PDF and the User Experience
Survey Results 2015
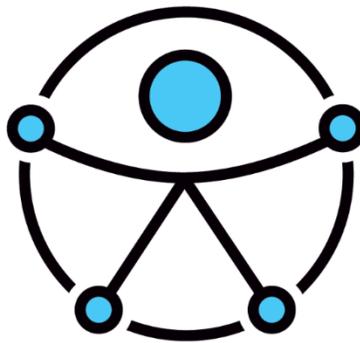
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Karlen Communications

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Introduction

This survey attempts to identify end-user frustrations and successes for those of us with disabilities who have to access PDF (Portable Document Format) files on a daily basis.

PDF was invented to have a paper equivalent in a digital form that can easily travel between computers and retains visual integrity; some support for programmatic content access was implied but not enforced (or even encouraged); but for example, extracting text (independent of overall reading order) for the purpose of indexing and searching was an important feature early on, and OCR vendors made quite a bit of revenue by turning PDFs (as much as TIFF or other formats) into indexable content.

In the early 2000's, Adobe Systems, the world leader in PDF content and conversion tools, embarked on a path to ensure that PDF documents would be accessible for those of us with disabilities who were using adaptive technology such as screen readers, Text-to-Speech tools or screen magnification.

With many countries having legislation about the accessibility of "web content" including any document formats on a website, are there still frustrations and problems for those of us with disabilities in accessing PDF documents? In balance, what do end-users find is working for them, has lessened the frustration in reading PDF documents. Does the device, adaptive technology and/or PDF viewer/reader make a difference in their experience?

In this document, the term "those of us with disabilities" is used to be more inclusive.

Survey Structure

The survey is divided into two sections: administrative to gather a demographic sense of users and anecdotal based questions designed to illicit responses based on personal experience.

The survey was distributed using Survey Monkey which had previously not been accessible to those of us with disabilities. As of the time of this first survey, Survey Monkey was accessible and every attempt to ensure optimal accessibility was made.

Survey Iterations

The Karlen Communications website has a page devoted to the survey (PDF and the User Experience[1]). The page includes information on services for remediation, free validation tools and companies that have software for purchase to assist in ensuring that PDF documents are optimally accessible.

The survey will run again in November 2016 and the intent is to run the survey annually to gather changes in the levels of accessibility of PDF documents for those of us with disabilities.

The survey results are presented in this report as they are, without interpretation.

PDF/UA

As of 2012, the ISO (International Standards Organization) PDF/14286-1 or PDF UA (Universal Accessibility) standard has been in place. It has been included in the NPRM (Notice of Proposed Rule Making) for Section 508 in the United States as the standard to use when publishing PDF documents. It is hoped that PDF?UA will be adopted globally as the definition of what an accessible PDF document is. This will provide a consistency of experience for those of us with disabilities as we access PDF documents. It will also answer many of the questions remediation professionals have about what elements of accessibility should be included in PDF documents.

PDF/UA is a technical specification that incorporates three components toward accessible PDF documents:

1. The document itself must meet PDF/UA specifications.

2. The viewer/reader the document is opened in must meet PDF?UA specifications.

3. 3. The adaptive technology used to read the document and interact with the viewer/reader must meet PDF?UA specifications.

In full disclosure, the author is a Canadian delegate to the ISO 14289 committee and actively advocates for PDF/UA adoption and implementation.

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[1] PDF and the User Experience Survey, Karlen Communications:
http://www.karlencommunications.com/PDFsurvey.html

Demographics

There were a total number of 185 responses to the survey with 146 surveys completed. This represents a 79 percent completion rate. The survey was open for six weeks and was promoted on Twitter, LinkedIn, discussion forums and on a dedicated web page on the Karlen Communications website.

Only completed results are identified in this report.

The first part of the survey asked participants to provide their names and e-mail addresses for purposes of associating a research number to their responses for collation of the survey results. Participants who did not complete the survey or who did not provide valid contact information (when this could easily be verified) were removed from the final results as described in this report.

Upon examining the completed responses, one was found to have inaccurate/false contact information and was excluded from the results. Participants were advised that only completed surveys would be tabulated. This was done through the Karlen Communications web page for the survey.

The data gathered and published in this report begins with participants identifying which country they are from. This was question 3.

What country do you live in? (Question 4)

Upon reflection, and based on the variations of spellings and acronyms used, the next iteration of the survey will have a drop down list to eliminate the variances of country identification. This should also make it easier for participants to quickly identify their country.

Variations for country included US, USA, The United States and United States as well as England, Scotland, UK and United Kingdom. The only "change" to the following data was to combine all variations of a country into one common name for that country.

The results for this question are as follows:

Table 1 Participants identified by country. Question 4.

Country	Total
Australia	5
Belgium	1
Canada	17
France	1
Germany	1
Hungary	1
India	2
Netherlands	3
New Zealand	1
Philippines	4
Spain	1
Sweden	1
United Kingdom	11
United States	96
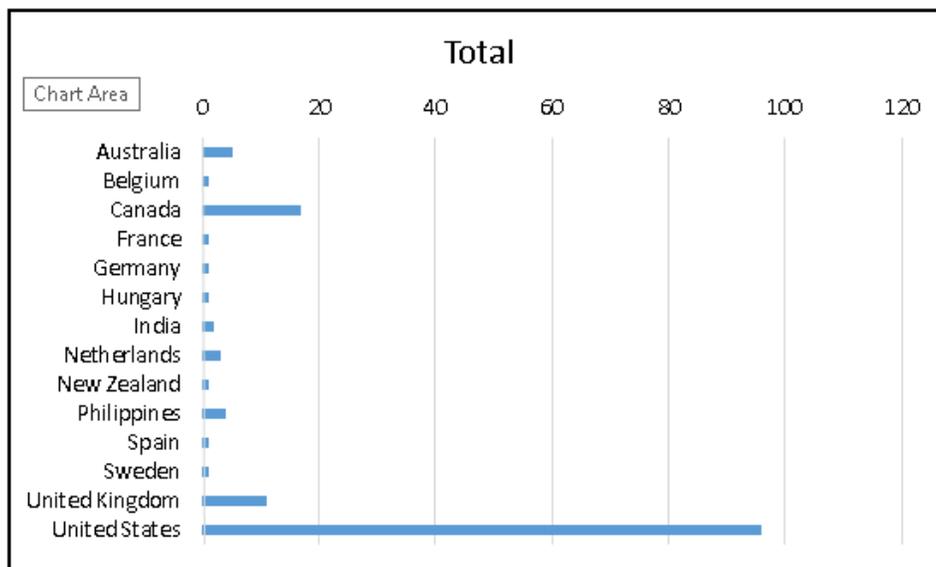
Figure 1 Participants identified by country. Question 4.

Does your country have legislation about the accessibility of documents/digital content? (Question 5)

This question is designed to see if the end-user is aware of any legislation in their country related to document accessibility. The actual text of the question is "Do you know if your country has legislation about the accessibility of documents/digital content?" Possible answers were Yes, No or I don't know.

The answer "I don't know" was included in the question to identify those participants who are unaware of any legislation which differentiates them from those who know that there is no legislation. This raises the question: do you really need to know that legislation exists in order to be able to advocate for access to accessible digital environments and content?

Table 2 Does your country have digital content legislation? Question 5.

Possible Answers	Total	Percentage
Yes	88	60.7%
No	13	9.0%
I don't know	44	30.3%
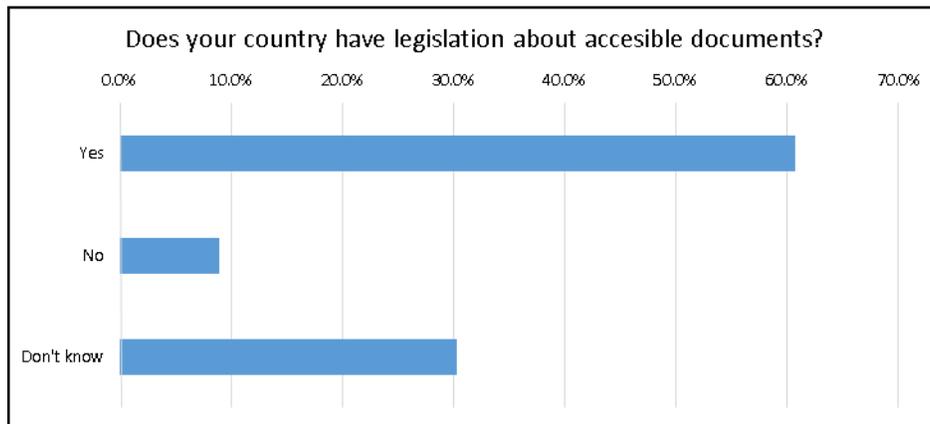
Figure 2 Does your country have digital content legislation? Question 5.

If yes, what is the legislation?

Of the 88 responses that indicated there is other legislation in their state, province or region, the responses for this part of the question have been consolidated. Respondents from Canada indicated that the Accessibility for Ontarians with Disabilities Act is a federal

law. It isn't. I've determined that the wording of question 5 and question 6 is confusing and will change it for the next iteration of the survey.

Respondents from Canada indicated that there is the [Accessibility for Ontarians with Disabilities Act](#)[2] or AODA, 2005. As someone living in Ontario, I can provide links to the subsequent additions to the AODA: The [Customer Service Standards](#)[3] and the [Integrated Accessibility Standards Regulations](#)[4] (Information Communication, Employment, transportation and Open Spaces).

In the United States, the overarching legislation is the [Americans with Disabilities Act](#)[5] or ADA.. [Section 508](#)[6] and [Section 504](#)[7] are also federal laws in the United States, but respondents indicated that these only apply to federal websites. Respondents indicated that some states have folded Section 508 into state legislation of accessible websites, while other respondents point to the [Chaffee Amendment](#).[8]

In the Netherlands, there are the Dutch Web Guidelines but the respondent indicated that additional legislation is expected in 2016.   I couldn't find the website for the Dutch Accessibility Guidelines.

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[2] Accessibility for Ontarians with Disabilities Act, 2005, Ontario government website: https://www.ontario.ca/laws/statute/05a11#BK37

[3] AODA Customer Service Standards, Ontario Canada, Ontario government website: https://www.ontario.ca/laws/regulation/r07429

[4] AODA Integrated Accessibility Standards Regulations, Ontario government website: https://www.ontario.ca/laws/regulation/r11191

[5] Americans with Disabilities Home Page, United States: http://www.ada.gov/

[6] Section 508, Access Board, United States: https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards

[7] Section 504 of the Rehabilitation Act, United States, Wikipedia: https://en.wikipedia.org/wiki/Section_504_of_the_Rehabilitation_Act

[8] Chaffee Amendment, United States, from the Bookshare website: https://www.bookshare.org/cms/legal/copyright-information/chafee-amendment

Spain has the "Rules Accessibility[9]" which is a website outlining the standards for web content. The page linked to is the English version of the standards.

In the United Kingdom respondents indicated that there is the Reasonable Adjustment for disabled workers[10] and the Equality Act.[11]

[9] Spanish "Rules Accessibility:" http://administracionelectronica.gob.es/pae_Home/pae_Estrategias/pae_Accesibilidad/pae_normativa/pae_eInclusion_Normas_Accesibilidad.html?idioma=en#.VrCWr-T2aUk

[10] Reasonable Adjustment for disabled workers, United Kingdom: https://www.gov.uk/reasonable-adjustments-for-disabled-workers

[11] Equality Act of 2010 Guidance, United Kingdom: https://www.gov.uk/guidance/equality-act-2010-guidance

Does your province, state or region have legislation for accessible documents in addition to any federal legislation? (Question 6)

Although some respondents confused federal with local legislation, the results are presented for this question with a summary of the legislations following.

Table 3 Does your region have digital content accessibility legislation? Question 6.

Possible Answers	Total	Percentage
Yes	40	27.6%
No	38	26.2%
I don't know	37	46.2%
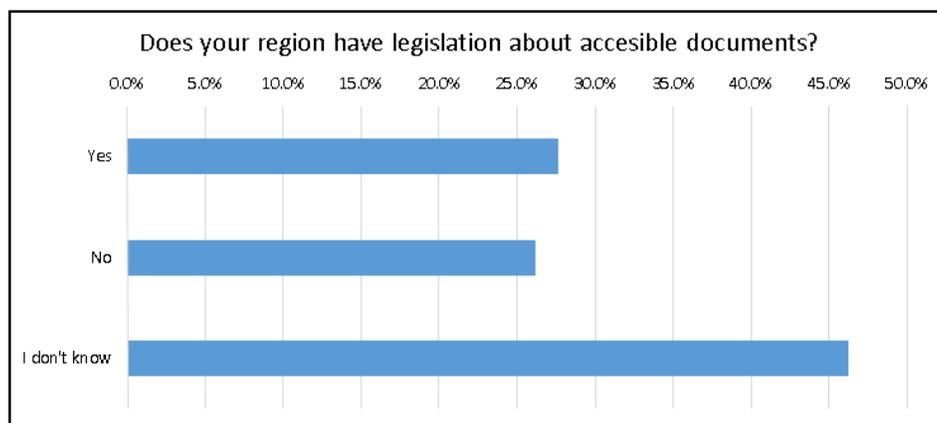
Figure 3 Does your region have digital content accessibility legislation? Question 6.

If yes, please specify

Respondents from Australia indicated that the Disability Services Act of 1993[12] is legislation in New South Wales.

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[12] Disabilities Services Act, 1993, New South Wales, Australia:
http://www.legislation.nsw.gov.au/viewtop/inforce/act+3+1993+FIRST+0+N/

In the State of California, United States, there is the [California Government Code Section 11135](). [13] California also has the [California Civil Code Sections 54 through 55.2]() [14].

In the state of Missouri, there is the [Missouri Statute Section 161.935.1]() [15] which creates an assistive technology trust fund.

In the State of Massachusetts, United States, there is the [Commonwealth of Massachusetts Enterprise Web Accessibility Standards](). [16]

In the State of New York, United States is the [New York Human rights Law](). [17]

In the State of Texas, United States, is [TGC 2054.451; 1TAC 206; 1TAC 213](). [18]

Respondents from Canada indicated that the Accessibility for Ontarians with Disabilities Act is accessibility and inclusion legislation in the province of Ontario.

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[13] California Government Code 11.1.35, Government of California website: http://www.dor.ca.gov/DisabilityAccessInfo/CA-Gov-Code-Sec-11135-11138.html

[14] California Civil Code Sections 54 through 55.2, JUSTA, US Law website: http://law.justia.com/codes/california/2005/civ/54-55.2.html

[15] Missouri statute Section 161.935.1, State of Missouri website: http://www.moga.mo.gov/mostatutes/stathtml/16100009301.html

[16] Commonwealth of Massachusetts Enterprise Web Accessibility Standards: http://www.mass.gov/anf/research-and-tech/policies-legal-and-technical-guidance/tech-guidance/accessibility-guidance/web-accessibility/web-accessibility-standards.html

[17] New York Human Rights Law, Office of the Attorney General of New York: http://www.ag.ny.gov/civil-rights/new-york-state-human-rights-law

[18] TGC 2054.451; 1TAC 206; 1TAC 213, State of Texas: http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.2054.htm

Age of Participants (Question 7)

This question is designed to provide information on participant demographic. The answers were framed in age ranges.

Table 4 Participant ages. Question 7.

Possible Answers	Total	Percentage
15-20 years old	11	7.6%
26-40 years old	48	33.1%
41-60 years old	71	49.0%
61+ years old	15	10.3%
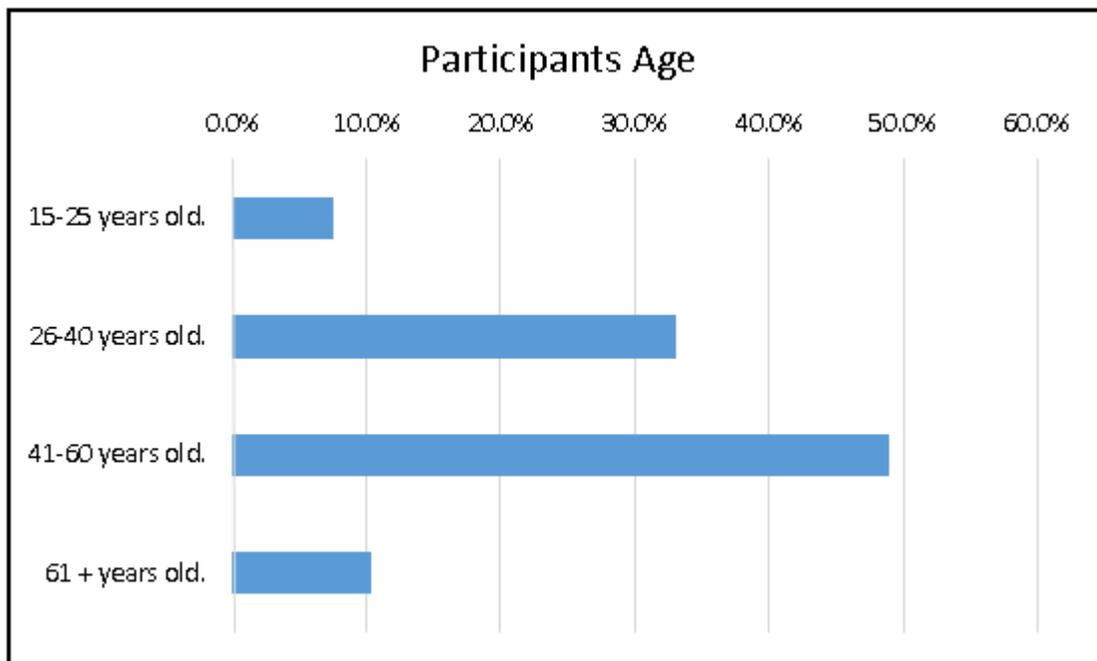
Figure 4 participant ages. Question 7.

How many years have you been using a computer or digital devices? (Question 8)

This question is designed to provide insight into the length of time the end-user has been accessing documents. The answers are framed in a range of years.

Table 5 How many years have you been using a computer? Question 8.

Possible Answers	Total	Percentage
Less than 1 year	0	0.0%
2-10 years	17	11.7%
11-20 years	45	31.0%
20-30 years	45	31.0%
More than 30 years	38	26.2%
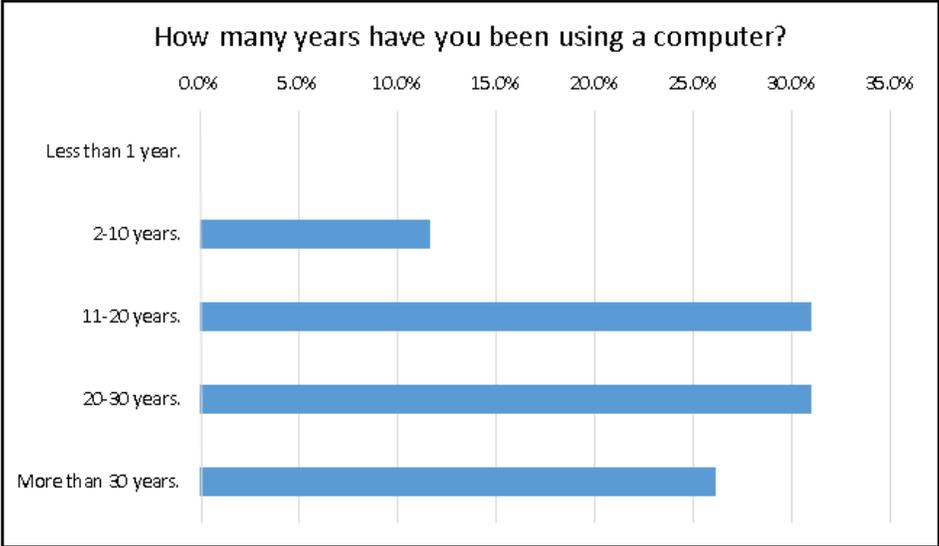
Figure 5 How many years have you been using a computer? Question 8.

How would you describe your computer literacy level? (Question 9)

This question is designed to provide insight into the person's perception of their computer skill related to the number of years they have been accessing documents.

Table 6 Describe your computer literacy level, question 9.

Possible Answers	Total	Percentage
Beginner	2	1.4%
Intermediate	42	29.0%
Advanced	101	69.7%
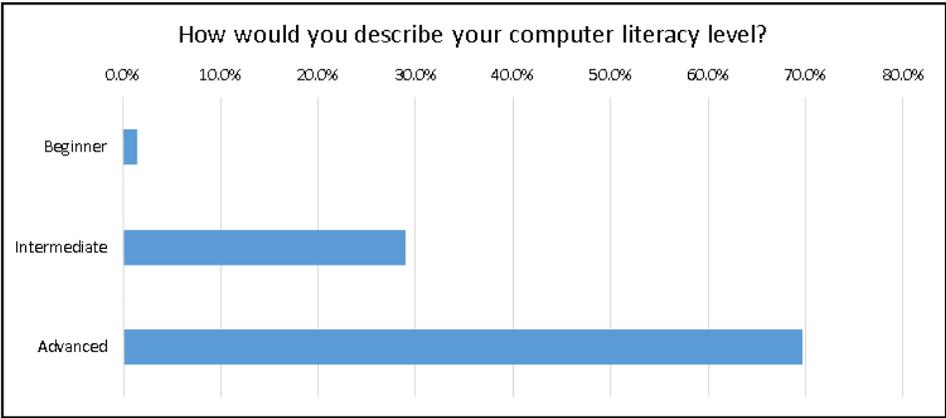
Figure 6 Describe your computer literacy level, question 9.

