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**Reconceptualizing Information Society
Services (ISS) in the Era of Generative AI:
Platform Liability Challenges under the
DSA and AI Act**

Pari Naz Ershad Tavanadoost

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Editors: Siegfried Fina and Roland Vogl

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Abstract

This thesis examines whether the traditional concept of Information Society Services (ISS) remains suitable in the era of generative artificial intelligence. The ISS concept is a core category of European Union digital law and continues to provide the regulatory basis for intermediary services under the EU's Digital Services Act (DSA). However, the rise of generative AI systems and large language models such as ChatGPT, Gemini, and Claude challenges the traditional distinction between intermediary services and content creators.

The study analyses the development of the ISS concept, its legal foundations under Directive 2000/31/EC and Directive (EU) 2015/1535, and its interpretation by the Court of Justice of the European Union. It also examines the regulatory treatment of generative AI under the Digital Services Act and the Artificial Intelligence Act (AI Act). The thesis evaluates whether existing intermediary liability mechanisms can accommodate AI-driven services that both facilitate access to information and generate new content.

Using a doctrinal legal methodology, the research examines the relevant EU legislation, case law, and academic scholarship on intermediary liability, platform governance, and AI regulation. The analysis identifies key conceptual and regulatory challenges arising from applying traditional Information Society Services doctrine to generative AI platforms.

The thesis argues that generative AI services cannot be adequately understood through existing intermediary classifications because they combine intermediation, information processing, and content generation. It therefore proposes the concept of "Enhanced Generative Intermediaries" as a framework for the future regulation of generative AI services within European Union digital law. This framework seeks to promote coherence between the DSA and the AI Act while preserving legal certainty, innovation, and fundamental rights.

The research further concludes that the current legal framework does not fully address the unique characteristics of generative AI systems, particularly regarding accountability, transparency, and responsibility for AI-generated outputs. As these technologies become more integrated into digital services, European lawmakers may need to reconsider the scope and application of existing ISS concepts. The proposed framework contributes to debates on digital governance by offering a legal classification that better reflects the hybrid nature of generative AI services while ensuring effective regulatory oversight.

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AI: Artificial Intelligence

AI Act: Artificial Intelligence Act

CJEU: Court of Justice of the European Union

DSA: Digital Services Act

EC: European Community

ECG: E-Commerce-Gesetz

EU: European Union

GDPR: General Data Protection Regulation

GPAI: General-Purpose Artificial Intelligence

ICT: Information and Communication Technologies

ISS: Information Society Services

LLM: Large Language Model

LLMs: Large Language Models

NLP: Natural Language Processing

OECD: Organization for Economic Co-operation and Development

TFEU: Treaty on the Functioning of the European Union

VLOP: Very Large Online Platform

VLOSE: Very Large Online Search Engine

Reconceptualizing Information Society Services (ISS) in the Era of Generative AI:

Platform Liability Challenges under the DSA and AI Act

INTRODUCTION

The digital transformation of contemporary society has fundamentally changed the way information is created, distributed, accessed, and consumed. Over the past two decades, digital services have become central to communication, commerce, public discourse, and the functioning of the European internal market. In response to these developments, the European Union has progressively constructed a legal framework for the regulation of online services, beginning with the e-Commerce Directive and later expanding through instruments such as the Digital Services Act and the Artificial Intelligence Act.¹ At the center of this regulatory architecture lies the concept of the Information Society Service (ISS), which has long served as a foundational category of European digital law.

The concept of Information Society Services was developed in a technological environment that was significantly different from the contemporary digital ecosystem. The early regulatory framework was primarily designed for online actors that transmitted, stored, or hosted information supplied by third parties. The e-Commerce Directive therefore distinguished between different categories of intermediary services, including mere conduit, caching, and hosting, and created conditional liability exemptions for service providers whose role was considered technical, automatic, and

¹ Directive 2000/31/EC (E-Commerce Directive) [2000] OJ L178/1, recitals 1–5; Regulation (EU) 2022/2065 (Digital Services Act) [2022] OJ L277/1, recitals 1–7; Regulation (EU) 2024/1689 (AI Act) [2024] OJ L1689, recitals 1–12.

passive.² This framework reflected the assumption that online intermediaries generally facilitate access to information rather than create it.

This distinction between intermediaries and content creators became one of the central organizing principles of European intermediary liability law. It allowed digital services to develop while preserving a degree of legal certainty for providers that did not exercise active control over third-party content. At the same time, the concept of ISS remained broad and technology-neutral. Directive (EU) 2015/1535 defines an Information Society Service as a service normally provided for remuneration, at a distance, by electronic means, and at the individual request of a recipient.³ This definition has enabled the ISS concept to apply to a wide range of online services, including search engines, online marketplaces, hosting services, and social media platforms.

However, the emergence of generative artificial intelligence challenges several assumptions underlying this traditional framework. Generative AI systems, particularly large language models such as ChatGPT, Gemini, and Claude, do not merely transmit, store, or organize information created by users. Instead, they generate new textual, visual, audio, and multimodal outputs in response to user prompts. Their outputs are produced through probabilistic processes based on large-scale training data and model architecture rather than through the simple retrieval or display of pre-existing user-generated content.⁴

This technological shift creates significant legal uncertainty. Generative AI services may formally satisfy the definition of Information Society Services, since they are

² Directive 2000/31/EC (E-Commerce Directive) [2000] OJ L178/1, recitals 42–44 and arts 12–14.

³ Directive (EU) 2015/1535, art 1(1)(b).

⁴ Rishi Bommasani and others, On the Opportunities and Risks of Foundation Models (2021) arXiv:2108.07258, 3–6.

typically provided electronically, at a distance, at the individual request of users, and within a commercial framework. Nevertheless, their functional characteristics differ substantially from the intermediary services for which the traditional ISS framework was originally designed. They simultaneously resemble search engines, recommendation systems, hosting services, and content-generation tools. As a result, they occupy a hybrid position between intermediation and content creation.⁵

The regulatory challenge is particularly visible in the relationship between the Digital Services Act and the Artificial Intelligence Act. The Digital Services Act modernizes the European framework for intermediary services and online platforms, while preserving important elements of the intermediary liability model inherited from the e-Commerce Directive. By contrast, the Artificial Intelligence Act introduces a risk-based regulatory framework for AI systems and specific obligations for general-purpose AI models.⁶ Generative AI services may therefore fall within the scope of both regulatory regimes, but neither framework fully resolves the conceptual question of how such services should be classified within European digital law. Recent scholarship has highlighted the difficulties of applying traditional intermediary liability concepts to AI-driven services and the need for a more coherent regulatory approach.⁷

This thesis addresses that conceptual problem. Its central research question is whether the traditional concept of Information Society Services can adequately accommodate generative AI platforms within the current framework of European Union digital law, or whether a reconceptualization is required. In order to answer this question, the thesis analyses the historical development of the ISS concept, its legal

⁵ Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 *Journal of Free Speech Law* 1, 477–480.

⁶ Regulation (EU) 2024/1689, arts 3 and 51–56.

⁷ Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' (2021) 22 *Computer Law Review International* 97, 101–105.

foundations under the e-Commerce Directive and Directive (EU) 2015/1535, the relevant case law of the Court of Justice of the European Union, and the regulatory treatment of generative AI under the DSA and the AI Act.

The thesis adopts a doctrinal legal methodology. It relies on systematic and teleological interpretation of European Union legislation and examines relevant academic literature on platform governance, intermediary liability, and AI regulation. Particular attention is given to the tension between traditional intermediary liability principles and the hybrid nature of generative AI services. The analysis also considers whether existing legal categories remain capable of ensuring legal certainty, accountability, transparency, and the protection of fundamental rights in the context of AI-generated outputs.

The thesis argues that generative AI services cannot be adequately understood through existing intermediary classifications alone. Although the ISS concept remains an important foundation of European digital law, its traditional interpretation does not fully capture services that combine intermediation, information processing, and autonomous content generation. Accordingly, the thesis proposes the concept of “Enhanced Generative Intermediaries” as a normative framework for the future classification and regulation of generative AI services within EU digital law.

The thesis is structured as follows. Chapter One examines the historical development and legal foundations of Information Society Services. Chapter Two analyses the technological and functional characteristics of generative AI systems and explains why they challenge existing legal categories. Chapter Three examines the Digital Services Act and its intermediary liability framework. Chapter Four analyses the Artificial Intelligence Act and its interaction with the DSA. Chapter Five develops the proposed concept of Enhanced Generative Intermediaries and evaluates its potential contribution to the future development of European digital regulation.

CHAPTER 1

THE EVOLUTION AND LEGAL FOUNDATIONS OF INFORMATION SOCIETY SERVICES

1.1 Historical Development of Information Society Services

The concept of Information Society Services (ISS) emerged as part of the European Union's broader efforts to promote the development of the Information Society and facilitate the functioning of the Internal Market in the digital age. During the 1990s, rapid technological developments in information and communication technologies (ICTs) transformed economic activity, communication, and access to information. As digital networks expanded across Europe, policymakers increasingly recognized that traditional legal frameworks were insufficient to address the challenges posed by electronic commerce and emerging online services.⁸

A significant milestone in the development of European digital policy was the publication of the Bargeman Report in 1994. Entitled *Europe and the Global Information Society*, the report identified digital technologies as a transformative force capable of strengthening European competitiveness and economic growth. It emphasized the need for a regulatory environment that would encourage investment, innovation, and the expansion of digital services across Member States.⁹ The report further advocated the reduction of regulatory barriers affecting cross-border digital activities and highlighted the importance of developing a coherent legal framework for the emerging digital economy.

⁸ Paul Craig and Gráinne de Búrca, *EU Law: Text, Cases, and Materials* (8th edn, Oxford University Press 2020) 869–873.

⁹ European Commission, *Europe and the Global Information Society* (Bangemann Report, 1994) 4, 5, 12.

In response to these developments, the European Union gradually established a legislative framework designed to facilitate the provision of digital services within the Internal Market. An important step in this process was the adoption of Directive 98/34/EC, which introduced a procedure for the exchange of information concerning technical standards and regulations among Member States. Although the Directive was not originally intended to regulate online services directly, it created the legal foundations upon which the future concept of Information Society Services would be constructed.¹⁰

The decisive development occurred with the adoption of Directive 98/48/EC, which amended Directive 98/34/EC and introduced the first formal legal definition of an Information Society Service. According to the Directive, such services are normally provided for remuneration, at a distance, by electronic means, and at the individual request of a recipient of services.¹¹ The introduction of this definition reflected an effort to establish a technology-neutral legal category capable of accommodating a broad range of digital activities while ensuring legal certainty and regulatory consistency throughout the European Union.

The ISS concept served several important objectives. First, it facilitated the harmonization of national approaches to the regulation of online services. Second, it reduced legal fragmentation that could impede cross-border electronic commerce. Third, it established a common conceptual framework that facilitated the subsequent development of European legislation governing electronic commerce, intermediary

¹⁰ Directive 98/34/EC [1998] OJ L204/37, arts 1–3.

¹¹ Directive 98/48/EC [1998] OJ L217/18, art 1(2).

services, and digital market integration.¹² Consequently, the concept became one of the central building blocks of European digital regulation.

The significance of Information Society Services increased substantially with the adoption of the e-Commerce Directive 2000/31/EC. The Directive incorporated the definition previously introduced by Directive 98/48/EC and transformed it into a cornerstone of European digital law. By establishing the principle of the free movement of Information Society Services and creating liability exemptions for intermediary service providers, the Directive sought to balance market integration, innovation, and legal certainty.¹³ The ISS concept therefore became closely linked to the intermediary liability framework that would shape the development of European internet regulation for more than two decades.

The historical development of Information Society Services demonstrates that the concept was designed during a period in which online actors primarily functioned as intermediaries facilitating the transmission, storage, and accessibility of information created by third parties. The regulatory assumptions underlying the ISS framework were therefore based on a relatively clear distinction between content creators and intermediary service providers. As the following chapters will demonstrate, the emergence of generative artificial intelligence increasingly challenges these assumptions and raises important questions regarding the continued suitability of the traditional ISS framework for contemporary digital services.

¹² Paul Craig and Gráinne de Búrca, *EU Law: Text, Cases, and Materials* (8th edn, Oxford University Press 2020) 873–876.

¹³ Directive 2000/31/EC (E-Commerce Directive) [2000] OJ L178/1, recitals 2, 8–11 and arts 3, 12–15.

1.2 Information Society Services under the E-Commerce Directive

1.2.1 Objectives of the E-Commerce Directive

The adoption of Directive 2000/31/EC on electronic commerce represented a major milestone in the development of European digital regulation. By the end of the 1990s, the rapid expansion of internet-based services created new opportunities for economic growth, cross-border trade, and innovation. At the same time, significant differences between national legal frameworks created barriers to the free movement of digital services within the Internal Market. The European Union therefore sought to establish a harmonised legal framework capable of facilitating electronic commerce while ensuring legal certainty for both service providers and users.¹⁴

The primary objective of the e-Commerce Directive was to contribute to the proper functioning of the Internal Market by ensuring the free movement of Information Society Services among Member States.¹⁵ The Directive recognised that divergent national regulations concerning online services could discourage investment, increase compliance costs, and undermine the development of cross-border digital activities. Consequently, harmonisation was considered necessary to promote economic integration and support the growth of the digital economy.¹⁶

A central feature of the Directive was its technology-neutral approach. Rather than regulating specific technologies, the Directive established general legal principles applicable to a broad range of Information Society Services. This approach reflected the understanding that technological innovation develops rapidly and that legislation

¹⁴ Directive 2000/31/EC, recitals 1–5.

¹⁵ Directive 2000/31/EC, art 1(1).

¹⁶ Paul Craig and Gráinne de Búrca, *EU Law: Text, Cases, and Materials* (8th edn, Oxford University Press 2020) 877–879.

should remain sufficiently flexible to accommodate future developments.¹⁷ The broad definition of Information Society Services therefore enabled the Directive to apply to a wide variety of online activities, including electronic marketplaces, search engines, online platforms, hosting providers, and other digital services.

In addition to promoting the Internal Market, the Directive sought to enhance legal certainty for intermediary service providers. Prior to its adoption, uncertainty existed regarding the liability of service providers for information transmitted, stored, or hosted through their services. The Directive addressed this issue by introducing a framework of conditional liability exemptions for intermediary services, thereby encouraging innovation while maintaining an appropriate balance between economic development and the protection of legal rights.¹⁸

Another important objective of the Directive was the promotion of consumer confidence in electronic commerce. The European legislature recognised that the success of the digital economy depended not only on technological innovation but also on users' trust in online transactions. For this reason, the Directive established rules concerning transparency, commercial communications, electronic contracts, and information obligations for service providers.¹⁹ These measures were intended to create a predictable legal environment capable of supporting the continued expansion of electronic commerce throughout the European Union.

The objectives of the e-Commerce Directive remain highly relevant today. Although the digital ecosystem has evolved considerably since 2000, many of the Directive's underlying principles continue to influence contemporary European digital regulation.

¹⁷ Jan Lodder and Andrew Murray (eds), *EU Regulation of E-Commerce: A Commentary* (Edward Elgar Publishing 2017) 27–31.

¹⁸ Directive 2000/31/EC, arts 12–15.

¹⁹ Directive 2000/31/EC, arts 5–11.

In particular, the concepts of Information Society Services, intermediary liability, and the free movement of digital services have been preserved and further developed through subsequent legislative instruments, including the Digital Services Act.²⁰

1.2.2 The Country of Origin Principle

One of the most significant innovations introduced by the e-Commerce Directive was the establishment of the Country of Origin Principle. This principle was designed to facilitate the free movement of Information Society Services within the Internal Market by reducing regulatory fragmentation among Member States.²¹

Under the Country of Origin Principle, Information Society Service providers are generally subject to the laws of the Member State in which they are established rather than the laws of every Member State in which their services are accessible.²² The principle therefore enables service providers to operate across borders while primarily complying with a single national legal framework. This approach significantly reduces regulatory burdens and promotes legal certainty for digital businesses operating within the European Union.

The rationale behind the principle is closely connected to the broader objectives of the Internal Market. If service providers were required to comply simultaneously with the regulatory requirements of all Member States in which their services were available, the resulting legal complexity could discourage innovation and hinder the development of cross-border digital services.²³ By allocating primary regulatory responsibility to the

²⁰ Regulation (EU) 2022/2065 (Digital Services Act) [2022] OJ L277/1, recitals 1–4

²¹ Directive 2000/31/EC, recital 22.

²² Directive 2000/31/EC, art 3(1).

