

LESLLA Symposium Proceedings



Recommended citation of this article

Kennedy, D. (2015). Internet Usability and Relevance: Promoting Digital Inclusion with consumer.gov. LESLLA Symposium Proceedings, 10(1), 279–300.

<https://doi.org/10.5281/zenodo.8024455>

Citation for LESLLA Symposium Proceedings

This article is part of a collection of articles based on presentations from the 2014 Symposium held at Radboud University, Nijmegen, The Netherlands. Please note that the year of publication is often different than the year the symposium was held. We recommend the following citation when referencing the edited collection.

Van de Craats, I., Kurvers, J., & van Hout, R. (Eds.) (2015). Adult literacy, second language and cognition. Centre for Language Studies. Centre for Language Studies.

<https://lesllasp.journals.publicknowledgeproject.org/index.php/lesllasp/issue/view/474>

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LESLLA aims to support adults who are learning to read and write for the first time in their lives in a new language. We promote, on a worldwide, multidisciplinary basis, the sharing of research findings, effective pedagogical practices, and information on policy.

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INTERNET USABILITY AND RELEVANCE: PROMOTING DIGITAL INCLUSION WITH CONSUMER.GOV

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Abstract

A central concern for practitioners working with adult immigrants and refugees is the provision of information on resources and services that can support these adults in establishing themselves effectively in their new countries of residence. In their desire to disseminate such information as broadly as possible, service providers and government agencies increasingly turn to the Internet as a medium of communication. Yet the characteristics of online information presentation can impede access for the very populations that such agencies most wish to reach.

This paper outlines these characteristics of digital information provision and reviews research on usability and user experience. It then discusses ways of increasing digital equity, first through changes to web content and design and then through instruction that enables users to both find and interpret information that is relevant to them, and create content that meets their needs. Finally, it describes the specific case of a consumer protection and financial literacy information website developed for users with limited reading and digital skills by the U.S. Federal Trade Commission and the Center for Applied Linguistics (CAL). Both the web content and a set of instructional materials developed to accompany it provide examples of an approach that promotes digital inclusion through access and development of digital skills.

Keywords: Internet usability, Web user experience, digital skills, digital inclusion, digital literacy

1. The challenge of communicating on the Web

For immigrant and refugee populations in the United States, as for the U.S. population in general, information providers have come to rely heavily on the Internet for dissemination of life skills-related content. This trend is not new; in the area of health and nutrition alone, a decade-old resource for practitioners working with adults with low literacy levels (McKinney & Kurtz-Rossi 2006)

Ineke van de Craats, Jeanne Kurvers and Roeland van Hout (eds.)
Adult literacy, second language and cognition
Nijmegen: CLS, 2015, pp. 279-300

already listed dozens of informational websites and dozens more sites with curricular materials and information for teachers. U.S. government agencies with missions that involve educating and protecting the general public are in the forefront of this type of Web-based information provision; see for example <http://www.choosemyplate.gov>, from the U. S. Department of Agriculture, www.healthfinder.gov from the U. S. Department of Health and Human Services, and www.consumerfinance.gov from the Consumer Financial Protection Bureau.

Concerns are consistently raised about the ability of adults with lower levels of literacy and educational attainment to connect with and use this material. This issue was recognized as long as two decades ago by the Children's Partnership, whose Computers in Our Future project in the late 1990's sought to reduce the digital divide by providing computers and Internet access in 11 low-income neighborhoods in the State of California. In carrying out this project, the Partnership identified a major concern: "even when community members were able to use the Internet, **they couldn't find the online information or applications they needed**" (Children's Partnership, n.d., *bolding in original*). This problem is persistent. Ten years after the Children's Partnership study, Van Deursen and Van Dijk conducted a study with adults using Dutch government websites and found that "citizens ... may not have the skills to use the online public services offered to them" (Van Deursen & Van Dijk 2009: 334). More recently, Reder has analyzed the U.S. data on problem solving in technology-rich environments from the 2011-2012 Programme for the International Assessment of Adult Competencies (PIAAC) survey (OECD 2013; OECD n.d.) and has found substantial variation in digital equity and digital inclusion on the basis of gender, race/ethnicity, and national origin (Reder 2014).

