DIGITAL COMPETENCE FOR CONSUMERS

SPYRIDON BLATSIOS – PLATON SCHOOLS





Consumer digital competence is defined as the competence consumers need to function actively, safely and assertively in the digital marketplace. This definition builds on the previous work done on consumer competence and adapts it to digital environments.

European Commission. (2011). Consumer Empowerment in the EU. Commission staff working paper. SEC(2011)



The complexity and multiplicity of digital marketplaces provide a plethora of opportunities and risks for consumers. Today consumers acquire "free" goods and services in exchange for their personal data, and data transfers pose new privacy and security risks. Digital content products and services raise questions about usage restrictions. Unsafe products are offered online across borders, and online platforms and peer-to-peer marketplaces blur distinctions between traders and consumers and challenge legislative frameworks.

European Commission. (2015). A Digital Single Market Strategy for Europe - Analysis and Evidence (Commission Staff Working Document).



The Framework covers core consumer protection issues in electronic commerce, such as fair and transparent business and advertising practices; information about businesses, goods and services, and transactions; dispute resolution and redress mechanisms and payment protection. In addition, it also addresses issues of paying with data and data privacy/security, digital content issues, and peer-to-peer platform participation.



The Framework's objectives are to help consumers:

- make informed choices in the digital marketplace;
- operate safely online and avoid falling victim to fraudulent or deceptive online marketing practices;
- understand digital marketing and advertising practices;
- manage online financial operations;
- understand the risks and advantages of digital data collection and of the emerging collaborative economy.



This Framework in particular consists of:

- 3 areas that are grouped along the purchasing cycle,
- 14 competence titles and competence descriptors,
- 210 examples of knowledge, skills, and attitudes.

THE DIGITAL COMPETENCE FRAMEWORK FOR CONSUMERS



First Area (Pre-purchase) Competences:

- 1.1 Browsing, searching and filtering information on goods and services
- 1.2 Evaluating and comparing information on goods and services
- 1.3 Recognising and evaluating commercial communication and advertisement
- 1.4 Managing digital identity and profile in the digital marketplace
- 1.5 Considering responsible and sustainable consumption in digital markets

THE DIGITAL COMPETENCE FRAMEWORK FOR CONSUMERS



Second Area (Purchase) Competences:

- 2.1 Interacting in the digital marketplace to buy and sell
- 2.2 Participating in collaborative economy platforms
- 2.3 Managing payments and finances through digital means
- 2.4 Understanding copyrights, licences, and contracts of digital goods and services
- 2.5 Managing personal data and privacy
- 2.6 Protecting health and safety

THE DIGITAL COMPETENCE FRAMEWORK FOR CONSUMERS



Third Area (Post-purchase) Competences:

- 3.1 Sharing information with other consumers in the digital marketplace
- 3.2 Asserting consumer rights in the digital marketplace
- 3.3 Identifying digital consumer competence gaps and limits



POLICY FORMULATION AND SUPPORT

In consumer policy research, the Framework could be used

- a) for benchmarking the actual level of competences of various population groups through surveys or behavioural experiments.
- b) on academic and policy types of research to create an evidence base for consumer education, for example to develop indicators to measure the need for and the impact of consumer education efforts. The absence of this type of data has been identified as one of the main obstacles to consumer education development by the OECD and at national level.
- c) at national level, to become a useful instrument for developing a dialogue between consumer policy and education ministries about the incorporation of digital consumer education into school curricula and adult education.



INSTRUCTIONAL PLANNING AND ASSESSMENT

This Framework could be used:

- a) for instructional planning by teacher training institutes and universities, by private and public educational organisations and by individual teachers.
- b) by national and EU level consumer education platforms for the classification of existing teaching materials, for identifying gaps in materials regarding digital competences, or as guidance for teachers.
- c) To form the basis for the development of assessment tools, either for self-assessment purposes or for testing competences in an education or training environment.



"Consumer Education contributes towards the formation of a participative, critical and competent citizenship. All governments should be urged to incorporate consumer education as a part of the basic school curriculum, and to have this applied in practice in the classroom. Teachers should be trained to impart knowledge that consumers need..."