²³ Paul Craig and Gráinne de Búrca, *EU Law: Text, Cases, and Materials* (8th edn, Oxford University Press 2020) 879–881.

Member State of establishment, the Directive sought to remove barriers to digital trade and encourage the expansion of electronic commerce throughout the European Union.

The Country of Origin Principle is primarily reflected in Articles 3(1) and 3(2) of the e-Commerce Directive. These provisions require Member States to ensure that Information Society Services provided by service providers established within their territory comply with national laws applicable in that Member State. At the same time, other Member States are generally prohibited from restricting the free movement of such services for reasons falling within the coordinated field.²⁴

However, the principle is not absolute. The Directive permits Member States to adopt restrictive measures under specific circumstances where such measures are necessary to protect public policy, public health, public security, or consumers.²⁵ These exceptions reflect the need to balance market integration with legitimate public interests and demonstrate that the principle operates within a framework of proportionality and regulatory cooperation.

The Country of Origin Principle has played a crucial role in the development of the European digital economy by supporting cross-border service provision and reducing legal uncertainty for online businesses. Nevertheless, the increasing complexity of digital platforms and the emergence of new technologies have raised questions regarding the continued effectiveness of this regulatory model. As subsequent chapters will demonstrate, the Digital Services Act largely preserves the Internal Market logic underlying the e-Commerce Directive while adapting it to the realities of the contemporary digital ecosystem.²⁶

²⁴ Directive 2000/31/EC, arts 3(1)–(2).

²⁵ Directive 2000/31/EC, art 3(4).

²⁶ Directive 2000/31/EC (E-Commerce Directive) [2000] OJ L178/1, arts 3(1)–(4).

1.2.3 Categories of Intermediary Services

One of the most influential aspects of the e-Commerce Directive is its classification of intermediary service providers into distinct categories. Recognising the important role played by intermediaries in facilitating the transmission and availability of online information, the Directive established a framework of conditional liability exemptions designed to promote innovation and legal certainty while maintaining an appropriate balance between competing interests.²⁷

The liability regime created by the Directive is based on the assumption that intermediary service providers perform different technical functions within the digital environment. Consequently, the Directive distinguishes between three principal categories of intermediary services: mere conduit, caching, and hosting.²⁸ Each category is subject to specific legal conditions and corresponding limitations on liability.

The purpose of these liability exemptions is not to provide complete immunity for intermediary service providers. Rather, they seek to ensure that service providers are not held liable for information transmitted, stored, or made available through their services when their role remains technical, automatic, and passive.²⁹ This approach reflects the broader objective of encouraging the development of electronic commerce while preserving the rights and interests of affected parties.

The following sections examine each category of intermediary service in greater detail and analyse the legal conditions under which liability exemptions may apply. Understanding these categories is essential for assessing whether contemporary

²⁷ Directive 2000/31/EC, recital 40.

²⁸ Directive 2000/31/EC, arts 12–14.

²⁹ Directive 2000/31/EC, recital 42.

generative artificial intelligence services can be accommodated within the traditional intermediary liability framework established by the e-Commerce Directive.

1.2.3.1 Mere Conduit

The first category of intermediary services recognised by the e-Commerce Directive is the mere conduit service. This category applies to service providers whose role is limited to transmitting information through a communication network or providing access to such a network.³⁰ The concept reflects the understanding that certain service providers function solely as technical intermediaries and do not exercise control over the content transmitted through their systems.

According to Article 12 of the e-Commerce Directive, a service provider shall not be liable for information transmitted through a communication network where the provider does not initiate the transmission, does not select the receiver of the transmission, and does not select or modify the information contained in the transmission.³¹ These cumulative conditions demonstrate that the liability exemption is available only where the intermediary maintains a neutral and passive role in relation to the information being transmitted.

The rationale underlying the mere conduit exemption is closely connected to the technical functioning of communication networks. Internet access providers and telecommunications operators typically facilitate the transmission of information without exercising influence over its content. The e-Commerce Directive recognises that imposing liability on such actors for all information passing through their networks

³⁰ Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of Information Society Services, in particular electronic commerce, in the Internal Market [2000] OJ L178/1, art 12(1).

³¹ Directive 2000/31/EC, art 12(1)(a)–(c).

would create significant legal uncertainty and could undermine the efficient functioning of digital communications.³²

The Court of Justice of the European Union has emphasised that liability exemptions under the e-Commerce Directive apply where the intermediary remains neutral with respect to the information transmitted. The requirement of neutrality therefore plays a crucial role in determining whether a service provider may benefit from the exemption.³³

The mere conduit category illustrates the traditional regulatory assumption that intermediary service providers act as passive facilitators of information flows. While this assumption accurately describes internet access providers and similar actors, it becomes increasingly difficult to apply to contemporary digital services that actively process, organise, personalise, or generate content.

This distinction is particularly relevant in the context of generative artificial intelligence systems, which do not merely transmit information but participate in the production of new outputs.

Consequently, such systems generally fall outside the scope of the mere conduit exemption because their operation involves a degree of intervention and content creation that is incompatible with the passive role required under Article 12. The limitations of the mere conduit framework therefore highlight the broader challenges of applying traditional intermediary liability rules to emerging digital technologies and AI-driven services.

³² Directive 2000/31/EC, recital 42.

³³ Case C-236/08 Google France SARL and Google Inc v Louis Vuitton Malletier SA and Others EU:C:2010:159, paras 112–114.

1.2.3.2 Caching

The second category of intermediary services recognised by the e-Commerce Directive is caching. Unlike mere conduit services, which involve the simple transmission of information, caching refers to the automatic, intermediate, and temporary storage of information for the sole purpose of making the onward transmission of that information more efficient.

Article 13 of the e-Commerce Directive provides that a service provider shall not be liable for the automatic, intermediate, and temporary storage of information where such storage is carried out exclusively to improve the efficiency of information transmission to other recipients upon their request.³⁴ The caching exemption therefore recognises the technical necessity of temporary storage mechanisms within modern communication networks.

The liability exemption is subject to several conditions. The service provider must not modify the information, must comply with conditions governing access to the information, must observe rules regarding the updating of information, and must not interfere with the lawful use of technology designed to obtain data concerning the use of the information.³⁵ Furthermore, the provider must act expeditiously to remove or disable access to the information once it becomes aware that the information has been removed from the original source, access has been disabled, or a competent authority has ordered its removal.³⁶

The rationale underlying the caching exemption is primarily economic and technical. Temporary storage mechanisms significantly improve the speed and efficiency of

³⁴ Directive 2000/31/EC, art 13(1).

³⁵ Directive 2000/31/EC, art 13(1)(a)–(d).

³⁶ Directive 2000/31/EC, art 13(1)(e).

digital communications by reducing network congestion and limiting the repeated transmission of identical information. Without such mechanisms, the performance and scalability of online services would be considerably reduced.³⁷

Although caching services involve a greater degree of technical intervention than mere conduit services, they remain fundamentally passive in nature. The intermediary neither creates nor selects the content being stored but merely facilitates its efficient transmission. Consequently, the exemption continues to reflect the broader regulatory assumption that intermediary service providers operate as neutral actors within the digital environment.³⁸

The distinction between passive storage and active processing becomes increasingly important when considering modern AI-driven services. While caching providers merely optimise the transmission of existing information, generative artificial intelligence systems actively process data and produce new outputs. This difference illustrates the growing tension between traditional intermediary liability categories and contemporary digital technologies. As digital services evolve and increasingly rely on sophisticated forms of automated data processing, the applicability of existing liability exemptions to emerging technologies remains a subject of significant legal and academic debate.

1.2.3.3 Hosting

The third category of intermediary services recognised by the e-Commerce Directive is hosting. Hosting services involve the storage of information provided by a recipient

³⁷ Directive 2000/31/EC, recital 43.

³⁸ Case C-236/08 Google France SARL and Google Inc v Louis Vuitton Malletier SA and Others, EU:C:2010:159, paras 112–114.

of the service.³⁹ Unlike mere conduit and caching services, hosting providers store information for a potentially extended period and make such information available to users through digital platforms and online services.

Article 14 of the e-Commerce Directive establishes a conditional exemption from liability for hosting providers. Under this provision, a hosting service provider shall not be liable for information stored at the request of a recipient of the service where the provider does not have actual knowledge of illegal activity or information and, upon obtaining such knowledge, acts expeditiously to remove or disable access to the information.⁴⁰

The hosting exemption therefore reflects a balance between protecting intermediary service providers and ensuring effective remedies against unlawful content. The hosting regime has become one of the most significant elements of European intermediary liability law because many online services, including social media platforms, online marketplaces, discussion forums, and content-sharing services, rely upon the storage of information supplied by users.⁴¹ The exemption enables such services to operate without facing automatic liability for every piece of content uploaded by their users.

A central concept underlying Article 14 is the distinction between passive and active intermediaries. The Court of Justice of the European Union has repeatedly emphasised that a service provider may benefit from the hosting exemption only where it maintains a neutral role and does not exercise control over the information stored on

³⁹ Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (E-Commerce Directive) [2000] OJ L178/1, art 14(1).

⁴⁰ Directive 2000/31/EC, art 14(1)(a)–(b).

⁴¹ Directive 2000/31/EC, recital 42.

its platform. Where a provider actively participates in the creation, optimisation, promotion, or management of content, the availability of the liability exemption may be limited.

This principle was illustrated in *Google France*, where the Court stressed the importance of neutrality in assessing intermediary liability.⁴² Similar considerations appeared in later case law concerning online platforms and digital marketplaces. The developing jurisprudence demonstrates that the classification of a service provider depends not only on the technical nature of the service but also on the degree of involvement exercised by the provider with respect to the information concerned.

The hosting exemption remains highly relevant within contemporary European digital regulation. Nevertheless, the emergence of algorithmic systems, recommendation technologies, and generative artificial intelligence has complicated the distinction between passive storage and active content-related activities. Modern digital services frequently perform functions that extend beyond the traditional role of hosting providers, thereby challenging the assumptions underlying Article 14 of the e-Commerce Directive and prompting legislative reforms aimed at addressing the realities of the modern digital environment.

1.3 Information Society Services under Directive (EU) 2015/1535

Directive (EU) 2015/1535 occupies a central position within the legal framework governing Information Society Services in the European Union. Although the Directive primarily establishes a procedure for the provision of information concerning technical regulations and rules relating to Information Society Services, it also contains the legal

⁴² Case C-236/08 *Google France SARL and Google Inc v Louis Vuitton Malletier SA and Others* EU:C:2010:159, paras 112–114.

definition of an Information Society Service that continues to play a fundamental role throughout European digital law.

The definition contained in Article 1(1)(b) of Directive (EU) 2015/1535 serves as the principal legal basis for determining whether a particular digital service falls within the scope of European legislation concerning Information Society Services.⁴³ The concept is particularly significant because it has been incorporated into numerous legislative instruments, including the e-Commerce Directive and, indirectly, the Digital Services Act.

According to Article 1(1)(b), an Information Society Service is any service normally provided for remuneration, at a distance, by electronic means, and at the individual request of a recipient of services.⁴⁴ This definition is deliberately technology-neutral and capable of encompassing a broad range of digital services regardless of the specific technologies through which they are delivered.

The Court of Justice of the European Union has consistently interpreted the concept of Information Society Services broadly in order to promote the effective functioning of the Internal Market and to facilitate the free movement of digital services throughout the European Union.⁴⁵ Consequently, the ISS concept has become one of the foundational categories of European digital regulation.

The definition established by Directive (EU) 2015/1535 consists of four cumulative criteria. A service qualifies as an Information Society Service only if it is normally provided for remuneration, supplied at a distance, delivered by electronic means, and

⁴³ Directive (EU) 2015/1535, art 1(1)(b).

⁴⁴ Ibid.

⁴⁵ Case C-108/09 Ker-Optika bt v ÁNTSZ Dél-dunántúli Regionális Intézete EU:C:2010:725, paras 22–28.

provided at the individual request of a recipient. Each of these requirements must be satisfied before a service can fall within the scope of the ISS framework.

The following sections examine each of these four criteria in detail. Understanding these requirements is essential for determining whether contemporary digital services, including generative artificial intelligence systems, can properly be classified as Information Society Services under European Union law.

1.3.1 The Legal Definition of Information Society Services

The legal definition of an Information Society Service constitutes the foundation of the European Union's regulatory framework for digital services. The definition currently contained in Directive (EU) 2015/1535 serves as the primary criterion for determining whether a service falls within the scope of European legislation governing Information Society Services.

According to Directive (EU) 2015/1535, an Information Society Service is a service normally provided for remuneration, at a distance, by electronic means, and at the individual request of a recipient of services. This definition reflects the European legislature's intention to adopt a broad and technology-neutral approach capable of accommodating evolving forms of digital communication and commercial activity.

The technology-neutral nature of the definition is particularly significant. Rather than focusing on specific technological infrastructures or business models, the definition identifies a set of functional characteristics that must be satisfied irrespective of the technologies employed by a service provider.⁴⁶ This approach has enabled the concept

⁴⁶ Directive (EU) 2015/1535, recital 1.

of Information Society Services to remain relevant despite substantial technological developments since its introduction.

The Court of Justice of the European Union has interpreted the concept of Information Society Services in several important cases and has emphasised its role in facilitating the free movement of services within the Internal Market.⁴⁷ Consequently, the legal classification of a digital service depends upon its actual characteristics and economic function rather than the terminology used by service providers themselves.

The broad formulation of the definition has contributed significantly to the flexibility of European digital regulation. At the same time, the emergence of increasingly complex digital services has raised questions regarding the continued suitability of traditional ISS concepts. In particular, services incorporating artificial intelligence technologies often combine multiple functions that were not envisaged when the original ISS framework was developed. These developments have intensified debates concerning the interpretation and future evolution of the concept of Information Society Services within European Union law.

The legal definition therefore serves not only as a gateway to the application of European digital legislation but also as the starting point for contemporary discussions concerning the regulation of innovative technologies, including generative artificial intelligence systems.

1.3.2 The Four Cumulative Criteria of ISS

The legal definition of an Information Society Service consists of four cumulative criteria. In order to qualify as an Information Society Service under European Union

⁴⁷ Case C-108/09 Ker-Optika bt v ÁNTSZ Dél-dunántúli Regionális Intézete EU:C:2010:725, paras 21–24.

law, a service must satisfy all four requirements simultaneously. Failure to fulfil any one of these requirements prevents the service from falling within the scope of the ISS framework.

The cumulative nature of these criteria reflects the European legislature's intention to establish a coherent and technology-neutral regulatory framework capable of accommodating different forms of digital services while ensuring legal certainty within the Internal Market.

The four criteria require that a service be normally provided for remuneration, supplied at a distance, delivered by electronic means, and provided at the individual request of a recipient of services. Together, these elements form the foundation of the legal concept of Information Society Services and determine the applicability of numerous legislative instruments within European digital law.

The following sections analyse each criterion individually and assess its significance for the classification of contemporary digital services, including emerging generative artificial intelligence systems.

1.3.2.1 Normally Provided for Remuneration

The first criterion of an Information Society Service is that the service must be normally provided for remuneration. This requirement does not mean that every recipient of the service must pay a direct fee. Rather, European Union law adopts a broad understanding of remuneration that encompasses both direct and indirect forms of economic consideration.⁴⁸

⁴⁸ Case C-291/13 Papasavvas v O Fileleftheros Dimosia Etairia Ltd and Others EU:C:2014:2209, paras 27–30.

The concept of remuneration has traditionally been interpreted in light of the economic nature of the activity concerned. A service may satisfy this requirement even where it is offered free of charge to users, provided that the service provider receives an economic benefit through alternative revenue models such as advertising, sponsorship, data monetisation, or other commercial arrangements.⁴⁹ This interpretation reflects the realities of the modern digital economy, where many online services generate revenue without imposing direct charges upon users.

The Court of Justice of the European Union has confirmed that the existence of remuneration does not necessarily require payment by the recipient of the service. In *Papasavvas*, the Court held that online services financed through advertising revenues may fall within the scope of Information Society Services even where users access the service without charge. The decisive factor is whether the service constitutes an economic activity rather than whether payment is made directly by the end user.

This broad interpretation has significant implications for contemporary digital services. Social media platforms, search engines, online marketplaces, and many content-sharing services are typically provided without direct monetary payment by users. Nevertheless, such services generally satisfy the remuneration requirement because they operate within commercial business models that generate economic value for service providers.⁵⁰

The remuneration criterion is particularly relevant in the context of generative artificial intelligence systems. Many generative AI services offer free versions while simultaneously generating revenue through subscription models, premium services,

⁴⁹ Joined Cases C-34/95, C-35/95 and C-36/95 *De Agostini (TV-Shop)* EU:C:1997:344, para 26.