Adults who do not use the Internet also report the lack of digital skills as a major inhibiting factor. The Pew Internet and American Life Project has tracked Internet use in relation to various demographic categories since 2007, and reports specifically on adults who do not use the Internet at all, noting strong correlations between membership in this group and age (over 65), education level (less than a high school degree), ethnicity, and economic status (earning less than US \$ 30,000 per year) (Zickuhr 2013). The project asks adults who do not use the Internet to report their primary reason for staying offline, and reports the results in four categories:

- Relevance (just not interested, waste of time, don't need/want it, too busy)
- Usability (too difficult/frustrating, don't know how/don't have skills, too old to learn, physically unable, worried about viruses/spam/hackers)

- Availability/access
- Price.

Over four data collection points from 2007 to 2013, the usability factors, including lack of skills, have become increasingly salient. While usability factors as a group were selected as the primary reason for staying offline by only 15% of Internet non-users in 2007, 12% in 2009, and 18% in 2010, in 2013 usability factors were selected by nearly one third (32%) of Internet non-users. In that year, of the top five reasons selected by respondents, usability factors ranked third, fourth, and fifth, with 10% of respondents selecting "too difficult/frustrating," 8% selecting "don't know how/don't have skills," and 8% selecting "too old to learn." These non-users are clearly aware of the gap between the skill levels required for Internet use and the skill levels that they possess.

However, the Pew data also provide an additional perspective on Internet non-users. Over all four data collection points, the relevance factors as a group were selected more than any others as the primary reason for staying offline; they were selected by 47% of respondents in 2007, 35% in 2009, 48% in 2010, and 34% in 2013. In addition, in 2013 the most commonly selected reason for staying offline was one of the relevance factors, "just not interested," selected by 21% of respondents (the second most commonly selected was "don't have a computer" at 13%). Even as the salience of usability considerations has increased, therefore, the perceived lack of relevance has continued to play a major role in keeping Internet non-users offline.

With its 2005 World Report *Towards Knowledge Societies*, UNESCO made clear that the ability and willingness to use technology, particularly the Internet, have become integral to modern life because of technology's role in the transmission of information and the generation of knowledge. Digital literacy – defined as the ability to use information and communication technology and to operate in a digital environment (UIUC Library n.d.) – is thus one of the multiple interconnected literacies that are prerequisite to full participation in contemporary society (Gee 1996; Kress 2003; UNESCO 2006) and "[enable] individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society" (UNESCO 2004: 13).

Yet research shows that the digital environment remains partly or wholly impenetrable for a large portion of the population, and the evidence shows that many adults do not use the Internet because they do not perceive it either as welcoming (usability) or as having something to offer them (relevance). The remainder of this paper will outline the factors that must be considered in order to increase the usability and relevance of the Internet for these users, and then

will describe a project that seeks to address both aspects in the context of consumer financial literacy and fraud protection.

2. Literacy and usability

In their studies of users' experiences with government websites and with the Internet more generally, Van Deursen and Van Dijk have identified two responsibilities that government agencies have with regard to Internet-based information transmission. First, if agencies expect users with limited digital skills to understand information and complete tasks (such as filling out forms) online, they must provide an online experience that is designed to meet the needs of such users. Second, they must provide learning opportunities that enable citizens to develop their digital skills further (Van Deursen & Van Dijk 2009; Van Dijk & Van Deursen 2014).

