to students at a fine-grained level what portions they can skip can be a messy business. With QuikScan, however, you can *conveniently* indicate skippable passages, right down to the paragraph level. In other words, it is not tedious to indicate very specifically what parts of a text students can skip.

The lost context problem has been discussed.

Mobile friendly

iPhone 6 Plus



Many people today read with tablets and smart phones. The HTML version of QuikScan employs responsive design so that it displays well on a wide variety of devices. Mobile display technology, however, is not yet mature, so that even our correctly written code may still display with minor glitches on certain mobile devices.

Free: Entirely in the public domain

- QuikScan is completely in the public domain
- It is an academic project, not any sort of business
- You can freely use QuikScan, modify it, and even productize your enhancements

QuikScan is an academic project, not any sort of business. QuikScan is in the public domain. Our goal is simply to get people to use QuikScan. I will gladly assist folks who wish to QuikScan a text or conduct research pertaining to QuikScan.

Drawbacks and Issues

QuikScanning a text requires extra work and skills

- Requires extra work writing summaries and formatting
- For HTML implementations, basic HTML/CSS skills are necessary
- However, the QuikScan templates greatly reduce HTML formatting effort
- In the not-too-distant future, auto-summarization will greatly ease the writing burden

- QuikScanning is extra work. You need to write the summaries. You need to do the formatting. However, computerized summarization is an active research field. Soon, I believe, summarization will be automated—at least to the rough draft stage.
- You need some HTML/CSS skill to author text using the HTML version of QuikScan. But not much. Also our authoring templates save a huge amount of time. (Designing and editing a QuikScan edition might be a great masters thesis or a project for a group of graduate students.)

The time-saving authoring template

The screenshot displays a web authoring interface. On the left, the HTML source code is visible, featuring a collapsible section for 'Bats'. The code includes a section header, a list of six items, and a summary section. On the right, the rendered preview shows a section titled 'Bats' with a list of six items and a summary section. The items are: 1 Bats are happy, 2 Bats are healthy, 3 Bats are wealthy, 4 Bats are wise, 5 Bats are nifty, and 6 Bats are thrifty. The summary section contains six items: 1 Bats are very happy animals, 2 Bats are very healthy animals, 3 Bats are very wealthy animals, 4 Bats are very wise animals, 5 Bats are very nifty animals, and 6 Bats are very thrifty animals.

Here is one of the QuikScan templates, open in Dreamweaver. (You can download the templates from the QuikScan website.) On the left is the HTML. On the right you see the placeholder text. To a large degree, all the QuikScanner needs to do is replace the placeholder text with their own text. Careful work habits are more important than a lot of web-building expertise.

The selective reading issue: Will students read only the summaries?

- QuikScan summaries are designed to draw readers into the text. QuikScan is not like SparkNotes or Cliff's Notes
- Instructors can devise assignments that make it necessary for students to read the full text
- Forcing students to read every page does not necessarily result in highly meaningful reading. They may read just for the plot.
- The *ActiveReading* version of QuikScan specifically addresses the selective reading issue

- Unlike SparkNotes, Cliff's Notes, and similar forms of summarization, QuikScan is tightly integrated with the text and is designed to draw the reader into the text at every moment.
- If instructors want to prevent students from reading summaries rather than sections of the full text, they can design assignments that will accomplish this. For example: "In what ways does Ruskin resemble a prophet from the Old Testament? Provide examples."
- Forcing students to read every page of a text does not necessarily result in a meaningful reading. A student who is struggling simply to understand the text is not reading broadly and receptively. It may be better to supply the basic meaning and let students read for other things.
- Finally, instructional designers can prepare different kinds of summaries, including summaries that only partially summarize the text and that include questions that motivate the student to read the entire text. This "*ActiveReading*" version of QuikScan is discussed next.

ActiveReading QuikScan

Does standard QuikScan provide too much guidance for students? The *ActiveReading* version of QuikScan is designed to promote greater inferencing.

ActiveReading summaries promote a full reading of the text

- Questions are embedded in the summaries—some factual, some reflective
- Some summaries are left incomplete. (There are many design possibilities.)
- The display options have been restricted so that students cannot display just the summaries
- To enforce full and careful reading, teachers can ask students to answer the questions and complete the summaries

Readers of workplace texts and mature readers of literary texts benefit from the Summaries Only view. However, for a text intended for use in the schools—for use by younger readers who are not reading voluntarily—it is best to eliminate the Summaries Only view.