⁵⁰ Wolfgang Schulz and Thorsten Held, *Regulated Self-Regulation as a Form of Modern Government* (John Libbey Publishing 2004) 47–50.

licensing agreements, or commercial partnerships. Consequently, the absence of direct payment by users does not automatically exclude such services from classification as Information Society Services under European Union law. The economic character of the activity remains the decisive consideration.

1.3.2.2 Provided at a Distance

The second criterion of an Information Society Service is that the service must be provided at a distance. This requirement reflects one of the defining characteristics of digital services, namely that the service provider and the recipient are not simultaneously present in the same physical location during the provision of the service.⁵¹

The concept of a service provided at a distance serves to distinguish Information Society Services from traditional face-to-face economic activities. The criterion ensures that the ISS framework applies to services delivered through communication systems that enable interaction between parties located in different places without requiring physical proximity.⁵²

In practical terms, a service is provided at a distance where the service provider and the recipient communicate through technological means rather than through direct physical contact. The geographical distance between the parties is not decisive. What matters is that the service can be supplied and received without the simultaneous physical presence of both parties.

The Court of Justice of the European Union has recognised that most online services satisfy this requirement because they operate through electronic networks and digital

⁵¹ Directive (EU) 2015/1535, Annex I.

⁵² Directive (EU) 2015/1535, recital 2.

platforms. However, the Court has also emphasised that a service cannot automatically qualify as an Information Society Service merely because it contains a digital component. Where the online element is inseparably connected to a broader offline activity, the overall economic nature of the service must be considered.⁵³

This issue was examined in *Asociación Profesional Elite Taxi v Uber Systems Spain SL*, where the Court concluded that Uber's intermediation service formed an integral part of a transport service and therefore could not be classified as an independent Information Society Service.⁵⁴ The judgment demonstrates that compliance with the distance requirement alone is insufficient; the legal classification of a service ultimately depends on its overall characteristics and economic function.

For most contemporary digital services, including social media platforms, search engines, cloud computing services, and generative artificial intelligence systems, the distance requirement presents little difficulty. Users access these services remotely through electronic networks without requiring any physical interaction with the service provider. Consequently, such services will generally satisfy this criterion for classification as Information Society Services under European Union law.

1.3.2.3 Provided by Electronic Means

The third criterion of an Information Society Service is that the service must be provided by electronic means. According to Directive (EU) 2015/1535, a service is provided by electronic means where it is transmitted and received through electronic equipment

⁵³ Case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain SL* EU:C:2017:981, paras 35–40.

⁵⁴ Case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain SL* EU:C:2017:981, paras 39–43.

used for the processing and storage of data and is conveyed through wire, radio, optical, or other electromagnetic systems.⁵⁵

The criterion focuses on the method by which the service is delivered rather than on the content of the service itself. Consequently, a broad range of digital activities satisfy this requirement, including websites, search engines, cloud computing services, online marketplaces, social media platforms, and artificial intelligence applications operating through internet-based infrastructures.

The Court of Justice of the European Union has confirmed that services delivered through electronic communications networks may fall within the scope of Information Society Services where the remaining legal requirements are also fulfilled.⁵⁶ The electronic means requirement therefore rarely creates significant interpretative difficulties in comparison with other elements of the ISS definition.

In contemporary digital environments, this criterion ensures that the regulatory framework remains adaptable to technological innovation. As long as a service is transmitted and received through electronic systems for the processing and communication of information, it will generally satisfy this requirement.

Generative artificial intelligence services clearly operate through electronic means. User prompts are submitted through digital interfaces, processed by computational systems, and returned electronically to users. Consequently, generative AI platforms generally satisfy the electronic means criterion without significant legal controversy. The more difficult legal questions concern the remaining elements of the ISS definition and the consequences arising from the unique functionalities of such systems.

⁵⁵ Directive (EU) 2015/1535, art 1(1)(b) and Annex I.

⁵⁶ Case C-390/18 Airbnb Ireland UC v AHTOP EU:C:2019:1112, paras 47–54.

1.3.2.4 Provided at the Individual Request of a Recipient

The fourth and final criterion of an Information Society Service is that the service must be provided at the individual request of a recipient of services. This requirement distinguishes Information Society Services from traditional broadcasting services and other forms of communication that are transmitted simultaneously to the general public without a specific request from an individual user.⁵⁷

The criterion reflects the interactive nature of digital services. Rather than passively receiving information transmitted to a broad audience, the recipient actively initiates the provision of the service through an individual request. Consequently, services delivered on demand generally satisfy this requirement, whereas traditional television and radio broadcasting services typically fall outside its scope.

The distinction is particularly important because it enables European Union law to differentiate between personalised digital services and mass communication services. Information Society Services are characterised by a degree of user control over the initiation and reception of the service, which is absent in traditional broadcasting models.⁵⁸

The Court of Justice of the European Union has recognised that services supplied through online platforms are generally capable of satisfying this requirement where the user actively requests access to specific information, content, or functionalities.⁵⁹ The decisive factor is whether the service is provided in response to an individual request rather than being transmitted indiscriminately to the public.

⁵⁷ Directive (EU) 2015/1535, art 1(1)(b) and Annex I.

⁵⁸ Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) [2010] OJ L95/1, recital 24.

⁵⁹ Case C-390/18 Airbnb Ireland UC v AHTOP EU:C:2019:1112, paras 47–54.

Most contemporary digital services fulfil this criterion without difficulty. Search engines respond to user queries, online marketplaces provide information requested by users, and social media platforms enable users to access content through individual interactions. Similarly, generative artificial intelligence systems operate on the basis of user prompts and provide outputs specifically generated in response to individual requests.

For generative AI services, this requirement is particularly significant. The interaction between the user and the AI model is inherently request-based: the user submits a prompt, and the system generates a response tailored to that request. Consequently, generative AI platforms generally satisfy the individual request criterion and therefore fulfil all four elements of the Information Society Service definition. The more complex legal questions arise not from the definition itself but from the regulatory consequences of classifying such systems within the existing ISS framework.

1.4 CJEU Interpretation of Information Society Services

The interpretation of Information Society Services has been significantly shaped by the jurisprudence of the Court of Justice of the European Union (CJEU). Although the statutory definition contained in Directive (EU) 2015/1535 provides the formal legal framework, many practical questions concerning the scope and application of the concept have been resolved through judicial interpretation. The Court has played a crucial role in clarifying the relationship between digital services and traditional economic activities, particularly in situations where a service combines online and offline elements.⁶⁰

⁶⁰ Case C-108/09 Ker-Optika bt v ÁNTSZ Dél-dunántúli Regionális Intézete EU:C:2010:725 [22]–[30].

The CJEU has generally adopted a functional approach when assessing whether a service qualifies as an Information Society Service. Rather than relying exclusively on the technological form of a service, the Court examines its overall economic function and the role played by the digital component within the broader service structure.⁶¹ This approach reflects the Court's objective of ensuring that the concept remains adaptable to technological innovation while preserving the coherence of the Internal Market.

Several landmark judgments have contributed to the development of the ISS concept. Among the most influential are *Ker-Optika*, *Uber Spain*, and *Airbnb Ireland*. These cases illustrate different dimensions of the Court's reasoning and demonstrate how the legal classification of digital services depends upon their specific characteristics and economic context.

Together, these decisions have established important principles for determining whether a service falls within the scope of Information Society Services. They also provide valuable guidance for assessing emerging technologies whose legal status remains uncertain. As will be demonstrated in later chapters, the reasoning developed in these cases is particularly relevant when considering whether generative artificial intelligence services can be accommodated within the traditional ISS framework.

1.4.1 Ker-Optika

The judgment in *Ker-Optika* represents one of the earliest and most influential decisions concerning the interpretation of Information Society Services within European Union law. The case concerned Hungarian legislation that prohibited the

⁶¹ Case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain SL* EU:C:2017:981, paras 34–40.

online sale of contact lenses and required such products to be purchased through physical retail establishments.⁶²

The dispute arose when Ker-Optika, a company engaged in the online sale of contact lenses, challenged the compatibility of the Hungarian restrictions with European Union law. The central issue before the Court was whether the online sale of contact lenses constituted an Information Society Service and, if so, whether national restrictions limiting such services were compatible with the principles governing the Internal Market.⁶³

The Court concluded that the online sale of contact lenses fell within the scope of Information Society Services because the service was provided through electronic means, at a distance, and at the individual request of consumers.⁶⁴ The fact that the transaction ultimately involved the delivery of a physical product did not alter the legal character of the online service itself.

A significant aspect of the judgment was the Court's emphasis on the separate assessment of the electronic component of a commercial activity. The Court recognised that the digital element of a transaction may qualify as an Information Society Service even where the transaction also includes physical elements such as the delivery of goods.⁶⁵ This reasoning contributed to a broad and flexible interpretation of the ISS concept and reinforced the objective of facilitating cross-border digital commerce within the European Union.

⁶² Case C-108/09 *Ker-Optika bt v ÁNTSZ Dél-dunántúli Regionális Intézete* EU:C:2010:725, paras 15–18.

⁶³ *Ibid*, paras 19–22.

⁶⁴ *Ibid*, paras 28–30.

⁶⁵ *Ibid*, paras 29–31.

The Ker-Optika judgment established an important principle for the future development of European digital regulation. It demonstrated that the concept of Information Society Services should be interpreted in a technologically neutral manner and applied broadly to services delivered through digital channels. This approach has influenced subsequent case law and continues to shape discussions concerning the legal classification of innovative digital services.

From the perspective of generative artificial intelligence, the case is significant because it illustrates the Court's willingness to interpret the ISS concept expansively. Although the case predated the emergence of modern AI systems, its reasoning supports the view that new digital services should be assessed according to their functional characteristics rather than their underlying technological novelty.

1.4.2 Uber Spain

The judgment in *Asociación Profesional Elite Taxi v Uber Systems Spain SL* marked a significant turning point in the interpretation of Information Society Services within European Union law. Unlike earlier decisions that favoured a broad application of the ISS concept, the Uber Spain case demonstrated that the mere existence of a digital platform does not automatically result in classification as an Information Society Service.⁶⁶

The dispute arose from the operation of the UberPop service in Spain. Through its digital platform, Uber connected passengers seeking transportation with non-professional drivers using their private vehicles. The central issue before the Court was whether Uber's activity constituted an Information Society Service or whether it should

⁶⁶ Case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain SL* EU:C:2017:981, paras 34–40.

instead be classified as a transport service falling outside the scope of the ISS framework.

Although the Court acknowledged that Uber's intermediation activities were provided electronically and at a distance, it emphasised that these characteristics alone were insufficient to determine the legal classification of the service. The Court adopted a functional approach and examined the overall economic reality of Uber's operations. In particular, it found that Uber exercised significant control over essential aspects of the service, including access to the platform, pricing mechanisms, and the organisation of transportation activities.

As a result, the Court concluded that Uber's intermediation activity formed an integral part of a broader transport service and could not be regarded as an independent Information Society Service. Consequently, the service was classified according to its principal economic function rather than its digital component.

The significance of Uber Spain extends beyond the transport sector. The judgment established an important limitation on the scope of Information Society Services by demonstrating that digital intermediation does not automatically lead to ISS classification. Instead, the legal assessment depends on the degree of control exercised by the platform operator and the relationship between the online component and the underlying service.⁶⁷

From the perspective of generative artificial intelligence, the case is particularly relevant because it highlights the importance of evaluating the actual role performed by a digital service provider. The reasoning of the Court suggests that where a platform actively shapes, controls, or determines the content or service provided, traditional

⁶⁷ Ibid, paras 43–48.

intermediary classifications may become more difficult to justify. This principle is especially significant when considering AI systems that generate content rather than merely facilitating access to information.

1.4.3 Airbnb Ireland

The judgment in Airbnb Ireland is particularly important because it demonstrates the opposite outcome to Uber Spain. In Airbnb Ireland, the CJEU held that the intermediation service provided by Airbnb could be classified as an Information Society Service. The Court emphasised that Airbnb's online service was separable from the underlying accommodation service and that Airbnb did not exercise decisive control over the essential conditions of the accommodation offered by hosts.

This reasoning is significant for the present thesis because it shows that digital platforms are not automatically excluded from the ISS framework merely because they facilitate offline or third-party activities. The decisive question is whether the online service remains independent and whether the provider exercises decisive influence over the underlying service. In contrast to Uber, Airbnb was treated as a digital intermediary rather than as the provider of the underlying accommodation service.

For generative AI, Airbnb Ireland provides an important point of comparison. Generative AI systems may formally operate as online services provided at the individual request of users, but their role is not limited to connecting users with third-party content or services. They actively generate outputs. Therefore, while Airbnb supports a broad interpretation of the ISS concept, it also highlights the limits of that

interpretation when applied to systems whose core function involves content generation rather than intermediation alone.⁶⁸

The concept of Information Society Services has played a central role in the development of European digital regulation. Originally introduced to facilitate the growth of electronic commerce and the functioning of the Internal Market, the concept established a technology-neutral framework capable of accommodating a broad range of online activities. The E-Commerce Directive and later Directive (EU) 2015/1535 provided the legal foundations for this framework by defining the characteristics of Information Society Services and creating a system of liability exemptions for intermediary service providers.

The analysis in this chapter demonstrates that the concept of Information Society Services has evolved through both legislative developments and judicial interpretation. The jurisprudence of the Court of Justice of the European Union has confirmed that the classification of digital services depends not merely on their technological form but also on their overall economic function and the degree of control exercised by service providers. While cases such as *Ker-Optika* supported a broad interpretation of the ISS concept, *Uber Spain* illustrated that certain digital platforms may fall outside the scope of Information Society Services where the online component is inseparably linked to an underlying service. Conversely, *Airbnb Ireland* reaffirmed that digital platforms performing a predominantly intermediary role may continue to benefit from ISS classification.⁶⁹

⁶⁸ Case C-390/18 *Airbnb Ireland UC v AHTOP* EU:C:2019:1112, paras 47–66.

⁶⁹ Case C-108/09 *Ker-Optika bt v ÁNTSZ Dél-dunántúli Regionális Intézete* EU:C:2010:725 [28]–[30]; Case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain SL* EU:C:2017:981 [37]–[40]; Case C-390/18 *Airbnb Ireland UC v AHTOP* EU:C:2019:1112 [50]–[59].

Taken together, these developments demonstrate both the flexibility and the limitations of the traditional ISS framework. Although the concept remains capable of accommodating many forms of digital intermediation, it was developed in an environment where online services primarily transmitted, stored, or facilitated access to information created by others. Contemporary digital services increasingly perform more complex functions that extend beyond traditional intermediary activities.

These challenges become particularly apparent in the context of generative artificial intelligence. Unlike conventional online intermediaries, generative AI systems do not merely facilitate access to information but actively produce new content in response to user requests. This development raises important questions concerning the continued suitability of existing ISS classifications and intermediary liability rules. Consequently, a reassessment of the relationship between Information Society Services and emerging AI technologies has become necessary.

The next chapter therefore examines the technological foundations and operational characteristics of generative artificial intelligence systems. Understanding how these systems function is essential for evaluating whether the traditional concept of Information Society Services remains adequate in the era of generative AI and for assessing the regulatory challenges addressed by the Digital Services Act and the Artificial Intelligence Act.

1.5 Limitations of the Traditional ISS Framework

1.5.1 The Passive Intermediary Assumption

The traditional framework governing Information Society Services is largely based on the assumption that intermediary service providers perform a passive and neutral role

in the digital environment. When the E-Commerce Directive was adopted in 2000, most online services primarily facilitated the transmission, storage, or hosting of information supplied by third parties. The regulatory objective was therefore to encourage the development of electronic commerce while protecting service providers from excessive liability for content created by users.⁷⁰

This approach is reflected in the liability exemptions established for mere conduit, caching, and hosting services. These exemptions are based on the premise that intermediary service providers neither create nor control the information transmitted through their systems. Instead, they perform technical and automatic functions that enable communication and access to information within the digital environment.⁷

The passive intermediary assumption has played a crucial role in the development of the European digital economy. By limiting liability for neutral intermediaries, the framework has promoted innovation, cross-border service provision, and the growth of online platforms. At the same time, it has provided legal certainty for businesses operating within the Internal Market.