With regard to the first of these responsibilities, critiques of the Internet have long focused on content-related issues. For example, in the early 2000's the Children's Partnership identified barriers to Internet use in terms of deficiencies in the content of health-related websites and noted the following needs:

- Content designed for users with limited literacy skills
- Content in multiple languages
- Local information that enables users to address everyday needs
- Content that is culturally relevant
- Content that is accessible to those with disabilities

(Children's Partnership 2000; 2002)

In addition to considerations of language level, relevance, and appropriateness such as those articulated by the Children's Partnership, Van Dijk and Van Deursen (2014) observe that the technology itself needs to be applied more effectively to support users and improve their online experience. They suggest that websites could be designed in ways that are more intuitive and thus reduce the level of digital skill (or competence) required to use them successfully.

Improving the online reading and digital experience for users with limited literacy skills involves understanding how such users currently use the Internet. In the United States, some user experience (UX) research has looked specifically at the ways in which adult readers with lower literacy levels approach and experience websites. Initially, this work focused primarily on users' experience with content. For example, in a small observational study on the usability of health information websites, Birru et al. (2004) determined that adults reading

below the secondary school level “did not use optimal search terms to answer questions, encountered difficulties finding health information at the appropriate reading level, and were unable to successfully interpret Internet health information as it was presented.” Study subjects also had difficulty formulating search terms that would produce specific results.

More recently, UX researchers have used eye tracking technology to assess the ways in which adults with limited literacy experience the form and structure of web pages as well as their content (Colter & Summers 2014; Nielsen 2005; Summers & Summers 2005). These researchers have identified several characteristics of such users’ reading behavior:

- They read every word, and fixate on each word longer than readers with higher literacy levels do.
- They re-read both text and interface elements such as navigation tabs multiple times.
- They skip words and sections of text; they may skip headings, initial sentences, and other text elements that could guide their reading.
- They select the first material that appears to accomplish their reading purpose, rather than reviewing and evaluating multiple options.
- They are distracted from reading the main text by other elements on a web page.

Each of these behaviors has parallels in the ways that adults with lower literacy skills approach print material; these readers must focus so much cognitive effort on decoding and word recognition that they read too slowly to obtain much meaning (Anderson, Heibert, Scott, & Wilkinson 1985; Doak, Doak, & Root 1996; Kurvers 2007; Van de Craats & Peeters 2013). However, the challenge for such readers is exacerbated on the Internet by the fact that words on a web page may function as headings, logos, navigation labels, hyperlinks, or advertisements, in addition to or instead of being conveyors of content. The reading task is thus complicated by the digital literacy context, which creates the need to identify each word’s function as well as its meaning. Furthermore, web content is not necessarily persistent. “There are many pages which have content that seems to be permanent, yet are found to have altered on subsequent viewing because they have been refreshed by the website owner” (Crystal 2011: 31). This feature adds an element of unpredictability that further complicates reading for those with low reading and digital literacy skills.

On the basis of their observations, UX researchers have provided a number of guidelines on both content and design for website creators who wish to ensure that their sites are accessible to all users, regardless of their levels of

reading proficiency and digital skill (Nielsen 2005; Summers & Summers 2005). These guidelines address web design and layout considerations, as well as language complexity factors, to aid developers in creating sites that support users in locating and interpreting information. In addition, to support website development that addresses the needs of users with limited reading and digital proficiency, the U.S. federal government has created resources on using plain language (www.plainlanguage.gov) and improving usability (www.usability.gov), as well as a resource site on digital literacy for the general public (www.digitalliteracy.gov).

However, practitioners continue to warn about the challenges inherent in navigating and understanding government websites (see, for example, Long, Shartzter, & Politi 2014). In addition, the U.S. results from the 2011-2012 PIAAC survey indicate that a substantial portion of the population still lacks the essential skills in literacy, numeracy, and problem solving in technology-rich environments that would enable, among other things, effective use of the Internet (OECD 2013; Reder 2014). Opportunities for adults to develop their digital competence are thus the essential counterpoint to the improvement of the digital environment itself.