A summary with embedded questions

Hans Christian Andersen's "The Little Mermaid"

↑ The youngest daughter was a strange child Sec 2

- 1 While her sisters collected treasures from wrecked ships, the youngest cared only for flowers—and for her statue of a handsome boy, which she loves to embrace.
- 2 She loved to hear about the upper world, the land above the sea.
Q Why does the grandmother refer to birds as "fishes"?
- 3 As each princess reaches the age of 15, she will have permission to visit the upper world. Starting with the eldest, each promises to relate fully what she sees.
- 4 The youngest princess longs most of all to visit the upper world.
Q In how many different ways is the youngest sister "special"? (You will need to think back or look back to Section 1 to fully answer this question.) Does the plot depend on the special characteristics of the youngest sister?

This *ActiveReading* version of the "Little Mermaid" is derived from a version QuikScanned in the standard way. The two questions you see here are added to the four summary statements. They do not replace a summary statement.

The first question (following summary statement 2) asks a simple factual question, but in so doing it draws the reader's attention to a clever detail in Andersen's narration. (The grandmother refers to birds as "fishes," because the Little Mermaid has never seen a bird.)

The second question (following summary statement 4) asks for specific details but then asks the much broader question about the plot. (One response is that the plot depends on the youngest sister's fascination with the upper world, which the other sisters do not share.)

A summary that queries student readers to supply missing information

↑ The Little Mermaid saves the life of a young prince Sec 4

- 1 When the Little Mermaid turned fifteen, her grandmother prepared her for her visit to the upper world, with oysters on her tail to show her high rank.
 - 2 She approaches a large vessel, decorated with colored lights, where a handsome young prince was holding his birthday celebration. She cannot take her eyes from him.
 - 3 A dreadful storm approaches and towering waves destroy the ship.
 - 4 "He must not die!" Risking her own life, the Little Mermaid brings him to land.
- Q When the Little Mermaid brings the prince to shore, something happens that will have a huge impact on the story. What happens?
- Q Why is the Little Mermaid unhappy when she has just saved the life of the prince? As you will soon find out, life is about to get very complicated and difficult for our heroine.

In this summary, the first of the two questions *replaces* one of the original summary statements. In other words, the summary itself is intentionally incomplete. This question asks a simple factual question but points out how the plot turns on this plot element: the prince does not know that the Little Mermaid rather than the girl on the shore (his eventual wife) has saved his life.

Whenever a summary concludes with a question (as this summary does), the question is broad in scope (and is slightly set off from the rest of the summary with some extra blank space).

Try it out!

- The QuikScan *ActiveReading* edition of “The Little Mermaid” is available [here](http://www.quikscan.org/LittleMermaid/index.html):
(<http://www.quikscan.org/LittleMermaid/index.html>)

Examine the QuikScanned version of the story to see for yourself how the *ActiveReading* style of QuikScan both draws student readers into the text and—if they are assigned to answer the questions and complete the summaries—*requires* them to read the entire text with care.

Next we will consider another drawback of QuikScan: that it may limit active reading by overly guiding the reader. My view here is that the broader questions included in an *ActiveReading* version of QuikScan will likely promote active reading.

Do summaries limit active reading by overly guiding the reader?

- Yes, to some degree QuikScan summaries guide readers and tell them what they are reading (“pre-digest” the text)
- But, by easing the task of basic comprehension, we may free students to engage in deeper thought
- Furthermore, the *ActiveReading* style of QuikScan promotes active reading

The many benefits provided by QuikScan come about because QuikScan does indeed curate the author’s text. In so doing, QuikScan influences the reading process and thereby limits the range of the reader’s response to the text. If a literary work is divided into titled sections and if those sections are summarized, the QuikScanner is shaping the reader’s response to the text.

It seems highly plausible, however, that that broad, open-ended questions (shown previously) have an opposite effect. They invite an wide-ranging imaginative engagement with the text.

Also, if readers are struggling to simply understand a text, they are probably not reading in a highly imaginative way. So employing QuikScan to aid in comprehension and retention and using the *ActiveReading* form of QuikScan seems like a good combination.