However, the continued validity of this assumption has increasingly been questioned. Digital platforms have evolved significantly since the adoption of the E-Commerce Directive. Many contemporary online services perform functions that go beyond the simple transmission or storage of third-party information. Recommendation systems, algorithmic content moderation, targeted advertising, and personalised content delivery demonstrate a more active role in shaping users' online experiences.⁷¹

⁷⁰ Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of Information Society Services, in particular electronic commerce, in the Internal Market [2000] OJ L178/1, recitals 42–44 and arts 12–14.

⁷¹ Jan Lodder and Andrew Murray (eds), *EU Regulation of E-Commerce: A Commentary* (Edward Elgar Publishing 2017) 27–31.

As digital services become more involved in the organisation, prioritisation, and presentation of information, the distinction between passive intermediaries and active participants becomes increasingly difficult to maintain. This development raises important questions regarding whether the traditional assumptions underlying the Information Society Services framework remain appropriate for contemporary digital technologies.

1.5.2 Platformisation and Active Intermediation

The digital environment has changed significantly since the adoption of the E-Commerce Directive. While early internet services primarily acted as neutral intermediaries facilitating communication and access to information, contemporary digital platforms increasingly perform a more active role in organising and shaping digital interactions. This transformation is commonly described as platformisation and reflects the growing influence of digital platforms within economic, social, and informational ecosystems.⁷²

Platformisation refers to the process through which digital platforms become central infrastructures for communication, commerce, and information exchange. Rather than merely hosting content created by third parties, platforms increasingly rely on algorithmic systems to rank, recommend, personalise, and moderate content. As a result, they actively influence how information is presented and consumed by users.

The growing importance of platform-based services has challenged the traditional distinction between passive and active intermediaries. Although many platforms continue to benefit from the legal framework established for Information Society

⁷² Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services (Digital Services Act) [2022] OJ L277/1, recitals 1–5.

Services, their operational characteristics differ substantially from those originally envisaged by the E-Commerce Directive. Modern platforms frequently shape user experiences through automated decision-making processes and content curation mechanisms, thereby exercising a degree of influence that extends beyond purely technical and neutral intermediation.⁷³

This transformation has also influenced the evolution of European digital regulation. The Digital Services Act recognises the increasing societal significance of online platforms and introduces obligations relating to transparency, accountability, and systemic risk management. These developments reflect a broader regulatory shift from the traditional model of passive intermediation towards a framework that acknowledges the active role played by digital platforms in contemporary digital environments.

The emergence of platformisation therefore represents an important stage in the evolution of Information Society Services. While the traditional ISS framework remains relevant, the growing complexity of digital platforms demonstrates that many online services no longer fit neatly within the assumptions underlying the original intermediary liability regime. This development provides an important foundation for understanding the even greater challenges created by generative artificial intelligence systems.

1.5.3 The Emergence of Generative AI

The rapid development of generative artificial intelligence represents one of the most significant technological transformations of the contemporary digital environment. Unlike traditional online platforms that primarily facilitate access to information created by users or third parties, generative AI systems are capable of producing new content

⁷³ Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 *Journal of Free Speech Law* 1, 470–477.

in response to user instructions. Text, images, audio, video, software code, and other forms of digital content can now be generated automatically through advanced machine learning models trained on vast quantities of data.⁷⁴

The emergence of large language models (LLMs) has accelerated the adoption of generative AI technologies across a wide range of sectors. Systems such as ChatGPT, Gemini, Claude, and similar applications enable users to interact with artificial intelligence through natural language prompts and receive detailed responses generated by the model. Unlike conventional search engines, which primarily retrieve and organise existing information, generative AI systems create new outputs that may not have previously existed in the form presented to the user.⁷⁵

This technological development has important implications for existing legal frameworks. Traditional Information Society Services were generally designed around the assumption that service providers transmit, store, or facilitate access to information supplied by others. Generative AI systems, by contrast, actively participate in the creation of content. As a result, they occupy a position that is difficult to reconcile with conventional distinctions between intermediaries, publishers, content creators, and information providers.

The growing deployment of generative AI has therefore prompted renewed debate regarding the adequacy of existing regulatory categories within European Union law. Questions arise concerning responsibility for AI-generated outputs, transparency obligations, intellectual property implications, and the applicability of intermediary liability regimes originally designed for a different technological context. These issues

⁷⁴ Rishi Bommasani and others, 'On the Opportunities and Risks of Foundation Models' (2021) arXiv:2108.07258, 2–5.

⁷⁵ Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 Journal of Free Speech Law 1.

have become increasingly significant following the adoption of the Artificial Intelligence Act and the continuing development of the Digital Services Act framework.⁷⁶

The emergence of generative AI therefore marks a fundamental shift in the nature of digital services. While traditional platforms primarily organised and distributed information, generative AI systems actively generate new content. This distinction creates significant challenges for the existing Information Society Services framework and raises questions regarding whether traditional legal classifications remain capable of accommodating these technologies

1.5.4 Regulatory Gaps in the Existing ISS Framework

sections reveal several limitations within the traditional Information Society Services framework when applied to contemporary digital technologies. The ISS concept was developed during a period in which online services primarily acted as intermediaries facilitating access to information created by third parties. Consequently, the legal framework was designed around assumptions that do not fully reflect the operational realities of modern digital services and, in particular, generative artificial intelligence systems.

One of the most significant challenges concerns the distinction between intermediaries and content creators. Traditional intermediary liability rules are based on the premise that service providers do not exercise substantial control over the information transmitted or hosted through their systems. Generative AI systems, however, actively generate outputs in response to user instructions. This characteristic makes it increasingly difficult to determine whether such services should be regarded as

⁷⁶ Regulation (EU) 2024/1689 (AI Act) [2024] OJ L1689, recitals 11–12 and arts 50–56.

intermediaries, information providers, content creators, or a hybrid category that combines elements of each.⁷⁷

Additional regulatory uncertainties arise in relation to accountability and transparency. Existing ISS rules focus primarily on the responsibilities of intermediaries regarding third-party content, whereas generative AI systems create content through automated processes that may not be directly attributable to individual users. As a result, questions concerning responsibility for inaccurate, harmful, misleading, or unlawful AI-generated outputs cannot always be resolved through traditional intermediary liability principles.

Furthermore, the interaction between the Digital Services Act and the Artificial Intelligence Act demonstrates that contemporary digital regulation increasingly relies upon multiple overlapping legal frameworks. While the DSA continues to regulate intermediary services and online platforms, the AI Act introduces obligations specifically designed for artificial intelligence systems. The relationship between these instruments remains complex and does not fully resolve the conceptual classification of generative AI services within European Union law.⁷⁸

These regulatory gaps suggest that existing Information Society Services classifications may no longer be sufficient to address the challenges created by emerging AI technologies. Although the traditional ISS framework remains an important foundation of European digital law, its underlying assumptions were developed for a fundamentally different technological environment. The need to

⁷⁷ Rishi Bommasani and others, 'On the Opportunities and Risks of Foundation Models' (2021) arXiv:2108.07258, 7–9.

⁷⁸ Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' (2021) 22 Computer Law Review International 97, 101–105.

reconsider these assumptions therefore provides the central justification for the analysis undertaken in the following chapters.

These developments demonstrate that the traditional ISS framework was constructed around assumptions of intermediary neutrality and passivity. While such assumptions were largely appropriate for early internet services, they become increasingly difficult to sustain in an environment characterised by algorithmic decision-making, content personalisation, and AI-generated outputs. Consequently, the emergence of generative AI may represent not merely another technological development but a challenge to the conceptual foundations upon which the ISS framework itself was built.

CHAPTER 2

GENERATIVE ARTIFICIAL INTELLIGENCE AND THE TRANSFORMATION OF DIGITAL SERVICES

2.1 Understanding Generative Artificial Intelligence

Generative artificial intelligence refers to a category of artificial intelligence systems capable of creating new content in response to user inputs. Unlike traditional software systems that primarily process, retrieve, or organise existing information, generative AI systems produce original outputs such as text, images, audio, video, and software code. These outputs are generated through advanced machine learning techniques that enable the system to identify patterns within large datasets and generate new content based on those patterns.⁷⁹

⁷⁹ Stanford Institute for Human-Centered Artificial Intelligence (HAI), Artificial Intelligence Index Report 2024 (Stanford University 2024) 17–20.

The rapid development of generative AI has transformed the digital landscape. In recent years, applications such as ChatGPT, Gemini, Claude, Midjourney, and other AI-based systems have demonstrated the ability to perform tasks that were previously associated with human creativity and communication. These systems can answer questions, generate written content, summarise documents, translate languages, create images, and assist users in a wide variety of professional and personal activities.

A defining characteristic of generative AI is its ability to produce outputs that are not merely copies of existing information. Instead, the system generates responses by predicting and constructing new content based on patterns learned during training. Consequently, the generated output may be unique to a particular user request, even when the underlying knowledge originates from information contained within training datasets.

The emergence of generative AI has attracted significant attention from policymakers, academics, businesses, and regulators. The widespread adoption of these technologies has created opportunities for innovation, productivity, and economic growth. At the same time, concerns have emerged regarding misinformation, intellectual property rights, transparency, accountability, bias, and the potential societal impact of AI-generated content.⁸⁰

These developments distinguish generative AI from many traditional digital services previously examined under the Information Society Services framework. Whereas conventional online intermediaries primarily facilitate access to information created by others, generative AI systems actively participate in the creation of new content. This

⁸⁰ Regulation (EU) 2024/1689 (AI Act) [2024] OJ L1689, recitals 4–12.

distinction forms the basis for many of the legal and regulatory challenges discussed in the subsequent sections of this thesis.

2.2 Large Language Models and Foundation Models

Large language models (LLMs) and foundation models constitute the technological backbone of contemporary generative artificial intelligence systems. Their development has significantly expanded the capabilities of artificial intelligence and enabled the creation of systems capable of producing human-like text, images, audio, and other forms of digital content. Understanding these technologies is therefore essential for analysing the legal challenges associated with generative AI.

Large language models are machine learning systems trained on vast quantities of textual data. Through training, they learn statistical relationships between words, phrases, and linguistic structures, allowing them to generate coherent and contextually relevant responses to user prompts. Unlike traditional software systems that rely on predefined rules and instructions, large language models operate through probabilistic prediction and pattern recognition.

The concept of foundation models is broader than that of large language models. Foundation models are large-scale AI systems trained on extensive datasets and designed to serve as the basis for a wide range of downstream applications. A single foundation model may subsequently be adapted through fine-tuning or additional training to perform specialised tasks in different contexts.

Large language models represent one category of foundation models. Systems such as GPT, Gemini, Claude, and similar models are built upon foundation-model architectures and are capable of supporting numerous applications across different

sectors. Their flexibility and scalability have contributed significantly to the widespread adoption of generative AI technologies.

From a regulatory perspective, foundation models raise important legal questions because they may be integrated into multiple products and services. Consequently, responsibility for compliance, transparency, safety, and accountability may involve a variety of actors, including model developers, deployers, service providers, and end users. These characteristics distinguish foundation models from many traditional digital services and contribute to the regulatory challenges examined in subsequent chapters of this thesis.

2.3 The Functioning of Generative AI Systems

Generative AI systems operate through complex machine learning processes that enable them to generate content in response to user inputs. Unlike traditional software applications, which typically rely on predefined instructions and deterministic rules, generative AI systems learn patterns from large datasets during a training phase and subsequently apply this knowledge when generating outputs.

The operation of a generative AI system generally involves several stages. First, the model is trained using extensive datasets containing text, images, audio, or other forms of information. During training, the system identifies statistical relationships and patterns within the data. Through repeated optimisation processes, the model develops the ability to predict and generate content that resembles the information encountered during training.

Once deployed, the system interacts with users through prompts or instructions. A user submits a request, and the model processes the input by analysing the linguistic or contextual information contained within the prompt. The system then generates a

response by predicting the most probable sequence of outputs based on the patterns learned during training. Consequently, the generated content is not retrieved from a database in the same manner as a search engine but is dynamically produced during the interaction itself.⁸¹

This distinction is particularly important from a legal perspective. Traditional online intermediaries primarily facilitate access to information created by others, whereas generative AI systems actively participate in the production of content. Although the output is influenced by user prompts and training data, the final response is generated through the model's internal computational processes rather than being directly supplied by a third party.

The functioning of generative AI systems therefore differs fundamentally from many conventional digital services. Their ability to generate novel outputs, adapt responses to individual user requests, and operate through probabilistic prediction mechanisms creates regulatory challenges that are not easily addressed through legal frameworks originally designed for passive intermediaries or hosting providers.

2.4 Generative AI as a Hybrid Digital Service

Generative artificial intelligence systems do not fit neatly within traditional categories of digital services. Unlike conventional online intermediaries, which primarily facilitate access to information created by third parties, generative AI systems actively participate in the creation of content. At the same time, they continue to perform intermediary functions by processing user requests and providing access to information derived from training data. Consequently, generative AI systems may be

⁸¹ Rishi Bommasani and others, 'On the Opportunities and Risks of Foundation Models' (2021) arXiv:2108.07258, 3–6.

understood as hybrid digital services that combine characteristics of both information intermediaries and content-generating technologies.⁸²

The hybrid nature of generative AI becomes particularly evident when examining the interaction between users and AI systems. A user submits a prompt, the system processes the request, and a new output is generated. While this process resembles traditional information services in certain respects, the resulting content is not merely transmitted from an existing source. Instead, it is generated dynamically through computational processes that create a novel response based on patterns learned during training.

This characteristic distinguishes generative AI systems from many services traditionally classified as Information Society Services. Search engines, hosting providers, and online marketplaces generally facilitate access to information supplied by others. Generative AI systems, by contrast, contribute directly to the creation of the output presented to users. As a result, they occupy a position that combines elements of digital platforms, information intermediaries, and content-producing systems.

The classification of generative AI as a hybrid digital service has important regulatory implications. Existing legal frameworks frequently rely upon distinctions between intermediaries and content providers when allocating rights, responsibilities, and liability. However, these distinctions become increasingly difficult to apply where AI systems simultaneously facilitate access to information and generate new content. As a result, generative AI challenges traditional legal categories and raises questions regarding the adequacy of existing regulatory approaches.

⁸² Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 *Journal of Free Speech Law* 1, 478–480.

The concept of a hybrid digital service therefore provides a useful framework for understanding the unique position occupied by generative AI within the contemporary digital ecosystem. It highlights the limitations of existing classifications and provides a foundation for evaluating whether new regulatory approaches may be required.

2.5 Regulatory Challenges Created by Generative AI

The rapid emergence of generative artificial intelligence has created significant regulatory challenges for existing legal frameworks. Many of the rules governing digital services within the European Union were developed before the widespread deployment of AI systems capable of generating original content. Consequently, these frameworks were primarily designed to regulate intermediaries that transmit, store, or facilitate access to information supplied by third parties rather than systems that actively create content.

One of the principal challenges concerns the legal classification of generative AI systems. Traditional regulatory categories frequently distinguish between intermediaries and content providers. However, generative AI systems combine characteristics of both categories. They process user requests and facilitate access to information while simultaneously generating new outputs through autonomous computational processes. This hybrid nature complicates the application of existing liability regimes and raises questions regarding the allocation of legal responsibility.

Additional challenges arise in relation to transparency, accountability, and the reliability of AI-generated content. Generative AI systems may produce inaccurate, misleading, or harmful outputs despite operating in accordance with their design. Furthermore, users are often unable to understand how particular outputs are generated, creating concerns regarding explainability and oversight. These issues have attracted

increasing attention from policymakers and regulators seeking to ensure that AI technologies remain consistent with fundamental rights, consumer protection, and broader public interests.⁸³

The development of the Digital Services Act and the Artificial Intelligence Act reflects the European Union's efforts to address these emerging challenges. Nevertheless, important questions remain regarding the interaction between these regulatory instruments and the continued relevance of legal concepts originally developed for Information Society Services. The following chapters examine these issues in greater detail by analysing the treatment of generative AI under the Digital Services Act and the Artificial Intelligence Act, with particular attention to questions of liability, transparency obligations, and the evolving regulatory status of AI-driven services within the European legal framework.