3. Literacy and the development of users' digital skills

The need to incorporate development of digital skills in education at all levels has long been understood. Recognition of the multifaceted nature of digital competence has led researchers and educators to develop skills taxonomies in order to provide comprehensive yet manageable ways of approaching digital skills development. For example, Ilomäki, Kantosalo, and Lakkala (2011) define "digital competence" in terms of four main areas:

Digital competence is an evolving concept related to the development of technology as well as the political aims and expectations for citizenship in a knowledge society. It consists of a variety of skills and competences, and its scope is wide, covering media and communication, technology and computing, literacy, and information science. As an interpretation and summary of connecting the different approaches, we suggest that digital competence consists of 1) technical skills to use digital technologies, 2) abilities to use digital technologies in a meaningful way for working, studying and for everyday life in general in various activities, 3) abilities to critically evaluate the digital technologies, and 4) motivation to participate in the digital culture. Digital competence is regarded as a core competence in policy papers; in research, however, it is not yet a

standardized concept.

(Ilomäki, Kantosalo, & Lakkala 2011)

In their early work, Van Deursen and Van Dijk (2009) also articulated four skill areas; they have since added two (communication skills and content creation skills):

- Operational skills, including the ability to operate an Internet browser, use online search engines, and complete and submit online forms
- Formal skills, including the ability to navigate by recognizing and using hyperlinks and the ability to stay oriented when surfing within and between websites
- Information skills, including the ability to choose a search engine, create search queries, and select and evaluate information sources
- Communication skills, particularly the ability to send and receive information on the Internet
- Content creation skills, particularly the ability to develop and post material on the Internet
- Strategic skills, including the ability to take advantage of the Internet by setting a goal and taking actions and decisions that promote goal achievement.

(Van Dijk & Van Deursen 2014: 6-7)

Such skills lists or taxonomies are continually evolving, as educators and researchers recognize new areas of importance (for example, awareness of online security). They also are of limited use in working with adults with limited formal education because they typically encode expectations about fundamental literacy and numeracy skills in descriptors such as “use online search engines,” “complete online forms,” and “create search queries.” For example, the Digital Skills Framework for the Canadian Workforce (Chinien & Boutin 2013) distinguishes four skills clusters:

- Digital information processing skills
- Digital technical skills
- Transversal skills (thinking/problem solving, continuous learning, working with others)
- Foundational skills (reading, writing, oral communication, document use, numeracy).

Chinien and Boutin describe the foundational skills as prerequisite to digital literacy skills; they are the “gateway basic literacy and numeracy skills

components for which there is often or always a minimum proficiency level required before someone can engage with digital technology and demonstrate or develop the more precise digital information processing skills.”

The Open University’s Digital and Information Literacy Framework (Open University 2012) similarly takes reading, writing, and critical thinking as prerequisites for the development of digital skills, reflecting the Framework’s use in the context of postsecondary education. The Framework is divided into five competence areas:

- Understand and engage in digital practices
- Find information
- Critically evaluate information, online interactions and online tools
- Manage and communicate information
- Collaborate and share digital content.

The level of reading proficiency assumed by the Framework, even at the Access (lowest) stage, is fairly high; for example, in the Find Information competence area, the Access stage includes the following abilities:

- Successfully follow instructions for searching within a website using the guidance provided.
- Distinguish between websites created for different purposes.
- Successfully carry out a basic search for information on the web on a pre-defined topic, using the guidance provided.

These taxonomies set relatively high levels of reading and writing skills as prerequisite to the development of digital skills because they take typical Internet content, such as that critiqued by the Children’s Partnership (2003) and by Van Deursen and Van Dijk (2009), as their starting point. These taxonomies thus seek to provide ladders that move learners upward through progressively more complex applications of digital skills, with the goal of becoming fully engaged members of the knowledge society.