How would you describe your computer literacy level when it comes to reading PDF documents? (Question 10)

This question also builds on the number of years of computer experience with the self-described level of computer literacy versus the self-described "PDF literacy" level.

Table 7 Describe your computer literacy level in reading PdF documents, question 10.

Possible Answers	Total	Percentage
Beginner	10	6.9%
Intermediate	58	40.0%
Advanced	77	53.1%
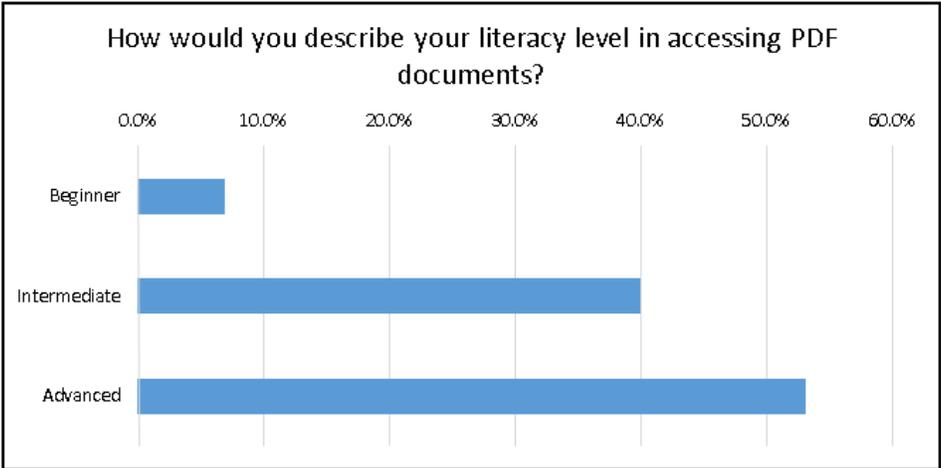
Figure 7 Describe your computer literacy level in reading PdF documents, question 10.

User Experiences

This section of the survey asks participants to identify the devices they use to access PDF documents, the software, any other tools and what their experiences are when reading PDF documents. Participants are asked to comment on what frustrates them, if anything, and what works well for them, if anything, when they access and/or read PDF documents. Most of these questions are either multiple choice or open ended.

How often do you access PDF documents: (Question 11)

This question was designed to find out how prevalent PDF documents are in the lives of those of us with disabilities.

Table 8 How often do you access PDF documents, question 11.

Possible Answers	Total	Percentage
Daily	90	62.1%
Weekly	44	30.3%
Monthly	6	4.1%
A few times a year	3	2.1%
I don't intentionally open PDF documents	2	1.4%

How often do you access PDF documents?
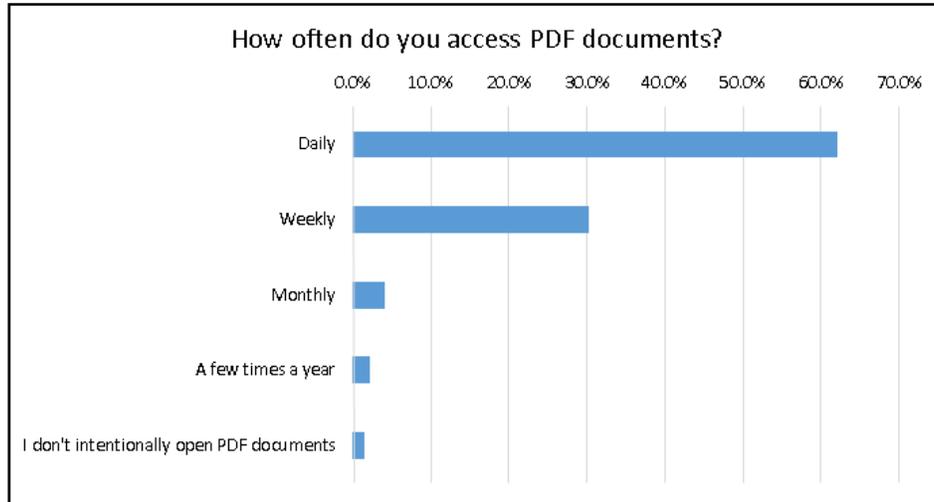
Figure 8 How often do you access PDF documents, question 11.

Do you read PDF documents for (choose all that apply): (Question 12)

This question provides information on the environment PDF documents are accessed for.

Table 9 When do you read PDF documents, question 12

Possible Answers	Total	Percentage
Work.(for a company or organization for which I'm paid)	126	86.9%
Volunteer Work	51	35.2%
Home (for example appliance manuals or recipes)	119	82.1%
school, college or university)	67	46.2%
Education (outside of school, college and university) Lifelong Learning	74	51.0%
Leisure	94	64.8%
Other, please specify	12	8.3%
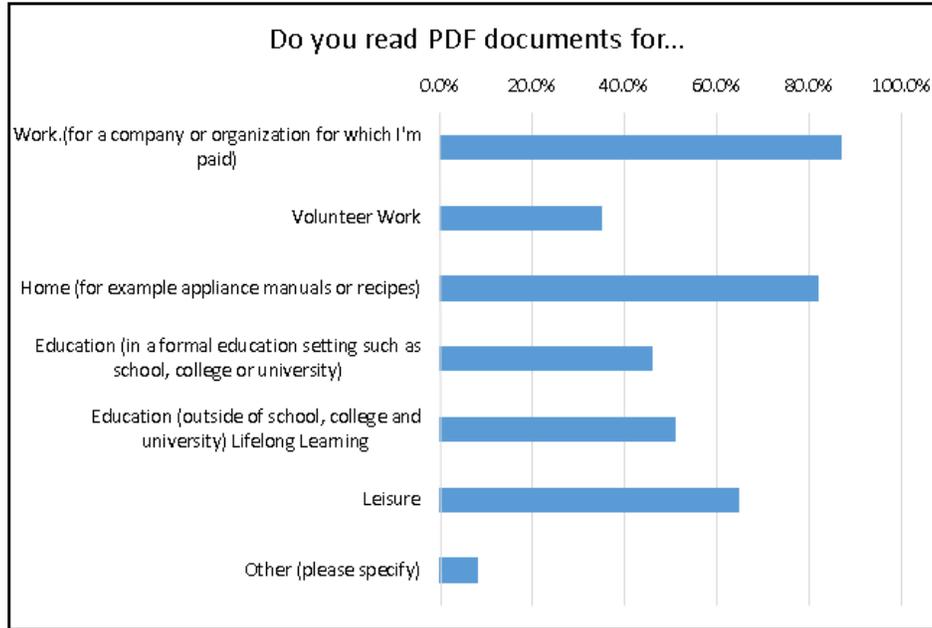
Figure 9 When do you read PDF documents, question 12

If you answered "Other" please specify:

The responses for those who answered "other" are listed below.

- Financial statements including tax related information.

- Politics, Family, Education children.

- Government and financial forms.

- books, magazines, etc. .

- Personal finance (tax forms, etc.).

- Legal Forms.

- Reviewing financial or other legal documents at home from insurance companies, banks, the government etc..

- Music sheet.

- Research, Family History, Community cultural events, etc..

- car insurance documents .

- From a Fax or copy Machine .

- "Government issued documents.

- Documents I have scanned from printed materials

What types of PDF documents do you read for work (Question 13)

The rest of the question reads: (including volunteer work)? Choose all that apply.

This question provides more specific information about the types of PDF documents accessed in a work environment.

Table 10 What type of PDF documents do you access for work, question 13

Possible Answers	Total	Percentage
Don't read PDF at work.	13	9.0%
Reports.	116	80.0%
Employment applications	60	41.4%
Pension information	39	26.9%
Health care information	69	47.6%
Human resources information	79	54.5%
Form letters	75	51.7%
Memos	58	40.0%
Payroll information	59	40.7%
Agendas for meetings	74	51.0%
Documents sent to you from outside the organization	110	75.9%
Fillable forms	97	66.9%
Other, please specify	33	22.8%
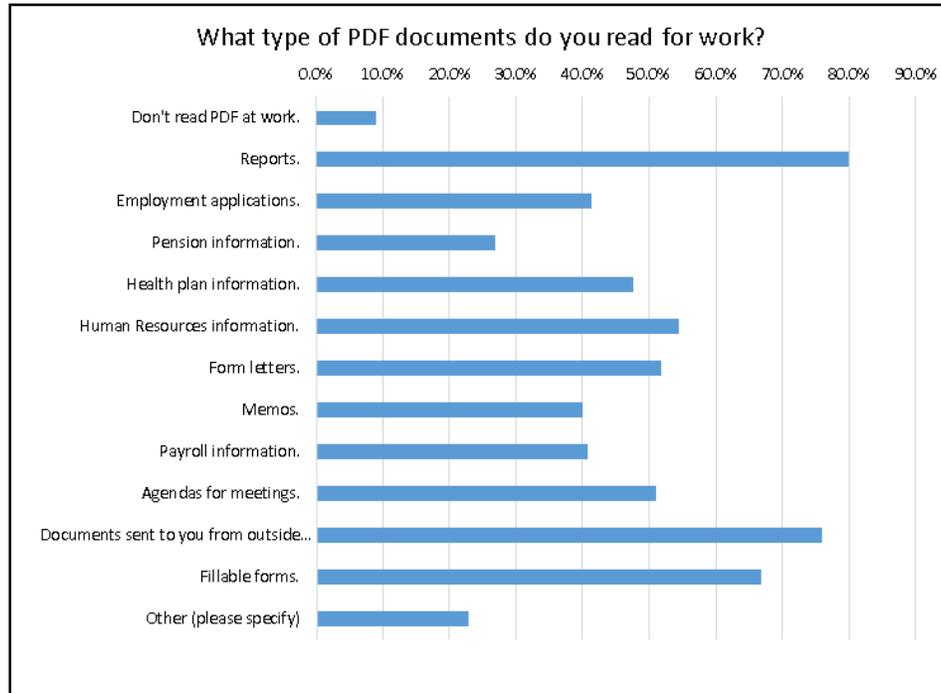
Figure 10 What type of PDF documents do you access for work, question 13

If you answered "Other" please specify:

The responses for those who answered "other" are listed below.

- Sometimes technical documentation or eBooks that can't be obtained in any other format.

- Please note most of this is because the work I do is testing these PDFs for accessibility

- Articles

- Educational and research papers

- Travel arrangements

- Schedules/calendars

- Slide presentations"

- Financial information, bills

- academic material -journal articles, textbooks

- instruction manuals, adaptive technology operating manuals, retirement information from AARP.

- journal articles, executive orders, fliers

- books, documents

- My students encounter pdfs. Part of our curriculum covers how to handle pdfs with screen magnification/reading software.

- Technical white papers.

- software manuals

- textbooks

- Mostly newsletters.

- Software manuals and user guides

- Course papers from my students, and articles on which I am a collaborator/co-author.

- hardware / software manuals

- Appliance manuals for the IT department.

- Textbooks in PDF format

- PRODUCT DOCUMENTATION AND EBOOKS

- Textbooks and other learning materials

- Information Flyers; text files for students

- Instructional materials created by publishers or other professors.

- Textbooks

- Financial, confidential medical documentation, confidential psycho-educational norm evaluations, business correspondence

- Textbooks

- Software manuals

- Journal articles, presentations, books.

- PDF of web pages to save the info

- US government OMB forms in applications which auto fill data from a database

- Textbooks from publishers, to check for accessibility before giving to students; Academic Calendars, again to test for accessibility.

- Fax, e-mail, and from a copy machine

- The occasional scanned PDF makes it's way in regular conversation.

What types of PDF documents do you read at home? (Question 14)

The rest of the question reads: Choose all that apply.

This question provides more specific information about the types of PDF documents accessed in a home environment.

Table 11 What type of PDF documents do you access at home, question 14.

Possible Answers	Total	Percentage
Don't read PDF at home	10	6.9%
Cookbooks/recipes	53	36.6%
Financial or bank statements	105	72.4%
medical procedure)	69	47.6%
Prescription information	24	16.6%
Appliance manuals	100	69.0%
Bills	94	64.8%
Letters from utility companies	56	38.6%
Information from volunteer committees (including reports and agendas)	43	29.7%
Contracts. For example, life insurance, rental agreements or lease agreements	77	53.1%
Fillable forms	75	51.7%
Other, please specify	17	11.7%
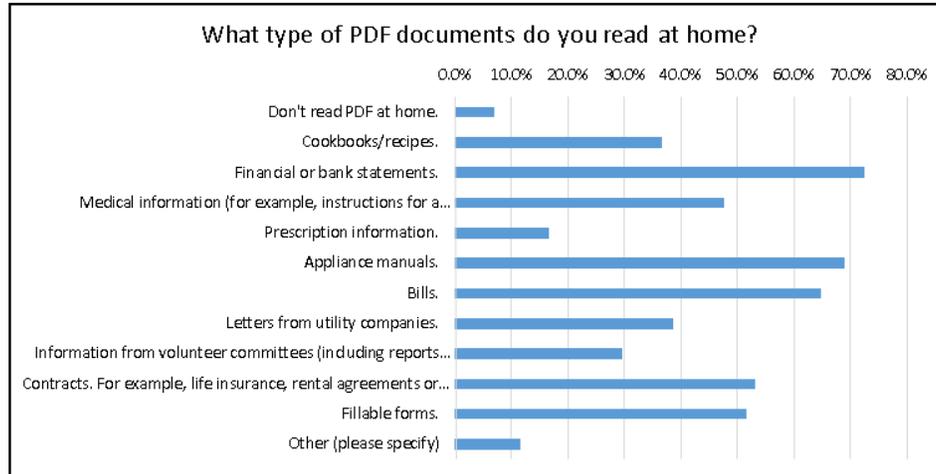
Figure 11 What type of PDF documents do you access at home, question 14.

If you answered "Other" please specify:

The following is a list of "other" types of documents identified by respondents.

- Recipes.

- Schedules/calendars".

- New Patient paperwork.

- tax information; donation receipts.

- Downloadable documents from topics that I am interested in.

- Automobile technical manuals.

- Fiction and non-fiction books..

- Articles.

- Music Sheet.

- leisure + textbooks.

- I read and preview books I've written to be sure that spelling and foot notes are correct.

- MANUALS, EDUCATIONAL INFORMATION (TEXTS, ARTICLES, ETC.).

- shopping material, coupons.

- e books, magazine articles.

- "Annual Reports in the LGU San Jose.

- Reading Materials/Books Converted to PDF ".

- Use of PDF for home is fairly rare. .

- Real Estate.

- e-mails.

What types of PDF documents do you read for education? (Question 15)

The rest of the question reads: (including lifelong learning outside of school, college and university) Choose all that apply.

This question provides more specific information about the types of PDF documents accessed in an educational environment such as primary, secondary or tertiary education.

Table 12 What types of PDF documents do you access for education, question 15.

Possible Answers	Total	Percentage
Don't read PDF for education	34	23.4%
Books	94	64.8%
Textbooks	75	51.7%
Course packs (articles gathered by the instructor)	68	46.9%
Tests/exams	51	35.2%
Course content such as Word or PowerPoint documents converted to PDF	79	54.5%
Digital library articles/journal articles	85	58.6%
Scientific papers	58	40.0%
Other (please specify)	11	7.6%

What type of PDF documents do you read for education?

- Don't read PDF for education
- Books
- Textbooks
- Course packs (articles gathered by the instructor)
- Tests/exams
- Course content such as Word or PowerPoint documents...
- Digital library articles/journal articles
- Scientific papers
- Other (please specify)
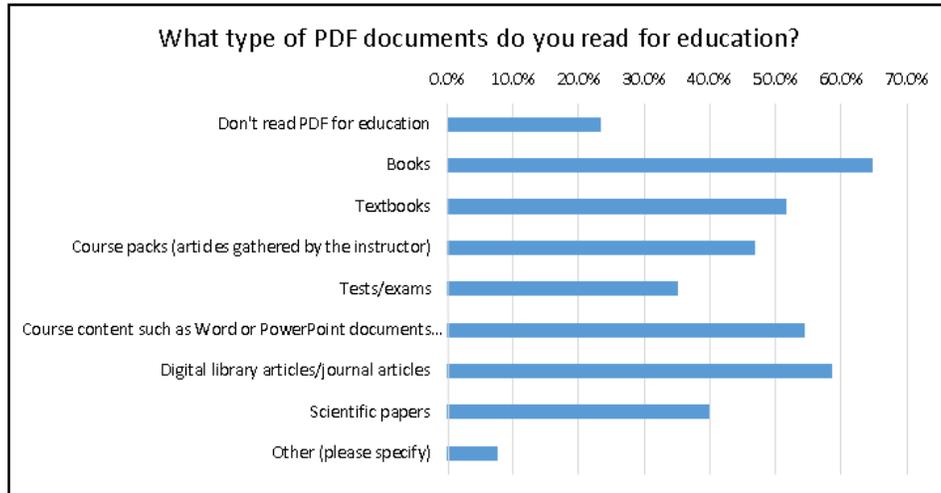
Figure 12 What types of PDF documents do you access for education, question 15.

If you answered "Other" please specify:

The following is a list of "other" types of documents identified by respondents.

- Essays .

- Journal articles.

- Course syllabi and additional informational articles/literature from school .

- instructional materials generated by professors - I am also a student in a Master's program..

- JSTOr research & HathiTrust.

- Field work data and reports, surveys, statistical reports.

- Magazine articles.

- Most of the above I read for testing for accessibility for students.

- Course descriptions..

- Schedule information..

- Class registration / Drop / Add forms..

- Exception request forms..

- Research journal articles; IRB tutorials; applications for various stages of degree program (e.g., residency application, candidacy application, etc.)

What types of PDF documents do you read for leisure? (Question 16)

The rest of the question reads: Choose all that apply.

This question provides more specific information about the types of PDF documents accessed for leisure.

Table 13 What types of PDF documents do you access for leisure, question 16.

| Possible Answers	Total	Percentage
I don't read PDF documents for leisure	29	20.0%
Newspapers or magazines	54	37.2%
Novels	41	28.3%
Government proceedings (local, provincial/state or federal)	37	25.5%
Legislation that might affect you or that you are interested in	50	34.5%
Books, magazines or similar for my hobby	81	55.9%
Travel brochures including package and hotel information	58	40.0%
Travel - tickets (For example, airline, train or bus tickets sent as PDF)	65	44.8%
Other (please specify)	7	4.8%
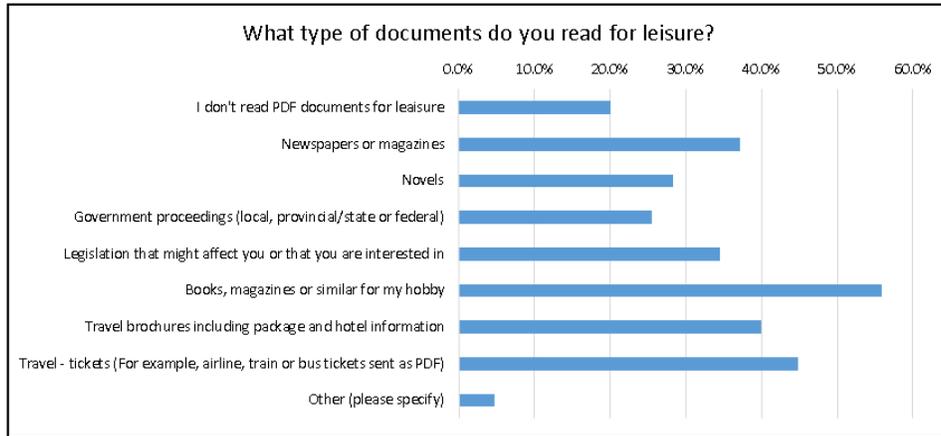
Figure 13 What types of PDF documents do you access for leisure, question 16.

If you answered "Other" please specify:

The following is a list of "other" types of documents identified by respondents.

- Recipes.

- Images saved as PDF".

- Research.

- I attempt to get all readings in ePub. .

- Archaeological and scholarly articles, literature, poetry.

- Exercise instructions and/or health information..

- Comic Books!.