Three risks are particularly relevant for the legal classification of generative AI systems. First, generative AI may produce inaccurate or fabricated information, commonly described as hallucination, which complicates the allocation of responsibility for harmful or misleading outputs. Secondly, generative AI systems may reproduce or amplify bias contained in training data, raising concerns regarding discrimination, fundamental rights, and fairness. Thirdly, the use of large-scale training datasets and the generation of outputs resembling protected works create unresolved intellectual property questions. These risks demonstrate that generative AI should not be analysed merely as a neutral intermediary service. Instead, its regulatory significance lies in the

⁸³ Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' (2021) 22 *Computer Law Review International* 97, 101–104.

fact that risks may arise from the design, training, deployment, and output-generation process itself.⁸⁴

CHAPTER 3

THE DIGITAL SERVICES ACT AND PLATFORM LIABILITY

3.1 The Objectives and Structure of the DSA

The Digital Services Act (DSA) constitutes one of the most significant developments in European Union digital regulation in recent years. Adopted as part of the European Commission's Digital Services Package, the DSA seeks to modernise the legal framework governing digital services and online intermediaries operating within the Internal Market. The Regulation responds to substantial technological and societal developments that have occurred since the adoption of the E-Commerce Directive in 2000 and aims to create a safer, more transparent, and more accountable online environment.⁸⁵

The primary objective of the DSA is to establish harmonised rules for intermediary services across the European Union. By introducing a uniform regulatory framework, the Regulation seeks to ensure the effective protection of fundamental rights while facilitating innovation and the continued development of digital services. The DSA also aims to address risks associated with illegal content, online manipulation, disinformation, and other harmful activities that may occur within digital environments.

⁸⁴ Rishi Bommasani and others, 'On the Opportunities and Risks of Foundation Models' (2021) arXiv:2108.07258, 95–120.

⁸⁵ Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services (Digital Services Act) [2022] OJ L277/1, recitals 1–10.

The structure of the DSA reflects a risk-based regulatory approach. Different categories of intermediary services are subject to different levels of obligations depending on their role and potential impact within the digital ecosystem. The Regulation distinguishes between mere conduit services, caching services, hosting services, online platforms, and very large online platforms or search engines. As the level of influence exercised by a service provider increases, so too do the regulatory obligations imposed by the DSA.

In addition to preserving certain liability protections inherited from the E-Commerce Directive, the DSA introduces extensive transparency, reporting, and due diligence obligations. These measures are intended to improve accountability while maintaining an appropriate balance between innovation, freedom of expression, and user protection. The Regulation therefore represents an evolutionary rather than revolutionary development in European digital law, building upon existing principles while adapting them to contemporary technological realities.

The Digital Services Act provides the principal legal framework through which the European Union regulates intermediary services in the digital environment. Consequently, understanding its objectives and structure is essential for assessing whether and to what extent generative AI systems may fall within its scope.

3.2 Intermediary Services under the DSA

A central feature of the Digital Services Act is its regulation of intermediary services operating within the digital environment. Rather than creating a completely new regulatory framework, the DSA largely preserves the categorisation of intermediary services originally established by the E-Commerce Directive while introducing additional obligations designed to address contemporary digital risks. Understanding

these categories is essential because the applicability of liability exemptions and regulatory obligations depends upon the classification of a particular service provider.⁸⁶

Article 3(g) DSA distinguishes between several categories of intermediary services, namely mere conduit services, caching services, and hosting services. These categories reflect different levels of involvement in the transmission, storage, and dissemination of information provided by users. The distinction is important because the legal responsibilities of service providers vary according to the functions they perform within the digital ecosystem.

Mere conduit services represent the most limited form of intermediation. These services consist of the transmission of information through communication networks or the provision of access to such networks. Service providers operating as mere conduits generally play a passive role and do not modify or influence the content being transmitted. Consequently, the DSA preserves broad liability protections for such providers, reflecting the principle that entities merely facilitating communication should not be held responsible for information supplied by third parties.

Caching services occupy an intermediate position. These services temporarily store information for the purpose of improving the efficiency and speed of subsequent transmissions. The storage function is automatic and limited in duration, allowing users to access information more efficiently. As with mere conduit services, liability protections are generally available where providers remain technically neutral and comply with the conditions established by the Regulation.

⁸⁶ Paul Craig and Gráinne de Búrca, *EU Law: Text, Cases, and Materials* (8th edn, Oxford University Press 2020) 877–881.

Hosting services represent the most significant category for contemporary digital regulation. Under the DSA, a hosting service involves the storage of information provided by and at the request of a recipient of the service. Online marketplaces, social media platforms, cloud storage providers, and numerous other digital services typically fall within this category. Because hosting providers exercise a greater degree of control over digital environments, they are subject to more extensive obligations relating to transparency, notice-and-action mechanisms, and the handling of illegal content.

The DSA further recognises a specific subgroup of hosting services known as online platforms. An online platform is a hosting service that not only stores information supplied by users but also disseminates that information to the public at the request of those users. This distinction reflects the significant societal influence exercised by platforms that facilitate large-scale communication, content sharing, and commercial interactions. Accordingly, online platforms are subject to additional obligations beyond those imposed on ordinary hosting providers.

The categorisation of intermediary services plays a crucial role in determining the scope of liability exemptions under the DSA. The liability framework is based upon the assumption that intermediary services primarily facilitate the activities of users rather than create content themselves. This assumption functions effectively for many traditional digital services. However, the emergence of generative AI systems raises questions regarding whether these established categories remain adequate. Unlike conventional hosting providers or online platforms, generative AI systems may actively generate content while simultaneously performing certain intermediary functions. Consequently, determining whether such systems fall within existing DSA categories has become one of the most important questions in contemporary European digital regulation.

The analysis of intermediary services under the DSA therefore provides the foundation for assessing the legal position of generative AI. Before evaluating the applicability of liability exemptions to AI-generated outputs, it is necessary to understand the regulatory logic underlying the DSA's classification system and the assumptions upon which that system is based.

In particular, the traditional intermediary categories were developed in an era when digital services primarily acted as passive facilitators of user-generated content. Generative AI systems challenge this premise because they do not merely transmit, store, or disseminate information supplied by users; rather, they generate new content through automated processes based on user prompts and training data. This hybrid functionality creates uncertainty regarding whether such systems should be treated as intermediaries benefiting from liability exemptions or as active content creators subject to different regulatory standards.

As a result, legal scholars and policymakers have increasingly debated the extent to which the DSA framework can accommodate emerging AI technologies. The following sections examine these issues in greater detail by analysing the relationship between generative AI systems and the intermediary service categories established under the DSA, as well as the implications for liability, accountability, and regulatory compliance within the European Union.

3.3 Liability Framework under the DSA

One of the central objectives of the Digital Services Act is to establish a coherent framework governing the liability of intermediary services within the European Union. While the DSA introduces numerous transparency and due diligence obligations, it largely preserves the liability regime originally developed under the E-Commerce

Directive. This continuity reflects the European Union's longstanding policy of encouraging innovation and digital economic activity while avoiding the imposition of excessive liability on service providers that merely facilitate online communication.

The liability framework established by the DSA is based on the principle that intermediary services should not automatically be held responsible for information provided by users. Instead, liability depends upon the specific role performed by the service provider and the degree of involvement in the creation, modification, or dissemination of content. Consequently, the Regulation distinguishes between different categories of intermediary services and provides separate liability exemptions for each category.

For mere conduit services, liability protections apply where the provider merely transmits information or provides access to a communication network without initiating the transmission, selecting the recipient, or modifying the information transmitted. Similar protections exist for caching services, provided that the storage of information remains automatic, temporary, and technically necessary for improving the efficiency of communication networks.

The most significant liability exemption concerns hosting services. Under the DSA, hosting providers are generally not liable for illegal information stored at the request of users, provided that they lack actual knowledge of illegal activity or content and act expeditiously upon obtaining such knowledge. This approach seeks to balance competing interests by protecting intermediaries from excessive legal exposure while ensuring that unlawful content may be removed when appropriate.

The liability framework is closely connected to the concept of intermediary neutrality. The more actively a service provider participates in the creation, optimisation,

promotion, or control of content, the more difficult it becomes to justify the application of liability exemptions. Consequently, the distinction between passive intermediation and active involvement plays a crucial role in determining the availability of legal protections under the DSA.⁸⁷

This distinction becomes particularly relevant when considering generative AI systems. Unlike traditional hosting providers, generative AI systems do not merely store and disseminate content supplied by users. Instead, they generate new outputs through computational processes that transform user prompts into original responses. As a result, questions arise regarding whether the traditional assumptions underlying intermediary liability remain appropriate when applied to AI-generated content. These questions form the basis of the analysis developed in the following section.

One of the central challenges in applying the DSA to generative AI services is determining whether these systems can be treated in the same way as traditional intermediary service providers. The DSA was primarily designed with hosting services, online platforms, and search engines in mind, whereas generative AI systems actively generate new content rather than merely storing or transmitting information created by users. As a result, the allocation of responsibilities and liability exemptions under the DSA becomes more complex when applied to AI-generated outputs.

A particularly important issue concerns Article 8 DSA, which preserves the prohibition of general monitoring obligations. This provision reflects a long-standing principle of EU intermediary liability law: intermediary service providers should not be required to monitor all information transmitted or stored through their services. However, generative AI complicates this logic. Unlike traditional hosting providers, generative AI

⁸⁷ Jan Lodder and Andrew Murray (eds), *EU Regulation of E-Commerce: A Commentary* (Edward Elgar Publishing 2017) 145–152.

providers often implement technical safeguards, content filters, moderation layers, and output-control mechanisms before information reaches the user. This does not necessarily amount to general monitoring in the traditional sense, but it demonstrates that generative AI systems are not entirely passive. The existence of such preventive and technical control mechanisms therefore weakens the classical assumption that intermediary providers merely react to unlawful content after notification. In the context of generative AI, responsibility may arise not only after the dissemination of unlawful content but also from the design and operation of the system itself. This tension suggests that the no-general-monitoring principle remains important but may require more nuanced interpretation when applied to AI-driven services.⁸⁸

3.4 Very Large Online Platforms and Search Engines

The Digital Services Act introduces a special regulatory regime for Very Large Online Platforms (VLOPs) and Very Large Online Search Engines (VLOSEs). The European Union adopted this approach in recognition of the significant influence that certain digital services exercise over public discourse, economic activity, and access to information within the Internal Market. Due to their scale and societal impact, these services are subject to obligations that exceed those imposed upon ordinary intermediary services.⁸⁹

Under the DSA, a platform or search engine may be designated as a VLOP or VLOSE where it reaches at least 45 million average monthly active recipients within the European Union. This threshold reflects the view that services operating at such scale

⁸⁸ Regulation (EU) 2022/2065 (Digital Services Act) art 8.

⁸⁹ Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services (Digital Services Act) [2022] OJ L277/1, arts 33–39.

possess the capacity to generate systemic risks affecting large numbers of users and society as a whole.

The DSA therefore imposes additional obligations on VLOPs and VLOSEs relating to risk assessment, risk mitigation, transparency, auditing, and regulatory oversight. These providers must identify and address systemic risks associated with the dissemination of illegal content, negative effects on fundamental rights, manipulation of services, and threats to democratic processes. They are also required to provide greater transparency regarding recommender systems, advertising practices, and content moderation procedures.

The introduction of this risk-based framework represents a significant development in European digital regulation. Rather than focusing exclusively on individual instances of unlawful content, the DSA seeks to address structural and systemic risks generated by large-scale digital services. This approach reflects a shift from traditional intermediary liability towards broader forms of platform accountability.

The enhanced obligations imposed on VLOPs and VLOSEs also reflect the growing recognition that digital platforms can significantly influence the way information is created, distributed, and consumed. Through recommendation algorithms, content-ranking mechanisms, and targeted advertising systems, large platforms shape users' access to information and may indirectly influence public opinion and democratic discourse. For this reason, the DSA places particular emphasis on transparency and risk management obligations for services operating at a systemic scale.

Although most generative AI systems are not currently designated as VLOPs or VLOSEs, the regulatory philosophy underlying these provisions remains highly relevant. Large AI systems increasingly influence access to information, shape public

discourse, and affect user decision-making processes. Consequently, the obligations imposed upon very large platforms and search engines provide useful insights into the evolving approach of European lawmakers towards digital services that exert significant societal influence.

3.5 Applicability of the DSA to Generative AI Systems

The applicability of the Digital Services Act to generative AI systems remains one of the most complex and debated questions in contemporary European digital law. Although the DSA was designed to regulate intermediary services operating within the online environment, generative AI systems do not fit comfortably within the categories traditionally recognised by the Regulation. This difficulty arises because such systems simultaneously perform functions associated with information intermediaries while also generating new content through autonomous computational processes.

At first glance, certain features of generative AI services appear consistent with the objectives of the DSA. AI providers offer digital services through online interfaces, interact directly with users, and facilitate access to information. In this respect, they share characteristics with various intermediary services already regulated under the DSA. Furthermore, large-scale AI systems increasingly influence the dissemination and consumption of information, raising concerns similar to those addressed by the Regulation in relation to online platforms and search engines.

However, significant differences distinguish generative AI systems from traditional intermediary services. The DSA framework is largely built upon the assumption that service providers transmit, store, or facilitate access to information supplied by third parties. Generative AI systems, by contrast, generate outputs that are produced by the

model itself rather than merely communicated from existing sources. Consequently, the relationship between users, service providers, and content differs substantially from the model underlying traditional intermediary liability.

These differences create uncertainty regarding the availability of liability exemptions under the DSA. If AI-generated content cannot be regarded as information supplied by a recipient of the service, the legal justification for applying intermediary liability protections becomes less convincing. At the same time, excluding generative AI systems entirely from the DSA framework may create regulatory gaps and undermine important objectives relating to transparency, accountability, and user protection.

A further challenge concerns the hybrid nature of generative AI systems. As discussed in previous chapters, such systems combine characteristics of information intermediaries, digital platforms, and content-generating technologies. This hybrid functionality complicates attempts to classify AI services within existing legal categories originally developed for a fundamentally different technological environment. As a result, the application of the DSA to generative AI frequently requires interpretation beyond the situations explicitly contemplated by the Regulation.⁹⁰

From a regulatory perspective, the emergence of generative AI demonstrates the limitations of legal frameworks developed before the widespread adoption of artificial intelligence. While the DSA continues to provide valuable principles concerning transparency, accountability, and platform governance, its intermediary-service model does not fully capture the unique characteristics of AI-generated content. For this reason, the relationship between the DSA and generative AI remains uncertain and

⁹⁰ Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 *Journal of Free Speech Law* 1, 8–15.

continues to evolve through academic debate, regulatory guidance, and future legal developments.

The analysis undertaken in this chapter demonstrates that generative AI systems challenge several of the assumptions underlying the DSA framework. These challenges provide the foundation for the following chapter, which examines the Artificial Intelligence Act and evaluates whether the European Union has developed a more suitable regulatory approach for addressing the distinctive risks and characteristics associated with generative AI systems

CHAPTER 4

THE AI ACT AND THE REGULATION OF GENERATIVE AI

4.1 Objectives and Structure of the AI Act

The Artificial Intelligence Act represents the first comprehensive attempt by the European Union to establish a harmonised legal framework for artificial intelligence. Unlike the Digital Services Act, which primarily focuses on intermediary services and online platforms, the AI Act directly addresses the development, deployment, and use of artificial intelligence systems. Its adoption reflects growing concerns regarding the societal, economic, and legal implications of increasingly sophisticated AI technologies, including generative artificial intelligence systems.⁹¹

The principal objective of the AI Act is to promote the development and use of trustworthy artificial intelligence while ensuring a high level of protection for

⁹¹ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) [2024] OJ L1689, recitals 1–12.

fundamental rights, health, safety, and democratic values within the European Union. The Regulation seeks to create legal certainty for businesses and innovators while simultaneously addressing risks associated with AI systems that may affect individuals and society.

A defining characteristic of the AI Act is its risk-based regulatory approach. Rather than regulating all AI systems in the same manner, the Regulation establishes different levels of obligations according to the degree of risk posed by a particular system. AI applications considered to present unacceptable risks are prohibited, while high-risk systems are subject to extensive requirements relating to transparency, documentation, human oversight, data governance, and risk management. Lower-risk systems remain subject to more limited regulatory obligations.

The structure of the AI Act reflects this graduated approach. The Regulation contains rules governing prohibited AI practices, high-risk AI systems, transparency obligations, governance mechanisms, enforcement procedures, and sanctions. In addition, the final version of the Act introduces specific provisions addressing general-purpose AI models and foundation models, recognising their growing importance within the European digital economy.

This development is particularly significant for generative AI. Earlier European digital regulations were primarily designed to address services that transmit, store, or disseminate information. The AI Act adopts a different perspective by focusing directly on the operation and capabilities of AI systems themselves. Consequently, the Regulation provides a more specialised framework for addressing challenges associated with AI-generated content, foundation models, and large language models.