This essential relationship between literacy and digital skills is confirmed in the work of Van Deursen and Van Dijk (2009). They created test tasks for each type of digital skill and used them with subjects of varying backgrounds. For all digital skill types, they found that educational level attained was the single most important correlating factor. “All performances, both in the number of tasks completed and amount of time spent on tasks ... are significantly different for people with high, medium and low education” (Van Deursen & Van Dijk 2009: 337). They reiterate this point in further work, noting that “the most important

factor—influencing all types of Internet skills—is the level of educational attainment” (Van Deursen, Van Dijk, & Peters 2011: 137). They further observe that adults increase their medium-related skills (operational and formal skills) through practice and trial-and-error approaches, but not their content-related skills (information and strategic skills).

This latter point is highly salient for the acquisition and use of digital skills by adults with limited or no formal education. According to the Van Deursen – Van Dijk research, these adults may develop skills in Internet operation and navigation through informal approaches such as trial-and-error or asking a friend, but they are unlikely to develop their content-related skills (such as selecting and evaluating information sources) in these ways. If users with limited reading skills are consistently unable to locate and interpret information that meets their needs despite continued practice, this experience is likely to reinforce the perception that the Internet is not relevant to them.

Formal instruction can guide these adults as they develop the ability to find, interpret, share, and create Internet content effectively – that is, as they both discover and create the Internet that is relevant to them. It thus can remedy the inequities of access that Besser (2001) predicted would exacerbate broader social disparities by privileging users who already reside on the “have” side and closing out those who reside on the “have not” side. This perspective on the goal of digitally focused instruction aligns with critiques from the fields of language education and immigrant integration of the sociocultural contexts in which literacy-related policies and practices are developed and implemented. When such policies and practices emphasize learning and communication models characteristic of the education system to the exclusion of those that come from community and other contexts, they exclude those with needs and goals other than those of the mainstream (Auerbach 1989; Wiley 2005).

To be broadly inclusive and supportive of all Internet users, then, policies and practices must connect the improvement of Internet usability with the development of Internet users’ digital skills. Internet content and design must move beyond established patterns and reach users where they are, using linguistic, cultural, and technological tools to support the user experience. In addition, training in digital skills must enable users to interpret and act on the content they find, but also must give them the tools they need to create content themselves, bringing their own cultural and community perspectives into the mix to create an Internet that works for them.

4. **Consumer.gov and Consumidor.gov: Increasing usability**

In the United States, one agency that is actively seeking to both increase the usability and relevance of its Internet-based communications and provide opportunities for users to develop digital skills is the U.S. Federal Trade Commission (FTC). The Division of Consumer and Business Education within the FTC's Bureau of Consumer Protection is charged with providing information that enables consumers to recognize and deal appropriately with "unfair, deceptive, and fraudulent business practices" (<http://www.ftc.gov/about-ftc/bureaus-offices/bureau-consumer-protection>). The Division recognized that adults with limited formal education were at greatest risk of becoming subject to unethical business practices; all were affected by identity theft and unethical / illegal credit card and loan practices, for example, while immigrants were also subject to *notario* fraud and money wiring scams. However, Division staff learned from legal services attorneys and other service providers working with these clients that its Internet- and print-based informational materials were not accessible to these consumers—the users who needed them most.

To address this situation from the website design side, Division staff partnered with the Center for Applied Linguistics (CAL) in 2011-2012 to develop an information resource intended specifically for users with limited reading proficiency. The resource consists of parallel websites in English (www.consumer.gov) and Spanish (www.consumidor.gov) that provide consumer information on personal finance and fraud protection topics. Topic selection was guided by need, as measured by the frequency of complaints and questions received from service providers, including legal aid attorneys, and their clients. In the site creation process, CAL provided workshops and individual mentoring on writing content and designing interfaces for readers with limited educational backgrounds. Division staff served as the content experts who did the actual writing and design.

Consumer.gov is designed for both native and non-native speakers/readers of English, while Consumidor.gov is designed for native speakers/readers of Spanish with limited formal education. The sites follow recognized best practices in web design (Morris 2015), with navigation that is transparent and simple to use, layout that includes a high percentage of white space and minimal distractions, and language that keeps sentences short, uses bulleted lists, and controls the amount and type of vocabulary (Figure 1).