What is your estimate of how many PDF documents you read are scanned documents? (Question 17)

The rest of the question reads: If you use adaptive technology and open a PDF document that has been scanned but not made accessible, you may get a warning message indicating that the document is scanned and needs text recognition. This question relates to these types of documents where those using adaptive technology are told the document is scanned, not documents that are scanned and have been made accessible.

For this question, I forgot to add the first category of 0-10%.

Table 14 What is your estimate of how many PDF documents you read are scanned, question 17.

Possible Answers	Total	Percentage
10 to 20%	41	28.3%
20 to 30%	30	20.7%
30 to 40%	20	13.8%
40 to 50%	18	12.4%
More than 50%	56	17.9%
I don't know	10	6.9%
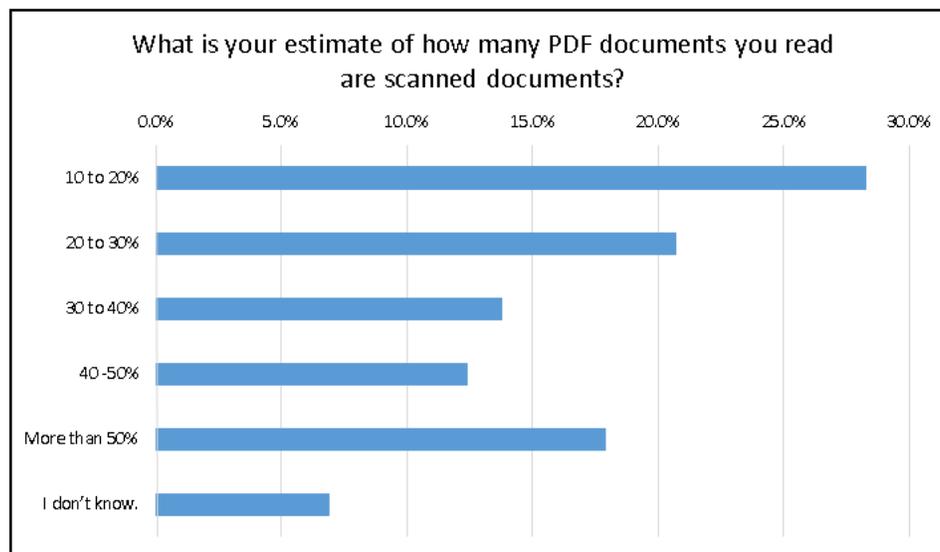
Figure 14 What is your estimate of how many PDF documents you read are scanned, question 17.

What is your estimate of how many tagged PDF documents you read are not tagged correctly (Question 18)

The rest of the question reads: (you cannot read the contents of them logically or find content easily). Tagged PDF provides access to content in a PDF document for someone using adaptive technology such as a screen reader or Text-to-Speech tools. Without Tags, PDF documents are not accessible to people who use adaptive technology. A document that may not read correctly may not have headings, lists might not be identified as lists, tables might not make sense, the flow of the content might not make sense...these are the types of issues this question relates to.

Table 15 What is your estimate of how many PDF documents you read are not tagged correctly, question 18.

Possible Answers	Total	Percentage
0% to 10%	13	9.0%
10 to 20%	16	11.0%
20 to 30%	12	8.3%
30 to 40%	13	6.9%
40 to 50%	14	9.7%
More than 50%	60	41.4%
I don't know	17	11.7%
I don't use adaptive technology, but I do have a disability.	3	2.1%

What is your estimate of how many tagged PdF documents you read are not tagged correctly?

| | 0.0% | 5.0% | 10.0% | 15.0% | 20.0% | 25.0% | 30.0% | 35.0% | 40.0% | 45.0% |

- 0% to 10%
- 10 to 20%
- 20 to 30%
- 30 to 40%
- 40 -50%
- More than 50%
- I don't know
- I don't use adaptive technology, but I do have a disability.
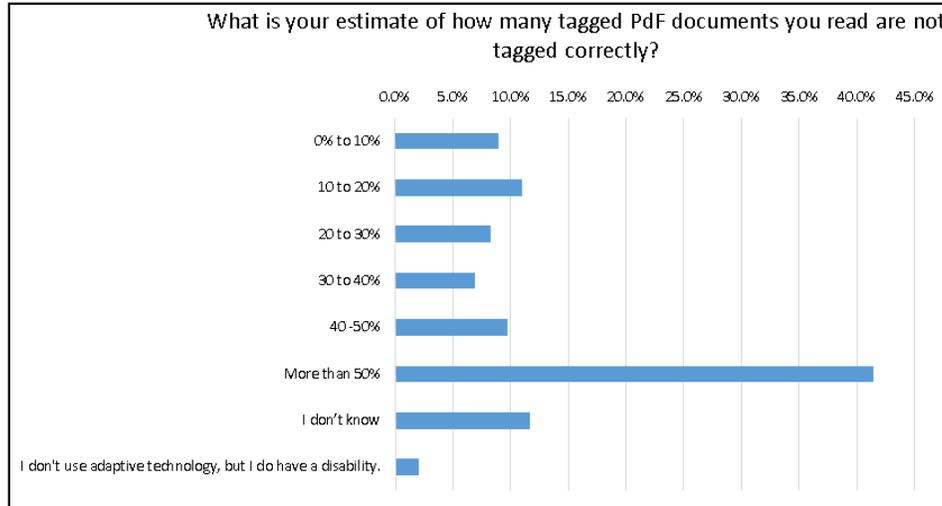
Figure 15 What is your estimate of how many PDF documents you read are not tagged correctly, question 18.

What adaptive technology do you use on a Windows based device? (Question 19)

The rest of the question reads: (desktop, laptop, tablet or phone)? Choose as many as apply.

Table 16 What adaptive technology do you use on a Windows device, question 19.

Possible Answers	Total	Percentage
I don't use a Windows based device	3	2.1%
I don't use adaptive technology	18	12.4%
Screen reader	106	73.1%
Text-to-Speech tool - TTS is not as verbose as a screen reader and is typically used by someone with a learning or cognitive disability or by someone using screen magnification who only requires some auditory feedback...not as much as a screen reader would provide.	35	24.1%
Voice recognition	30	20.7%
Screen magnification	35	24.1%
Screen magnification with screen reading.	22	15.2
Screen magnification with Text-to-Speech tool - TTS is not as verbose as a screen reader and provides auditory feedback primarily on the document and not so much on the user interface/application	10	6.9%
Touch screen	26	17.9%
Alternate input device (for example, on-screen keyboard, IntelliKeys or similar device).	12	8.3%
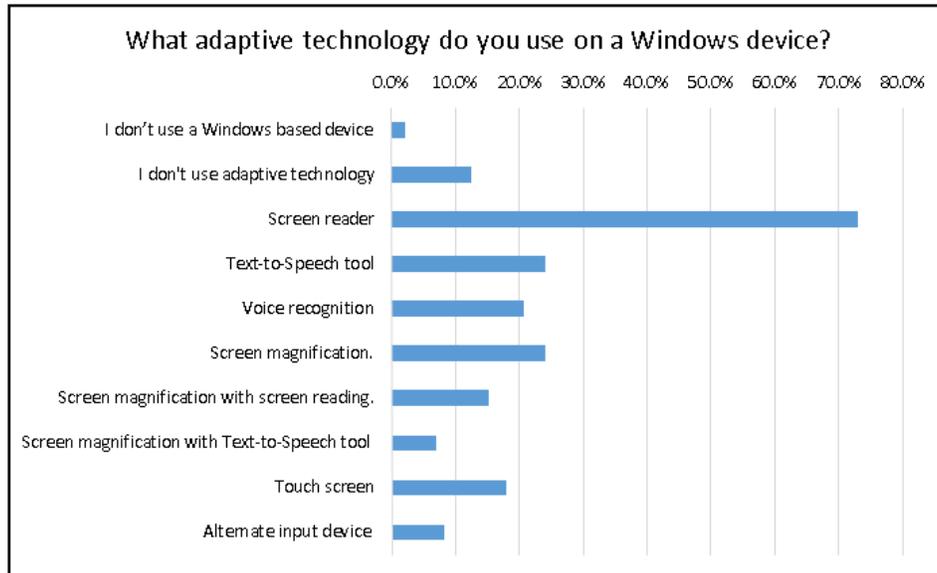
Figure 16 What adaptive technology do you use on a Windows device, question 19.

What adaptive technology do you use on a Mac or iOS device? (Question 20)

The rest of the question reads: (iMac, MacBook, iPad or iPhone)? Choose as many as apply.

Table 17 What type of adaptive technology do you use on a Mac/iOS device, question 20.

Possible Answers	Total	Percentage
I don't use a Mac or iOS based device	36	24.8%
I don't use adaptive technology	13	9.0%
Screen reader	76	52.4%
Text-to-Speech tool - TTS is not as verbose as a screen reader and is typically used by someone with a learning or cognitive disability or by someone using screen magnification who only requires some auditory feedback...not as much as a screen reader would provide.	22	15.2%
Voice recognition	32	22.1%
Screen magnification	20	13.8%
Screen magnification with screen reading.	13	9.0%
Screen magnification with Text-to-Speech tool - TTS is not as verbose as a screen reader and provides auditory feedback primarily on the document and not so much on the user interface/application	5	3.4%
Touch screen	58	40.0%
Alternate input device (for example, on-screen keyboard, IntelliKeys or similar device).	9	6.2%
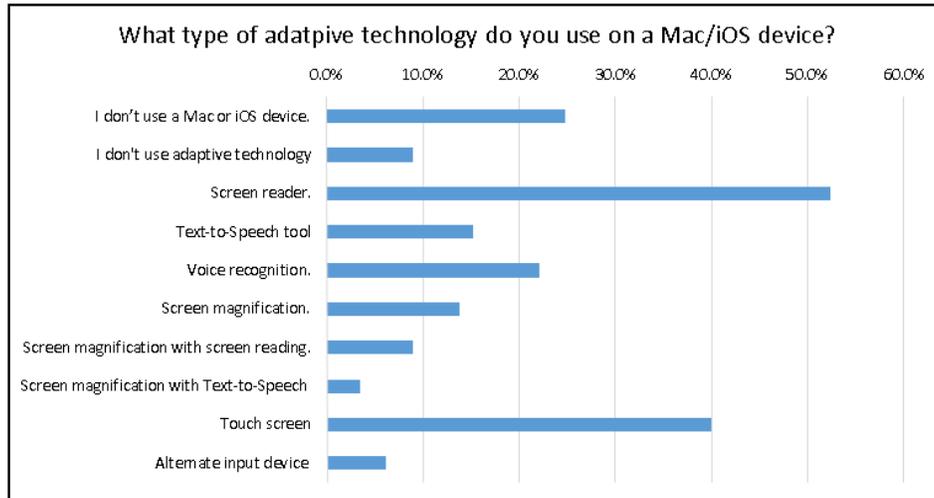
Figure 17 What type of adaptive technology do you use on a Mac/iOS device, question 20.

What adaptive technology do you use on an Android device? (Question 21)

The rest of the question reads: (tablet or phone)? Choose as many as apply.

Table 18 What type of adaptive technology do you use on an Android device, question 21.

Possible Answers	Total	Percentage
I don't use a Android based device	86	59.3%
I don't use adaptive technology	17	11.7%
Screen reader	29	20.0%
Text-to-Speech tool - TTS is not as verbose as a screen reader and is typically used by someone with a learning or cognitive disability or by someone using screen magnification who only requires some auditory feedback...not as much as a screen reader would provide.	15	10.3%
Voice recognition	16	11.0%
Screen magnification	18	12.4%
Screen magnification with screen reading.	7	4.8%
Screen magnification with Text-to-Speech tool - TTS is not as verbose as a screen reader and provides auditory feedback primarily on the document and not so much on the user interface/application	3	2.1%%
Touch screen	29	20.0%
Alternate input device (for example, on-screen keyboard, IntelliKeys or similar device).	5	3.4%
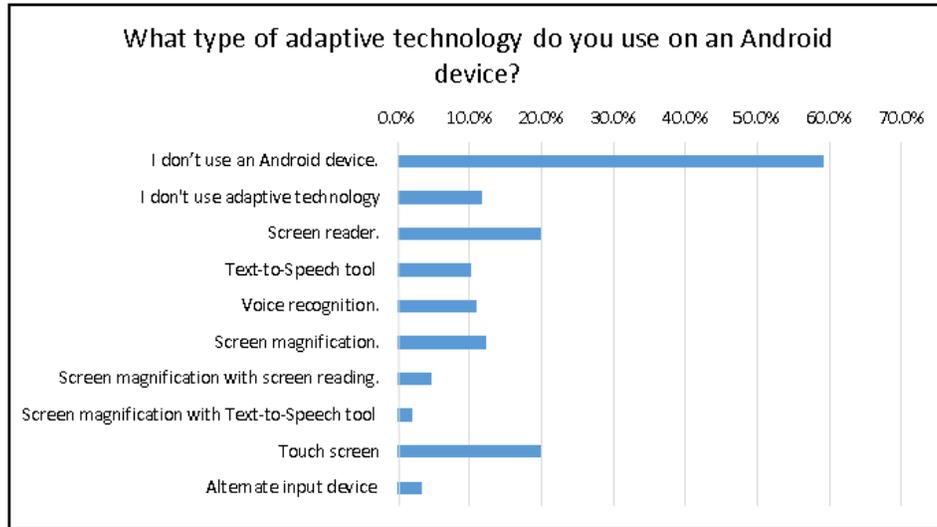
Figure 18 What type of adaptive technology do you use on an Android device, question 21.

What other specific devices do you read PDF documents on? (Question 22)

The rest of the question reads: (For example, HumanWare Victor Reader Stream.) This is an optional question.

46 respondents did answer this question. The answers have been distilled to present in a table and chart.

Table 19 What other types of devices do you access PDF with, question 22.

Device or Application	Total
ABBYY	1
Adobe Reader	2
Balabolka	1
Baum VarioUltra20 Braille Notetaker	1
Booksense	2
Braille Sense U2 Mini	1
BrailleNote APEX	2
Cell phone	1
ezPDF app on phone	1
Firefly by Kurzweil	1
iPad	5
iPhone	9
iPod	1
Kindle	1
Kindle Fire	1
kobo	1

Device or Application	Total
Kurzweil	3
Nexus 7	1
Note 5	2
PacMate	1
Pronto 18 from Baum	1
Read and Write Gold	1
Tablet	1
Vario Ultra 40 Braille Display	1
Victor Reader Stream	11

Some respondents answered "none" or "N/A" and those responses were not included in the data. Some respondents confused applications such as Read and Write Gold with devices like the Victor reader Stream.

It should also be noted that some respondents indicated that the devices they use cannot read PDF so they are reading PDF documents in an alternate format. One respondent who uses the Victor Reader Stream indicated that they have contacted HumanWare to let them know that they can't read PDF documents on the Victor Reader Stream.
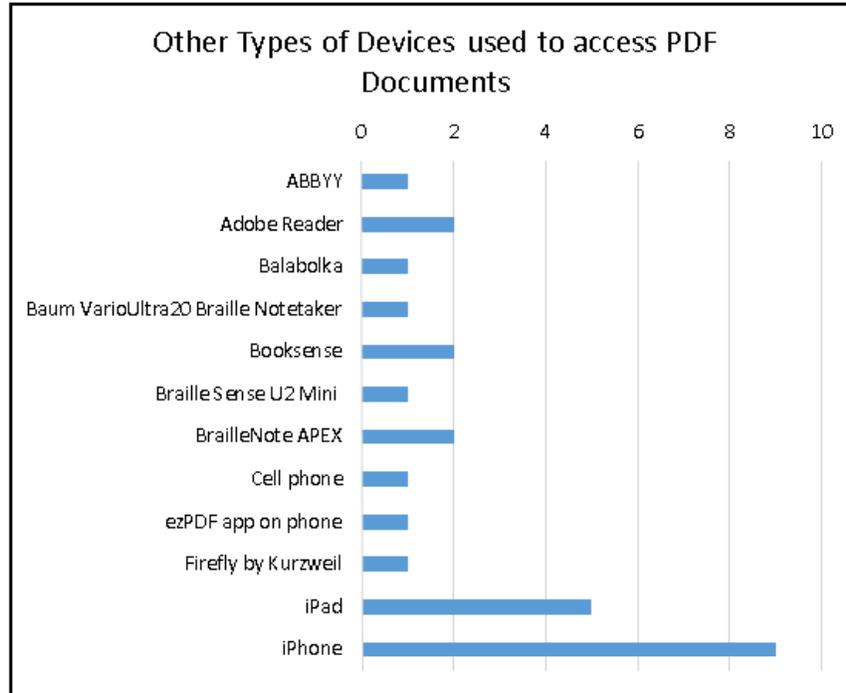
Figure 19 What other types of devices do you access PDF with, question 22 Chart 1.
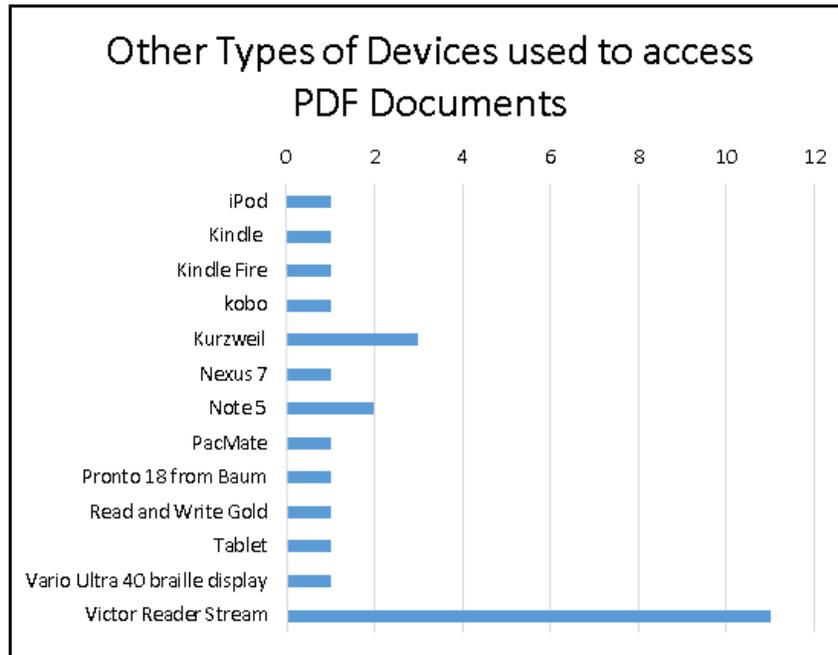
Figure 20 What other types of devices do you access PDF with, question 22 Chart 2.

What applications other than Adobe Reader or Adobe Acrobat do you use to read PDF documents? (Question 23)

The rest of the question reads: This is an optional question.

81 respondents answered this question. The answers have been distilled to present in a table and chart.

Table 20 Applications other than Adobe Acrobat/Reader used to access PDF documents, question 23.

Application	Total
ABBYY (Optical Character Recognition software)	2
Adobe Acrobat Professional	2
Adobe Reader	2
Android PDF Viewer	2
Balabolka	2
Blackberry PDF Viewer	1
Blio eReader app on iPhone	1
Car	1
Chrome	1
ClaroPDF	2
Doc-Scan Plus	1
Documents (iOS)	1
DocuScan	1
Dragon Naturally speaking	2
Ed Sharp text editor	2
Evince on a Linux	2

Application	Total
ezPDF	1
Fine Reader Pro	1
Fine Reader on PC	1
Fox It	2
Gmail to view the PDF as HTML.	1
Google Drive	1
iAnnotate on iOS	1
iBooks	8
iPad	1
JavaScript-based PDF renderer in Mozilla Firefox	1
JAWS	3
jaws OCR	1
Kindle eReader apps on Windows 10 laptop	1
Kindle Reader	1
KNFB Reader	2
Kobo app on phone	1
Kurzweil	13
MAGic	1
Natural Reader	1
Naturally Speaking	1
Nitro PDF	1
Nook	1

Application	Total
NVDA	1
Office Suite Pro (on Android)	1
Okular	1
OmniPage	2
Open Book	5
OSX Preview	17
PDF Aloud	1
PDF Creator	1
PDF Expert (iOS)	1
PDF Reader 3 from Webbie	1
PDF2TXT,	1
Polaris Office	1
Polaris Viewer	1
Power PDF Pro (iOS)	1
qRead for Windows	3
Read and Write Gold	3
ReadToGo	1
RoboBraille	1
I Save PDF documents as Text	1
Stansa	1
Talkback	1
vBookz	1

Application	Total
VoiceAloud	1
Voice Dream Reader	20

I couldn't get a chart with all the data points on it, so this question has no chart.

> **Note:** I'm not sure whether ABBY and Fine Reader or Fine Reader Pro are different tools so included all of them.

Additional Comments from Respondents

The following are comments added to the responses by respondents.

Respondent 9: "EdSharp, an editor that can be used to strip out the text and save it."

Respondent 14: "Various PDF apps."

Respondent 19: "none though I would if I knew of any."