The AI Act therefore marks an important evolution in European digital regulation. Rather than relying exclusively upon intermediary liability concepts, it establishes a dedicated regulatory framework specifically designed to address the unique characteristics and risks of artificial intelligence. Understanding the objectives and structure of the AI Act is therefore essential for evaluating its relationship with generative AI and assessing whether it provides a more suitable regulatory model than existing digital services legislation.

4.2 Risk-Based Regulation of AI Systems

A defining feature of the Artificial Intelligence Act is its adoption of a risk-based regulatory model. Rather than imposing identical obligations on all artificial intelligence systems, the Regulation differentiates between AI applications according to the level of risk they present to individuals, society, and fundamental rights. This approach reflects the recognition that not all AI systems create the same degree of potential harm and that regulatory intervention should therefore be proportionate to the risks involved.⁹²

The AI Act establishes four broad categories of risk. At the highest level are AI systems presenting unacceptable risks, which are prohibited within the European Union. These include certain forms of social scoring, manipulative AI practices, and specific applications considered incompatible with fundamental rights and democratic values. By prohibiting such practices, the Regulation seeks to prevent particularly harmful uses of artificial intelligence before they can produce adverse societal consequences.

⁹² Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) [2024] OJ L1689, recitals 26–34.

The second category consists of high-risk AI systems. These systems are not prohibited but are subject to extensive regulatory requirements before they may be placed on the market or put into operation. High-risk AI systems are commonly found in sectors such as employment, education, law enforcement, migration management, critical infrastructure, and access to essential public or private services. Providers of such systems must comply with obligations relating to risk management, data governance, technical documentation, transparency, human oversight, and post-market monitoring.⁹³

A third category encompasses AI systems that are subject primarily to transparency obligations. In these cases, users must be informed that they are interacting with artificial intelligence or that particular content has been generated or manipulated through AI technologies. The objective is to enable individuals to make informed decisions and reduce the risk of deception or misunderstanding.

Finally, the majority of AI systems fall within the category of minimal or low-risk applications. These systems remain largely unregulated under the AI Act, reflecting the principle that excessive regulation may unnecessarily hinder innovation and technological development. The Regulation therefore seeks to balance innovation with the protection of public interests through a proportionate and flexible framework.

The risk-based approach is particularly relevant for generative AI systems. Although many generative AI applications do not automatically qualify as high-risk systems, they may nevertheless create significant concerns relating to misinformation, bias, intellectual property, transparency, and accountability. For this reason, the final version

⁹³ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) [2024] OJ L1689, arts 5–7 and Annex III.

of the AI Act introduces specific provisions addressing general-purpose AI models and foundation models, recognising that their societal impact may extend beyond traditional risk classifications.

The adoption of a risk-based framework distinguishes the AI Act from earlier European digital regulations. Whereas instruments such as the Digital Services Act focus primarily on the activities of service providers, the AI Act concentrates on the capabilities, functions, and potential impacts of AI systems themselves. This shift reflects the growing recognition that artificial intelligence requires regulatory approaches specifically tailored to its unique technological characteristics and risks.

4.3 General-Purpose AI Models

One of the most significant innovations introduced by the Artificial Intelligence Act is the regulation of General-Purpose AI (GPAI) models. Unlike traditional AI systems designed for specific and narrowly defined tasks, GPAI models are capable of performing a wide range of functions and may be integrated into numerous downstream applications. This category includes many contemporary foundation models, such as large language models, which can generate text, analyse information, translate languages, write software code, and perform various other tasks depending on the context in which they are deployed.⁹⁴

The inclusion of GPAI models within the scope of the AI Act reflects the growing recognition that certain AI technologies possess capabilities extending far beyond individual applications. A single foundation model may serve as the technological basis for multiple services operating across different sectors and industries. Consequently,

⁹⁴ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) [2024] OJ L1689, arts 51–56.

risks associated with such models cannot always be addressed solely through regulation of the final AI system deployed by a provider or user.

The AI Act therefore introduces obligations specifically applicable to providers of GPAI models. These obligations include requirements relating to technical documentation, information-sharing, compliance with European copyright rules, and the preparation of summaries concerning training data. The objective is to improve transparency and accountability throughout the AI value chain while ensuring that downstream providers possess sufficient information to comply with their own legal obligations.

Particular attention is given to GPAI models that present systemic risks. The Regulation recognises that highly capable foundation models may produce societal impacts extending beyond individual users or applications. Such risks may include the large-scale dissemination of misinformation, cybersecurity threats, manipulation of public discourse, or other forms of harm affecting society as a whole. Consequently, providers of GPAI models presenting systemic risks are subject to enhanced regulatory obligations.

The regulation of GPAI models represents a significant departure from earlier approaches to digital regulation. Rather than focusing exclusively on the final deployment of AI systems, the AI Act addresses risks at the level of the underlying model itself. This reflects an understanding that foundation models play a central role within the contemporary AI ecosystem and that their capabilities may influence a wide range of downstream applications.

For generative AI systems such as ChatGPT, Gemini, and Claude, the introduction of GPAI regulation is particularly important. These systems are built upon foundation models capable of performing diverse functions across multiple contexts. As a result,

the AI Act provides a regulatory framework that is more directly applicable to generative AI than earlier legislation based primarily on concepts of intermediary services and platform liability.

4.4 Transparency and Accountability Obligations

Transparency and accountability are central elements of the Artificial Intelligence Act's regulatory framework. The Regulation recognises that AI systems may create risks not only because of their outputs, but also because of the opacity of the processes through which those outputs are generated. This is particularly relevant for generative AI systems, where users may not fully understand whether they are interacting with an AI system, how the output has been produced, or whether the content has been artificially generated.

The AI Act addresses these concerns through specific transparency obligations. Certain AI systems must be designed and deployed in a manner that enables users to recognise when they are interacting with artificial intelligence. In addition, providers and deployers may be required to disclose when content has been artificially generated or manipulated. These obligations are especially relevant for generative AI systems because such systems can produce text, images, audio, and video that may appear authentic or human-created.⁹⁵

Transparency obligations serve several important functions. First, they protect users from deception by ensuring that individuals are aware when they are interacting with AI-generated content. Secondly, they support informed decision-making by allowing users to evaluate the reliability and origin of the information they receive. Thirdly,

⁹⁵ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) [2024] OJ L1689, art 50.

transparency contributes to broader accountability by making it easier to identify when AI systems are involved in the creation or dissemination of content.

Accountability under the AI Act is also connected to documentation and information duties. Providers of general-purpose AI models are required to maintain technical documentation, provide relevant information to downstream providers, and support compliance throughout the AI value chain. These obligations are important because generative AI systems are often integrated into multiple services and applications, making it difficult to assign responsibility solely at the level of the final deployed product.⁹⁶

For generative AI systems, the relationship between transparency and accountability is particularly significant. Users may rely on AI-generated outputs without understanding the limitations of the system or the risks associated with inaccurate, biased, or misleading content. At the same time, downstream providers may depend on foundation models developed by other actors. The AI Act therefore attempts to distribute responsibility across the AI ecosystem by imposing obligations not only on deployers but also on providers of general-purpose AI models.

These obligations demonstrate that the AI Act adopts a different regulatory logic from the Digital Services Act. Whereas the DSA focuses primarily on intermediary services and platform governance, the AI Act addresses the specific risks created by AI systems themselves. This makes the AI Act particularly important for generative AI, as it directly targets issues of opacity, synthetic content, documentation, and responsibility across the AI value chain.

⁹⁶ Regulation (EU) 2024/1689 (AI Act), arts 50 and 53.

4.4.1 Article 50 AI Act and the Transformation of Intermediary Responsibility

Article 50 AI Act is particularly important for the legal classification of generative AI systems because it introduces transparency obligations that go beyond traditional intermediary liability rules. The provision requires certain AI systems to ensure that users are informed when they are interacting with an AI system and, in specific circumstances, that AI-generated or manipulated content is labelled or otherwise made detectable. These obligations demonstrate that EU law increasingly treats generative AI providers not merely as neutral facilitators of information flows but as actors capable of shaping the informational environment.⁹⁷

In addition, Article 50 contains specific obligations for providers of general-purpose AI systems and generative AI models. These providers must ensure that AI-generated content can be identified as artificially generated or manipulated, except where such measures would be technically infeasible or would interfere with legitimate uses. The provision therefore reflects a broader regulatory concern with preserving trust, authenticity, and transparency in digital communications. By requiring disclosure mechanisms at the design stage, the AI Act embeds accountability directly into the architecture of generative AI systems rather than relying solely on ex post enforcement measures.

This is significant from a doctrinal perspective. Traditional intermediary liability law was built around the idea that intermediaries generally do not create or control the content transmitted through their services. Article 50 AI Act modifies this logic by imposing transparency duties connected to the generation and presentation of AI outputs. The

⁹⁷ Regulation (EU) 2024/1689 (AI Act), art 50(1)–(4).

provider's responsibility is therefore linked not only to the removal of unlawful content but also to the design, disclosure, and traceability of AI-generated content.

The shift is particularly noteworthy because generative AI systems actively participate in the creation of content rather than merely hosting or transmitting information supplied by third parties. While users continue to play an important role in prompting and directing outputs, the AI system itself contributes to the production of the final content. Article 50 acknowledges this distinctive role by imposing obligations that are triggered by the system's generative capabilities. As a result, the legal framework begins to recognise that responsibility in the digital environment may arise not only from hosting content but also from enabling and shaping its creation.

The relevance of Article 50 AI Act is especially visible when compared with the Digital Services Act. The DSA focuses primarily on intermediary services, illegal content, notice-and-action mechanisms, and systemic risk obligations for large platforms. The AI Act, by contrast, focuses on the characteristics and risks of AI systems themselves. Generative AI therefore sits at the intersection of two regulatory logics: intermediary liability under the DSA and technology-specific accountability under the AI Act. This supports the argument that generative AI cannot be fully understood through traditional ISS categories alone.

Moreover, the coexistence of the DSA and the AI Act illustrates the emergence of a layered regulatory framework. A provider of a generative AI service may simultaneously be subject to obligations as an intermediary service provider under the DSA and as a provider of an AI system under the AI Act. This dual regulatory status highlights the inadequacy of viewing generative AI exclusively through the lens of intermediary liability. Instead, the legal framework increasingly recognises that such

systems perform functions that combine elements of information intermediation, content generation, and technological governance.

Accordingly, Article 50 strengthens the case for recognising generative AI systems as Enhanced Generative Intermediaries. The transparency obligations imposed by the AI Act show that the legal system already moves beyond the purely passive intermediary model. Generative AI providers are expected to take responsibility for how AI-generated content is disclosed, identified, and presented to users. This does not necessarily make them publishers in the traditional sense, but it confirms that they occupy a hybrid regulatory position between passive intermediaries and active content producers.

From a broader normative perspective, Article 50 demonstrates that transparency has become a central mechanism for regulating emerging digital technologies. Rather than imposing blanket liability for all AI-generated outputs, the AI Act seeks to reduce informational asymmetries and enable users to make informed judgments about the content they encounter. This approach aligns with the concept of Enhanced Generative Intermediaries, which recognises that generative AI providers exercise a degree of influence over information production while remaining distinct from traditional publishers. Consequently, Article 50 provides important evidence that EU law is developing a new category of responsibility tailored to the unique characteristics of generative AI systems.

4.5 Interaction between the AI Act and the DSA

The relationship between the Artificial Intelligence Act and the Digital Services Act represents one of the most important developments in contemporary European digital regulation. Although both instruments seek to address challenges arising from digital

technologies, they pursue different regulatory objectives and operate through distinct legal mechanisms. Understanding their interaction is therefore essential for assessing the regulatory treatment of generative AI systems within the European Union.⁹⁸

The Digital Services Act focuses primarily on intermediary services, online platforms, and the dissemination of information within the digital environment. Its main objective is to promote a safer online ecosystem through obligations relating to transparency, content moderation, risk management, and platform accountability. The DSA therefore regulates how digital services operate and interact with users rather than the technical design of the technologies themselves.

By contrast, the Artificial Intelligence Act focuses directly on AI systems and their associated risks. Instead of regulating intermediary functions, the AI Act establishes obligations based on the capabilities, intended purposes, and potential impacts of artificial intelligence technologies. Through its risk-based approach, the Regulation addresses issues such as safety, transparency, human oversight, documentation, and accountability throughout the AI lifecycle.

Despite these differences, the two regulatory instruments are complementary rather than contradictory. Generative AI systems may simultaneously fall within the scope of both regimes. For example, an AI-powered service operating through an online platform may be subject to transparency and governance obligations under the DSA while also being required to comply with the AI Act's provisions concerning general-purpose AI models, transparency requirements, and risk management measures.⁹⁹

⁹⁸ Regulation (EU) 2022/2065 (Digital Services Act) [2022] OJ L277/1, arts 14, 16, 34–35; Regulation (EU) 2024/1689 (AI Act) [2024] OJ L, art 50.

⁹⁹ Regulation (EU) 2024/1689 (AI Act) [2024] OJ L1689, arts 50–51.

The interaction between the DSA and the AI Act reflects a broader shift in European regulatory policy. Earlier frameworks relied primarily upon intermediary liability concepts developed for Information Society Services. More recent legislation recognises that emerging technologies such as generative AI create risks that cannot be addressed solely through traditional intermediary-service categories. Consequently, the AI Act supplements rather than replaces the DSA by introducing rules specifically tailored to artificial intelligence.

Nevertheless, certain challenges remain. Questions concerning the allocation of responsibility between AI providers, deployers, online platforms, and users may arise where both regulatory regimes apply simultaneously. In addition, the rapid development of AI technologies may create situations that require further regulatory guidance and judicial interpretation. As a result, the practical relationship between the DSA and the AI Act is likely to continue evolving in the coming years.

Taken together, the DSA and the AI Act form the foundation of the European Union's contemporary approach to digital governance. While the DSA addresses risks associated with online services and digital platforms, the AI Act focuses on the specific characteristics and risks of artificial intelligence systems. Their combined application therefore provides a more comprehensive framework for regulating generative AI than either instrument could achieve independently.

CHAPTER 5

RECONCEPTUALISING INFORMATION SOCIETY SERVICES IN THE ERA OF GENERATIVE AI

5.1 The Inadequacy of Traditional ISS Categories

The analysis undertaken in the preceding chapters demonstrates that the traditional categories of Information Society Services are increasingly inadequate for addressing the regulatory challenges created by generative artificial intelligence. The ISS framework was developed during a period in which digital services primarily functioned as intermediaries facilitating access to information supplied by third parties. Consequently, the legal concepts underlying the E-Commerce Directive and related legislation were built upon assumptions of passivity, neutrality, and limited involvement in content creation.¹⁰⁰

These assumptions no longer fully correspond to the technological realities of contemporary AI systems. Generative AI services do not merely transmit, store, or organise information created by others. Instead, they actively generate outputs through computational processes that transform user prompts into new content. This functionality places such systems outside the traditional distinction between intermediary services and content providers that has historically structured European digital regulation.

The inadequacy of existing categories becomes particularly apparent when attempts are made to classify generative AI systems within established legal frameworks. As discussed in relation to both the Digital Services Act and the Artificial Intelligence Act,

¹⁰⁰ Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 *Journal of Free Speech Law* 1, 4–7

generative AI systems share certain characteristics with hosting providers, online platforms, and search engines while simultaneously exhibiting features traditionally associated with content creation. As a result, no existing category fully captures the hybrid nature of these technologies.

The persistence of outdated classifications may create legal uncertainty for regulators, providers, and users alike. Where a service cannot be clearly assigned to an existing legal category, uncertainty arises regarding the applicable regulatory obligations, liability standards, and governance mechanisms. Such uncertainty may undermine both legal predictability and effective regulatory oversight.

One of the central legal challenges in regulating generative artificial intelligence is determining whether such systems can be accommodated within the traditional concept of Information Society Services (ISS). Existing ISS classifications were primarily designed for intermediary services that facilitate the transmission, storage, or hosting of information provided by users. Generative AI systems, however, do not merely transmit or store information; they actively generate new content through complex computational processes. As a result, their functions extend beyond the conventional roles envisaged by the ISS framework, creating uncertainty regarding their legal classification and the applicability of existing regulatory obligations.

A further difficulty arises from the fact that generative AI systems challenge the traditional relationship between information providers and information recipients. Within the classical ISS framework, information generally originates from a human user or content provider and is subsequently transmitted, stored, or disseminated through an intermediary service. Generative AI alters this dynamic by introducing an autonomous computational layer that actively contributes to the production of content. The resulting output is neither entirely user-generated nor entirely provider-generated,

making it difficult to identify the legal source of the information and the corresponding allocation of responsibility.