Figure 1. Screenshot of the Consumer.gov “Scams Against Immigrants” topic page, showing the site’s use of color and icons in the top navigation; its use of simple What It Is / What To Know / What To Do navigation within the topic page; its simple layout with a high percentage of white space; and its use of short sentences and bulleted lists in the text.

The English and Spanish sites are exactly parallel in structure and content, with three main sections:

- Money Management / Manejar su dinero
- Credit, Loans, and Debt / Crédito, préstamos y deudas
- Scams and Identity Theft / Estafas y el robo de identidad.

Each of these sections contains information on several financial literacy and consumer protection topics; for example, the Credit, Loans and Debt / Crédito, préstamos y deudas section addresses these topics:

- Your credit history / Su historial de crédito

- Using credit / Usar el crédito
- Payday loans and cash advances / Préstamos de día de pago y anticipos de dinero
- Car title loans / Préstamos con título de propiedad de un carro
- Managing debt / Manejar las deudas.

For each topic, information is provided on three pages:

- What it is / Qué es
- What to know / Qué saber
- What to do / Qué hacer.

The site design uses a three-part color scheme and distinct icons to identify the three main sections. These visual features and the simple, consistent site architecture support the user in locating needed information, returning to it later, and identifying related material. A language toggle button appears in the upper right corner of each webpage, allowing the Spanish-speaking reader to use both languages as needed to ensure comprehension. Additional buttons to the left of the main text allow the user to adjust the text size and to print directly from the screen.

Although constraints on available resources limited the degree to which visual and interactive features could be incorporated, the sites use multimedia in several ways to support the user. A “listen/escuchar” button on each topic page allows users to hear the text read aloud exactly as it appears on the screen. In addition, several topic pages have simple embedded videos that tell and illustrate short stories relevant to the topic. For example, the page “Evitar el robo de identidad: Qué es” contains a video that tells the story of Linda, who, although she has never had a credit card herself, discovers that someone else has stolen her identity and has taken out eight credit cards and an auto loan in her name. The video ends happily as Linda succeeds (after much effort) in clearing her credit history.

The FTC has also produced print versions of the “What to do” site pages in both languages. These pages, which match the websites in color and layout, are freely available through bulkorder.ftc.gov to residents of the United States. Both web metrics and requests for print materials since the sites’ launch in early October 2012 indicate high degrees of user interaction and satisfaction. Not surprisingly, the “listen/escuchar” buttons have some of the highest click levels. Requests for print materials indicate interest and use by both adult educators and school guidance counselors.

In 2014, CAL provided technical assistance to the Division as it conducted a small usability study on the sites. The study involved eight native English speakers in adult basic education programs who tested on the English site; 8 native Spanish speakers with limited educational backgrounds who tested on the Spanish site; and 8 native Spanish speakers in ABE/ESL programs who tested on the English site. In the study, researchers (from Spark Experience in Bethesda, Maryland) asked participants to complete a short series of information location and site navigation tasks, using a combination of eye tracking and stimulated recall to gather data. For both sites, the study outcomes were highly positive. While the eye tracking data showed many of the movements characteristic of low-level readers, as described above, study participants were able to complete most navigation, information finding, and information recognition tasks on the sites with a high degree of success.

5. Consumer.gov and Consumidor.gov: Educating for improved user experience

While the outcomes of the usability study were encouraging, they were based on the experience of a limited number of users, all of whom possessed both basic literacy skills and some prior experience in navigating the Internet. These participants were able to identify the main content focus of the site and to complete most of the navigation and information location tasks given to them by facilitators, but in most cases they needed to explore the site and work on tasks for at least ten minutes before they began to see the site's direct relevance to them. This led the FTC to two observations:

1. That adults with very limited literacy and little or no digital experience, such as LESLLA learners, would still need support to be able to use the sites
2. That even adults with basic levels of literacy and digital skills might need support in making connections between the site content and their own situations

Furthermore, after careful consideration, FTC Division of Consumer and Business Education staff acknowledged that the nature and legal ramifications of some topics addressed on the sites would require a certain level of complexity in the site content. This meant incorporating scrolling and other features that are challenging for users with limited reading proficiency or digital skills to manage. Thus, particularly with regard to adults at the basic and below basic levels

(NCES 2003), including LESLLA learners, the FTC realized that it needed to support the development of learning opportunities for users of Consumer.gov and Consumidor.gov.