Respondent 25: "Some sort of PDF viewer on an Android tablet."

Respondent 30: "My workplace browser opens PDFs in Adobe reader within a Browser page. This is problematic as some times my screen reader does not correctly identify which program is focused. This problem has gotten worse since version 9 of Adobe reader as the open directly in Adobe reader option no longer seems to work."

Respondent 35: "Frequently using OmniPage utility via the context menu to convert pdf to word or text format."

When you access a PDF document in Adobe Reader or Adobe Acrobat, what are your frustrations? (Question 24)

The rest of the question reads: (what doesn't work for you)? If you have no frustrations enter N/A

Table 21 What are your frustrations in accessing PDF documents in Adobe Acrobat/Reader, question 24.

Respondent	Response
4461049913	Adobe Reader updates.
4457545769	Depending on individual file, can range from no problems to (rarely) no access. As I have Acrobat at home and work, information can usually be gleaned from even scanned PDFs. I can usually get what I need from untagged PDFs but tabular data in unstructured tables can be problematical. I almost always have Acrobat set to read single pages as this helps navigation, but occasionally I get caught out when - say - a table is spread over two pages. PDFs without bookmarks are frustrating.
4455965952	Lack of text reflow -- I need big text!
4455908287	Reading sequence, heading structure, incorrect tags (if any), tables not tagged correctly, no ALT text on images
4455517517	The fact that it doesn't reflow is very problematic, especially on mobile and tablet devices. Links are annoying as it takes you away from the PDF
4454457561	Poor search tools and capacity, poor navigation, documentation and lack of help functions
4444833629	My biggest pain point is the lack of organization of tables. Quite frankly, table rendering is an ugly mess! I would say that a majority of PDFs I need to read have such tables like in financial statements. Also, many times, field labels are either missing or not properly matched. Navigating around a PDF document is often difficult or impossible. I've had many situations where supposed links in a document could not be addressed by hitting the enter key.

Respondent	Response
4441929004	N/A
4439328074	My biggest frustrations have to do with fixing PDFs via Adobe Acrobat and the fact that there is no "un-do" feature.
4438689851	Often tagged poorly. Screen reader is sometimes garbled from what is presumably poor scanning of the image. Pages are difficult to follow along with using the screen reader and formatting is typically an issue when trying to select or copy text.
4437641984	It often takes a while for non-tagged documents to be rendered. Non-tagged documents are also harder to skim through. When the document is scanned, no decent OCR technique is available to extract the text, an external tool needs to be used for this.
4437554180	Voiceover doesn't work for PDF's on Mac. Can't access pdf properly with screen reader
4437240115	Lines are very short. I can neither unlock nor convert to another format certain secured files.
4437011170	The document is usually not tagged correctly with headings, paragraphs, or tables. The text is either jumbled together as one large word, or reads directly across as one line when it should be in a table.
4436903260	Loading can take forever. The text doesn't always read correctly depending on what font/PDF editor the professor used. Adobe crashed when reading certain PDFs, I don't know the cause. Adobe does not read math expressions correctly, if at all. I can't see the pictures, but any text inside them seems to be dropped at random onto the page and makes no sense.
4435130834	The document doesn't read
4434778283	Tables. Headings. find a page. Links to other information. Most pdf documents are not formatted correctly so they have many issues.
4434646160	one formula accepts to long lines so the text isn't shown on the screen but will read by screen readers. Other documents show the text without any format or with missing letters.

Respondent	Response
4433938296	Sometimes even changing the page, document gets scrolled up automatically to previous page. I have experienced this mostly in Adobe10 and 11 and dc too.
4433644667	resolution
4431248174	I typically use Jaws and Adobe Acrobat Pro; currently on version XI. Even with the latest screen reader version, loading moderately large files are very slow to load due to the background processing for readability. It is often that I convert the PDF to another file format like TXT or DOC for files that I need regular access to since some files can take a solid minute or more to load. Even 20 seconds for smaller PDF files seems like an eternity and is a time waster that affects my productivity. Also, formatting is terribly inconsistent depending on which program generated the PDF. Words and lines are often broken up and do not correspond to the onscreen formatting. As a worse-case scenario, I have encountered some documents that present themselves as a single letter per line through the entire document. For example: The word "hello" appears to the screen reader user as: h e l l o Navigating by page number and even identifying a PDF's page number is inconsistent. The menu shortcuts for navigation don't seem to work. Tables and untagged graphics are also a regular frustration since most people haven't a clue of what to do. While there are other shortcomings, let me say that it's my opinion that one should not need to be an experienced intermediate user in order to successfully use a PDF with a screen reader. If the lack of having a tagged/properly structured PDF is the issue, most users will not know how to independently convert the PDF to a more usable format. Considering the intent of the PDF format, it's quite the paradox for screen reader users for which sighted users need not contend with.
4429496829	Images are not described Content is read out in a random flow Screen reader often goes in a non-responding mode Mostly content is not structured: no headings or only 1 or two headings, no lists, tables with no headers etc... Forms are not identified as fillable by my screen reader. Either screen reader or Adobe Reader crashes I reach a state of frustration and close it...

Respondent	Response
4427831120	N/A
4427427090	With big pdf, the screen reader is sometimes freezing. I am frustrated by PDF docs that are protected from being read by assistive technologies.
4426984710	Oftentimes, the screen reader will announce that the document is empty. Other times, words will be clumped together without spaces, random symbols will be scattered throughout the text, and lines will contain only one word or a part of a word.
4426682110	N/A
4426660282	for forms it would be the form fields, checkboxes, etc.
4426587756	Sluggishness
4426566325	Any time I try it usually says blank document. or if it does read it there's no tags. and when there's no tags its hard to figure out what's what. then you got words that are either split up or have errors. like to the point you cant figure out what it is.
4426538919	They are not tagged. Tables are always present
4426140667	Not always accessible
4425834667	NA
4425790423	Very often with internet explorer, the document opens in IE, no matter what changes I make. Then I cannot change the accessibility of the document reading process. Also, when a document is tagged, it should supposedly be read as a tagged document, but when I open many documents I must then go and open the accessibility preferences and select the "tagged document" option. In some instances when I open a pdf, it is blank, indicating that it isn't accessible, I assume. But, when I try to read it with Jaws OCR, I'm told by Jaws that "OCR failed to start" which doesn't really tell me anything of value. I assume it means that jaws thinks the document is accessible and doesn't need scanning but who knows.

Respondent	Response
4423085401	It must be converted to a file that can be read by window-eyes. I don't know how to do this and it is frustrating
4421586470	Forms that I have to have someone else fill out by hand for me because they are not fillable and I can't use the Fill and Sign tool; bad scans of images that don't convert well enough with OCR; untagged or jumbled documents where text is readable but too disordered to make sense.
4419490661	If the Adobe settings are not correctly set, then only an image of the document will appear. When Adobe gets stuck and freezes when trying to open the document in an accessible way. When the document has been scanned OCR, yet not tagged/ordered correctly and have to wait for this process to occur. Adobe tries to infer the reading order, but sometimes gets it wrong when the pdf document has not been set up appropriately by the document author. Sometimes the characters/words do not come through accurately when using the screen reader. with a lengthy document, the wait time for processing can be really long.
4419415639	Assuming the file is readable (not image based) screen readers often cut words where they should not be cut or run words together. It is rare that complicated documents are tagged or perhaps are tagged properly.
4414014075	Sometimes docs don't load or take a long time to load; sometimes they read garbled. Sometimes they show only portions of documents. I know usually it relates to the accessibility of the document though.
4412319456	N/A
4411631630	Enhanced protection in the security tab which stops screen reading software from interacting initially. As I am aware of this and know where to go to disable it; it's okay but frustrating, other users who may not know about such an advanced setting may not have the confidence to access it, or may feel that the problem is with their assistive technology or device instead.

Respondent	Response
4411194088	Words run together or are broken up without cause, text appears out of order, the document is scanned and no standard optical character recognition (OCR) provided by Adobe can fix it (so it says 'document unavailable;)
4410071491	I can't always mark places easily or fill in forms easily. There seems to be no way to tweak the document such that I get better recognition. I am frustrated by the security of some appliance manuals that prevent me from creating a braille copy of the document.
4409432009	First, I'm frustrated when a link opens a PDF without warning i.e. the Web site doesn't specify that this is a PDF. But even more, I'm frustrated because I seem, somehow, never to figure out how to make my browser not open the file. When I know it's a PDF, I can download it and read it with acrobat, which always seems more stable. Maybe there's a way to make PDFs always download, but I've never found it, or at least, it doesn't work reliably for me. I typically use IE11, but sometimes, I use Firefox (latest version). Once I am reading in c least in the last year or so, it seems to be fairly stable and work as I expect. I would, however, like to learn more about secure signing of documents, i.e. contracts and other similar forms.
4404679193	N/A
4404509189	When I open a pdf, my computer often crashes. More often than not, speech will stop and I can't continue without rebooting the computer. It takes too long for pdf's to open. It is annoying to try to read a document with text broken up on multiple lines, like a letter or two on each line. Columns of text are not presented as columns. The text is mixed up together and unintelligible. Tables are not coded in order to tell what the data in each cell is or relates to. It is very frustrating to wait for a pdf to open only to hear that it can't be read because it is a scan.
4404372950	There are times when the .pdf document is accessible to enter in information but will not save or will lock-up after completed the document making the form accessible but not useable.

Respondent	Response
4402742433	Long not structured documents
4401946879	Slow speed to convert, taking too much memory, slow response, wrong layout
4401583001	untagged -- bad to navigate; no text recognition so impossible to use TTS; if publisher document, sometimes layers not flattened, file is huge and hard to manage.
4399969416	1) Scrolling my brains out. 2) Last month I got a 1099 form to fill out that said I could send it though an online service that turned out to be defunct.
4399628280	Adobe Reader's performance is highly unreliable from document to document. If a .PDF is not well formatted, or if a document has been scanned, Adobe Reader will almost certainly fail.
4398401216	For work most PDFs are complex layouts including equations. If I try to reflow to increase the zoom level etc. then it destroys the equations. There is inadequate control of font, font size, interline spacing and layout. In a Word document I would control all of these for easier reading. Sometimes you can't search properly and this is annoying as this is how I most easily locate information (scanning through is harder). Sometimes you copy and paste and get rubbish.
4397797118	Images of text, can't select text/copy and paste, forms are not always keyboard accessible
4397037301	Font smoothing, and often how the text is so light that even with changing the contrast with ZoomText, its still difficult to read. Also, its hard to understand some of the controls. Some of the controls don't appear unless you mouse over them.

Respondent	Response
4396736810	Reading order isn't clear; tables aren't laid out, so I can't tell which items fall under which column headings; repeated characters (JAWS says bullet bullet bullet etc.); sometimes JAWS will only read one word on a line, so that the only way to go through the document efficiently is to use a say-all command; content appears to be missing; columns aren't formatted, so that JAWS reads across rather than down the first column before moving to the second column.
4396669492	N/A
4396668303	If documents are not tagged
4395232138	I am not able to comment a PDF file or see comments of others. I had to pass up a job because I lacked this capability. I am still looking for possible resources.
4394585074	- a lot of PDFs contain only images and no text and need OCR; - all PDFs are untagged except very few ones; - random jumps between pages when nearing the bottom of a page; - erratic virtual cursor movement in a longer PDF, the farther I get in the document, the more frequent it gets.
4393907761	I find that the material will not be presented because it is scanned. However, if it is typed into the document, then it needs to be formatted like a web page but this is rarely done. Most of the items such as headings, lists, and tables are not coded properly.
4393501544	The process of opening documents and having them converted to an accessible format seems inefficient and can lag the computer considerably depending on the system's specifications. Documents often have at least some problem even though they are said to be converted to an accessible format, weather using Jaws or NVDA, though Jaws does seem to do better with recognition, if not speed... Examples of this are 1 letter per line, overly short line lengths, scattered paragraphs and missing headings or large groups of blank lines where a simple notification, (perhaps through a tag), of an element being removed do to incompatibility would be better.

Respondent	Response
4392789344	I have to use the pass key through feature of my screen reader to turn pages. Also, it does not handle untagged documents as well as Kurzweil. 1000.
4392656290	In some PDF's, with JAWS and Acrobat reader, also NVDA, words are run together, when using JAWS, but a sighted person on the screen sees things normally.
4392488644	I have two problems when opening PDFs in either Adobe reader or acrobat. Large Files take an extremely long time to process to be accessible to my screen reader if I choose the full document option. If I try to reduce the number of pages in the settings to reduce processing time, neither the page or bookmark navigation functions work.
4392411664	I find the default access translation is often really poor and putting thing together that belong together particular in columns or tabular info. Using "read across and then down" works better, but still is not very reliable. Image documents and scans are of course useless and there is no tool to use OCR. Navigating long documents is never straight forward the navigation keys never really work.
4391259979	I am an expert of accessibility and I have to tag the PDF documents so that the blind people can access the information
4391214381	take long time to try to OCR the PDF file also that screen reader can not read the text
4390591529	TAGGING Reading order
4390553376	n/a
4390545377	The chief frustrations I have concern images or scanned material in digital issues of magazines etc. Also the lack of tagging in some documents make it harder to read. I have a lot of trouble loading large documents and always save them as text files in order to read them.
4390419375	program is not user friendly-though getting better

Respondent	Response
4390082125	Many pdfs texts come from the publisher without tags and the automatic tagging done by Adobe Reader doesn't follow a logical reading order. This is particularly true with pdfs with a lot of graphical content. Also no alternative text descriptions of important graphics in text books (i.e. graphs, tables, pie charts, bar charts.) are provided by the publisher or the Adobe. This is a great setback for visually impaired students taking Economics, Accounting, Math, and similar sciences.
4389843984	If the document is locked or needs OCR. If the document needs to be edited. I find Adobe Acrobat Professional essential.
4389654896	Adobe often crashes, it's very slow. #1 pain is not easy (for me at least) to use the text search.
4389519814	hit and miss if it will read everything or not
4389467712	I can't stand when there are no bookmarks or table of contents for long documents. I also don't like the reading experience of long documents. Frequently the content refreshes while I am reading it and I lose my place. Documents that do not reflow disgust me. Documents that don't easily allow me to set a dark background and white text are also difficult for me. I do not enjoy reading long form content with a white background.
4389450064	It is impossible to use markup, annotations, and comments. This is crucial for me in my career and is completely inaccessible. As a result, I have to ask my students/collaborators to work in Microsoft Word (since Word's comments and tracked changes features are fully accessible with Jaws but Adobe's are not).
4389383472	Frequently difficult to impossible to read past first page
4389353794	it frustrates me when the pdf file is not tagged properly or is just a image there for making jaws or adobe say blank.

Respondent	Response
4389080745	It often takes a long time for the pdf to render, even if it is tagged. On top of that, the reading order is often not logical, i.e. page 3 will be before page 2. The irritating thing about this is that, when saved to a text file, the reading order is usually correct. This suggests a lack of concern on Adobe's part with regard to the accessibility rendering engine. This is while using Adobe Reader DC and the latest versions of all three major screen readers for Windows: NVDA, Window-Eyes, and JAWS.
4388995174	N/A
4388876347	N/A
4388435766	I don't use adobe
4388425383	PDF documents that are not tagged correctly, PDFs with inaccessible content, and some PDFs taking a long time to open, especially textbooks.
4387899804	I am unable to convert a lot of documents in and out of Adobe. It is not my preferred program at all.
4387384281	I do not like it when the voice reads the credits at the bottom of each page. For example "BergerInv2e_CH01_D.indd 9"
4387334555	Sometimes the text to speech options do not work (PDF Aloud Tool Bar)
4387222188	many documents have graphical text to represent buttons, or other controls. text is often smashed together as follows: thisishardtoreadbecauseword sarenotsep aratedcorrectl y . tables are nearly always scrambled. equations are nearly always scrambled. text formatting such as paragraphs, page breaks etc. are either missing or mangled. some pdfs end up formatted as one or two words per line. very difficult.
4387200993	N/A
4387152684	robotic voice

Respondent	Response
4387133944	Not all are "readable" with a screen reader
4387041484	Commonly a scan.
4387023584	tag lags, delay in processing
4387008965	Not tagged, often scanned, title not displayed in document window
4386888976	Search features are typically very helpful, but are sometimes not accessible.
4386828539	N/A
4386748767	N/A
4386670911	Editing - the view looks very clumsy
4386598213	When I open the Read Out Loud feature, it automatically shuts the whole program down. Have uninstalled and re-installed, but nothing works. No
4386555370	I use Acrobat professional. I have no issues or frustrations.
4386514816	N/A
4386427764	Aside from opening pdf files containing scanned images of text, I often find that accessing complex information in tables to be problematic. If I'm reading a book, it is difficult to skip to pages, chapters, etc. in pdf form. I have also found it impossible to obtain format information and layout information of the text in a pdf.
4386385923	The PDF does not open on my computer because of two different formats. The PDF is poorly laid out.
4386275315	if document is untagged, it takes long to let Reader prepare the document. It is difficult to navigate in long documents.

Respondent	Response
4386255368	I cannot tell if the PDF document is Accessible. I work as a disability coordinator who retrieves text files for students who do use assistive software to read; Braille access or enlarge so they can read, and I cannot tell if the PDF file has been readied for assistive software to read it.
4386152331	N/A
4385087935	Reader has few choices.
4385044032	Reading order!
4384907473	When searching for instances of a word, the screen reader will not read back what it finds. I have contacted Adobe about this, and they are aware of the issue, but had no solutions. This makes doing homework where finding instances of a word being used in a PDF impossible using a screen reader.
4384891927	That it doesn't read, reads in the wrong order, or is difficult to navigate.
4384867218	tags, bookmarks, naming conventions
4384858669	n/a
4384851624	Main frustration is publishers who do not release alternative format textbooks to the Disability Resource Services in a timely manner
4384842529	N/A
4384811125	inability to search and find, upgrade is expensive
4384784727	I would like to be able to combine documents without having Adobe Acrobat PRO
4384780442	Untagged or scanned and not OCR'd documents.
4384763393	I rarely use Adobe to open PDF files. Fox It works better. I usually use Read&Write for Google because I can take notes and upload them to a Google doc.

Respondent	Response
4384763292	n/a
4384506339	the amount of badly tagged or untagged PDF's. Sometimes I can't copy and paste. Sometimes, the tagging is so bad that the screen-reader reads words as if there are spaces in them, or as if they are written in CamelCase. Adobe's search functionality is limited and only works some of the time. So if I'm dealing with a large, untagged document, I must read it in one sitting. If the untagged document does have visual formatting, the data is hard to understand. For example, if the intention is that there is a table, but there are no tags to indicate this, then the tabular data is now in an incomprehensible blob.
4384406167	NA
4383146710	Built in screen reader to fast. Changes to new versions never work straight away with some screen readers
4383125981	I change background colours using the accessibility settings. Often I have to turn these off to see the content.
4383117338	Screen reader doesn't read anything out - no text recognized. Also, no ability to enlarge with auto-wrap/flow. Blurring when zooming in.
4383061501	cant reflow to make it in one line
4382960327	N/A
4382626437	N/A
4382259912	Maths equations will not be read unless it has alt text in any app
4381939258	I have sometimes found searching difficult.

Respondent	Response
4381898266	often when opening a file from Windows explorer, Jaws does not indicate when the file is available for reading. I have to switch to another application and back before I can access the document properly. Often when saving a word document as PDF all the images are placed at the top of the document. fixing this is difficult using Adobe Acrobat. It is difficult to see my focus when filling out forms. I have tried to change the adobe options to improve this, but have not found a satisfactory option yet. Sometimes when saving as pdf from word, my headings will be broken up in chunks. Not sure what is going on here.
4381620129	content which is not tagged or tagged incorrectly such as data tables defined as<P>
4381596526	I can't change the font of the text to appear as I want it. Text is blurry or low zoom level but too large at higher zoom. Reflow often doesn't work right and isn't supported in forms, etc.
4381574344	lack of customisability of presentation; your silly small amount of choices are insufficient for low vision users. Even though I have access to all different types of AT it is generally laggy with PDFs
4381535352	At first, the scanned, or otherwise, "silent" documents. Secondly, the lack of tagging. And, at last, low efficiency in copying and editing and navigating, compared to Word. , efficiency
4381482155	Sometimes the spacing between words is terrible and I have to use my screen reader's OCR feature to make the PDF readable.
4381214849	Not able to read it
4381190408	Certain documents that were readable with Acrobat/Reader XI are no longer readable with DC. I have reported this to Adobe back in September but no resolution to date.
4381154361	Searching for text within a document, navigating by page or smaller units, selecting text, navigating away from a PDF then having to wait while the document reloads; problematic with large documents of which I read many.