Consumers International Policy Statement, 17thCongress, Lisbon 2003



- 1. The introduction of digital consumer education into school curricula. Most of European countries don't have consumer education policies or their consumer education policies are rather outdated. According to OECD "only limited opportunities for consumer education exist in most school settings¹ "and also "consumer education initiatives should focus on providing teachers with up-to-date training that reflects the rapid development of information and communication technology". So this Framework could be used as a basis to create or update those policies and make them available in schools as formal education teaching material. A training for teachers should be also considered. Have in mind that we should "distinguish consumer education from advice and information²".
 - Relevant stakeholders: Academia, Regional or National level policy makers, schools, parents associations, consumers unions.
- 1. OECD (2009), CONSUMER EDUCATION Policy Recommendations of the OECD'S Committee on Consumer Policy, OECD, Paris
- 2., Anne Fidler (2007), Consumer education, What it can and cannot do, Consumer Focus, London



2. According to OECD "Education for digital competence should be designed to meet the needs of different age groups. It is important to educate parents along with their children about their responsibilities online, as well as the techniques that are frequently used online to market products. Tips for securing personal information when making purchases using digital technologies should be shared. Education targeting seniors should help to make them aware of how emerging technologies and online services can be used to carry out transactions more effectively and efficiently." This Framework could be used as a guide to create Adult (non formal) education material. This material should be targeted to different age groups. Special attention should be given to disadvantaged groups. Relevant stakeholders: Academia, vocational education, the social sector organisations, the non-governmental sector and other institutions like parents associations, consumers unions.

1. OECD (2009), CONSUMER EDUCATION Policy Recommendations of the OECD'S Committee on Consumer Policy, OECD, Paris



3. As previously stated, OECD asks for a research project to create an evidence base for consumer education, in order to develop indicators to measure the need for and the impact of consumer education efforts is necessary. It appears that there are some Empirical Assessment schemes¹, but no actual assessment is made so far. So there is a gap between research and consumer education, since we don't have the indicators to assess the effectiveness of formal consumer education. The proposed project should focus to bridge this gap creating an assessment procedure based on the EU framework. Relevant stakeholders: Academia, schools, parents associations, consumers unions.

1. George P. Moschis (1979) ,"Formal Consumer Education: an Empirical Assessment", in NA - Advances in Consumer Research Volume 06, eds. William L. Wilkie, Ann Abor, MI: Association for Consumer Research



4. The creation of an EU level consumer education platform for the classification of existing teaching materials, for identifying gaps in materials regarding digital competences, or as guidance for teachers. Although more than 50% of school curricula includes consumer education, only a little of that is used inside the classroom. More than that, 76% of partner countries state that they have published materials related to consumer education, especially books (44%), which are distributed, generally free of charge (84%)¹ but there not available data on the use of that material.

Relevant stakeholders: Academia, Regional or National level policy makers, schools, parents associations, consumers unions.

1. OECD (2009), Promoting Consumer Education, Trends, Policies and Good Practices, OECD, Paris



CONCLUSIONS

- The overall objective of the framework is to enhance consumers' confidence in digital purchasing and selling, and to allow consumers to play an active and assertive role in the digital marketplace.
- With these objectives in mind, the framework is intended as a conceptual and reference model. The examples of knowledge, skills, and attitudes that are given for each competence do not intend to be exhaustive. They are meant as a source of inspiration for local adaptation, or for adaptation to a specific target group or purpose.
- The DigCompConsumers framework may require further updating for two main reasons: first because digital competence must evolve as technologies and practices change; and secondly because the framework is still theoretical and conceptual, and needs to be tested in practice.
- Its practical implementation and use will reveal its usefulness, necessary adaptations and the need for proficiency level development for specific purposes. While recognising that learning or achieving proficiency does not always occur linearly, such proficiency levels can offer ways to define steps of progression.