In 2014-2015 the Division has therefore sponsored development of a series of teaching materials that guide teachers and tutors in using the Consumer.gov and Consumidor.gov sites with adult learners. The materials for Consumer.gov include a multi-session lesson plan for each topic that combines content learning objectives in financial literacy and fraud awareness, English language learning objectives in listening, speaking, reading, and writing, and Internet navigation/awareness objectives. Those for Consumidor.gov include a multi-session lesson plan for each topic that combines content learning objectives in financial literacy and fraud awareness, Spanish reading skills development objectives, and Internet navigation/awareness objectives.

The teaching materials draw on research in adult second language acquisition and adults' development of literacy in the first and second language (Burt & Peyton 2003; Burt, Peyton, & Adams 2003; Burt, Peyton, & Schaetzel 2008; Curtis & Kruidenier 2005; Herman et al. 2013; Kruidenier 2002; Moss & Ross-Feldman 2003). The materials for Consumer.gov focus on developing English reading proficiency in both native and non-native speakers of English, while the materials for Consumidor.gov promote development of reading proficiency in Spanish for native speakers with limited educational experience. The teaching materials will be available in pdf format for online reading or free download, with technology-enabled activities relying on the Consumer.gov and Consumidor.gov sites themselves; funding considerations prevented the development of interactive lesson plans and teaching activities.

The lesson plans that form the main body of the teacher materials for Consumer.gov address the needs of teachers and tutors working with low-educated adult English learners: those who have had primary education in the first language and thus can read at or above the average primary school level in that language (Van de Craats, Kurvers, & Young-Scholten 2006). The plans provide guidance on tailoring activities to the needs and skill levels of these LESLLA learners using the following techniques:

- Elicitation of learners' current knowledge and understanding, as well as their past experiences, as the foundation upon which new learning can build
- An initial focus on development of oral English skills using language pertinent to the topics on the site
- Scaffolding from the learners' first language where possible, particularly from Spanish to English

- Using repetition and redundancy to pace instruction.

The population of adult LESLLA learners in the United States also includes two other groups identified in the typology outlined by Van de Craats, Kurvers, and Young-Scholten: those who have had some schooling in the L1 but read below the average primary school level, and those who have never attended school and have not developed reading/writing skills in any language. For teachers working with such learners, the materials focus on developing the basic concepts that inform the ability to read in an electronic environment. Some activities address fundamental concepts of literacy (such as letter v. word v. sentence; meaning of the spaces between words; starting point, directionality, and return sweep; significance of punctuation) in the context of electronic presentation, so that learners develop a sense of how an online publication (website) works in the same way they would develop a sense of how a print publication (book, magazine, newspaper) works. Other activities focus on the user interface, providing focused tasks that help learners understand what they are seeing when they look at a website.

- Visual activities in which learners look at the site's main page (Figure 2) and talk about how it uses colors, comparing the look of the home page with the look of three differently colored file folders stacked one behind the other
- Listening activities in which learners listen for a specific phoneme or word as the teacher reads part of the text of a page or plays the recording
- Visual activities in which learners look at the icons on the site and interpret their possible meanings in different cultural contexts (Strube, van de Craats, & Van Hout 2009)
- Listening/visual activities in which the learners listen for specific phonemes or words as they watch part of one of the videos on the site
- Visual/kinesthetic activities in which learners practice (on computer) using the scroll bar and mousing over different parts of the site to see what happens (how the site shows the location of the mouse pointer; what happens when the mouse is clicked)
- Visual activities in which learners look at a topic page on the site and in print (for example, the "Scams against immigrants – What to do" page in Figure 1) to identify things that appear on the site but not on the print page and learn to recognize these as site navigation and other tools

In all activities, teachers and tutors are encouraged to pace instruction carefully and to repeat activities multiple times so that learners' comfort levels and sense of control increase. This process gives learners the foundation for continued exploration on their own, enabling them to take advantage of informal and commonly utilized ways of developing digital and literacy skills (Van Dijk & Van Deursen 2014; Van Deursen, Courtois, & Van Dijk 2014).