Respondent	Response
4381152222	I use JAWS for Windows screen reading technology. My frustrations include the predominance of pdf's created without tagging, including those from scanned documents, rendering only as images. This seems to be a default strategy for most who are untrained in creating accessible documents. I receive numerous emails with embedded pdf documents, many of which are also scanned images. these include invitations, flyers, etc. The scope of this issue spans a majority of pdf documents with which I interact. the next biggest issue, I believe, is related to forms that are created in Adobe, but are not created to be usable with screen readers. I also use Document Delivery Services through our library for journal articles that are not available within our subscribed databases. While the latter are usually created and loaded into course shells with appropriate accessibility features, the former are, again, most often scanned images. In order for me to access many of these documents, I need to use Kurzweil 1000 virtual printer to scan a document into the OCR converter.
4381048667	Scanned document with no readable text
4381043897	While Acrobat Reader DC for Mac does (finally) allow VoiceOver access to PDF content, the access is very basic and seems to provide no support for tagged content. The UI is also confusing and difficult to navigate. For example, moving by page within a document is difficult or impossible and does not employ standard OS X or VO keystrokes.
4380865324	The PDF Autotag feature in Acrobat is lackluster at best. It doesn't conform to any standards that I know of, just randomly assigning stuff as it goes. Files exported from Word, PowerPoint, and InDesign all have different ways it handles tags out of the box, even when the authoring document is formatted correctly. There's no way to understand Expanded text (like for acronyms) or any of the other optional features inside PDF like there is in a regular browser. It has a ridiculous UI for marking up a stronger document later. Even then, you're only doing things for a specification because Acrobat can't figure out what these new additions to the tags are for.

Respondent	Response
4380801781	My biggest frustration is downloading a PDF from a Web site, being so happy that I've found the information I'm looking for, and then finding out that it's a scanned document. When that happens, I then have to take it from the computer to KNFB Reader on the iPhone and scan it. Another frustration is that PDF documents often contain graphics that break up the text. In these cases, sentences read like they are broken up and words read as though they are spelled incorrectly. This is not the case; but it reads as such due to graphics or pictures in the text. When these things happen, I will save the PDF as a text file and just deal with it in Notepad. I also find it frustrating when fillable forms don't read properly. The form is very important to my life, and yet I'm left at a standstill because the edit fields aren't labeled properly, or I have no clue what question the checkboxes are associated with. These things probably don't happen to me very often because I'm not often filling out forms in PDF documents. But when I need to take care of business, and I'm left at a stop because I can't figure out a way to manipulate the information in the PDF, or I have to take extra steps to access the content, I get frustrated at the extra time I have to spend to handle these things. Also, I find Adobe less responsive than Word or Notepad.
4380608423	Hard to size the document to read easily on the screen.
4377447619	Scanned PDFs; PDFs where there is no logical reading order; PDFs without headings; fillable PDF forms with no labels attached to the form fields; PDFs containing ligatures, e.g. words containing the letters "fi" read as if there is a space after the "fi", so define reads as "defi ne"; many PDF manuals for technology or appliances use pictures of the keys/buttons rendering the entire manual useless to a person using a screen reader, as you will get something like, "Go to the Mail preferences by pressing + , (comma)", which should read "Go to the Mail preferences by pressing Command + , (comma)", but a picture of the Command key is used, so there is no way of knowing what you are to press.

When you access a PDF document using another application what are your frustrations? (Question 25)

The rest of the question reads: What doesn't work for you? Please describe giving the name or names of the applications. If you have no frustrations enter N/A

Table 22 What are your frustrations in accessing PDF documents in other applications, question 25.

Respondent	Response
4461049913	IE, Chrome, Firefox: browser compatibility, Adobe Reader updates.
4457545769	Flicking from TOC to contents in iBooks can be messy. Voice Dream Reader does not provide the same level of support for PDFs as ePub files. QRead can often provide quite good access to even very messy PDFs, but lack of bookmarks limits navigation. Nor does it support table navigation.
4455965952	Lack of text reflow -- I need big text!
4455908287	NA
4455517517	N/A
4454457561	N/A
4444833629	I wish Apple's built-in previewer supported fill-in forms. Voice Dream Reader for iOS reads stuff nicely. I understand the PDF Penn products from Smile Software are improving in accessibility; not sure how far that has progressed though. It may really boil down to how accessible these other applications are when using these instead.
4441929004	N/A
4439328074	N/A
4438689851	Use Kurzweil to OCR the pdf and read it in MS Word. Same as above. Page issue is better though as Kurzweil recognizes the original page numbering. Tables, charts, etc. are poor which is frustrating when reading academic work.
4437641984	n/a

Respondent	Response
4437554180	Not responsive, frustrating to use on iPhone
4437240115	N/A
4437011170	Some of the text in OpenBook does not get recognised correctly. This could be because the text is not properly tagged, or it was a scanned image.
4436903260	With EdSharp or Gmail the text sometimes gets interleaved and doesn't make sense. I think this happens when there are columns. Math still isn't read correctly, if at all. Sometimes when there is a picture, the text that was inside the picture (I assume) is dropped somewhere on the page at random and makes no sense.
4435130834	Internet
4434778283	n/a
4434646160	N/A
4433938296	n/a
4433644667	DRM, resolution, or other quality issues e.g. heavy annotation
4431248174	N/A
4429496829	N/A
4427831120	On Mac/Apple, the default viewer for PDFs is Preview, but even if the file is entirely accessible, Preview somehow finds a way to "create" accessibility concerns
4427427090	The viewing tools on Mac and iPhone don't allow to navigate through properly tagged PDF by heading, bookmarks and so on. The structure of the document is not rendered.
4426984710	The OpenBook OCR software does an adequate job of reading some PDFs, but it messes up the formatting.
4426682110	N/A

Respondent	Response
4426660282	N/A
4426587756	NA
4426566325	N/A
4426538919	The voice even in a good document usually stinks. There seems to be a disconnect between EPub and PDF.
4426140667	Not usable
4425834667	Not Always reads Tagged documents properly
4425790423	n/a
4423085401	I am not very good with computers, so I must get help with converting documents. I wish it was easy each time! I receive e-mails with attachments and I cannot open them at all. I must have people mail the information to me via snail mail.!
4421586470	Reading and filling out PDF documents on the Mac is all around sorely lacking compared to handling them on the PC. Preview used to work better in previous operating systems, but the newest version seems clunky and reads in large chunks. There is apparently a way to fill out forms in Adobe for Mac, but it might be inconsistent; I only know about it second-hand.
4419490661	iBooks if the document has not been OCR scanned, then impossible to read when document has not been tagged accurately, then text does not meaningfully flow sometimes characters/words do not appear accurately
4419415639	n/a
4414014075	n/a as I do not do this
4412319456	N/A
4411631630	N/A

Respondent	Response
4411194088	Kurzweil is good, but it can be less responsive than other software when I want to navigate a document, and the keystrokes are sometimes unfamiliar; QRead renders pdf's pretty well but doesn't always get the order of lines right
4410071491	KNFB Reader: Can't tell whether pages are properly divided at times.
4409432009	I typically only read PDFs using my laptop, via Acrobat in my browser, or Acrobat alone.
4404679193	N/A
4404509189	n/a
4404372950	When using the JAWS convenient OCR feature with this screen reader, it can be limited in reading scanned in .pdf designed documents
4402742433	N/A
4401946879	Text is not accessible at all.
4401583001	N/A
4399969416	I've only tried this once on the iPad 2 and decided to stick to the iMac for pdfs. Haven't tried it with the latest iPad and iOS 9.
4399628280	The biggest problem I have with .PDF documents is their unpredictability. Some documents can be easily rendered by other applications, while some are completely unusable
4398401216	On my phone it is practically impossible to read them as I can't make the text large enough even with reflow. Reflow breaks a lot of the technical content anyway. This isn't a problem with websites or Word documents. On tablet I can generally zoom in though it is annoying that you appear to have to zoom all the way out of a page to turn the page.
4397797118	Doesn't scale properly on mobile device
4397037301	Its difficult to find the controls for viewing the document. Also, these other apps create a pop-up windows but focus does not shift.

Respondent	Response
4396736810	N/A
4396669492	N/A
4396668303	when the .pdf are images
4395232138	Same as above.
4394585074	Balabolka doesn't render tables, links, forms etc., only the simple text of the PDF. Nuance PDF reader, FoxIt reader and Sumatra PDF reader are all inaccessible with a screen reader, because they render the PDF as an image.
4393907761	N/A
4393501544	N/A
4392789344	When I access PDFs on Firefox, the formatting is bad. It will break apart lines. It is common to see Firefox display a document with every word displayed on its own line.
4392656290	N/A
4392488644	n/a
4392411664	Open Book V 9 works well most of the time. It is always better than reading from within Adobe. Still, OCR is not perfect which can be a problem on important material such as numbers. Sometime one must re-recognize becomes columns are not handled properly.
4391259979	I don't use another application
4391214381	JAWS NVDA talkback lots of the time will not read the information on the PDF file
4390591529	generally have to convert to ePub to use apps such as google reader, or Bookshare app, due to tagging issues multiple columns etc.
4390553376	n/a

Respondent	Response
4390545377	OpenBook is supposed to scan images in pdfs well but I often get varying results. Usually the document reads to me as gibberish. This happens especially with magazines.
4390419375	N/A
4390082125	The IPad features of Voiceover and Speak Screen and Speak selection have a little bit of a learning curve. It can be difficult to use Voiceover without training.
4389843984	I find Adobe Acrobat Professional essential.
4389654896	Sometimes the text is readable but not formatted correctly. Like maybe one word per line. I prefer to convert pdf's to html for better formatting and easier navigation.
4389519814	N/A
4389467712	All of the above, I don't perceive notable differences.
4389450064	Same as above; annotations, markup, and comments are completely inaccessible.
4389383472	Jaws and Open Book OCR frequently give vastly different results with one being better at times and the other at other times
4389353794	n/a
4389080745	Tags don't usually read, except on applications designed for reading books such as iBooks or Voice Dream Reader. On the other hand, even when tags don't read, other applications tend to get the reading order correct 99% of the time where Adobe does not.
4388995174	N/A
4388876347	N/A
4388435766	On the mac using preview tags are not rendered at all so tables come out strangely. DocuScan can tag stuff correctly, but iBooks and preview cannot. And Stansa works very well.

Respondent	Response
4388425383	I have almost no problems using Preview to read PDF files, except for VoiceOver saying "Empty PDF Content," sometimes. But, this is a known bug. Google Drive seems to work good on Android.
4387899804	N/A
4387384281	The PDF is not able to be read allow to me at all times, especially if it is not accessible
4387334555	N/A
4387222188	same as above, because most other apps / devices read the extracted text from a pdf. the above problems are all features of text extraction.
4387200993	When converting a PDF to Word it changes the formatting and causes a lot of additional time to process it.
4387152684	n/a
4387133944	none
4387041484	N/a
4387023584	same
4387008965	N/A
4386888976	Secondary applications are always shaky and cumbersome.
4386828539	N/A
4386748767	N/A
4386670911	Merging into one document, leading to displacement of wording
4386598213	Reads out of order. Have to keep pressing keys or clicking to keep reading on one page. Word recognition in text books is poor.
4386555370	N/A
4386514816	tree tag

Respondent	Response
4386427764	Aside from opening pdf files containing scanned images of text, I often find that accessing complex information in tables to be problematic. If I'm reading a book, it is difficult to skip to pages, chapters, etc. in pdf form. I have also found it impossible to obtain format information and layout information of the text in a pdf.
4386385923	Different version of software are incompatible.
4386275315	n/a
4386255368	N/A
4386152331	N/A
4385087935	N/a
4385044032	1. Jaws not recognizing that there is text on the page. 2. Acrobat's Read Aloud doesn't always read the text or skips, or makes no reading order sense.
4384907473	n/a
4384891927	Not as many as Adobe Reader. Many mobile apps read PDF's well and prevent frustrations.
4384867218	naming conventions, file organization
4384858669	n/a
4384851624	Main frustration is the lack of open communication with the Publisher when trying to order alternative format textbooks for students with disabilities
4384842529	Firefly by Kurzweil does sometimes does not read columns, but straight across the page.
4384811125	NA
4384784727	Sometimes the Read Out Loud function doesn't work
4384780442	Untagged or scanned and not OCR'd documents.

Respondent	Response
4384763393	Read&Write takes care of most issues. It will OCR on the fly if needed (new option). Our students love it.
4384763292	not formatted correctly
4384506339	I've tried to use the reader app built into Windows 8 but it's completely inaccessible. Of course the PDF2TXT just grabs the text, not the formatting.
4384406167	NA
4383146710	NA
4383125981	I can't change background colours in most applications.
4383117338	It's time consuming to have to save a PDF, run it through the OCR scan in OmniPage and then have it read back through there. Isn't always able to recognize the text, depending on quality of scanned image.
4383061501	kobo - no e book reader allows you to view PDF other then keep zooming in which means you loose the sense of readings and makes me feel sick all the moving about
4382960327	N/A
4382626437	N/A
4382259912	N/A
4381939258	N/A
4381898266	n/a I don't use other applications often enough to say.
4381620129	N/A
4381596526	I can't change the font of the text to appear as I want it .
4381574344	reading is better than using

Respondent	Response
4381535352	The OmniPage conversion is not perfect, and, if the pdf has a good tagging, some of its good structure is lost. In Word there may be disturbing url:s, which can be avoided in text-format.
4381482155	N/A
4381214849	Jaws tell me empty document
4381190408	N/A
4381154361	N/A
4381152222	Same as above, using PDF Creator.
4381048667	N/A
4381043897	Preview on Mac provides only basic access to PDF content. There is no support for tagged content, and fillable forms are a non-starter. As far as I have been able to determine, there is no PDF reader that supports anything more than basic PDF access on the Mac. The situation is similar on IOS.
4380865324	The tags are rarely ever identified in the document. They use their own opinions about how to access the PDF, often making it functionally useless.
4380801781	I use Voice Dream Reader on the iPhone. The only frustration I ever run into is when a PDF is not marked up properly. It is not possible to navigate by paragraph, page, chapter, section, et cetera. I make due, and I get the information I need almost all the time, but sometimes it would be easier if I could more quickly navigate to the section of text that I need a bit more efficiently.
4380608423	N/A
4377447619	PDF documents are difficult to navigate and read with Preview on the Mac; PDFs without headings are more difficult to navigate in Voice Dream Reader and iBooks; scanned PDFs are not readable in Voice Dream Reader or in iBooks.

What does work well for you when you open a PDF document in Adobe Reader or Adobe Acrobat? (Question 26)

The rest of the question reads: Please describe. If nothing works enter N/A.

Table 23 What does work for you when accessing PDF documents in Adobe Acrobat/Reader, question 26.

Respondent	Response
4461049913	Image fidelity.
4457545769	Well structured files are easy to navigate - I tend to use bookmarks rather than TOC even if one is provided. Elements such as headings, paragraphs and lists are useful. Well structured tables read well.
4455965952	I can read, but I have to zoom everything and much of the time that means a lot of panning. So the basic thing works, but I wouldn't say "well".
4455908287	NA
4455517517	Looks like a paper document.
4454457561	N/A
4444833629	N/A
4441929004	N/A
4439328074	N/A
4438689851	when working properly reading works well
4437641984	Even if the tags are missing, when the document is not scanned I can usually at least read the text, even if I have to put it in the right order myself :) When a document is tagged, the documents are pretty easy to navigate.
4437554180	Voiceover doesn't work for PDF's on Mac. Can't access pdf properly with screen reader.

Respondent	Response
4437240115	Can convert to other formats. Can using quick nav keys (JAWS). If necessary, can OCR entire document with JAWS.
4437011170	When I open the document, the document is usually read allowed. Other times the document is indicated to be blank and is a scanned image.
4436903260	It works okay when reading something uncomplicated and I don't have to search for anything.
4435130834	Gather the information.
4434778283	It depends on the format of the document. If it is a scanned document it shows as an empty document and you have to use the OCR to read the document.
4434646160	reading tagged documents and sometimes untagged documents
4433938296	it gives an option to set the reading level for assistive device.
4433644667	ability to crop, rotate, annotate, search
4431248174	What works well is a properly formatted source document such as an MS Word doc that uses markup for heading levels. I believe that a table with markup for row and column headers comes across well but I would need to test this again.
4429496829	If document is not scanned, I can read the text at least. It gives me an option to read either 1 page or entire file so screen reader is not overloaded and reading 1 page makes the screen reader respond faster. Edit>Preferences>Reading>Page vs. Document option
4427831120	Tagging and bookmarks
4427427090	Being able, when PDF is tagged, to navigate by heading, bookmark, searching for a specific text. The pdf document is open at h-the place you closed it when you open it later.

Respondent	Response
4426984710	I'm guessing what does work is when the document is properly scanned and tagged. The ZoomText manual in PDF from AI Squared, for example, reads fine.
4426682110	N/A
4426660282	When a pdf is tagged correctly then maneuvering through the document works well
4426587756	Reading, menus
4426566325	N/A
4426538919	NA
4426140667	Not accessible
4425834667	Works well
4425790423	Sometimes I actually get a properly tagged document and it's a real pleasure. Kind of like hitting the lottery though because few documents are.
4423085401	sometimes the document does not work with my window-eyes. It is frustrating as the document must be converted and that is frustrating.
4421586470	Extremely efficient reading accessible documents and filling out well-labeled forms, navigating to various pages, etc.
4419490661	Adobe has come a long way with improvements to create a pretty accessible document. I usually can get a pretty decent document with a few exceptions where the document is not translatable. However, if I were to be tested on the information, this would not be an acceptable level of accuracy) I like the warning dialog boxes for the scan and tagging to make it accessible so that I know the level of document accessibility upfront. works well when the document has been scanned and tagged accurately.
4419415639	basic reading is largely like web based materials when the file is not an image file.

Respondent	Response
4414014075	If it's an accessible document, it reads well; when it loads quickly, that helps. Usually the software is good at updating the progress of opening long documents, page 21 of 95, etc.
4412319456	N/A
4411631630	The prompt from the accessibility assistant informing me that the document is being prepared. Option to start preparing or to cancel if I wanted to come back later. The option to resume reading from the last point where focus was if switching windows and coming back later.
4411194088	If properly tagged, tables are read well and navigable by row and column
4410071491	It reads well marked and tagged documents nicely.
4409432009	When documents are tagged, they do work well; for example, when testing (for work) I did have the "pleasure" of reading health-related prescription drug coverage documents, with complex tables, that had been remediated. Before then, I did not know that kind of table markup was even possible. But the amount of human interventi0on, for large complex documents like that is not sustainable from a human resources standpoint. Adobe needs to step up its game in terms o these templtized financial and healthcare/insurance documents that are essential, distributed frequently, and have formats that don't change. Actuate was on the right track, but I'm not sure that company is still around.
4404679193	OCR is good in most cases of scanned documents.
4404509189	When a pdf is coded properly, quickly moving to different sections in the document is nice and efficient. Reading information in tables makes sense.
4404372950	The JAWS convenient OCR commands work best to access the most variety of designed .pdf documents.
4402742433	Table of contents
4401946879	Most documents with tags are readable.

Respondent	Response
4401583001	if tagged properly, navigation is easy, and TTS is seamless.
4399969416	Pdfs load fast on my iMac. User guides are usually laid out in a logical manner, although the HumanWare Stream guide might be the exception.
4399628280	Not Applicable
4398401216	Well, I can read it. I am sure it is more annoying for people trying to use adaptive tech.
4397797118	Able to see a document that would look the same in print. Skip links to move to other sections sometimes work.
4397037301	If the document is actual text and not a scanned document, then you can enlarge it without having pixilation.
4396736810	When PDFs are tagged properly, they are fantastic.
4396669492	N/A
4396668303	Using A11Y features
4395232138	It generally reads better, and is not as apt to crash as it used to be.
4394585074	I use Acrobat Reader as a last resort only, which seldom happens. Short PDFs with a simple structure are the only documents that are convenient to view in it.
4393907761	No much works but if the pdf is formatted correctly, it is a lot easier to read.
4393501544	First I try and print it to text, but that doesn't always work out well, so I make sure my formatting and accessibility settings are correct and work from there. If things still aren't working and I've already optimized my experience to the fullest extent I can using information from the internet, then I ask for a word document instead.
4392789344	It's able to detect that I'm using a screen reader and tells me that the document is untagged. This is good to know and works well.

Respondent	Response
4392656290	It usually works. relatively safe way to distribute
4392488644	In my opinion, nothing works well in either Adobe reader or acrobat when compared to other options like HTML or Microsoft Word.
4392411664	If properly created, one can read well enough. Just as long as a lot of navigation is not necessary.
4391259979	If I open the tag panel and I find that the PDF document is tagged correctly...
4391214381	NA
4390591529	ezPDF , TextHelp, ReadPlease, natural reader, Balabolka
4390553376	everything
4390545377	Adobe used to work well until the later version came out. Since version 10 it has become increasingly harder to read pdf documents. I have had to look for alternatives.
4390419375	Adobe Acrobat DC
4390082125	Adobe does a very good job at tagging pdf documents with simple layouts and few graphics. The conversion of such documents from pdf to word is also very strong. Adobe also offers a lots of tools and options for navigating a pdf such as Book Marks and Find. When a pdf is well tagged, these options have been the easiest and best functioning navigation tools that I've ever encountered.
4389843984	I don't use Adobe Reader or Adobe Acrobat - I use Adobe Acrobat Professional essential.
4389654896	Sometimes saving the pdf as html works best but needs Adobe Pro and takes a long time for large manuals.
4389519814	just screen magnification
4389467712	The text is typically very legible.
4389450064	Reading basic documents.