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1.1 Browsing, searching and filtering information on goods and services

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Knowledge examples	Skills examples	
Recognising that search engines are not neutral	Using various different search engines	
Being aware that different search engines may give different search results	Filtering the search results to adjust searches	
Knowing that the internet gives access to online shops across the world	Refining information searches and selecting specific words	
Knowing about several digital tools that facilitate online shopping	Finding pertinent deals using digital tools and environments (e.g. by searching price comparison services)	
Realising that many companies, shops and government agencies have e-commerce and e-government services	Identifying relevant search results from search outputs	
Attitude examples		
Being proactive in searching for information about Valuing the positive impact that Being willing to acknowledge the		

Being proactive in searching for information about
goods and services

Valuing the positive impact that technologies have in making better informed consumer choices

Being willing to acknowledge the limits in one's ability to process information and to resist stimuli offered by the digital marketplace



1.2 Evaluating and comparing information on goods and services

Knowledge examples	Skills examples
Understanding that not all information online on goods and services is reliable or complete	Being able to use online price comparison tools or tools that compare quality and price
Understanding that that price comparison results may not be complete	Being able to verify the reliability of sellers before making transactions
Knowing about digital tools that allow one to compare goods, services, prices	Being able to find relevant communities, networks, and social media groups where consumers share opinions about goods and services
Knowing how to find sites, communities, and social media groups where consumers share opinions on products and services	Being able to adjust default settings for ranking of search results on platforms and portals
Knowing how to check the reliability of e-commerce sellers and websites	Being able to compare, contrast, and integrate information from different sources regarding prices, quality, purchasing
Knowing that e-commerce trustmarks are a means of identifying reliable online shops	terms and conditions of goods and services.
Knowing to compare only total prices that include VAT	Being able to assess the value of the information that is pushed at the consumer based on previous searches or visits





1.2 Evaluating and comparing information on goods and services

Knowledge examples

Knowing that independent consumer associations make comparison tools and comparative testing available online

Knowing that some (price) comparison tools' results may be influenced by advertising and/or marketing

Attitude examples

Annous examples		
Values that making informed choices implies comparing offers from different providers	Being critical regarding the presentation and alleged attractiveness of offers	Valuing the possibility to make cautious and responsible purchasing decisions
Critically evaluating the reliability, impartiality and accuracy of the information on comparison websites	Recognising that people tend to choose default options	Critically evaluating user reviews and ranking systems



1.3 Recognising and evaluating commercial communication and advertisement

Knowledge examples	Skills examples
Knowing that the purpose of advertising and marketing is to redirect attention and stimulate purchases, which may or may not be in line with one's intentions or needs	Distinguishing between commercial messages (e.g. paid advertisement through social media) and unbiased consumer information in commercial communication
Interpreting and analysing online marketing and advertising to understand whether the goods/services on sale are in line with one's interests and needs	Assessing the reliability of the information that is pushed at the user
Realising that certain digital services are free of charge because they contain or facilitate marketing and advertising	Detecting unsolicited commercial messages and indicating one's unwillingness to receive these messages
Being aware of hidden advertisement techniques	Exercising one's right to opt out of direct marketing
Understanding that some entries or comments on social media and/or	





1.3 Recognising and evaluating <u>commercial</u> communication and advertisement

Knowledge examples

Realising how consumers' digital trails (footprints) can be harvested, stored, analysed, traded and used for commercial purposes

Interpreting and analysing online marketing and advertising to understand whether the goods/services on sale are in line with one's interests and needs

Being aware of drip pricing and hidden cost practices

Attitude examples

Being critical towards advertising practices and being aware they may be misleading and/or disguised

Adopting a critical attitude towards targeted advertising

Being careful when making purchasing decisions and basing purchasing choices on information beyond advertisement





1.4 Managing digital identity and profile in the digital marketplace

Knowledge examples	Skills examples
Understanding the benefits of having one or more digital identities, e.g. professional, private, as a consumer	Checking and modifying as appropriate the transaction details before confirming a purchase.
Knowing that one's consumer data – such as past purchases, products viewed – are analysed for marketing purposes	Constructing one or multiple profiles that benefit one's needs as a consumer
Knowing that companies use digital identity data to better target and personalise offers	Taking advantage of the benefits of building one's online profile and reputation
Knowing which kind of data are processed when using certain services	Tracking one's own digital footprint as a consumer
Being aware that commercial targeting is based on the knowledge that companies have about one's digital identity	Using digital tools available to manage or delete one's consumer profile
Realising that in several cases profile data are neither portable nor Interoperable	Using different digital profiles/identities to counterbalance the effects of dynamic pricing