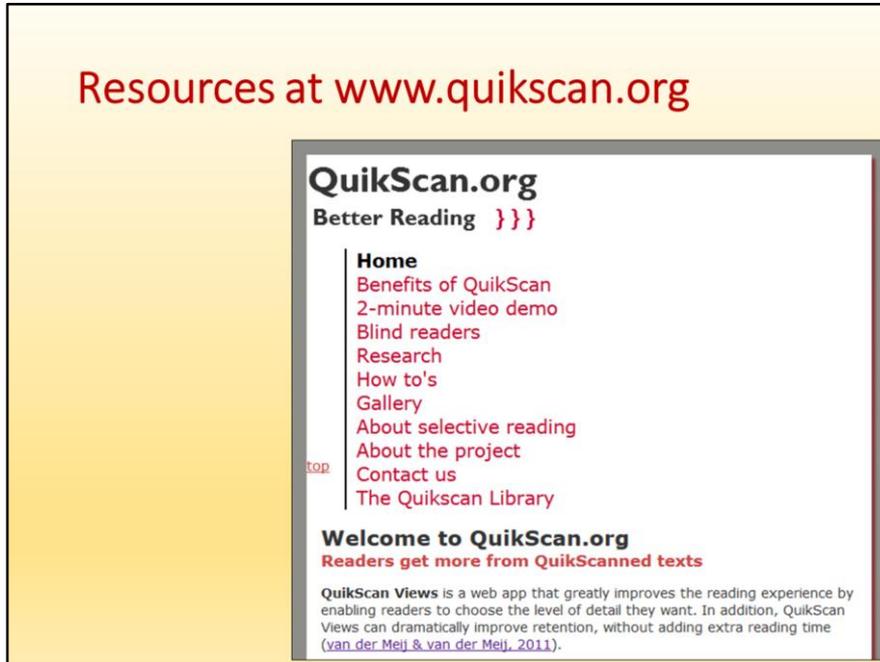
Does QuikScan fail to contribute to better reading skills?

- QuikScan may provide a good reading experience without improving reading skills
- If your primary goal is to improve reading skills, it may be better to let students struggle with difficult texts

My claim regarding QuikScan is that it provides a good reading experience. This is not the same as claiming that QuikScan is the best way to improve reading skills. Whether QuikScan is a good way to improve reading skills is an open question.

Wrap-up

Resources at www.quikscan.org



The screenshot shows the QuikScan.org website. At the top, it says "QuikScan.org" in a large, bold, black font, followed by "Better Reading } } }" in a smaller black font. Below this is a navigation menu with the heading "Home" in bold. The menu items are: "Benefits of QuikScan", "2-minute video demo", "Blind readers", "Research", "How to's", "Gallery", "About selective reading", "About the project", "Contact us", and "The Quikscan Library". A small "top" link is visible to the left of the "Contact us" and "The Quikscan Library" items. Below the navigation menu is a "Welcome to QuikScan.org" section with the sub-heading "Readers get more from QuikScanned texts". The main text of this section reads: "QuikScan Views is a web app that greatly improves the reading experience by enabling readers to choose the level of detail they want. In addition, QuikScan Views can dramatically improve retention, without adding extra reading time (van der Meij & van der Meij, 2011)." The entire content is enclosed in a thin black border.

The QuikScan website is a very complete resource regarding QuikScan. Numerous research articles are cited, summarized, and available for download on the **Research** page. The **How to's** page provides extensive information on both design and implementation, as well as downloadable files of sample texts and QuikScan authoring templates. The **Gallery** page shows the various ways to QuikScan a text. The QuikScan **Library** is a growing collection of QuikScanned versions of texts of enduring interest, mostly works of literature. The “Little Mermaid,” in an *Active Reading* edition, is one of the texts in the QuikScan Library.

Suggestions

- Try out a QuikScan edition
- Make your own QuikScan edition, and add it to the QuikScan Library
- Assign a QuikScan edition to students
- Study the effectiveness of QuikScan for teaching literature



I hope you found my discussion of QuikScan interesting and potentially useful. I'm hoping that QuikScan will find a place in the teaching of literature. I'll help you in any way I can on anything related to QuikScan.

Some of the most important claims I've made about QuikScan are well supported by peer-reviewed experimental research (in particular the journal article by van der Meij and van der Meij in the *British Journal of Educational Psychology*). But, as I've made clear, other claims—while plausible—are not supported by empirical evidence. For this reason, I am especially eager to see more studies conducted with Quikscan texts.

The End



Special acknowledgements:

- Chris Elko, JavaScript coder, css problem-solver
- Hans van der Meij, researcher
- Jean Farkas, help of all kinds

Quickly, I'd like to acknowledge folks with whom I've been working on QuikScan.

Thank you for your time and attention.