Respondent	Response
4389383472	n/a
4389353794	when the file opens well and starts reading right away with out any other things that I have to do on my part to make it read right.
4389080745	Not much. I can read it, and occasionally I'll get lucky enough to have the reading order be correct.
4388995174	N/A
4388876347	N/A
4388435766	I don't use adobe
4388425383	Going from page to page in a multiple page document, reading correctly formatted PDFs is no problem at all.
4387899804	N/A
4387384281	Layout
4387334555	N/A
4387222188	a few pdfs that are given special treatment such as proper tagging.
4387200993	The tool bar opens with it so that I can make it readable if needed.
4387152684	n/a
4387133944	none
4387041484	Electronic notes, read aloud, searchable
4387023584	table tool, alt text tool
4387008965	NVDA works quite well. The issues with JAWS are related more to how it is so unwieldy than by the PDF.
4386888976	Searching, TTS features, Digital Signatures
4386828539	N/A
4386748767	Easy magnification, text search, quick scrolling

Respondent	Response
4386670911	word search
4386598213	N/A
4386555370	N/A
4386514816	N/A
4386427764	If the document is simple and has no tables or sections, I
4386385923	Being able to jump to pages.
4386275315	I usually save the document as a text file because then I can modify it
4386255368	N/A
4386152331	N/A
4385087935	Enlarging.
4385044032	When the reading order is actually set properly. When the PDF is not a "printer's spread" or locked down.
4384907473	Basic text is fine, things like Bio of Geography books with lots of text boxes are a nightmare for reading order.
4384891927	I don't trust Adobe Reader. It's old technology, has many security flaws, and should go the way of the Dodo bird. Long live ePub.
4384867218	Single file PDF's that are tagged properly
4384858669	n/a
4384851624	Adobe Acrobat
4384842529	I am able to access PDF. I have to provide alternately formatted textbooks and documents to students. PDFs may not always be accessible.
4384811125	Most functions.
4384784727	They all open well and navigation is easy to do

Respondent	Response
4384780442	Acrobat Pro XI
4384763393	I don't use Adobe
4384763292	easily manipulated
4384506339	The wizard that tries to infer reading order usually does a good job. When they're tagged well, they're awesome, and I love fillable forms whenever I see 'em!
4384406167	Bookmarks are helpful, depending on how the author structured the document and if it is multiple pages.
4383146710	Available across platforms
4383125981	Background colour changes. Re-flow if I choose to use it (not often)
4383117338	If screen reader recognizes all the text in the correct order then it's very easy to read the document. It's especially easy on the iPad and iPhone using Voiceover.
4383061501	text doesn't move or get accidentally deleted
4382960327	The screen reader is able to read the document from top to bottom.
4382626437	N/A
4382259912	N/A
4381939258	I usually take the default settings.
4381898266	Occasionally I will open a well tagged document and when this occurs I generally have no difficulty reading the document when my screen reader is cooperating.
4381620129	LiveCycle PDF documents opened in Acrobat which are not editable/fillable and do not read properly and so I have to switch to Reader. Also, LiveCycle produced PDFs which do not render in Windows preview.
4381596526	I can save to Word.

Respondent	Response
4381574344	try to avoid using as much as possible as any other format is better
4381535352	If the pdf is well tagged, is short and is not worked with very much.
4381482155	I like the use of the virtual cursor in JAWS. If the spacing is correct, I can read through the document with a natural flow.
4381214849	n/a
4381190408	Properly tagged documents work well, also with a little patience can load a large document into memory so I can use screen reader's navigation and search features.
4381154361	being able to start reading quickly, having indexes or tables of contents with links that work.
4381152222	Certainly, when the document is created appropriately, the functions work well, overall. A remaining issue is usually relative to tables that are difficult to read, as they read linearly, as opposed to down and across, with columns and rows identified.
4381048667	Properly tagged file with headings, etc. clearly coded
4381043897	In the rare cases where I encounter a properly tagged PDF file, I am usually able to access and navigate the document in Adobe Reader for Windows using either NVDA or JAWS.
4380865324	It does a better job handling tags and doing stuff with them appropriately, at least according to spec.
4380801781	Just using my standard screen reading commands to navigate the text is the best method for me. If I know that a PDF document is longer than a couple of pages, I'll save it to text. I find Adobe to be less responsive overall, so I try to be in it as little as possible. For short documents, I'll read it in Adobe; for longer ones, I'll save it as text.
4380608423	I can spot check the PDF: see how large it is and if I want to take the time to read it online. Mostly, I print them out to read them. I don't like reading them online.

Respondent	Response
4377447619	A well-designed PDF reads really well using a screen reader. It's easy to navigate by headings; forms are easy to fill in if proper labels are associated to the correct fields; it's easy to digitally sign an accessible PDF; PDFs with a table of contents containing links are easy to navigate by jumping directly to a specific chapter or section by clicking on the links in the TOC.

What does work for you when you open a PDF document in another application? (Question 27)

The rest of the question reads: Please describe giving the name or names of the applications and what works for you. If you do not open PDF documents in another application, enter N/A.

Table 24 What does work for you when accessing PDF documents in other applications, question 27.

Respondent	Response
4461049913	N/A
4457545769	Opening (more correctly converting) a PDF with QRead avoids the need to choose single page or whole document. Access is therefore very nimble. One can also set bookmarks, helpful for marking a spot and for dealing with those pesky files without bookmarks.
4455965952	I can read, but I have to zoom everything and much of the time that means a lot of panning. So the basic thing works, but I wouldn't say "well".
4455908287	NA
4455517517	N/A
4454457561	N/A
4444833629	I do use other applications to read PDF documents as indicated in a prior question. However, I don't do anything special to begin reading them.
4441929004	N/A
4439328074	N/A
4438689851	same as above
4437641984	qead is very fast at opening all sorts of PDF's, which makes it an ideal application to quickly zip through a PDF to get a relevant bit of info from for example a huge manual.

Respondent	Response
4437554180	n/a
4437240115	N/A
4437011170	The text is usually correct when the document is opened. Formatting is usually lost, but the text is usually readable.
4436903260	With Gmail and EdSharp, same as with Adobe. Gmail is faster, though.
4435130834	Internet
4434778283	n/N/A
4434646160	N/A
4433938296	n/a
4433644667	same
4431248174	While I don't have as much experience with Voice Dream Reader on iOS, it appears that iOS seems to do a much faster job at opening PDFs in comparison to Windows.
4429496829	N/A
4427831120	Reading sometimes works (sort of) in Preview
4427427090	Being able to read the content.
4426984710	I have the most luck of getting PDFs to read in either iBooks or Voice Dream on the iPhone. The text is much cleaner, and it's easier to navigate through the text.
4426682110	N/A
4426660282	N/A
4426587756	Voice Dream Reader: Reading document, Kurzweil 1000: Scanning inaccessible pdfs
4426566325	N/A

Respondent	Response
4426538919	The tools to repair or create a more accessible document are pretty good.
4426140667	If accessibility is part of PDF it is fully accessible
4425834667	NA
4425790423	n/a
4423085401	I must always get help from a friend to accomplish reading of the documents. I think windows, word works ok, but I must admit I am not familiar with each system to explain. I wish this computer technology could be easier for the layman to use and not be updated and changed all the time!
4421586470	OCR programs often render scanned images very readable.
4419490661	when the document is scanned and tagged, it works well
4419415639	n/a
4414014075	n/a
4412319456	N/A
4411631630	The option to move a file to another app when opening on iOS if the document is long and the outline view is not enough.
4411194088	Kurzweil really reads documents well and consistently gets the order of text correct; QRead is a quick way to move by page and provides tables of contents in some documents (I'm not sure how it does that but it's awesome); all allow for bookmarks to be added though QRead is better in the sense that it allows each bookmark to be labelled
4410071491	Kurzweil 1000 provides excellent feedback regarding recognition processing. You can always tell where you are in a given process.
4409432009	N.A.
4404679193	N/A

Respondent	Response
4404509189	n/a
4404372950	No comments
4402742433	N/A
4401946879	N/A
4401583001	N/A
4399969416	N/A
4399628280	By far, I have had the most success opening .PDFs with Preview on Mac OS. If that doesn't work, I use Fine Reader Pro for Mac, which can perform optical character recognition on a document, and export the results to an MS Word document
4398401216	Nothing is particularly better or worse. I use Evince in the main but this is because it tends to crash less in Linux and any additional functionality that Adobe has doesn't work with technical documents anyway.
4397797118	N/A
4397037301	N/A
4396736810	Opening a PDF on my iPhone (I'm not sure what default program is to open them) content is read smoothly almost every time.
4396669492	N/A
4396668303	using A11Y
4395232138	Same as above.
4394585074	The PDF renderer built in Firefox is the best, it's decent with almost every PDF that has textual content in it. For those PDFs that need OCR, I use RoboBraille web service, that does a great job on them and converts them into e.g. Word almost perfectly. Balabolka is for those rare PDFs that somehow don't open in Firefox or get messed up there. It renders the text content nicely.

Respondent	Response
4393907761	N/A
4393501544	N/A
4392789344	n/a
4392656290	N/A
4392488644	n/a
4392411664	Open Book 9 works well most of the time. The ability to print directly from Adobe to Open book is convenient.
4391259979	I don't open the PDF document in another application
4391214381	NA
4390591529	natural reader works well, Balabolka works well, ezPDF works okay
4390553376	n/a
4390545377	The PDF Reader from Webbie works quite well with simple documents. The menus are easier to access than Adobe and it's easier to save the document in another format such as text.
4390419375	Read and Write Gold
4390082125	The iPad's Voiceover works very well! Great quality voices. No tags required. Follows a clear reading order on pdf documents opened through most apps. No additional cost incurred as the option is built into the IOS.
4389843984	N/A
4389654896	Sometimes Ed sharp will open pdf's if they have text.
4389519814	ZoomText SM
4389467712	The text is typically very legible. Honestly I do not perceive large differences in PDF viewing apps.

Respondent	Response
4389450064	Reading scanned (image-only) PDF's using Kurzweil 1000 works well.
4389383472	If the document is important to me I will try both OCR methods and save as a text file and use Notepad. It depends on which gives the most accurate and readable results
4389353794	n/a
4389080745	Ironically, almost everything works in Preview and the built-in support for PDF on iOS, other than tags. Reading order is correct 99% of the time. In book reading applications such as iBooks, even tags often work and will even provide a table of contents. The fact is, when I need to read a pdf and I have a choice, I usually do not opt to use Adobe Reader.
4388995174	N/A
4388876347	N/A
4388435766	I copy and paste the text in preview and try and read it in text edit. If it is a text that is just text and no tables it works fine.
4388425383	Everything in Google Drive and Preview work well to read PDF files.
4387899804	I am able to magnify it when I need to, highlight necessary sections and words, convert it to 'PPT or a Word doc and vice versa. I am also able to find specific words and can print documents easily.
4387384281	N/A
4387334555	PDF's work very well with Kurzweil (text to speech software)
4387222188	same as above.
4387200993	N/A
4387152684	n/a

Respondent	Response
4387133944	none
4387041484	N/a
4387023584	forms
4387008965	N/A
4386888976	N/A
4386828539	N/A
4386748767	I'm not sure.
4386670911	N/A
4386598213	N/A
4386555370	I print PDF docs to Kurzweil using the virtual printer and I love that the format of the document stays the same, unlike when virtually printing a word document the format changes.
4386514816	N/A
4386427764	If the document is simple and has no tables or sections, I
4386385923	Being able to edit.
4386275315	n/a
4386255368	N/A
4386152331	N/A
4385087935	Reads well if document is clean and not locked down.
4385044032	If the reading order is ok, alt tags are used, and JAWS or Kurzweil can actually make sense of it.
4384907473	n/a

Respondent	Response
4384891927	ClaroPDF (iOS) reads the text aloud and in the correct order, and also keeps track of all bookmarks and annotations made within the document. Voice Dream Reader(iOS, Android) reads the text aloud at a much faster rate. Has annotation and bookmarking features which work great. Capti-Voice/Capti-Narrator is a great alternative for smaller documents. ClaroRead for Mac/PC Read&Write Gold TextAloud (PC) MoonReader+ Pro (Android) EzPDF Reader
4384867218	Single file PDF's that are tagged properly
4384858669	n/a
4384851624	N/A
4384842529	I am able to access PDF. I have to provide alternately formatted textbooks and documents to students. PDFs may not always be accessible.
4384811125	NA
4384784727	n/a
4384780442	N/A
4384763393	Read&Write for Google Chrome, Voice Dream for IPad. Most of our student want audible access and these both have great user navigation.
4384763292	n/a
4384506339	If I just want the text, PDF2TXT will do that basic job. If the fonts aren't totally horrible, the OCR will probably at least me get the message from the document.
4384406167	Zoom ability is helpful to able to focus in on content. Key word search functionality is also helpful.
4383146710	iAnnotate (iOS) many docs open at once all tabbed. Handles very large books with ease. Good annotation tools

Respondent	Response
4383125981	ClaroPDF - allows me to change background colours within PDFs on iOS devices. If I need to re-flow the text then I use Voice Dream Reader or ClaroWord.
4383117338	It just reads.
4383061501	none especially good
4382960327	N/A
4382626437	N/A
4382259912	N/A
4381939258	Kurzweil K1000. Graphics and text are processed.
4381898266	n/a
4381620129	N/A
4381596526	pinch zoom in preview.
4381574344	html, browser, ePub/epub3 reader
4381535352	Converting with OmniPage to Word often gives the possibility to work more efficient. If there is need of many searches a text document can be better.
4381482155	Reading PDF documents in iBooks and Voice Dream Reader seems very natural.
4381214849	n/a
4381190408	N/A
4381154361	N/A
4381152222	Same as above, using PDF Creator.
4381048667	N/A

Respondent	Response
4381043897	Not much works well. If the document is not complex at all, I can usually navigate it in a manner similar to navigating a simple text document; that is, I will open it in QRead, Preview or VDR and use the up/down, page up / page down and search functions to navigate.
4380865324	Preview occasionally can mark up PDFs and forms with ease. It's awful otherwise.
4380801781	With Voice Dream Reader, I open the PDF and just let it read. If I can get the information I needed out of the thing, I consider that it has worked well.
4380608423	I sometimes use Preview on the Mac. It's simpler than Adobe, but not better.
4377447619	Again, if the PDF is well-designed, it is easy to navigate by heading or jump directly to a specific chapter or section using the TOC in both Voice Dream Reader or iBooks.

Have you heard of PDF/UA? (Question 28)

The rest of the question reads: PDF/UA (UA stands for Universal Accessibility) is an International Standards Organization or ISO standard for what defines an accessible PDF document just as the Web Content Accessibility Guidelines or WCAG define the standards for web based content.

Table 25 Have you heard of PDF/UA, question 28.

Possible Answers	Total	Percentage
Yes	69	47.6%
No	49	33.8%
Haven't heard about it until now	27	18.6%
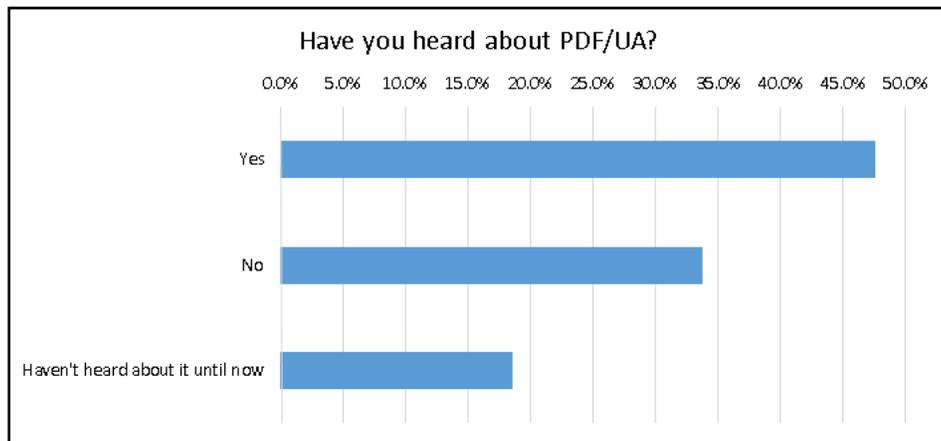
Figure 21 Have you heard of PDF/UA, question 28.

If yes, what have you heard?

70 respondents provided additional information for this question.

Table 26 Additional responses for question 28.

Respondent	Response
4461049913	Definitive terms for creating accessible PDF documents.
4457545769	It is a set of specifications that set a standard for making PDFs fully accessible. Incidentally, WCAG is technology neutral and does have a sufficient techniques document for PDF.
4455965952	It relies on PDF tagging, which almost nobody does, and when people do it they usually get it wrong because PDF tagging is ridiculously difficult -- I've watched experienced colleagues who know a *lot* about a11y have trouble with this.
4455908287	Mentioned at work but no a whole lot
4455517517	That it exists and that it is used to standardise the tagging of PDFs.
4454457561	Just aware but not familiarized with
4439328074	I only recently (in the past couple of weeks) found out about it.
4437641984	I know of its composition and what it is supposed to convey
4437554180	Standard for accessible documents.
4437240115	I don't remember, very little.
4434646160	hmm, I know it is a standard for accessibility for PDFs.
4433938296	It provides a set of requirements for an accessible PDF document. In another words, it simply advocates a PDF document to comply with the WCAG guideline.
4433644667	work in progress
4431248174	Nothing.

Respondent	Response
4429496829	I am an Accessibility Consultant by Profession and work on a regular basis to make the documents compliant with PDF/UA and other Accessibility Standards & Guidelines including WCAG, 508 etc.
4427831120	Read through it, have been working to learn the standards
4427427090	I thought it was called PDF/A, not PDF/UA, or is it another norm? I don't know much about it.
4426660282	I have a copy of the PDF/UA and taken courses that reference it
4426140667	You are working on standards.
4425834667	Knows the Standards and requirements
4423085401	not heard anything!
4421586470	I believe it's one of the options for saving a scan as a PDF in Fine Reader, though it's written as PDF/A, which may be different. I know it's at least searchable text.
4419490661	about some general standards but do not know specifics
4419415639	I am aware of the standard and believe it is referenced in the Section 508 proposed rule.
4414014075	Not much only that it exists.
4411631630	Of their existence and their work.
4409432009	I've read plenty about it on the WebAIM email list, but what I haven't heard is much about competition in the tools space. It feels too technical, without robust tools. Maybe there are more than I know of, but they need to be easy to use, scale, and not be inordinately expensive.
4404679193	Just in passing at work.
4402742433	As accessibility expert I must know what PDF/UA is.

Respondent	Response
4401583001	Not much, honestly.
4398401216	Pretty much what you said above. There have been rumours that perhaps it will move to encompass technical content but I don't know if they are true.
4397797118	Standards for designing and implementing accessible PDF documents.
4397037301	I have heard that it is not the default output for PDF generation even in Adobe's latest releases. I have also heard that UA has challenges for accessibility but I do not know this for a fact.
4396736810	Only seen it mentioned on Karlen Communication website (apologies for any misspelling.)
4396669492	I am familiar with its standard for accessibility
4393907761	Not much because not too many organizations have used these standards.
4392789344	I heard that it is a standard for accessible PDFs.
4392656290	standards-based way for content creators to make their documents more accessible
4391259979	I use the techniques of WCAG 2.0 to evaluate the accessibility in PDF documentation
4389843984	I have heard about it in the context of UDL, UDI, and UID when reading scholarly articles.
4389467712	It is similar to WCAG2 AA but has important document specific differences.
4389080745	That it exists. Adobe sure doesn't make much effort to make us aware of it. I haven't had a chance to research it thoroughly yet.
4387152684	There are new standards that must be met to allow equal access to digital information.