Attitude examples

Being critical towards tracking practices and claiming one's right to anonymity





1.5 Considering responsible and sustainable consumption in digital markets

Knowledge examples		Skills examples	
Evaluating the effects of one's behaviour as a digital consumer on the environment and its ethical and social impacts		Being able to use digital to and social impact of one's consumer	ools to improve the environmental behaviour
Knowing that the transport of goods purchased online impact on the environment	e has an	sustainable	ding of socially responsible s in the digital marketplace
Understanding the environmental impact of computelectronic	ers and	Choosing digital means th	nat have less impact on the planet
Attitude examples			
Endorsing sustainable positions in the digital marketplace and advocating them (e.g. advocating sustainable production and/or consumption through social networking sites)	Positionir digital co	ng oneself as a sustainable onsumer	Being critical about the excesses of consumption or unsustainable production and consumption



2.1 Interacting in the digital marketplace to buy and sell

Knowledge examples	Skills examples
Knowing about the opportunities and risks of selling goods and services in digital marketplaces	Being able to sell goods using digital marketplaces (e.g. eBay)
Knowing that, in the digital marketplace, goods and services can be bought and sold either through commercial transactions or through consumer-to-consumer transactions	Checking whether platforms that facilitate sales by a third party (e.g. E-bay) decline or accept (limited) liability for transactions concluded with third parties
Knowing about tangible goods (i.e. those good that have a physical nature) and intangible goods (i.e. virtual or digital goods)	Checking if platforms that facilitate sales by a third party decline or accept (limited) liability for transactions concluded with third parties
Knowing that, in the EU, prices for goods and services offered for sale online must be inclusive of VAT	Being able to use apps that manage passwords safely
Knowing that, in the EU, pre-ticked boxes for buying additional	Checking that the description and pictures of a product/service correspond and are exhaustive.





2.1 Interacting in the digital marketplace to buy and sell

Knowledge examples

Knowing how to check if a trader is based in one's own country, in the EU or elsewhere

Knowing that the internet gives access to the global marketplace and that rules that apply (for example, for products and services that are prohibited) can be different by country.

Knowing that EU online consumer rights also apply to online purchases from traders outside the EU if they direct their activities to EU consumers.

Knowing how to cancel an online purchase

Attitude examples

Taking an active attitude in contacting sellers and services providers at the different stages of the purchase

Proactively changing passwords for e-commerce accounts



2.2 Participating in P2P and collaborative economy platforms

Knowledge examples	Skills examples
Knowing about peer-to-peer (P2P), sharing and collaborative economy platforms for (re)sale, exchange and renting/hiring of goods and services	Being able to assess the reliability of a P2P, collaborative or sharing platform
Understanding the risks and opportunities of using collaborative economy platforms	Being able to verify the reliability of the sellers and offers on online platforms, e.g. by using rating systems and user reviews
Knowing that when buying goods and services from private persons or peers online, one's rights are different than when buying online from a trader	Being able to assess if user reviews are valid and well argued, and sufficient in number to generate trust
Knowing that there may be legal and tax issues when selling goods and services or when renting out rooms, apartments or houses via online platforms	Being able to check for any rules and obligations applicable to one's activity on P2P platforms
Knowing that regularly selling, renting out etc. via online platforms for a profit can add up to a professional activity that must be declared to the tax authorities and is subject to sectorial regulation	Being able to search and find local, national and international P2P platforms that respond to one's needs
Knowing that (in certain countries) a special legal statute	Being able to communicate with other peers on P2P platforms





2.2 Participating in P2P and collaborative economy platforms

Knowledge examples	Skills examples
Knowing that certain online platforms will provide assistance and insurance in case of problems with a transaction between peers	Being able to present offers correctly and with clear prices, including costs of payment, delivery and platform fees
Knowing how to distinguish crowdfunding and other collaborative platforms that facilitate gifts or exchanges from those facilitating sales/renting/hiring or investment	

Attitude examples

Critically evaluating the opportunities and cost-effectiveness of the peer-to-peer economy, and also its risks

Proactively checking applicable rights and responsibilities when engaging in P2P, collaborative or sharing economy platforms