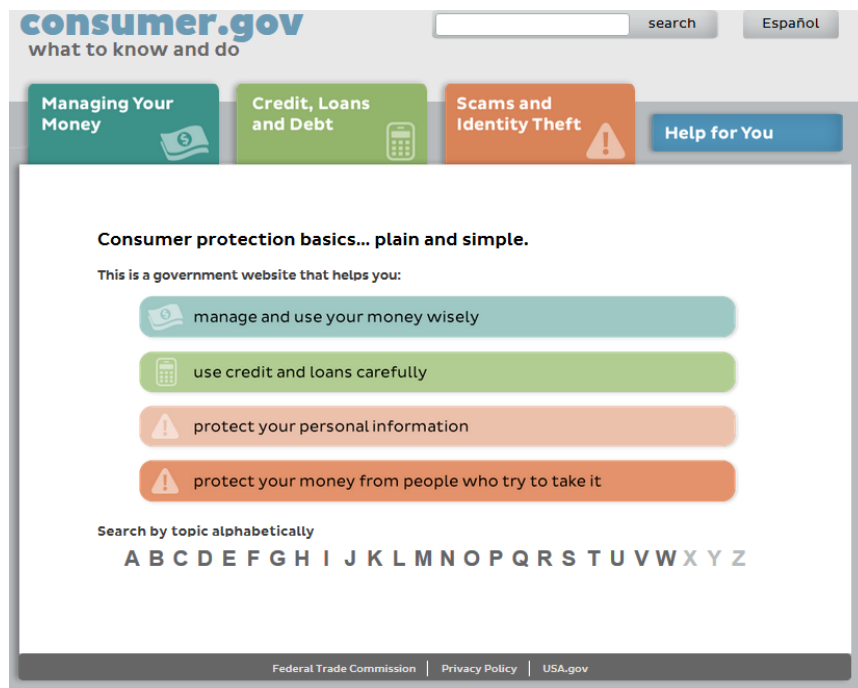


Figure 2. Screenshot of the Consumer.gov Home Page, showing the site's use of color and icons to identify three different topic areas. The materials for use with low-educated learners will include visual and kinesthetic activities in which learners relate colors to categories and connect the visual representations on the screen with physical items (such as file folders and money) and with other uses of the same iconography in learners' physical environment.

Finally, the materials encourage teachers to draw on their learners' own knowledge and experiences to create learner-generated texts related to the Consumer.gov topics. For example, teachers may use one of the videos on the site and then elicit a related story from their learners, which can then be used as

a teaching tool both in print and on the computer (Bigelow & Vinogradov 2011; New American Horizons Foundation 2010; Vinogradov 2009; Vinogradov & Bigelow 2010). Adventurous teachers may initiate class projects in which learners develop the material for a website of their own, using a free platform such as WordPress to create a blog on money management and other financial literacy topics and thus becoming not just users, but “active creators and distributors of information” (Besser 2001).

The use of the Consumer.gov website in instruction for LESLLA and other adult learners will connect their language and literacy learning with their lives and experience, providing the real-world context that research has shown can promote skills development (Condelli & Spruck Wrigley 2006, 2008; Van de Craats, Kurvers, & Schöneberger 2010). Perhaps more importantly, it will demonstrate the nature of literacy as a functional social practice (Wallace 2008), showing learners that they can both develop digital and reading competence and use those competencies to manage and improve their lives.

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