Respondent	Response
4387133944	Making everything universally accessible helps everyone, not just those with disabilities.
4387041484	Provides clear guidelines for accessible documents
4387023584	Seen some guidelines
4387008965	They are working on a standard for PDF Accessibility and now they are updating the standard.
4386555370	it is to set guidelines for PDF accessibility
4386514816	Ahead
4386275315	I know it exists but it is hard to understand what it is and how it is supposed to work
4385087935	Is a choice on my office copier.
4384891927	crickets.
4384858669	These are the standards that must be present in all digital media including online content and document processing.
4384780442	That this is the best way to design and create your documents for accessibility purposes.
4384506339	that there are group of standards designed to ensure, if they are followed, that the PDF is accessible.
4384406167	Heard that there is an updated standard, PDF/UA-2 in the works.
4383125981	as a researcher in accessibility but it is not well known in the UK education field.
4382626437	It's all about how a website accessible to the users especially to the persons with disabilities.
4382259912	what has been said on WebAIM and Athens
4381939258	

Respondent	Response
4381898266	It is the latest and more comprehensive guidelines for PDF.
4381620129	Only that it exists
4381596526	That it's an ISO standard for document authors and user agent developers.
4381574344	read the published standards and such
4381214849	None
4381190408	Very high-level info, have not gotten into specifics as yet.
4381048667	Used in printing industry
4381043897	I have read the "PDF/UA in a Nutshell" document and believe I have a basic understanding.
4380865324	PDF/UA provides a systematic approach using the accessibility provisions within ISO 32000 PDF 1.7 to focus on the programmatically available accessibility features of PDFs. It is a companion document, meaning it is meant to be used in conjunction with other standards relevant to what the author is trying to provide. It focuses on the PDF structure itself rather than content, so accessibility provisions of content must still be considered. Because it relies on tags to create document structure, it will provide an easier way for developers to take the information from the PDF and export it to other formats.
4380608423	I've heard it should help specify how to create an accessible PDF to any PDF reader.
4377447619	I've heard the term, but don't know too much about it.

Do you know what benefits PDF/UA implementation will bring to the accessibility of PDF documents? (Question 29)

The rest of the question reads: If yes, please describe.

Table 27 Do you know what the benefits of PDF/UA are, question 29.

Possible Answers	Total	Percentage
Yes	40	27.6%
No	64	44.1%
I don't know	41	28.3%
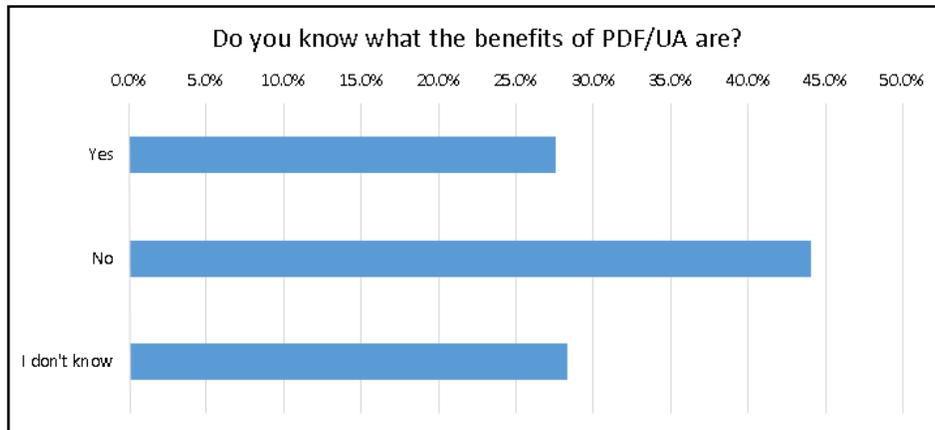
Figure 22 Do you know what the benefits of PDF/UA are, question 29.

Additional Responses to Question 29 on benefits of PDF/UA

The additional responses were gathered to provide information on how effective advocacy for PDF/UA is and what the general understanding of how PDF/UA is going to improve access to PDF documents is.

Respondent	Response
4457545769	If implemented, a high level of accessibility. In many organisations, even with the best of intentions, that is a big if.
4455517517	More accurate and systematic tagging
443764J1984	Like web content, the correct tags in PDF should make it a lot easier for screen readers to correctly parse PDF-documents and build up a structured virtual buffer.
4437554180	You can validate if the document is accessible.
4434646160	PDFs have accessible formulas and style.
4433938296	In general, it will give author a guidance to create an accessible PDF document as WCAG does for web accessibility.
4433644667	standardization of accessibility for pdfs, tools an techniques
4431248174	None, but I will look into this.

Respondent	Response
4429496829	As the name of the standards go, it will make the document's content Universally Accessible for the end-user! Being an end-user with disability and Accessibility Professional, I see the standard is well drafted and regular updates are being made by the experts involved. However, I believe there should be some amount of categorization that needs to be done for the requirements to make Accessible PDF documents a viable option for Businesses and end-users. Couple of requirements, such as fonts, alternative text for hyperlinks are actually a burden when it comes to legacy PDF. If we manage to add some conformance levels going at least a couple similar to WCAG, we'll see more documents with PDF/UA available. This will benefit end-users as well. It will encourage organisations & businesses to make their legacy PDF documents PDF/UA compliant in a cost-effective way rather then see it as a burden. A person with disability will also understand a URL included as a link rather then adding descriptive alternative text for the same, which is an added effort for describing each link - lets give people the flexibility to adopt accessibility wherever possible instead of making it a burden and make them run away. The above our my thoughts as only drawback I see is the standards are too stringent at few places. Benefits: Content will be structured Non-text content will be available for people with disabilities Content & functionality can be operated with different input/output devices Assistive Technologies will be able to identify the content and make it available to their users in an easy to understand format.
4427427090	Being able to navigate through the document, to fill in forms, to use it as if it was a simple web page. Being able to enlarge print.
4426660282	the information provided in the PDF/UA should help developers make pdf documents more accessible for people using assistive technology on various platforms (mobile device, tablet, etc.)

Respondent	Response
4426538919	And effort tot standardise is good. That said the efforts to promote EPub sends a confusing message to those wanting to invest either way. There should be PDF EPub collaboration toward choosing the best long term solution.
4426140667	Assure access for all.
4425834667	•Bookmarking titles with H level heading tags •Adding alternative text for image descriptions and hypertext link information •Embedding keyboard shortcuts as navigational alternatives •Creating accurate structural reflow so that content displays properly on device monitors of different sizes •Validating the logical order and reading order of page content to ensure a coherent rendition of the PDF content •Creating appropriate contrast between the background and text/images •Using clear and legible font and enough spacing between lines and paragraphs
4423085401	never heard of it until now!
4419490661	set standards would enable adaptive technology developers to develop technologies that could read the standards. The developers of PDFs could follow guidance that would create more effective use by screen readers. Screen reader users could understand the structure and possibly navigate the document more effectively.
4404679193	Better interaction with assistive technologies and their users.
4402742433	See success criteria WCAG 2.0
4397797118	Complete tagging of a document Tagging that represents the correct structure and reading order of a document. Ability to reflow content.
4396669492	Vital for all documents in each website to be accessible.
4396668303	no

Respondent	Response
4393907761	Well, I will be able to read, navigate, and submit information if it is a form.
4392656290	Should be able to automatically test for accessibility
4390419375	If it is universal/accessible for all then it should be the norm. I am sure it will be more user-friendly as well as save others money because they do not have to by adaptive equipment/programs.
4389467712	I don't understand the specifics. My limited understanding was that PDF/UA would be important for a different type of accessibility i.e. being able to access digital documents in the future as technology evolves. I thought an important part of the standard was making sure that technology does not advance so far that old content produced in old versions of PDF become unreadable.
4389080745	I know the theory. I suspect it'll be a double-edged sword, like WAI-ARIA has been when used badly.
4387152684	Readable documents.
4387133944	Hopefully they will all be readable and not have pictures or other things that interrupt the flow of reading.
4387023584	More unified standards
4387008965	I know the benefits they purport to implement, but let's face it, until Adobe decides to implement them within Acrobat / Reader nothing is really in the works. The big advance they could make is the MathML implementation to advance the accessibility of STEM information in PDF documents. Engineers from Adobe and Design Science actually developed a prototype that worked with a screen reader and Read Out Loud - but Adobe management never pursued this most desirable and useful feature.
4386555370	It will decide how to include graphs, text, pictures etc. and how to code these things to make it accessible.

Respondent	Response
4385044032	I'm only just beginning to understand it, and if I understand it correctly, it will be a great improvement IF everyone will get on board and implement it in earnest, not just a nod/token towards it.
4384891927	Doesn't fix the security flaws in the program. You also don't see me trying to remodel the Model T car to today's standards, just because it's available. Why are you trying to keep a technological dinosaur alive? Why not work harder to integrate the ePub 3 formats into HTML guidelines?
4384858669	compatible with screen reading software and the reading functions of all screen readers.
4384780442	It helps to increase the accessibility for all readers of the documents.
4384506339	I don't have a super thorough understanding, but I understand that there will be standards to which to point in order to guide authors of PDF documents to make accessible PDF's.
4384406167	Standardization across industry and countries for PDF accessibility.
4383061501	guess will be bale to navigate in the same way and text to speech software developers will have some protocols to work with
4382960327	
4382626437	Barrier free access
4382259912	standardise development - easier to provide guidelines and make AT work with these technologies
4381596526	Consistency, set of practical techniques for WCAG conformance.
4381574344	in theory it defines a whole process consideration; however, it's too vague and requires too many players to be realistic
4381214849	N/A

Respondent	Response
4381043897	As I understand it, the benefits are this: Assuming the PDF/UA guidelines are followed by the persons or technology creating the content, and assuming the tools used to create the content are able to properly implement the guidelines and produce compliant output, and assuming tools are available to properly open, interpret and present that content, and assuming the assistive technology being used is able to properly relay that information, then the end-user will be able to have full access to the content and will be able to navigate the document in a way similar to that used to navigate properly constructed HTML documents.
4380865324	By using the accessibility specifications of ISO 32000, PDFUA creates a better approach to creating accessibility. If AT will ever get off their butts and start implementing standards on their end, it will be very beneficial to end users who typically struggle with accessing PDFs.
4380608423	I think it will improve the tagging to make it easier to browse for screen reader and other AT users.

Figure 23 Additional responses to question 29.

What would improve access to PDF documents for you? (Question 30)

The rest of the question reads: Please be as specific as possible with regard to product names and the improvements you are looking for.

Table 28 Responses for question 30.

Respondent	Response
4461049913	N/A
4457545769	The major issue is the far too high proportion of untagged PDFs with, from a screen reader user perspective, scrambled content. While there has apparently been some increase in the proportion of tagged PDFs, poor examples still abound. This is especially true in the case of product manuals. My work Mac is not completely up to date, but Apple's support for PDFs remains very poor based on that machine. Tags are not used and there is no support for tables or forms. The process for creating standards-compliant PDFs needs to be made much easier. Trying to get a good PDF from InDesign can reduce highly capable people to a blubbering mess. Only the most conscientious will persevere. Recently it took three of us nearly a week to sort out a fancy brochure. An intricate and fully accessible HTML page could be created with Notepad by someone with requisite knowledge. It is ironic that the easiest way of creating a structured PDF is to use MS Word. While Adobe has accessibility evangelists, its tools are clunky, complicated and largely inaccessible. CommonLook tools can be very effective. Unfortunately, cost for the large organisation for which I work, together with the server-based model, make it not viable. The Acrobat accessibility checker is, to my knowledge, the only accessible option for checking files. My understanding is that the PAC is still not screen reader accessible. It would be good if the Victor Reader Stream et al provided native support for PDFs. Converting to plain text is a very cheap and nasty option.

Respondent	Response
4455965952	Text reflow. A web page will (usually) reflow the text when the user zooms. PDF does not.
4455908287	Tagging needs to be made easier so that it is actually done by those publishing them online. Creating the document originally in Word and then saving as a PDF does not mean the tags are going to be correct as they still require a whole lot more to be accessible. Meaningful sequence is never right which makes understanding the content extremely difficult when the structure is all over the place.
4455517517	Making the document easier to tag - it's very problematic and time-consuming. Ensuring that the tags are correct when exporting a Word document. Removing the Reading Order (so that the tag order is the reading order), as moving things around in the Reading Order often mucks up the tag order. I think there should be a separate format for tagged PDF. For example, instead of .pdf it would be called .PDFA- that way people could easily determine whether a PDF was tagged or not. Of course whether it is tagged correctly is another issue. There could also be a format for those PDFs that are scans, such as .pdfs. If the correct format could be appended automatically then that would be helpful for users - it would also mean systems like Google could start showing only tagged PDFs on searches, or rating them higher than normal PDFs or PDF scans.
4454457561	Bookmarking and split-screen to jump back and forth when editing a document

Respondent	Response
4444833629	First off, scanned or image PDFs should be banned in all possible cases! I realize this isn't realistic but such formats are impossible to read with screen reader solutions. I also have never seen a real tagged PDF document. Again, we're at the mercy of document creators here. As for applications that render PDF documents, table presentation needs vast improvement. Perhaps this can be improved on by ensuring that some of these PDF converters and creation tools could be modified to force the creation of tags proper labeling of fields much in the way some online tool kits are being made more standards compliant.
4441929004	HAVE BIGGER font sizes
4439328074	Having an un-do feature would make fixing them MUCH, MUCH easier!
4438689851	Table recognition is hugely important when reading social science research papers. All else is about clarity so ensuring jaws or other screen readers do not garble words and letters which has to do with the quality of the pdf. Better formatting for navigation would also help so that people could jump from heading to heading in a paper or skim text.
4437641984	A decent OCR solution built into at least Acrobat Pro would be welcome. A significant increase in the rendering speed for non-tagged PDF's would also help.
4437554180	If documents were prepared with care: headings, bookmarks, et cetera. And if PDF was only used if this format benefits the user. Otherwise I'd prefer HTML
4437240115	Better formatted text (not short, broken lines). Ability to unlock secured documents or at least convert them to another format.

Respondent	Response
4437011170	If PDF documents were properly tagged with tables and paragraphs, I believe screen readers may be able to read them better. Also, better text recognition with scanned images, so that no PDF document sent over the web has blank content.
4436903260	Adobe Reader should at least make an attempt at displaying math in a way that works for someone using a screen reader. It can tell when you're using one. Years ago, one of my professors wrote a program to strip out images from a physics book in PDF so that a blind student could make tactile versions. The program wasn't very useful because the publisher had broken up the images to prevent easy extraction. Publishers should never, ever do this. People who should know better, such as those working in offices for students with disabilities, keep sending out inaccessible images in PDF. Maybe programs like Adobe Reader should give them a big scary warning that the file they're about to save is inaccessible and that they should run OCR.
4435130834	Tables Read one table at a time.
4434778283	If there was a standard procedure for formatting pdf documents.
4434646160	PDFs should by accessible by default and Adobe Acrobat shouldn't have the option to denit accessibility.
4433938296	There should be a specific guideline for PDF document also. Currently, author needs to assess PDF document on the basis of WCAG 2.0, which sometimes leaves author in confusion.
4433644667	having better quality documents at the outset (resolution, non DRM restricted)

Respondent	Response
4431248174	I think that if an accessibility checker was integrated into the creation process for as many applications as possible then it would provide awareness which for the most part does not exist. While accessibility checkers are available, they are not "mandatory" and most folks don't know about them. As an example, if I were to create an MS Word doc and then proceed to save out to a PDF, I would like to see a PDF Accessibility checker dialog that would provide a minimum assessment and non-complex methods to fix the issues (reading order, tagged graphics, use of heading levels). While I expect that many users would at first object to the dialog and would cancel out of the process, I would bet that responsible like-minded folks and those responsible for disseminating official documents would feel the need to know how to resolve warnings. This would inevitably lead to asking professionals how to resolve the issues and further the disability awareness cause. Second, I would also like to see how loading of documents can be improved so that large documents can be opened more quickly. There are screen reader navigation benefits to setting Adobe Acrobat Reader to open the entire document in spite of its size which are unavailable if Adobe Reader is set to only open a portion of a large document.
4429496829	Adobe Reader for the Mac/iOS & Android devices that can give me the content in an accessible and effective manner as is the case on Windows environment!
4427831120	Better compatibility with PDF on Mac using VoiceOver; ability to include header and footer in reading order when converting a Word document to PDF
4427427090	Apple should take advantage of accessibility feature of PDF which is not the case for now. Not being forced to have adobe acrobat to try to scan image PDFs.

Respondent	Response
4426984710	I think what would help is a set of accessibility standards that PDF designers would be fully aware of and would follow so we could have some consistency. A screen reader like Jaws may not be able to read a document opened in Adobe while the Voice Dream app can read it fine on the iPhone, but in order to find out why one works and the other doesn't, we need to eliminate enough of the inconsistencies between the design of the PDFs so we can focus on the difference in how the adaptive software recognizes the text in the PDF and make improvements in each of the adaptive methods used to access the material.
4426682110	N/A
4426660282	NetCentric/CommonLook has a pdf validator tool that tests documents against various standards - these types of tools should be made available to everyone
4426587756	Tagging should be standard, pagination
4426566325	Have the documents be tagged. also it'd be nice if it just said something other than a blank document....
4426538919	EPub and PDF being more clear. Easy creation DIY instructions
4426140667	If accessibility was blended in to core
4425834667	with PDF/UA that would make it accessible to all
4425790423	If acrobat and other document creation tools would default to accessible pdf it would help. Most of the time people actually think they're creating an accessible pdf because their word processor or other creation tool doesn't default to accessible pdf and doesn't tell them it isn't accessible.
4423085401	I think having some universal system so all the files would be standardized. I wish I knew more, but I avoid accessing files when ever possible!! I must get help each time.

Respondent	Response
4421586470	Developing a similar experience on Mac to that on PC; developing more consistently fillable forms and/or investigating a way for blind users to fill one out using the Fill and Sign tool; indicating where a signature should be placed to allow a typed one; tagging long manuals better
4419490661	Combine the scan and tagging processes into one step instead of two separate steps without diminishing accessibility. Make it more difficult to only scan an image only document (dialog box asking twice if really want image only with default being OCR scanned document) copy machines have a built in feature to create accessible scanned documents (currently, a feature and setup is required to turn on the creation of an accessible scan document on copy machines) - more documents are being created as scanned documents through the copy machine and sent electronically to an individual through network or email. when person is creating PDF, if not simple text document, default dialog box requiring ordering of text flow for document
4419415639	n/a
4414014075	I want tagging all the time; I want Adobe Reader to tell me it's an inaccessible doc and to try to fix it. OCR should be built into Adobe Reader to read scanned docs.
4412319456	Unknown
4411631630	Screen reader detection on first loading of Adobe software. Users are asked to allow the software to detect on install.
4411194088	The easy means to navigate between headings, pages and the like. I'd like more pdf's to be properly tagged, so education about that must increase. I'd like to be able to search a document easily, and bookmark relevant sections for later retrieval.
4410071491	Descriptions of visual elements, the ability to more easily complete fill-in forms

Respondent	Response
4409432009	I think that there are huge gaps in the authoring tools space. I'll try to have a colleague complete this survey, too, but she put out a series of podcasts about her efforts to transform an ePub document to PDF; it should have been a heck of a lot easier than it was (though why anyone in the accessibility space would have requested her to make a PDF over ePub is a mystery to me). The amount of technical knowledge to tag a PDF is far too significant. If we really want tagged PDFs, the tools need to make the process virtually invisible to most folks.
4404679193	More intuitive access to the built in tools.
4404509189	Documents opening faster. Perhaps a pop-up notification to let pdf creators know accessible coding is missing when they save their document.
4404372950	There needs to be a consistent UA design for .pdf documents scanned in from image machines such as the printer/copier/scanner machines. Also, when one creates the .pdf document to edit it needs to be able to save the information when using the assistive technology rather than erasing the information.
4402742433	More tools to easily make accessible PDF's. For now we depend on 1 company. namely Adobe.
4401946879	Don't know
4401583001	most of the problems come from the people who create the PDF -- not allowing for proper text layout, tagging, image description, etc. I'd love a "flag as you go" feature in Acrobat that would warn people about the elements they have overlooked.
4399969416	I create accessible pdfs with photos and graphics and would like to see the process made a little easier.

Respondent	Response
4399628280	I believe proper tagging of .PDF documents on a regular basis would resolve most of my problems. In addition, if the scanning process for documents could be improved, it would be a major help.
4398401216	Reflow, restructuring and font control which did not destroy technical content such as equations or diagrams. Search which always worked.
4397797118	Conversion of complex tables from the native document such as MS Word or Adobe InDesign.
4397037301	Provide easy to find and easy to use controls without mouse-overs. Increase the default contrast or allow the user to change the contrast.
4396736810	When documents are scanned as images there should be a warning that pops up with something like "Documents produced from scans are not accessible. do you wish to continue"; then there should be a OCR tool that the document creator can use to render the image accessible. There also should be a warning on any newly created doc that isn't tagged properly.
4396669492	All websites should be accessible and in our organization we let our colleagues using this technology to check for accessible content
4396668303	Requiring always tagging
4395232138	Definitely, the ability to comment and read others' comments is huge for me.
4394585074	If Acrobat Reader got simple, quick an decent OCR features and an improved API to communicate with screen readers while rendering PDFs, one that's well thought over and has very few bugs, I would use it much more frequently.