2.3 Managing payments and finances through digital means

Knowledge examples	Skills examples
Knowing that digital devices, including tablets, computers, smartphones, enable access to bank account and payment services anytime, anyplace	Being able to use access devices (e.g. authentication tools) and use digital financial services (e.g. banking, PayPal) safely
Knowing that services and goods can be paid for through digital devices (e.g. mobile phone, smartphone)	Being able to recognise phishing or pharming attacks on online banking
Knowing that, in online payments, one should never give the four digit pincode of a debit/payment/credit card, as used for cash withdrawals or paying in offline shops	Being able to identify whether online payments are secure and encrypted by checking the address bar/URL for "https" instead of "http" and the closed padlock security sign
Knowing the risk related to using digital financial services	Being able to challenge a payment in case of fraudulent use of a payment/credit card online and obtain reimbursement
Knowing the importance of safeguarding passwords, pin numbers, etc.	Being able to recognise whether a payment involves automatic repeat purchases of goods or automatic contract or subscription renewal
Knowing that systems for authenticating online payments (e.g. code via SMS) offer a higher level of security	





2.3 Managing payments and finances through digital means

Knowledge examples

Knowing not to send e-commerce a scan of credit cards or bank cards

Knowing that the amount of the purchase can be taken from one's account immediately at the time of purchase, even if delivery is later, unless otherwise indicated by the seller

Knowing that security software should be installed on devices to secure online payments

Attitude examples

Critically evaluating different types of security measures used in digital transactions and attaching importance to security (e.g. keeping pin numbers, passwords safe) Being aware of the benefits and risks of managing finances and financial transactions through digital means



2.4 Understanding copyrights, licenses, and contracts of digital goods and services

Knowledge examples

Knowing that some digital content (music, movies, books, etc.) are available for free and that others are for purchase

Knowing that digital content (music, movies, books, etc.) can be subject to copyright and that downloading copyrighted material without permission is illegal

Knowing that it is illegal to upload and share certain content such as music

Knowing that sharing illegally downloaded content with others can give rise to legal sanctions

Knowing that it is not possible to cancel the purchase of digital content once it has been downloaded

Knowing which licenses apply to the goods and services one is interested in





2.4 Understanding copyrights, licenses, and contracts of digital goods and services

Knowledge examples	Skills examples
Knowing that most software is used under licenses, which need to be renewed once the license periods expire	Being able to check which sites offer illegal downloading or streaming
Being aware that that streaming and downloading movies, shows, books from pirate websites is illegal	Being able to select legal material for downloading or uploading.
Knowing that some content (music, movies, books, etc.) may not be accessible because of one's location (i.e. geo- blocking)	Being able to check and understand the right to use or re-use digital content and goods that one purchased

Attitude examples

Being respectful of copyright and contract terms and using official distributors for downloading movies, music, books

Weighing the benefits of illegal downloading against the risks (e.g. viruses, sanctions)



2.5 Managing personal data and privacy

Knowledge examples	Skills examples
Being aware that every time one goes online, one shares information and data about oneself, one's purchasing interests and one's behaviour with the search engines, social media and/or the sites one visits	Reviewing privacy policies and identifying key terms about personal data use
Knowing it is not easy to delete personal data or information after having shared them, or to transfer them to another service provider	Identifying privacy policy terms that are a threat to data privacy
Understanding that clicking "I accept" to a "Privacy policy" may mean that one agrees that one's personal data may be sold to third parties	Checking privacy policies to verify whether personal data are sold or transferred to third parties
Knowing which measures to take to protect and manage personal data and privacy to avoid fraud	Being able to change the privacy settings on social media
Understanding that assumptions are made about behaviour and purchasing interests based on automated processing of data (profiling)	Checking what data protection rules apply and using one's rights to access, modify and suppress personal data
Knowing where to go and who to talk to when one is	Being able to access and modify or request deletion of





2.5 Managing personal data and privacy

Knowledge examples	Skills examples
Being aware that personal data are also collected, processed and stored outside the EU, and that different data protection rules may in some cases apply	Knowing how to claim the right to be forgotten
Knowing how to find out how personal data are being used by third parties	Verifying the level of security offered by e-commerce platforms, sites or apps and (free) digital services
Being aware that personal data can be sold and used by third parties for targeted marketing purposes	Setting privacy enhancing tools to protect the privacy of one's personally identifiable information
Knowing that in the digital marketplace some goods and services can be acquired for "free" in exchange for one's personal data, and realising the implications of these	Weighing benefits and risks when/if sharing data in digital environments