Moreover, the traditional ISS framework was developed for a digital environment characterised by relatively predictable interactions between users and service providers. Generative AI systems operate in a fundamentally different manner. Their outputs may vary significantly depending on prompts, training data, model architecture, and continuous updates. Consequently, the behaviour of these systems cannot always be understood through legal concepts designed for static or passive digital services. This technological complexity further illustrates the limitations of applying traditional intermediary-service categories to contemporary AI system

Furthermore, the continued reliance upon intermediary-service concepts risks overlooking the distinctive characteristics of generative AI. Questions concerning model training, synthetic content generation, algorithmic decision-making, and foundation-model governance extend beyond the concerns traditionally addressed through intermediary liability frameworks. Consequently, regulatory approaches based exclusively upon traditional ISS concepts may fail to address the full range of risks associated with contemporary AI technologies.

The emergence of generative AI therefore demonstrates the need to reconsider the conceptual foundations of Information Society Services. While the traditional framework continues to provide valuable principles for regulating digital activities, its categories no longer offer a complete or satisfactory basis for understanding technologies that simultaneously facilitate access to information and generate content. This conceptual limitation provides the foundation for the alternative framework proposed in the following sections of this chapter.

5.1.1 Doctrinal and Functional Breakdown of Traditional ISS Logic

The shortcomings of traditional Information Society Services (ISS) categories extend beyond mere technological incompatibility. The emergence of generative artificial intelligence reveals a deeper doctrinal problem within the existing legal framework governing digital services. While the ISS concept has historically provided a coherent basis for regulating online activities, its underlying assumptions were developed in a technological environment fundamentally different from that of contemporary generative AI systems. Consequently, the challenge presented by generative AI is not simply that it does not fit comfortably within existing categories; rather, it exposes structural weaknesses within the categories themselves.¹⁰¹

The traditional ISS framework, as reflected in Directive 2000/31/EC and subsequent CJEU jurisprudence, is based upon a relatively clear distinction between intermediaries and content creators.¹⁰² Intermediaries were understood as actors that facilitated access to information supplied by third parties, while content creators exercised direct control over the production and dissemination of information. Liability rules, regulatory obligations, and legal protections were developed around this distinction. The resulting framework functioned effectively because the roles performed by digital actors remained relatively stable and predictable.

Generative AI systems challenge these assumptions at a fundamental level. Unlike traditional hosting providers, they do not merely store or transmit information created by others. Instead, they actively participate in the generation of outputs through sophisticated computational processes involving training data, machine learning

¹⁰¹ Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' (2021) 22 *Computer Law Review International* 97, 101–104.

¹⁰² Directive 2000/31/EC (E-Commerce Directive) [2000] OJ L178/1, recitals 42–43, arts 12–15; Case C-236/08 *Google France SARL v Louis Vuitton Malletier SA* EU:C:2010:159 [113]–[114].

models, and user prompts.¹⁰³ At the same time, however, they cannot be classified as conventional publishers because they do not exercise direct editorial control over every individual output. Consequently, generative AI systems occupy a position that lies between the categories upon which existing intermediary liability law is built.

This development creates a significant doctrinal inconsistency. The legal consequences attached to intermediary status were designed on the assumption that intermediaries remain passive in relation to content creation. Safe-harbour protections, liability exemptions, and due diligence obligations all reflect this premise.¹⁰⁴ Generative AI systems, however, increasingly blur the distinction between passive facilitation and active participation. Their outputs are not simply retrieved from existing sources but are generated through processes that involve substantial technological intervention. The continued application of traditional intermediary concepts therefore risks producing outcomes that no longer correspond to the realities of digital services.

The problem is further intensified by the emergence of foundation models and general-purpose AI systems. A single model may simultaneously support conversational assistants, search functions, educational applications, content-generation tools, and commercial services. In such circumstances, legal classification becomes increasingly unstable. The same technological infrastructure may appear to function as an intermediary in one context while resembling a content producer in another. Existing ISS categories offer limited guidance for addressing this complexity because they were not designed for systems capable of performing multiple regulatory functions simultaneously.¹⁰⁵

¹⁰³ Rishi Bommasani and others, *On the Opportunities and Risks of Foundation Models* (Stanford University 2021) 5–11.

¹⁰⁴ Directive 2000/31/EC arts 12–15; Regulation (EU) 2022/2065 (Digital Services Act) arts 4–8.

¹⁰⁵ Regulation (EU) 2024/1689 (AI Act) arts 51–56.

Importantly, this challenge should not be understood merely as a consequence of technological innovation. New technologies have always required legal adaptation. The more fundamental issue is that the doctrinal foundations of intermediary liability law rely upon assumptions that no longer provide a reliable basis for categorising digital actors. As a result, attempts to apply existing classifications to generative AI frequently require extensive legal interpretation and conceptual stretching. Such an approach risks undermining legal certainty, reducing predictability for market participants, and creating inconsistencies across different areas of EU digital regulation.¹⁰⁶

The doctrinal failure of existing ISS classifications therefore demonstrates that the difficulties associated with generative AI are not isolated regulatory problems but symptoms of a broader conceptual mismatch between contemporary digital technologies and the legal framework developed to govern them. While traditional ISS categories continue to perform important functions for many online services, they no longer provide a sufficiently coherent foundation for addressing systems that simultaneously facilitate access to information, generate content, and influence user decision-making. This conclusion provides the basis for considering whether a new conceptual category is required to capture the distinctive characteristics of generative AI within EU digital law.

5.2 Generative AI as an Enhanced Generative Intermediary

The limitations of traditional Information Society Services categories suggest that a new conceptual approach may be required to address the unique characteristics of generative artificial intelligence. Rather than treating generative AI systems as either conventional intermediaries or content providers, it may be more appropriate to

¹⁰⁶ Martin Husovec, *Principles of the Digital Services Act* (OUP 2024) 57–66

recognise them as a distinct category of digital service combining elements of both functions. This thesis proposes the concept of the Enhanced Generative Intermediary as a potential framework for understanding the role of generative AI within contemporary digital regulation.¹⁰⁷

An Enhanced Generative Intermediary differs from traditional intermediaries in several important respects. Conventional intermediary services generally facilitate access to information created by third parties while remaining largely passive in relation to the content itself. Generative AI systems, by contrast, actively participate in the production of outputs through computational processes that interpret user instructions, analyse learned patterns, and generate new content. Nevertheless, they continue to perform intermediary functions by enabling access to information and facilitating interactions between users and digital knowledge resources.

The concept of an Enhanced Generative Intermediary reflects this dual functionality. Generative AI systems neither operate solely as neutral intermediaries nor function as conventional content creators. Their outputs are produced through interactions between user prompts, training data, model architecture, and computational processes. Consequently, responsibility for AI-generated content cannot be understood exclusively through traditional concepts of intermediary liability or publisher responsibility.

The concept of the Enhanced Generative Intermediary also reflects the growing importance of foundation models within the digital economy. Unlike traditional online services that perform a limited number of functions, foundation models serve as technological infrastructures capable of supporting a wide variety of downstream

¹⁰⁷ Rishi Bommasani and others, 'On the Opportunities and Risks of Foundation Models' (2021) arXiv:2108.07258, 7–12.

applications. A single model may simultaneously power search tools, customer-service systems, productivity software, educational applications, and content-generation platforms. This multifunctional character distinguishes generative AI from traditional intermediary services and reinforces the need for a separate conceptual category.

Furthermore, recognising generative AI as an Enhanced Generative Intermediary may contribute to greater regulatory coherence. Current legal frameworks frequently require regulators and courts to determine whether a service should be classified as an intermediary, a platform, a search engine, a hosting provider, or a content creator. Such classifications often produce artificial distinctions that fail to reflect the actual operation of AI systems. A dedicated conceptual category would provide a more realistic foundation for future regulatory analysis while reducing uncertainty regarding the application of existing legal rules.

Recognising generative AI as a distinct category may offer several regulatory advantages. First, it would acknowledge the active role played by AI systems in content generation while preserving relevant aspects of intermediary-service regulation. Secondly, it would provide a clearer conceptual basis for allocating responsibilities among AI providers, deployers, and users. Finally, it would allow legislators and regulators to develop rules specifically tailored to the unique characteristics of generative AI rather than attempting to adapt categories designed for earlier digital technologies.

The proposed concept also aligns with broader developments in European digital regulation. The AI Act already recognises that general-purpose AI models and foundation models require specific regulatory treatment beyond traditional intermediary-service concepts. Similarly, ongoing debates concerning platform governance, transparency obligations, and AI accountability demonstrate increasing

recognition that existing legal classifications are no longer sufficient for emerging technologies.

The concept of the Enhanced Generative Intermediary should not be understood as replacing existing regulatory frameworks. Rather, it functions as a conceptual tool that may assist in interpreting and applying existing legal rules while informing future legislative developments. By recognising the hybrid nature of generative AI systems, this approach offers a more accurate description of their role within the contemporary digital ecosystem and provides a foundation for more coherent regulatory responses.

5.2.1 Why Reinterpretation Is Insufficient

The recognition that traditional Information Society Services (ISS) categories struggle to accommodate generative AI systems does not automatically lead to the conclusion that an entirely new conceptual framework is required. An alternative approach would be to reinterpret existing legal categories in a broader and more flexible manner. According to this view, the challenges created by generative AI could be addressed through judicial interpretation and gradual regulatory adaptation without fundamentally altering the conceptual foundations of EU digital law. Such an approach may initially appear attractive because it promotes continuity, preserves legal stability, and avoids the uncertainties associated with doctrinal reform.¹⁰⁸

Nevertheless, the argument for reinterpretation encounters significant difficulties. The primary problem is that existing ISS categories were developed to regulate services operating within a fundamentally different technological environment. Expanding those categories to encompass generative AI risks stretching legal concepts beyond the

¹⁰⁸ Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 *Journal of Free Speech Law* 455, 477–479.

limits for which they were originally designed. While legal interpretation is an essential feature of any dynamic legal system, interpretation cannot indefinitely compensate for conceptual deficiencies embedded within the underlying framework itself.¹⁰⁹

The limitations of reinterpretation become particularly visible when examining the distinction between intermediaries and content creators. Traditional intermediary liability law is built upon the assumption that these categories can be meaningfully separated. Hosting providers, online platforms, and access providers generally facilitate the dissemination of information created by third parties, whereas publishers and content creators exercise direct responsibility for the content they produce. Generative AI systems challenge this distinction because they perform characteristics associated with both categories simultaneously. Consequently, any attempt to classify such systems exclusively within one category inevitably produces conceptual distortions.¹¹⁰

A broad interpretation of intermediary status may preserve access to existing liability exemptions, but it risks ignoring the active role played by generative AI systems in the production of outputs. Conversely, treating generative AI providers as content creators may overstate the extent of their control over individual responses and fail to recognise the unique technological processes underlying AI-generated content. The difficulty is therefore not simply one of classification but of conceptual compatibility. Existing categories were developed to describe legal realities that differ significantly from those presented by contemporary AI systems.¹¹¹

¹⁰⁹ Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' (2021) 22 *Computer Law Review International* 97, 102–105.

¹¹⁰ Case C-434/15 *Asociación Profesional Elite Taxi v Uber Systems Spain* SL EU:C:2017:981 [37]–[40]; Case C-390/18 *Airbnb Ireland UC v AHTOP* EU:C:2019:1112 [50]–[59].

¹¹¹ Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 *Journal of Free Speech Law* 455, 478–480.

Some commentators may nevertheless argue that the flexibility of EU digital law makes the creation of a new conceptual category unnecessary. According to this view, existing ISS concepts could gradually evolve through judicial interpretation, allowing courts to adapt established legal principles to emerging technologies. Such an approach would preserve doctrinal continuity and minimise regulatory disruption. However, this position underestimates the structural differences between traditional intermediary services and generative AI systems. While judicial interpretation can address isolated ambiguities, it cannot resolve the broader conceptual tensions created when a technology simultaneously performs functions traditionally associated with both intermediaries and content creators. Consequently, reliance upon reinterpretation alone risks perpetuating legal uncertainty rather than eliminating it.

Furthermore, excessive reliance upon reinterpretation may undermine legal certainty. One of the principal objectives of EU digital regulation is to provide predictable legal frameworks for market participants, regulators, and users. If existing concepts are repeatedly expanded to accommodate new technological developments, the boundaries of those concepts become increasingly unclear. Service providers may struggle to determine their obligations, courts may adopt inconsistent approaches, and regulatory authorities may encounter difficulties in enforcing legal standards. Such outcomes are particularly problematic within rapidly evolving technological sectors where legal predictability is essential for innovation and investment.¹¹²

The emergence of the AI Act further illustrates the limits of reinterpretation. The AI Act introduces regulatory concepts that differ significantly from those traditionally employed within intermediary liability law. Rather than focusing exclusively on service

¹¹² Regulation (EU) 2024/1689 (Artificial Intelligence Act) recital 3.

classifications, the AI Act adopts a risk-based approach that emphasises the capabilities, functions, and societal impacts of AI systems.¹¹³ This shift suggests that European lawmakers increasingly recognise that traditional intermediary concepts alone are insufficient to address the regulatory challenges associated with advanced AI technologies. Attempting to resolve these challenges solely through reinterpretation of existing ISS categories risks creating tension between the conceptual foundations of the DSA and those of the AI Act.

A further difficulty concerns the growing complexity of AI ecosystems. Contemporary generative AI services frequently involve multiple actors, including foundation-model developers, deployers, platform operators, business users, and end users. Responsibility is therefore distributed across a network of participants rather than concentrated within a single intermediary. Existing ISS classifications provide only limited guidance regarding how responsibility should be allocated within such environments. Reinterpretation may alleviate certain immediate difficulties, but it does not resolve the broader structural problem of assigning legal obligations within increasingly complex AI value chains.¹¹⁴

For these reasons, reinterpretation should be viewed as a temporary and incomplete solution rather than a comprehensive response to the challenges posed by generative AI. While existing ISS concepts may continue to provide valuable guidance in specific contexts, they cannot fully address the conceptual tensions generated by technologies that simultaneously facilitate communication, process information, generate content,

¹¹³ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) [2024] OJ L; Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' (2021) 22 *Computer Law Review International* 97.

¹¹⁴ Rishi Bommasani and others, 'On the Opportunities and Risks of Foundation Models' (2021) arXiv:2108.07258, 3–6.

and influence decision-making. A more coherent long-term solution therefore requires not merely the expansion of existing legal categories but a reconsideration of the conceptual foundations upon which those categories are based.

Accordingly, the limitations of reinterpretation strengthen the case for developing a distinct conceptual framework capable of reflecting the hybrid nature of generative AI systems. Such a framework would provide a more coherent basis for liability allocation, regulatory obligations, and the interaction between the Digital Services Act and the AI Act. The following section therefore explores the possibility of a broader conceptual framework for EU digital law that more accurately reflects the realities of the generative AI ecosystem. In doing so, it considers whether a new conceptual model can reconcile the regulatory objectives of innovation, accountability, and user protection while remaining consistent with the broader architecture of EU digital governance. Such an approach may ultimately offer a more sustainable foundation for addressing the legal challenges posed by increasingly autonomous and multifunctional AI systems.

5.3 A New Conceptual Framework for EU Digital Law

demonstrates that the conceptual foundations of European digital regulation require reconsideration. Traditional Information Society Services categories were developed in an era in which online services primarily facilitated the transmission, storage, and dissemination of information. While these concepts remain valuable for many digital services, they no longer provide a complete framework for technologies capable of generating content, making decisions, and interacting autonomously with users.

Consequently, a revised conceptual approach is necessary to accommodate the realities of contemporary AI-driven digital environments.¹¹⁵

A new conceptual framework for EU digital law should move beyond the traditional distinction between intermediaries and content providers. Generative AI systems occupy a position that combines elements of both categories, making rigid classifications increasingly difficult to maintain. Future regulatory approaches should therefore focus less on formal service classifications and more on the functions, capabilities, and risks associated with digital technologies.

Such a framework would reflect the broader direction already visible within European legislation. The Digital Services Act introduces obligations based on the societal influence and systemic impact of digital services, while the Artificial Intelligence Act adopts a risk-based model centred on the capabilities and potential harms of AI systems. Together, these developments indicate a gradual shift away from purely intermediary-based regulation towards governance models that prioritise risk management, accountability, and transparency.