Respondent	Response
4393907761	Even if the pdf is formatted with these new standards, the layout and content will still need to be taken into consideration. Using acronyms, the same first letter for headings and links, and having too much information in tables can still make a user experience unsatisfactory.
4393501544	To be honest, I'm going to try (QRead) and see how that works, it seems like the best alternative to acrobat, and I've never liked Adobe's policies anyway. I may also try reading PDF's on the Mac side of my laptop, since I'm using Bootcamp and Windows 7 right now, but I don't know if I'll need an external payed application to do so effectively. Over all I just think that the PDF standard is way too old and not very good at it's stated goal, which stems from a need for universal, shareable content that just works in the real world instead of in someone's imagination, but when it causes more frustration than it solves for teachers and employers who interact with the visually impaired, it becomes a 5th wheel. We can keep making better and better programs like QRead to combat this, but what we really need is a new format, and for companies like Adobe to not get their paws on the nearly exclusive way of accessing it for several years before someone else figures it out. For example, Flash VS HTML5 for web media protocols.
4392789344	I would like Adobe Acrobat Reader to be stable and have better processes for handling untagged documents. I wish PDF access on Firefox is better. It has a hard time formatting documents correctly. It's very frustrating.
4392656290	Programs, especially Microsoft Word should generate more accessible PDF's, preserving the formatting that is already there, most problems come from poor tools, InDesign, QUARK Express, Microsoft Word etc., don't create good PDF's.

Respondent	Response
4392488644	If both Adobe reader and acrobat could either speed up processing of large documents or developed a method of allowing effective navigation with partially loaded/processed documents.
4392411664	Fillable forms are nearly impossible. Improving that would be helpful for taxes and such other activities. Having to export to an expensive OCR package like Open Book is not desirable. Image scans should be banned entirely or automatically converted for TTS.
4391259979	I need a tool to generate a big volume of PDF documents automatically with a great percentage of accessibility. The manual process is very slow...
4391214381	that all PDF files are able to be read by any screen reader. Also that Make OCR scanning process go lots faster and that one document
4390591529	universal design, Pdfs should be OCR'd & tagged according to reading order & work with all accessibility software & applications that allow seamless reflow on pc, mac, android, windows etc. with minimal colored & 'busy background content"
4390553376	n/a
4390545377	I would like to see more applications and readers out there that could read pdf documents. Also there needs to be a better solution for images and scanned material. A programme that does good OCR as well as reading pdfs would be fantastic.
4390419375	I think I just need more training working with pdfs.

Respondent	Response
4390082125	Requiring publishers to provide accessible electronic versions of texts. Pearson does a great job, providing an electronic version of its texts along with web content. Other publishers such a Vistas Higher Learning have content that's difficult to access and difficult to convert into an accessible form. Other publishers, many small ones, haven't even know they needed to be accessible when I contacted them. Also, maybe making tagging pdfs through Adobe more user friendly. Right now the process to adjust tags requires training to even know what to do. (The manual for it was about 50 pages thick when I printed it.) Empowering users to make adjustments and corrections to Adobe's automatic tagging process would be a great help!
4389843984	If every PDF was accessible
4389654896	A batch mode to convert pdf to html. Maybe just a tutorial on how to use Adobe (I have problems with the search function). A good OCR function is a must for some pdf's.
4389519814	simply to read accurately with either screen reader or screen mag with speech support
4389467712	I would like Adobe Acrobat to improve the reading order checker. It should be able to compare the position of bounding rectangles for content and determine lots of obvious violations of reading order. I would like list item bullets to be easier to articulate and be announced by screen readers. I would like complex tables to be easier to markup. I would like reflow to be able to properly test. I would like High Contrast themes to be more clear about why they do not work for a lot of documents. I know how to test a document and see high contrast is not working but I do not understand how a document author can fix the document to make sure that high contrast themes work correctly. This is similar challenge I have with reflow, I'm not clear which things in a native document cause a PDF document not able to reflow.

Respondent	Response
4389450064	(1) See above -- fully accessible annotations/markup/comments. (2) Keeping exact formatting of documents when converting from PDF to Word.
4389383472	websites displaying scanned images that cannot be printed or saved, frequently bank sites and customer reps that say "its readable on my screen." Also the ability to produce an exact copy of a PDF file in another format such as text.
4389353794	what would improve pdf docs for me is the ability to convert all pdf docs in to .txt so there for they would be able to be red more easily. I would much prefer reading a doc if it was in a .doc or.txt format rather then a pdf format any day.
4389080745	For preview and iOS built-in pdf viewer, read tags. For Adobe Reader... just make a bloody effort to get it right. It's sad when converting to plain text results in a better rendition than your supposed accessibility support.
4388995174	N/A
4388876347	I really don't know
4388435766	If tags could be rendered in an html view so that forms might be filled out that would be good. This could be an option in preview, or Stansa or even iBooks.
4388425383	Decreased time it takes Acrobat Reader to open large PDF files, better handling of content in general. I can use Preview and Google Drive to read some documents that Acrobat refuses to read, and this is where the problem with Acrobat Reader comes into play. Also better screen reader integration with both Windows screen readers including NVDA and VoiceOver, as well as improved accessibility with assistive technology on Android and iOS.
4387899804	I have no improvements for PDF docs. I think they're great currently.

Respondent	Response
4387384281	What will really help me is if PDF documents would be accessible to screen readers like Read and Write Gold.
4387334555	When requesting textbooks on PDF, sometimes students have to wait weeks to gain access to the PDF. Having quicker access to these PDF's would be highly beneficial.
4387222188	better formatting of extracted text presented to screen readers or other devices like note takers. proper separation of words. use of text labels where possible to describe or label graphics. better notation for mathematical or scientific data. enforced tagging of tables etc.
4387200993	I can think of no solutions at this time.
4387152684	n/a
4387133944	none
4387041484	Built in OCR.
4387023584	easier workflow with forms and ordering
4387008965	Math and formulas properly rendered without relying on alt text interpretations. A more reliable accessibility checker and more useful remediation tools.
4386888976	Required Indexing, entire document search-ability, higher quality text-to-speech voice modules.
4386828539	I am the coordinator of disabilities at a University. I am careful to make sure that all PDF documents are readable for my students.
4386748767	To be able to change the background and text colour easily and quickly.
4386670911	If taking a snapshot to copy text, when highlighted and then pasted the highlight then disappears

Respondent	Response
4386598213	If PDFs were tagged properly upon receiving them or even a much less time consuming method to do it yourself that would work flawlessly. Acrobat Reader is so expensive and so difficult to tag large files that it is not possible. If you make a mistake also it is not reversible.
4386555370	I can make PDF's accessible by recognizing them in Kurzweil.
4386514816	N/A
4386427764	It would be great if pdf offered the same type of navigation as daisy and pub.
4386385923	Universal format (any PDF version will open the document).
4386275315	it is hard to orientate in a pdf document because you cannot annotate it. Maybe it would be nice to be able to work with bookmarks in adobe reader for a document to find back certain spots. I don't know how I can search in a pdf document like I can in a text editor. That is why I usually export the pdf document to text. Most documents are not tagged anyway so then I don't loose much. If they are tagged properly it is of course a pity to loose heading information e.g.
4386255368	Not sure.
4386152331	I do know adobe reader in intermediate and often use it.
4385087935	Tagged, clean, good descriptions in body of text when there are charts graphs etc.
4385044032	Sensible reading order, alt tags that make sense (not 012345image.dsc or .jpg, etc.), PDF documents that are not printer's spreads or locked down.
4384907473	Using search with the results being read back and Having side content being read in between logic break of the main content

Respondent	Response
4384891927	Nothing. MathML is non existent in PDF formats. Unless you integrate this into PDF's, it's a dying format.
4384867218	standard file format
4384858669	I would love if AccessText started to add more publishers to their list. A lot of the smaller publishing companies are very difficult to deal with and thus result in wasted time that could be spend converting text.
4384851624	I am the Office Manager for a Community College Disability Resources office. Our great frustration is always publishers who do not respond in a timely manner to requests for digital textbooks.
4384842529	I don't know.
4384811125	search and find by key word, etc.
4384784727	I have already stated I wish thee was an option to combine documents without having Acrobat PRO
4384780442	Better reading order and tag structure.
4384763393	automatic OCRing of non-accessible PDF accurate page numbers once OCR'd audible reader and note taking software built in cloud based reader that will open the document from any device plus a reader that will open it when not in Wi-Fi and have the same capabilities for listening, etc.
4384763292	n/a
4384506339	the ability to OCR a scanned PDF from within Adobe Reader would be nice. Also, a search function within Adobe Reader that actually brought the user's focus to the text that was searched for, rather than staying inside the search box.
4384406167	Standard authoring tool functions built into the source word processor utility such as Microsoft Word.

Respondent	Response
4383146710	NA
4383125981	Maths equations are not accessible.
4383117338	I use ZoomText. I'd like to get to a position where reading PDFs on a Windows PC is as simple as reading on an iPad. I seem to encounter far more problems accessing PDF on the PC than on the iPad but not sure why. Would be good to be able to remove the formatting with one click and just get the text with the ability to increase the font size and have flow so no horizontal scrolling is needed.
4383061501	being bale to read on an e reader with the lovely e ink screens
4382960327	I am using Adobe Acrobat as my PDF reader. I hope that they could also include as one of the features of the said program the capacity to navigate per page. additionally, hope adobe acrobat would read what appears on the screen. oftentimes, the screen reader reads differently on what is visible on the screen. The same text that would appear when you convert the pdf file to word or accessible text format. Looking forward that they could retain the text on the pdf file by the time you convert it to text document.
4382626437	More Accessible Tools and Users Friendly Put something unique tools that can easily to used.
4382259912	less complicated tagging and automated accessibility support for those using this format
4381939258	If a PDF document is an image, I would like better text recognition.
4381898266	better more accessible user interface design in adobe acrobat and reader. better keyboard support for document authoring functionality. more intuitive options for accessibility related functionality. why is it so difficult for a user to find the title and description fields for images?

Respondent	Response
4381620129	PDF document access would be greatly improved if document producers had training regarding the important of accessibility. Any product used to produce PDF content would have accessibility tips embedded which can provide ongoing reminders to think about accessibility while producing documents. Products such as Learning Management and Customer Management systems which allow for the uploading of PDFs would include reminders/checks for accessibility. Scanners would have accessibility features selected as the default such as OCR settings so content is more likely to be accessible from the start.
4381596526	Allow me to change the font face.
4381574344	export to epub3/daisy in all readers
4381535352	A downgrading of the pdf concept to a sole printout facility. The pdf Tools should not have any author facilities, but instead interfaces to other Tools for authoring and presentation on screen.
4381482155	For me, having the documents appear with several words on a line properly spaced when I use Adobe Acrobat Reader would solve most of my problems. Our local newspaper, for example, has one word on a line. Reading using the SayAll command in JAWS makes this bearable, but God help you if you need to reread something or find a particular passage. Also, many PDF documents from work have words improperly spaced such as "importperly pa ced".
4381214849	To have the documents read to me
4381190408	It's extremely important to me that Adobe Reader is improved for iOS devices.

Respondent	Response
4381154361	Being able to read a PDF easily, navigating throughout a document, faster load times, especially with large documents. Copying text from a PDF to other applications. Having the fonts removed from the library of available fonts which runs words together.
4381152222	I think it would be an effective strategy for Adobe (and other products) to use a template or dialogue to assure creation with accessible features (e.g., tags, headings, etc.) before a document can be produced. Many of the issues I encounter would be solved if this were the case. As mentioned, many of the inaccessibility I encounter is simply due to lack of training on the part of the person creating the PDF> Of course, there are other issues, such as the way the original document was created (e.g., fonts size and style).
4381048667	Electronic signatures instead of hand written signatures, then scanning in of paper documents to PDFs, resulting in inaccessible PDFs
4381043897	1. A method for AT users to create PDF/UA compliant documents on Mac, IOS, Android, ChromeOS etc. platforms. AFAIK there is currently no way to create a PDF/UA compliant document using an affordable, commonly available and screen reader accessible tool on any platform other than Microsoft Windows. 2. PDF reading apps for the web and for each OS that are fully AT accessible and that can present PDF/UA documents correctly.
4380865324	Currently, AT takes a rather lackluster approach to reading PDFs according to the current specifications (32000). Because of this, users tend to believe that the problems with inaccessible PDFs is the fault of the format. Better accessibility from AT vendors should be the biggest priority.

Respondent	Response
4380801781	Creating awareness about the barriers that are created when a well-meaning company or individual quickly scans a picture of a document but doesn't realize how this impacts an adaptive technology user. Creating awareness about how to tag PDF files so that everyone can access the information accurately and efficiently. Creating awareness about best practices when designing fillable forms. Those who make forms, I would imagine, are happy to make the small changes if they only knew what those changes were. Most of this is really just about education.
4380608423	I'd like to be able to easily tell if a PDF is accessible for other users.
4377447619	I don't think it matters which program or application is being used to read PDFs. If the PDF is created with accessibility in mind, it should read fine with a screen reader no matter which program or app is being used. The exception right now may be Preview on the Mac which doesn't seem to work well with PDFs at all. Having said this, I haven't actually tried it since updating my iMac to OS X 10.11, El Capitan. Maybe things have improved. I will need to try this out. So, in an ideal world PDFs would: contain headings; not contain ligatures; be tagged properly, with logical reading order; contain labels associated with the proper fields in PDF forms.

Additional comments (Question 31)

The rest of the question reads: (this is an optional question)

Table 29 Responses to question 31.

Respondent	Response
4461049913	I'm glad that there is greater knowledge and commitment to making PDFs accessible, however, I always advise clients/stakeholders to prioritise creating content in HTML if that content is intended primarily for screen use.
4457545769	I would have selected 0-10% for scanned PDFs but your combo box didn't have that option. I also forgot to mention that I have used Adobe Digital Editions, which works quite well.
4455965952	PDF is fine as a format to send to a printer for a print publication. It is terrible for pretty much everything else.
4455908287	In addition to making tagging easier in Acrobat Pro, the bugs need to be worked out of the program so that it does not crash so frequently while trying to make these documents more accessible. Plus easier ways to save what tagging process has been done. Also how fixing the sequence of the document ruins the current tags so they need to be fixed twice.
4455517517	One major problem with Adobe is that they are adamant that their product is accessible and are incredibly aggressive towards people who state otherwise - to the point of blacklisting opponents from speaking at accessibility conferences. It therefore seems that they are more interested in convincing people that their PDFs are accessible, rather than actually making them accessible.
4444833629	I appreciate the opportunity to voice my opinions concerning PDF accessibility. I have had fairly harsh experiences with PDF and generally would always prefer other formats instead. Even PDF books can be accessible enough but I find their EPUB counter parts to be more navigable and sometimes even more accessible.

Respondent	Response
4437240115	Aside from the technology itself, there seems to be a lack of understanding that, often, what is secure becomes inaccessible.
4431248174	Anyone can create a nice looking PDF in a blink of the eye that looks great to that seeing eye, but more often than not, screen reader users get the shaft with PDFs.
4426538919	The elephant in the room is EPub. Which is better and why.
4423085401	I appreciate being able to participate in this survey, I wish I knew more about computers, but maybe more universal access will come out of this which will make my life easier!!!!
4419490661	accessibility when creating scanned documents from the copier machine needs to also be looked at closely. The copier vendors could create accessible scan documents built-in, instead of having this capability as an add on feature that costs more money to implement.
4419415639	I think that the only way accessibility of PDF materials will improve in any major amount is if adobe builds in more mandatory accessibility rather than permissive checking of created materials. I do not know if that is a reasonable approach but so much material is created by people who are not highly skilled an completely unaware of accessibility. Enforcement schemes and permissive tools, even together, will do little to greatly improve accessibility of these materials in my view.
4414014075	This will be a problem until standards are in place.
4411631630	I have not tried PDF on a Mac, but have heard from screen reader users via forums that it is not accessible, or limited at best. As a user of windows, Mac and iOS generally, but not Mac with regard to PDF, I would hope that steps are taken with Apple and software developers to find a way forward here.
4404509189	Because pdf's are hit or miss and are a big time waster for me, I will not bother opening them. If possible, I will ask for the document in its native form.

Respondent	Response
4402742433	On the first question at page 4. The scanned documents I receive are less then 10%. Answer: 0%-10% is missing there :-)
4399969416	Lynda.com offers tutorials on making documents accessible. I would like to see this way of learning promoted.
4399628280	When ever possible, I try to avoid using .PDF documents because I cannot be sure if they will be rendered properly by my .PDF reading technology. The quality of individual .PDFs is a major factor in how well they work.
4396669492	All should have accessible content
4395232138	Thank you for exploring this issue.
4394585074	Long live the RoboBraille service! Kudos to all its maintainers and developers!
4393501544	Thanks for setting up this survey, and I really hope that something comes of it even if it takes a while...
4392488644	I believe that the PDF format is beyond salvaging in terms of accessibility for assistive technology. The best solution to the Adobe PDF accessibility issues is to abandon the format completely, and find a new one . Perhaps the Open Document Format standard normally shortened to ODF could be used.
4391259979	The high contrast mode with Windows 7 in Acrobat or Reader doesn't work. Many people with low vision don't know the preferences of accessibility in Adobe to allow the change of colours between the foreground and background in the document.
4391214381	Make adobe PDF files documents like word
4390591529	pdfs textbooks with multiple layers, light blue text that is often lost if additional OCR is needed, layers often cause many problems.

Respondent	Response
4390082125	I work with students with disabilities at my job -- specifically helping make college text book available in a form that accessible to screen readers. Thanks for doing this survey! This is an area of great need for post-secondary students!
4389654896	An accessible 3rd party reader like Foxit reader (but accessible) would be useful. Foxit lets you so to speak, write notes in the margins but last time I tried Foxit it wasn't accessible.
4389450064	Feel free to contact me (reng@rice.edu) if/when the above-mentioned issues are resolved and/or if I may be of further assistance with your project. I would also be interested in more information about accessibility improvements to PDF access that come about as a result of your survey.
4387334555	I work with students at the college level who have learning disabilities. They benefit greatly from the availability of PDF versions of their textbooks. Without these PDF's, some students would not have access to their textbook materials. Even with some inconsistencies and issues converting or using the PDF's, the PDF's help our students immensely.
4387222188	I am disappointed in adobe's commitment and response to accessibility concerns. Since pdf documents are now ubiquitous throughout most industries, we need better tools for their creation, tagging, and formatting. Also better tools for dealing with the great mass of existing content which, I fear, will never be revisited for accessibility improvements.
4387152684	n/a
4387133944	none
4387008965	Also get the authors to produce more useful tagged PDF - Adobe InDesign should allow mapping to all the standard PDF structure types for example, but it doesn't.
4386598213	Not many options out there to read PDFs back to you. The ones out there are not very efficient.

Respondent	Response
4386152331	It is good to have this survey to know how persons with disabilities use adaptive technology. In my part, I haven't use PDF adaptive technology yet.
4384907473	Please put me on a R&D team as a super user to address some of these issues! nrice@chabotcollege.edu
4384891927	With the numerous Adobe Reader updates required, and the lack of trust when it comes to usability, can't we just move forward with new formats?
4384851624	This problem is compounded when publishers do not offer a means for direct communication. Students with a documented disability have a legal right to access their education. The process to accommodate them with PDF textbooks should never create an additional burden to the student nor promulgate another barrier.
4384406167	None.
4383146710	It is not the readers that I have an issue with it is the PDF publishers
4383125981	PDF is the hardest format to make accessible for a person with no accessibility knowledge!
4382259912	I was testing the survey when I received a complaint about accessibility of this survey - seemed to work well with NVDA and tabbing. Best wishes E.A.
4381898266	It would be great if more businesses used options that would generate properly tagged PDF documents.
4381596526	Share the results of this survey.
4381214849	None
4380865324	Thanks for putting this together.
4380801781	Thank you very much for creating this survey to gather this valuable data.

Respondent	Response
4377447619	Great survey! Thanks for doing this.

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About this Publication

This report represents the raw data of the PDF and the End User Experience Survey and is published by Karen McCall.

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Contact [Karen McCall](#)[19] or visit the [Karlen Communications website](#)[20] for more information. You'll find tutorials on using Microsoft Office applications if you have a disability and accessible document design tutorials as well as conference handouts on the website.

Karen provides accessible document design training.

She is a Microsoft MVP (Most Valued Professional) for Word (2009-present) and a Microsoft Accessibility MVP (a new MVP category established in 2014).

Karen is a Canadian delegate to the ISO 14289 or PdF/UA committee.

You can contact her for more information about strategies and implementation of PDF/UA.

A special thanks to Olaf Drümmer for giving me the idea for the survey and to those who tested it before it went live. Thank you!

Thank you all for taking the survey and giving us information to help improve the accessibility of PDF documents!

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[19] Contact Karen McCall: info@karlencommunications.com

[20] Karlen Communications website: http://www.karlencommunications.com