Attitude examples

Weighing the benefits of sharing personal and
consumer data (e.g. to receive personalised
suggestions, auto-complete forms) against the risks

Valuing the protection of personal data when shopping online

Being responsible for protecting one's and others' personal data when making online purchases





2.6 Protecting health and safety

Knowledge examples	Attitude examples
Understanding that online purchasing behaviour can have addictive aspects	Assuming responsibility for protecting personal health and safety when shopping in the digital market
Knowing that when buying products online, especially from sites or apps located outside the EU/EEA, it is advisable to double-check whether the product complies with EU safety standards or is banned in the EU	Critically evaluating the effects that digital and media- embedded merchandising can have on wellbeing
Knowing that online medical advice can be unreliable or sponsored by producers/sellers of medical or paramedical products	Being vigilant regarding one's purchasing behaviour and evaluating the risk of addictive digital purchasing
Knowing that when buying medical products online, the EU logo for online sale of medicines indicates that the site or app is operating legally and not selling falsified and illegal products	

Skills examples

Checking whether a product was subject to a recall or other restrictive measures on RAPEX website7 and/or OECD portal on product recalls





3.1 Sharing information with other consumers in the digital marketplace

Knowledge examples	Skills examples
Knowing about websites that offer users advice on products and services and understanding that their reliability may vary	Evaluating the information that peers are sharing digitally about goods and services.
Understanding that information can be shared anonymously or through profiles	Judging the value of the content to share and the target audience to share it with
Knowing how to find sites, communities, and social media groups where consumers help each other solve problems with products and services	Sharing experiences with fellow consumers on social media and digital platforms
	Providing advice to other consumers through social media, discussion fora, online rating, etc.

Attitude examples	
Being active in sharing one's opinions regarding products and	Weighing the benefits and pitfalls of experiences and reviews
services	shared by other consumers



3.2 Asserting one's consumer rights in the digital marketplace

Knowledge examples	Skills examples
Knowing that many basic digital consumer protection rules and rights are similar in all EU countries, but can be (very) different elsewhere	Finding independent advice on digital consumer rights and redress
Knowing about specific consumer rights that apply to online purchases only	Being able to file a form for cancelling an online purchase or write an e-mail to cancel a purchase
Knowing how to find help to solve disputes and post-purchase problems	Using different means to assert rights after an online purchase, be it online or offline
Being aware of one's right to be forgotten	Exercising consumer rights in practical situations
Being aware of one's right to cancel online purchases of most goods within 14 days of delivery and get reimbursed without justification	Finding information and/or digital platforms for redress and consumer rights
Knowing the main exceptions to the right to cancel a purchase (food, tailor made products, unpacked CD, DVD and software, opened hygienic and health products, travel products like hotels and tickets)	Checking deliveries of online purchases before signing for receipt





3.2 Asserting one's consumer rights in the digital marketplace

Knowledge examples

Recognising the importance of accepting terms and conditions related to digital purchases and transactions in digital marketplaces and platforms, and the consequences this may have

Knowing that online out-of-court redress options (Online Dispute Resolution) exist if there are problems with an online transaction

Knowing that different types of redress options exist

Knowing that one can cancel online purchases not delivered within 30 days of purchase if timely delivery was essential, or if a reasonable additional delay is not respected

Knowing that rights and responsibilities apply when buying online from a trader, and are not the same when buying from private citizens

Realising that one can file a complaint with the authorities to solve a dispute with a trader

Attitude examples

Being motivated to assert one's consumer rights and filing a complaint if necessary

Being confident in taking action with after-sales services if an online purchase is not as desired





3.3 Identifying digital consumers competence gaps and limits

Knowledge examples	Skills examples
Understanding and evaluating the opportunities and risks that technology offers consumers	Possessing the skills to update one's own knowledge about the purchasing and selling possibilities offered by digital technologies
Understanding that one's knowledge of the digital domain as a consumer might be limited and that the rules of the digital marketplace evolve rapidly	Being able to adapt to new practices of the digital marketplace
Understanding the need to update one's digital competence to benefit most from the opportunities offered by the digital marketplace	
Attitude examples	
Being confident and willing to experiment with new digital tools and digital practices that could benefit one's digital purchasing experience	Following technological developments and being vigilant as regards the benefits and risks that one faces as a consumer