A function-oriented approach would also provide greater flexibility for future technological developments. Emerging AI systems may possess capabilities that extend beyond those currently contemplated by legislators. Regulatory frameworks built upon narrow technological classifications risk becoming outdated as innovation progresses. By contrast, a framework based upon functions and risks can adapt more effectively to technological change while preserving legal certainty. This is particularly important in the field of artificial intelligence, where technological developments occur at a pace that frequently exceeds the speed of legislative processes. Legal categories

¹¹⁵ Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' (2021) 22 *Computer Law Review International* 97, 101–102.

designed for specific technologies may become obsolete within a relatively short period, whereas broader functional concepts are capable of accommodating future innovations without requiring constant legislative revision.

Furthermore, the emergence of generative AI challenges one of the most fundamental assumptions underlying the traditional Information Society Services framework, namely the separation between the provider of a service and the creator of content. Historically, European digital regulation assumed that intermediaries merely facilitated communication between users and did not substantially contribute to the content being disseminated. Generative AI systems disrupt this distinction because they actively participate in the production of outputs while simultaneously functioning as providers of digital services. As a result, legal categories based upon a strict separation between intermediation and content creation become increasingly difficult to apply in practice.¹¹⁶

The inadequacy of traditional classifications becomes particularly apparent when considering large language models and foundation models. These technologies do not operate exclusively as platforms, search engines, hosting providers, or content creators. Instead, they perform functions associated with all of these categories simultaneously. A user interacting with a generative AI system may receive information retrieval services, analytical assistance, content generation, and decision-support functions within a single interaction. This multifunctional character demonstrates the limitations of regulatory frameworks that rely upon mutually exclusive legal categories.

In addition, the growing integration of AI technologies into digital platforms suggests that future regulatory frameworks will need to address interconnected digital ecosystems rather than isolated services. Generative AI is frequently embedded within

¹¹⁶ Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 *Journal of Free Speech Law* 455, 459–463, 477–478.

search engines, social media platforms, productivity software, customer service systems, and other online services. Consequently, regulatory approaches focusing exclusively on individual services may fail to capture the broader interactions between different technological actors. A more comprehensive framework should therefore recognise the increasingly interconnected nature of digital services and the role played by foundation models as infrastructure technologies supporting multiple downstream applications.¹¹⁷

A revised framework should also place greater emphasis on accountability across the entire AI value chain. Contemporary AI systems involve multiple actors, including model developers, providers, deployers, platform operators, and end users. Traditional intermediary liability concepts do not always provide clear answers regarding responsibility within such complex technological ecosystems. A future-oriented regulatory model should therefore allocate obligations according to the actual degree of influence exercised by each actor rather than relying exclusively on formal legal classifications.

Moreover, future European digital regulation should seek to establish greater coherence between existing legal instruments. The Digital Services Act, the Artificial Intelligence Act, data protection law, consumer protection law, and intellectual property law all address different aspects of digital governance. However, generative AI systems frequently operate across the boundaries of these regulatory regimes. A coherent conceptual framework would therefore facilitate greater consistency in the interpretation and application of European digital law while reducing fragmentation and legal uncertainty.

¹¹⁷ Rishi Bommasani and others, 'On the Opportunities and Risks of Foundation Models' (2021) arXiv:2108.07258, 9–12.

The development of a new conceptual framework does not require abandoning the principles underlying Information Society Services regulation. Rather, it involves adapting those principles to technological realities that were not anticipated when the original framework was created. In this respect, the future of European digital law is likely to depend upon the integration of traditional intermediary-service concepts with newer approaches centred on artificial intelligence, systemic risks, platform governance, and algorithmic accountability. Such an approach would provide a more accurate and sustainable basis for regulating generative AI and future digital technologies within the European Union.

5.3.1 Regulatory Justifications for a New Conceptual Category

The inadequacy of existing Information Society Services (ISS) categories becomes apparent when analysing the operational characteristics of generative artificial intelligence systems. The ISS framework established under Directive 2000/31/EC and subsequently developed through the jurisprudence of the Court of Justice of the European Union (CJEU) was designed for a digital environment in which service providers primarily facilitated access to information created by third parties.¹¹⁸ Consequently, intermediary liability doctrine evolved around a relatively clear distinction between passive intermediaries and active content creators.¹¹⁹

This distinction is increasingly difficult to maintain in the context of generative AI. Traditional hosting providers typically store, organise, or make available information supplied by users. Their role remains largely reactive, which justifies the liability

¹¹⁸ Directive 2000/31/EC (E-Commerce Directive) [2000] OJ L178/1, arts 12–15.

¹¹⁹ Case C-236/08 Google France SARL v Louis Vuitton Malletier SA EU:C:2010:159 [113]–[120]. Directive 2000/31/EC arts 12–15.

exemptions provided under EU intermediary liability law.³ By contrast, generative AI systems do not merely host or transmit existing information. Instead, they actively generate new outputs through complex computational processes based on large-scale training datasets and user prompts.¹²⁰

At the same time, however, generative AI providers cannot simply be equated with traditional publishers or content creators. Publishers generally exercise editorial control over the content they disseminate and assume responsibility for publication decisions. Generative AI providers, by contrast, neither pre-approve nor directly supervise every output generated by their systems. The content produced by systems such as ChatGPT emerges through probabilistic model processes rather than through conventional editorial decision-making.¹²¹

This hybrid position creates significant conceptual difficulties. Generative AI systems simultaneously facilitate access to information, process user instructions, generate new content, and influence user decision-making. As a result, they exhibit characteristics associated with both intermediaries and content producers without fitting comfortably within either category.¹²² The binary structure upon which traditional intermediary liability doctrine is based therefore appears increasingly inadequate when applied to contemporary AI-driven services.

The inadequacy of existing classifications has practical consequences. Liability allocation, due diligence obligations, transparency requirements, and regulatory responsibilities frequently depend upon the legal categorisation of the relevant service

¹²⁰ Rishi Bommasani and others, *On the Opportunities and Risks of Foundation Models* (Stanford University 2021) 5–11.

¹²¹ Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' (2021) 22 *Computer Law Review International* 97, 101–104.

¹²² Regulation (EU) 2024/1689 (AI Act), recitals 97, 99 and 101.

provider. If generative AI systems cannot be accurately classified within existing ISS categories, legal uncertainty inevitably arises regarding the extent of responsibility borne by AI developers, deployers, and platform operators.¹²³ Such uncertainty risks undermining both regulatory effectiveness and legal predictability, two objectives that have historically played a central role in European digital governance.

Furthermore, the emergence of foundation models intensifies these challenges. A single generative AI model may serve as the technological infrastructure for numerous downstream applications operating across different sectors and risk environments. Consequently, liability assessments based exclusively on traditional service classifications may fail to capture the complex distribution of responsibility that characterises modern AI ecosystems.¹²⁴

For these reasons, the continued reliance upon existing ISS categories appears increasingly difficult to justify from both a doctrinal and regulatory perspective. While traditional intermediary concepts remain relevant for many digital services, they no longer provide a fully satisfactory framework for technologies capable of generating content, adapting outputs, and interacting autonomously with users. This conceptual gap provides a strong justification for reconsidering the legal foundations of Information Society Services in the era of generative artificial intelligence.

5.4 Regulatory Implications and Future Developments

The emergence of generative artificial intelligence has significant implications for the future development of European digital regulation. As demonstrated throughout this thesis, existing legal frameworks were largely designed for a digital environment

¹²³ Daphne Keller, 'Who Do You Sue? State and Platform Hybrid Power over Online Speech' (Hoover Institution 2021) 12–18.

¹²⁴ Bommasani and others (n 4) 36–42.

characterised by traditional intermediary services, online platforms, and information providers. While these frameworks continue to perform important regulatory functions, the rapid evolution of generative AI technologies has revealed important conceptual and practical limitations. Consequently, future regulatory developments will need to address challenges that extend beyond the assumptions underlying traditional Information Society Services regulation.¹²⁵

One of the most important implications concerns the growing inadequacy of regulatory models based exclusively upon intermediary liability. The distinction between passive intermediaries and active content creators has historically served as a central organising principle of European digital law. However, generative AI systems increasingly blur this distinction by simultaneously facilitating access to information and generating new content. As a result, future legal frameworks may need to adopt more nuanced approaches that recognise varying degrees of technological involvement in content creation and dissemination.

Another important implication relates to accountability within complex AI ecosystems. Contemporary AI services often involve multiple actors, including foundation-model developers, deployers, platform operators, business users, and end users. Determining responsibility within such environments presents challenges that cannot always be resolved through traditional legal categories. Future regulatory approaches may therefore place greater emphasis on shared responsibility models and lifecycle governance mechanisms that distribute obligations across the various actors participating in the development and deployment of AI systems.¹²⁶

¹²⁵ Michael Veale and Frederik Zuiderveen Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act' (2021) 22 Computer Law Review International 97.

¹²⁶ Rishi Bommasani and others, 'On the Opportunities and Risks of Foundation Models' (2021) arXiv:2108.07258, 7–11.

The increasing importance of foundation models also raises questions regarding regulatory scalability. A single general-purpose AI model may serve as the technological foundation for hundreds or even thousands of downstream applications operating across different sectors and jurisdictions. Regulatory frameworks focusing solely on individual applications may therefore prove insufficient. Future governance models may need to place greater emphasis on upstream regulation at the level of foundation models themselves, particularly where systemic risks may affect large numbers of users and markets simultaneously.

Transparency is likely to remain a central regulatory priority. As generative AI systems become increasingly sophisticated, distinguishing between human-generated and AI-generated content may become more difficult. This development may create new risks relating to misinformation, manipulation, fraud, and public trust. Consequently, future regulatory initiatives may expand transparency obligations, disclosure requirements, and mechanisms designed to enhance the traceability of AI-generated content.

At the same time, policymakers must balance regulatory objectives against the need to support innovation and technological development. Excessively restrictive regulation may discourage investment and reduce Europe's competitiveness in the global AI market. Conversely, insufficient regulation may expose individuals and societies to unacceptable risks. Future legislative initiatives will therefore need to maintain an appropriate balance between innovation, economic development, fundamental rights protection, and public trust in artificial intelligence technologies.

The interaction between the Digital Services Act and the Artificial Intelligence Act provides an early indication of the direction in which European digital regulation is evolving. Rather than relying upon a single regulatory instrument, the European Union increasingly employs a combination of complementary frameworks addressing

different aspects of digital technologies. This trend suggests that future regulation of generative AI will likely involve a broader ecosystem of legal instruments working together to address technological risks from multiple perspectives.

Ultimately, the future of European digital law will depend upon its ability to adapt to technological developments that challenge traditional legal assumptions. Generative AI represents only one example of a broader transformation affecting digital governance. As artificial intelligence continues to evolve, regulatory frameworks must remain sufficiently flexible to accommodate innovation while ensuring effective protection of individuals, markets, and democratic values. The long-term success of European digital regulation will therefore depend upon its capacity to balance continuity with adaptation in an increasingly AI-driven society.¹²⁷

CONCLUSION

This thesis has examined whether the traditional concept of Information Society Services (ISS) remains capable of accommodating generative artificial intelligence within the framework of European Union digital law. The analysis was motivated by the rapid emergence of generative AI technologies, such as ChatGPT, Gemini, and Claude, which increasingly challenge legal concepts originally developed for a fundamentally different technological environment. While the ISS framework has served as a cornerstone of European digital regulation for more than two decades, the rise of generative AI raises important questions regarding the continued suitability of its underlying assumptions and categories.

¹²⁷ Beatriz Botero Arcila, 'Is It a Platform? Is It a Search Engine? It's ChatGPT! The European Liability Regime for Large Language Models' (2023) 3 *Journal of Free Speech Law* 455, 457–460, 475–477.

The first part of the thesis explored the origins and development of the Information Society Services concept within European Union law. It demonstrated that the ISS framework was designed primarily for digital services engaged in the transmission, storage, and dissemination of information supplied by third parties. The liability regime established by the E-Commerce Directive and subsequently preserved by the Digital Services Act reflects assumptions of intermediary neutrality, passivity, and limited involvement in content creation. These assumptions proved effective for many traditional online services and contributed significantly to the development of the European digital economy.

The second part of the thesis examined the technological characteristics of generative AI systems. Unlike traditional intermediary services, generative AI actively participates in the creation of outputs through complex computational processes. Large language models and foundation models do not merely facilitate access to information; they generate text, images, code, and other forms of content in response to user prompts. This functionality places generative AI in a position that differs substantially from the services originally contemplated by the ISS framework.

The analysis of the Digital Services Act further demonstrated the difficulties associated with applying traditional intermediary-service categories to generative AI systems. Although certain aspects of generative AI resemble intermediary activities, these systems do not fit comfortably within existing categories such as hosting services, online platforms, or search engines. The DSA continues to provide valuable principles relating to transparency, accountability, and digital governance, but its conceptual foundations remain largely centred upon intermediary functions rather than content generation. Consequently, the application of DSA concepts to generative AI often requires interpretative flexibility and does not always produce satisfactory results.

The examination of the Artificial Intelligence Act revealed a different regulatory approach. Rather than focusing on intermediary functions, the AI Act regulates AI systems according to their capabilities, risks, and societal impacts. Through its provisions on general-purpose AI models, transparency obligations, and systemic risks, the Regulation addresses many of the issues that traditional digital-services legislation was not designed to resolve. The AI Act therefore represents an important step towards a regulatory framework more closely aligned with the realities of contemporary AI technologies.

On the basis of this analysis, the thesis concludes that traditional Information Society Services categories are no longer fully adequate for regulating generative AI systems. While the ISS framework remains relevant and continues to provide important legal principles, its categories do not accurately reflect the hybrid nature of technologies that simultaneously facilitate access to information and generate content. The distinction between intermediary services and content creators, which historically structured European digital law, becomes increasingly difficult to maintain in the context of generative AI.

To address this conceptual gap, the thesis proposed the notion of the Enhanced Generative Intermediary as a potential framework for understanding the role of generative AI within contemporary digital regulation. This concept recognises that generative AI systems combine characteristics traditionally associated with intermediaries and content producers while creating new regulatory challenges that cannot be fully addressed through existing classifications. Although this proposal does not replace current legal frameworks, it offers a useful analytical perspective for future academic discussion and legislative development.

The thesis further argued that European digital law is gradually moving towards a more function-oriented and risk-based approach. The combined operation of the Digital Services Act and the Artificial Intelligence Act illustrates a broader transition from regulatory models based exclusively on intermediary liability towards frameworks centred on transparency, accountability, systemic risks, and technological capabilities. This evolution reflects the growing recognition that emerging digital technologies require regulatory approaches capable of adapting to rapid technological change.

Ultimately, generative AI represents not merely a new category of digital service but a challenge to the conceptual foundations of existing digital regulation. The future effectiveness of European Union digital law will depend upon its ability to preserve the valuable principles of the Information Society Services framework while simultaneously developing concepts capable of addressing the realities of artificial intelligence. As AI technologies continue to evolve, the interaction between the DSA, the AI Act, and future legislative initiatives will play a central role in shaping the next generation of European digital governance.

In conclusion, the rapid development and widespread deployment of generative artificial intelligence have challenged traditional regulatory categories within European digital law. As these systems increasingly combine elements of content generation, information dissemination, and platform intermediation, the distinction between AI providers and intermediary services becomes less clear. This creates legal uncertainty regarding the allocation of responsibilities and the applicability of existing regulatory frameworks.

From a normative perspective, this thesis does not argue for the abandonment of the ISS concept. Rather, it argues that the ISS framework should be adapted to reflect the hybrid nature of generative AI systems. European lawmakers and regulators should

therefore consider issuing interpretative guidance or future legislative clarification on the relationship between the DSA and the AI Act in the context of generative AI. Such clarification would help determine when generative AI providers should be treated as intermediary services, when additional AI-specific obligations apply, and how responsibility should be allocated between model providers, deployers, platforms, and users.

Ultimately, the concept of the Enhanced Generative Intermediary provides a possible foundation for reconciling traditional intermediary liability principles with the emerging realities of generative AI, thereby contributing to a more coherent and future-oriented framework for EU digital regulation.

Final Answer to the Research Question

The traditional concept of Information Society Services remains relevant but is no longer sufficient on its own to accommodate generative artificial intelligence. Generative AI systems challenge the intermediary-based assumptions underlying the ISS framework because they actively generate content rather than merely transmitting or hosting information. While the Digital Services Act continues to provide important governance principles, the Artificial Intelligence Act offers a more appropriate regulatory framework for addressing the distinctive characteristics and risks of generative AI. Accordingly, the future regulation of generative AI in the European Union will likely depend upon the combined application of existing intermediary-service principles and newer AI-specific regulatory approaches.

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